

RFP-24-06 AGREEMENT

THIS AGREEMENT (hereafter the “Agreement”) is made and entered into this 23rd day of April, 2024, by and between **MID-FLORIDA DIESEL, INC., an active Florida corporation authorized to transact business in the State of Florida** (hereinafter referred to as the "VENDOR"), and the **TOWN OF DUNDEE**, a municipal corporation organized and existing under the laws of the State of Florida (hereinafter referred to as the "TOWN”).

FACTUAL RECITALS

WHEREAS, on March 26, 2024, the TOWN received sealed bids for RFP 24-06 soliciting competitive bids for the design and construction and installment of emergency generators; and

WHEREAS, a copy of the RFP 24-06 is attached hereto as **Composite Exhibit “A”** and incorporated herein by reference; and

WHEREAS, VENDOR submitted a response to RFP 24-06 in the total amount of \$156,995.00 (the “Response”); and

WHEREAS, a copy of the Response is attached hereto as **Composite Exhibit “B”** and made a part hereof by reference; and

WHEREAS, on April 9, 2024, the Town of Dundee Town Commission (the “Commission”) found the Response to be the most advantageous to the TOWN, and VENDOR was selected to perform the necessary work associated with RFP 24-06; and

WHEREAS, TOWN has found that the VENDOR possesses the qualifications necessary to satisfactorily perform the work and/or services contemplated in this Agreement; and

WHEREAS, TOWN desires to engage the VENDOR to perform certain services which include, but are not limited to, the services necessary to perform in strict accordance with the requirements set forth by RFP 24-06 (see **Exhibit “A”**); and

WHEREAS, VENDOR agrees and represents that it will furnish all labor, materials, and equipment necessary to perform the services which are the subject of RFP 24-06; and

WHEREAS, VENDOR acknowledges and represents that any person(s) executing this Agreement on its behalf has read, examined and understands the scope of the construction services to be performed, conditions and requirements set forth by this Agreement and its exhibits which are incorporated herein by reference; and

WHEREAS, VENDOR acknowledges that this Agreement has been fairly negotiated by each party’s respective legal counsel and at arm’s length; and, as such, VENDOR has expressed its desire and willingness to perform the services in accordance with the terms and requirements set forth by this Agreement; and

WHEREAS, as a result of the representation(s), qualification(s), and expressed desire of the VENDOR to perform the services, the TOWN desires to enter into this Agreement with the VENDOR; and

WHEREAS, VENDOR agrees to perform the services in strict accordance with the terms, conditions, and provisions set forth in this Agreement and its exhibits which are incorporated herein by reference; and

WHEREAS, VENDOR acknowledges, agrees and represents that it will perform the services and/or contract requirements in strict accordance with the pricing set forth by the Response (see **Exhibit “B”**); and

WHEREAS, it is in the best interests and will promote the health, safety and welfare of the citizens and residents of the TOWN for the TOWN and VENDOR to enter into this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the TOWN agrees to retain the VENDOR and VENDOR agrees to perform the agreed upon services, as described herein, and upon the following terms and conditions:

I. INCORPORATION OF RECITALS

The foregoing recitals are incorporated herein by the parties as true and correct statements which form the factual and material basis for entry into this Agreement between the TOWN and VENDOR. RFP 24-06 (see **Exhibit “A”**) and the VENDOR’s Response (see **Exhibit “B”**) are attached hereto as **Composite Exhibits “A” and “B”** and are hereby incorporated by reference and will constitute part of this Agreement and be considered contract documents.

II. DEFINITIONS

Words used in this Agreement shall possess their everyday and ordinary meaning, provided however, that where a term is defined by this Agreement or one (1) of the following listed terms is used in this Agreement, such term(s) shall possess the corresponding meaning. The following listed terms shall mean, as follows:

- (a) “*Day(s)*” means calendar day unless specifically stated otherwise.
- (b) “*Calendar Days*” means any and all days in a 365-day calendar year.
- (c) “*Business Days*” means each calendar day which is not a Saturday, Sunday or a recognized holiday by the Town of Dundee, Florida.
- (d) “*Effective Date*” means the date on which this Agreement is executed by the Town of Dundee or its authorized designee.
- (e) “*Services*” means the provision or performance of the services by the VENDOR, as

specifically set forth in Article III of this Agreement and in **Composite Exhibits “A” and “B”** attached hereto and incorporated herein by reference.

III. SCOPE OF WORK

The VENDOR shall perform the Services (as defined by Section II(e) of this Agreement) in strict accordance with the terms set forth in this Agreement and as described in RFP 24-06 and the Response which are attached hereto as **Composite Exhibits “A” and “B”** and incorporated herein by reference.

The VENDOR shall secure and maintain any and all permits and licenses required to complete Services.

IV. COMPENSATION

The TOWN shall pay to the VENDOR the sum of One Hundred Fifty-Six Thousand Nine Hundred Ninety-Five Dollars and zero cents (\$156,995.00) (the “Contract Sum”) for the VENDOR’s performance of the Services (see **Exhibits “A” and “B”**).

The TOWN shall pay to the VENDOR the Contract Sum to the VENDOR no later than thirty (30) Business Days from the date on which the Services are completed pursuant to the terms of this Agreement.

Notwithstanding anything in this Agreement to the contrary, TOWN’s obligation to furnish payment to VENDOR is expressly subject to appropriation of sufficient public funds by the Town Commission of the Town of Dundee. In the event the Town Commission of the Town of Dundee fails to appropriate sufficient funds to satisfy the TOWN’s payment obligations to VENDOR of any kind or type, TOWN or VENDOR may immediately terminate this Agreement and be released from any future responsibility or liability thereunder.

V. TERM OF AGREEMENT AND BINDING EFFECT

Beginning on the Effective Date, this Agreement shall continue in full force and effect until terminated in accordance with Article VIII of this Agreement (the “Term”).

Except as may be otherwise set forth herein, the terms and provisions of this Agreement shall bind and inure to the benefit of the parties and applicable successors, representatives, heirs, permitted assigns, employees, officers, directors, superintendents, administrators, shareholders and agents. As such, the parties agree that this Agreement shall be binding upon and inure to any and all successors-in-interest to the parties hereto.

The parties further acknowledge and agree that, in the event this Agreement omits and/or does not detail all laws, rules, regulations, permits, conditions, terms and restrictions that must be satisfied to complete the Services (as defined by Section II(e) of this Agreement), such omission shall not relieve the parties hereto or any successor-in-interest

of the obligation to comply with applicable law. For purposes of this Section, the term “applicable law” shall mean means the Town of Dundee Charter, Town of Dundee Code of Ordinances, Town of Dundee Land Development Code, and any and all applicable statutes, laws, rules, regulations, charter provisions, ordinances and resolutions of the United States of America, State of Florida, Polk County, Town of Dundee, and any and all other public authority which may be applicable.

VI. NOTICES

Any notice given by one party to the other in connection with this Agreement shall be in writing and shall be sent by Certified Mail, Return Receipt Requested, with postage and registration fees prepaid or by overnight courier:

A. If to the TOWN: Tandra Davis
Town Manager
Town of Dundee
202 E. Main Street
Dundee, FL 33838

With copies to: *(shall not constitute notice)*
Frederick J. Murphy, Jr., Esquire
Town Attorney
Boswell & Dunlap LLP
Post Office Drawer 30
Bartow, Florida 33831-0030

B. VENDOR: MID-FLORIDA DIESEL, INC.
2215 HWY 60 EAST
Bartow, FL 33830

With copies to: *(shall not constitute notice)*

Notice shall be deemed received by the party for whom it is intended after the USPS certified mail process is completed.

VII. MODIFICATION OF AGREEMENT

Any modification to this Agreement shall be mutually agreed upon by and between the TOWN and VENDOR in written amendments to this Agreement signed by both parties.

VIII. PERFORMANCE AND TERMINATION

The relationship of the VENDOR to the TOWN for the performance of the Services shall be that of an independent VENDOR; and the relationship of the VENDOR to the TOWN shall be governed by the terms of this Agreement.

The intent of this Agreement is to provide a general basis for performing the Services. Any service, project, job and/or task(s) shall be performed in strict compliance with the terms, conditions and covenants prescribed by this Agreement; and, prior to the completion of the Services by the VENDOR and/or termination of this Agreement, the TOWN and VENDOR shall mutually agree in writing as to the scope of performance and/or work, deliverables, time for completion, and any other term(s) and/or condition(s), which are not set forth in this Agreement, as related to the Services, a specific service, project, job and/or other task(s).

Upon completion of the Services and/or termination of this Agreement, VENDOR shall perform such Services as mutually agreed to in writing by the parties and reasonably necessary for the orderly closing of this Agreement. VENDOR shall be compensated for all Services performed prior to the effective date of termination, plus Services required for the orderly closing of this Agreement, including: (1) Services performed up to the termination date; and (2) all efforts necessary to document the Services completed or in progress.

Upon the termination of this Agreement as hereinabove provided, neither party shall have any further obligation(s) hereunder except for (i) obligations accruing prior to the date of termination, and (ii) obligations, promises, or covenants contained herein which are expressly made to extend beyond the Term, including without limitation, any indemnity(ies) and professional insurance coverage(s).

IX. VENDOR INDEMNIFICATION AND INSURANCE

This contractual indemnity is authorized by Florida law, and this contractual indemnity and insurance requirement(s) shall survive the termination of this Agreement.

Item 1. VENDOR'S INDEMNIFICATION

VENDOR shall indemnify, and hold harmless the TOWN, its elected officials, officers, agents, and employees from liability for damages to persons or property caused by any act, omission, or default of VENDOR (specifically including, but not limited to, VENDOR'S negligent or grossly negligent acts, omissions, or defaults) to the extent it relates to, pertains to, or arises from the Agreement or VENDOR'S performance thereof. VENDOR also agrees to indemnify, defend, save and hold harmless the TOWN, its elected officials, officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and cause and causes of action of every name and description including but not limited to reasonable attorney's fees and professional charges and reasonable attorney's fees and professional charges in appellate or bankruptcy proceedings, that may be brought against the TOWN, its elected officials, officers, agents and employees, on account of any claims, fees, royalties, or costs for any invention or patent or for the infringement of any and all copyrights or patent rights claimed by any person, firm, or corporation.

Item 2. VENDOR'S INSURANCE

VENDOR shall, at its own expense, procure and maintain *Public Liability Insurance, Property Damage Insurance, Commercial General Liability Insurance* and *Workers' Compensation/Employers' Liability Insurance* throughout the Term of this Agreement, with an insurer or insurers acceptable to the TOWN. All insurance policies shall be reviewed by the Town Attorney and must be acceptable to the Town. Any policy(ies) of insurance required herein shall apply to any covered loss on a primary basis; and, for purposes of public liability insurance and property damage insurance, the TOWN shall be named as an additional insured.

The VENDOR shall, upon thirty (30) Days written request from the TOWN, deliver copies to the TOWN of any or all insurance policies that are required in this Agreement.

X. STATE LAW COMPLIANCE

(a) ***Scrutinized Companies.*** Section 287.135 of the Florida Statutes states that a company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with the TOWN for goods or services in any amount if at the time of bidding on, submitting a proposal for, or entering into or renewing a contract if the company is on the *Scrutinized Companies that Boycott Israel List*, created pursuant to Section 215.4725 of the Florida Statutes or is engaged in a boycott of Israel; or for One Million Dollars (\$1,000,000.00) or more if, at the time of bidding on submitting a proposal for, or entering into or renewing a contract, the company is on the *Scrutinized Companies with Activities in Sudan List*, the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*, created pursuant to Section 215.473 of the Florida Statutes, or is engaged in business operations in Cuba or Syria. By executing this Agreement, VENDOR certifies that it does not and did not at any time since the submission of a response to the initial solicitation participate in a boycott of Israel; that it is not on the *Scrutinized Companies that Boycott Israel List, Scrutinized Companies with Activities in Sudan List*, or the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*; and that it does not engage in business operations in Cuba or Syria. VENDOR understands that a false certification may subject it to civil penalties, attorneys' fees and costs pursuant to Section 287.135 of the Florida Statutes and that the TOWN may terminate this Agreement at the TOWN's option if the VENDOR is found to have submitted a false certification.

(b) ***Public Entity Crimes; Convicted Vendor List.*** A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a VENDOR, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of the Florida Statutes for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list. By executing this Agreement, VENDOR certifies

that it is not on the convicted vendor list.

(c) ***Drug-Free Workplace.*** By executing this Agreement, VENDOR certifies that it has a drug-free workplace and has a substance abuse policy in accordance with and pursuant to Section 440.102 of the Florida Statutes.

(d) ***E-Verify.*** By entering into this Agreement, the VENDOR becomes obligated to comply with the provisions of Section 448.095(5)(a), Florida Statutes, to register with and use the E-Verify system to verify the work authorization status of all new employees of the VENDOR and any subcontractor hired by the VENDOR. If the VENDOR enters into a contract with a subcontractor, the subcontractor must provide the VENDOR with an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply will lead to termination of this Agreement, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than 20 calendar days after the date of termination. If this Agreement is terminated for a violation of the statute by the VENDOR, the VENDOR may not be awarded a public contract for a period of one (1) year after the date of termination.

(e) ***No Consideration of Social, Political, and Ideological Interests.*** VENDOR acknowledges receipt of notice from the TOWN of the provisions of Section 287.05701 of the Florida Statutes which prohibits local governments from giving preference to a prospective VENDOR based on the prospective VENDOR's social, political or ideological interests or requesting documentation from, or considering, a prospective VENDOR's social, political, or ideological interests when determining if the prospective VENDOR is a responsible vendor. VENDOR affirms and agrees that the TOWN did not request any documentation about, or give any consideration to, the VENDOR's social, political, or ideological interests in the award of this Agreement.

(f) ***Contracting with Foreign Entities.*** By executing this Agreement, VENDOR certifies that it is not owned by the government of the People's Republic of China, the Russian Federation, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Republic of Cuba, the Venezuelan regime of Nicolás Maduro, or the Syrian Arab Republic (collectively "Foreign Countries of Concern"), nor is it owned by any agency of or any other entity of significant control of any such government. Further, VENDOR certifies that no government of a Foreign Country of Concern has a "controlling interest" in VENDOR as the term is defined in Section 287.138(1)(a) of the Florida Statutes, nor is the VENDOR organized under the laws of a Foreign Country of Concern, nor does the VENDOR have its principal place of business located in a Foreign Country of Concern. If this Agreement permits the VENDOR to access the personal identifying information of any individual, VENDOR agrees to notify the TOWN in advance of any contemplated transaction that would cause VENDOR to be disqualified from such access under Section 287.138 of the Florida Statutes. VENDOR agrees to furnish the TOWN with an affidavit signed by an officer or representative of the VENDOR under penalty of perjury at any time and upon request that the statements

in this paragraph are true and correct.

XI. COMPLIANCE WITH LAWS

The VENDOR warrants, represents, and agrees that it will comply with applicable law (as defined by Section V of this Agreement) which includes, but shall not be limited to, all federal, state, and local laws, rules, and regulations applicable to the fulfillment of the requirements of this Agreement.

XII. DATA TO BE FURNISHED TO VENDOR

Upon reasonable request of the VENDOR, the TOWN shall provide to the VENDOR, at no cost, all information, data reports, records, and maps in its possession, or which become available to it, that are necessary for the performance of the Services under this Agreement.

XIII. WORK PRODUCT

The work product of the VENDOR, which is prepared solely for the purposes of this Agreement, including, but not limited to, drawings, maps, reports, estimates, field notes, investigations, design analysis, studies, and other data or documents which are obtained or prepared in the performance of this Agreement whether in hard copy or electronic form, shall become the property of TOWN when VENDOR has been fully compensated as set forth herein. **The VENDOR may keep copies of all work product prepared pursuant to this Agreement for its records and current and/or future use.**

Pursuant to Florida law, all correspondence(s) between the TOWN and VENDOR are public records and subject to public records requests.

XIV. FORCE MAJEURE

Neither party hereto shall be responsible for delays caused by circumstances beyond its reasonable control, including, but not limited to strikes, lockouts, pandemics, and/or acts of God. For purposes of this Agreement, any delay caused by the faulty performance or nonperformance by VENDOR, VENDOR'S independent VENDOR(s) shall not be events constituting force majeure.

XV. ASSIGNMENT

The VENDOR shall not sublet, assign, or transfer this Agreement or any interest issued under this Agreement without the written consent of the TOWN.

XVI. TERMS, CONDITIONS AND CONFLICTS

This Agreement and attachments incorporated by reference constitute all the terms and conditions agreed upon by the parties. Any controversy over the construction of this

Agreement shall be decided neutrally and without regard to events of authorship.

In the event of a conflict between the terms, conditions and/or provisions set forth by this Agreement and any exhibit or document attached hereto, this Agreement shall control.

XVII. NO WAIVER

Nothing herein is intended to act as a waiver of the TOWN'S sovereign immunity and/or limits of liability as set forth in section 768.28, Florida Statutes (2023), regardless of whether any such obligations are based in tort, contract, statute, strict liability, and negligence, product liability or otherwise. **This provision shall survive the termination of this Agreement.**

XVIII. ATTORNEYS' FEES AND REMEDIES

In the event either the TOWN or the VENDOR brings an action against the other to interpret and/or enforce this Agreement and/or any condition, covenant and/or provision herein, the prevailing party shall be entitled to recover its reasonable attorney's fees and court and professional costs, including, without limitation, any such fees or costs related to appellate or bankruptcy proceedings.

No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party or any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

XIV. CALCULATION OF TIME

The calculation of the number of days that have passed during any time period prescribed shall be based on calendar days (unless specified otherwise in this Agreement). Unless otherwise specified in this Agreement, the calculation of the number of days that have passed during any time period prescribed in or by this Agreement shall commence on the day immediately following the event triggering such time period. If the tolling of such a time period is not contingent upon an action or event, the calculation of the number of days that have passed during such time period prescribed in or by this Agreement shall commence on the day immediately following the Effective Date. For purposes of this Agreement, unless otherwise specified herein, the tolling of any such time period(s) shall be in "calendar days" which means any and all days in a 365-day calendar year; and "business days" shall mean each calendar day which is not a Saturday, Sunday or a recognized holiday by the TOWN. In the event any time period or deadline identified in this Agreement expires and/or falls on a Saturday, Sunday or recognized holiday by the TOWN, said expiration and/or deadline shall be automatically tolled until 5:00 pm on the next available business day which the TOWN is open for business to the public.

XX. GOVERNING LAW

The validity, interpretation, construction, and effect of this Agreement shall be in accordance with and governed by the laws of the State of Florida, only.

XXI. VENUE

Each of the parties hereto hereby irrevocably (i) agrees that any suit, action or other legal proceeding against any of them arising with respect to this Agreement shall be brought exclusively in the State Courts of Polk County, State of Florida, in the 10th Judicial Circuit; and (ii) waives any and all objections any of them might otherwise now or hereafter have to the laying of the venue of any such suit, action or proceeding in any of the courts referred to in this Article hereof or to service of any writ, summons or other legal process in accordance with applicable law.

XXII. NO THIRD -PARTY BENEFICIARIES

Nothing contained in this Agreement shall create a contractual relationship with, or any rights in favor of, any third party, including any sub-VENDOR.

XXIII. MANDATORY PRE-SUIT MEDIATION

Disputes between the TOWN and VENDOR arising under this Agreement shall first be mediated by a Florida Supreme Court-Certified Civil Mediator (hereafter the "Mediator") in accordance with Chapter 44, Florida Statutes. The parties agree that the mediation shall occur within thirty (30) Days of the date on which mediation is requested in writing by either party. The Mediator shall be agreed upon but, if the parties are unwilling or unable to agree upon and/or select the Mediator, the parties agree that a Mediator from Central Florida Mediation Group, LLC, shall be selected by striking names from the list of mediators at Central Florida Mediation Group, LLC. The parties agree to mediate in good faith, be bound by the Mediator's agreement (if any), pay Mediator fees promptly and share them on an equal basis, unless otherwise agreed upon by the parties. Litigation shall not be commenced until after mediation has been (i) declared an impasse by the Mediator, or (ii) terminated in writing by one or both of the parties. The confidentiality provisions of the Mediation Confidentiality and Privilege Act (Section 44.403, Florida Statutes) shall apply to any such pre-suit mediation.

XXIV. INDEPENDENT VENDOR

Notwithstanding any provision of this Agreement, the VENDOR and TOWN agree that the VENDOR is an independent VENDOR for all purposes and when performing any Services under this Agreement.

XXV. ENTIRETY OF AGREEMENT

This writing embodies the entire agreement and understanding between the parties hereto, and there are no other Agreements and understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change, or modification of the terms of this Agreement shall be valid unless made in writing and signed by both parties hereto.

XXVI. AUTHORIZATION

Both the TOWN and VENDOR represent and agree that all the necessary actions to execute this Agreement have occurred and that both parties possess the legal authority to enter into this Agreement and undertake all the obligations imposed herein.

XXVII. REPRESENTATIONS AND WARRANTIES

Each party signing this Agreement on behalf of TOWN and VENDOR represents and warrants that he or she has read, understands and acknowledges any and all of the conditions and requirements as set forth herein.

XXVIII. CONSTRUCTION

The TOWN and VENDOR acknowledge that the Agreement has been fairly negotiated by each party's respective legal counsel and at arm's length; and, as such, the Agreement shall be interpreted in accordance with the terms contained herein.

XXIX. GENDER NEUTRAL

For purposes of this Agreement, any and all gender specific references, classifications and/or language shall be interpreted to be gender neutral.

XXX. COUNTERPARTS

This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same Agreement; provided, however, that each of the counterparts shall have been executed by the parties hereto.

XXXI. PROHIBITION AGAINST CONTINGENCY FEES

The VENDOR warrants that he or she has not employed or retained any company or person to solicit or secure this Agreement and that he or she has not paid or agreed to pay any person, company, corporation, individual, or firm any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement.

XXXII. PUBLIC RECORDS

VENDOR agrees to:

1. Keep and maintain public records required by the TOWN to perform the Services contemplated herein.
2. Upon request from the TOWN's custodian of public records, provide the TOWN with a copy of the requested records or allow the records to be inspected or copies within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of this Agreement and/or any amendment(s) issued hereunder if the VENDOR does not transfer the records to the TOWN.
4. Upon completion of the Agreement and/or any amendment(s) issued hereunder, transfer, at no cost, to the TOWN all public records in possession of the VENDOR or keep and maintain public records required by the TOWN to perform the service. If the VENDOR transfers all public records to the public agency upon completion of the Agreement and/or any amendment(s) issued hereunder, the VENDOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the VENDOR keeps and maintains public records upon completion of the Agreement and/or any Amendment(s) issued hereunder, the VENDOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the TOWN, upon request from the TOWN'S custodian of public records, in a format that is compatible with the information technology systems of the TOWN.

IF THE VENDOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE VENDOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE TOWN'S CUSTODIAN OF PUBLIC RECORDS, TREVOR DOUTHAT, TOWN CLERK, (863) 438-8330, EXT. 222, tdouthat@townofdundee.com , 202 EAST MAIN STREET, DUNDEE, FLORIDA 33838.

If the VENDOR does not comply with a public records request, the TOWN shall enforce the Agreement and/or any amendment(s) issued hereunder which may include immediate termination of Agreement and/or any amendment(s) issued hereunder. **This Section shall survive the termination of this Agreement.**

XXXIII. FURTHER ASSURANCES

Each of the parties hereto agrees to do, execute, acknowledge and deliver, or cause to be done, executed, acknowledged and delivered, all such further acts, and assurances as shall be reasonably requested by the other party in order to carry out the intent of this Agreement and give effect thereto. Without in any manner limiting the specific rights and obligations set forth in this Agreement, the parties hereby declare their intention to cooperate with each other in effecting the terms of this Agreement, and to coordinate the performance of their respective obligations under the terms of this Agreement. To the extent of any conflict with the terms and conditions set forth by this Agreement and other rules and/or regulations which may otherwise govern the Services, the terms and conditions of this Agreement shall prevail.

XXXIV. DUTY TO COOPERATE IN GOOD FAITH

The parties acknowledge and agree that it is in their best interests and the best interests of the public that this Agreement be performed in strict accordance with the terms, covenants and conditions contained herein; and the parties shall, in all instances, cooperate and act in good faith in complying with all of the terms, covenants and conditions contained herein.

[Rest of page intentionally left blank]

IN WITNESS WHEREOF, the TOWN and VENDOR have caused this Agreement to be executed by their undersigned officials as duly authorized.

MID-FLORIDA DIESEL, INC.:

By: _____
 [Name, Title]

Witness

Witness

STATE OF FLORIDA
COUNTY OF POLK

The foregoing instrument was acknowledged before me, by means of physical presence or online notarization, this ____ day of _____, 2024, by _____, who is personally known to me or who has produced _____ as identification.

Notary Public, State of Florida
Printed Name: _____
My commission expires: _____

TOWN OF DUNDEE:

TOWN OF DUNDEE

By: _____
Tandra Davis, Town Manager

ATTEST:

Trevor Douthat, Town Clerk

APPROVED AS TO FORM:

Frederick J. Murphy, Jr., Town Attorney

EXHIBIT A

THE TOWN OF DUNDEE, FLORIDA



REQUEST FOR PROPOSAL FOR FY 2023-24 DESIGN CONSTRUCTION AND INSTALLATION OF EMERGENCY GENERATORS

RFP NUMBER: 24-06

**Responses are due by
4:00PM on March 26, 2024**

MAIL OR DELIVER RESPONSES TO:

Town of Dundee
Attn: RFP 24-06
202 East Main Street
PO BOX 1000
Dundee, FL 33838

Contact:
Trevor Douthat
Town Clerk
Town of Dundee
tdouthat@townofdundee.com
(863) 438-8330, Ext 258

TABLE OF CONTENTS

REQUEST FOR PROPOSAL	
TERMS AND CONDITIONS	
WORK SUMMARY	
PROPOSAL/BID FORM	
DRAWINGS/DEPICTIONS	
AFFIDAVIT CERTIFICATION IMMIGRATION.....	A1
AFFIDAVIT NONCOLLUSION	A2
CERTIFICATION OF DRUG-FREE WORKPLACE.....	A3
SALES TAX SAVINGS FORM	A4



RFP 24-06

**FY 2023-24 DESIGN CONSTRUCTION AND INSTALLATION
OF EMERGENCY GENERATORS**

Sealed Bids marked "**SEALED BID – FY 2023-2024 DESIGN, CONSTRUCTION, AND INSTALLATION OF EMERGENCY GENERATORS**" will be received by the Town Clerk of the Town of Dundee, Florida, until **4:00 P.M., Wednesday, March 26, 2024** at P.O. Box 1000, 202 East Main Street, Dundee, Florida 33838, for the following:

The Town of Dundee is seeking a qualified standby generator supplier and installer for the design, construction, and installation of one (1) – 140kw generator/ATS switch 480 volt 3 phase (project# 4337-381-R) Community Center and one (1) – 65KW 480 volt 3 phase (project# 4337-481-R) generator for a sewer lift station in the Town of Dundee. The scope of the design-build services is to design, construct, and installation of one (1) – 140kw generator/ATS switch 480 volt 3 phase (project# 4337-381-R) Community Center and one (1) – 65KW 480 volt 3 phase (project# 4337-481-R) generator for a sewer lift station in the Town of Dundee. The Contractor shall be responsible for making sure that the new generator(s) have the capacity to operate current load(s) and address the demand for emergency utility service(s) concurrently with demand arising out residential growth. As mentioned above, The Town of Dundee has identified two (2) locations which are the subject of this RFP. Please reference project numbers for location(s).

Project# 4337-381-R – Community Center – 603 Lake Maire Drive, Dundee Florida 33838

Project# 4337-481-R – Economy Inn Lift Station – 28550 US Hwy 27, Dundee Florida 33838

- **Sizes noted above, or adequate size determined by the vendor and/or electrical engineer during the bid process to appropriately support the facility or lift station in outages or emergencies.**
- **Generators shall be installed at location(s) protected against a 500-year flood event or located outside the Special Flood Hazard Area (SFHA).**

The proposals shall require the following:

The purpose of this project is to install a new generator at two (2) of our project sites which are mentioned above. The project shall include, but not be limited to, the design, permitting, installation and construction of the aforementioned generator(s) at the identified location(s). The project shall also include, but not be limited to, the generator, all supplies and materials, labor, and any equipment necessary to construct and install the Generator which includes, but shall not be limited to, the following:

- Automatic transfer switch
- Panel racks

- Panels
- Breakers
- Conduits
- Wiring and electrical connections
- Anchors
- Grounding
- Block heater
- Crane
- Permits
- Inspections
- 24hr fuel tank
- Concrete pads

Other items generator must include are as follows:

- Microprocessor based, digital readout control system;
- Engine vitals monitored by LCD display (engine vitals include oil pressure, running time, engine temperature, safety shutdowns, battery voltage, generator AC voltage, AC amperage, frequency);
- Oil drain extension;
- Vibration isolation pads;
- Water heater; and
- Fuel solenoid valve.

Generator and Equipment Enclosure:

- Must be, at a minimum, level 2 (weatherproof enclosure with foam) powder coated steel;
- Constructed to 200mph wind rating;
- Keyed with lockable doors with draw down latches and stainless-steel component hinges;
- Structural steel base with mounting and lifting holes; and
- Pad type vibration mounts to isolate unit from mounting surface

Circuit breaker(s):

- 500A breaker – 600V thermal magnetic 80% rated mounted and wired in a NEMA 1 enclosure
- Circuit breaker – UL listed, and CSA certified

Cooling system(s):

- Unit mounted radiator
- Low coolant shutdown

Block heater(s):

- 4000W 240VAC
- Standard @ 20F w/isolation valves

Battery charger(s):

- 24Volt 5 amps

Sub base tank(s): (sub base fuel tank steel with sub up – 24 hour run capacity)

- UL 142 approved
- Double wall
- Emergency pressure relief vent cap set (1/2 PSI) – 2”
- 1.5” normal vent cap

Muffler(s):

- Critical grade muffler with rain cap – if applicable

The bid packet shall include, but not be limited to, the following:

- Complete specifications on all models
- Bid must accompany a manufacturer’s brochure.
- Must show warranties on material and labor

Design must include a price to supply/install a 350KW 480 volt 3 phase generator for a sewer lift station as well as demo and removal of the existing generator.

Contractor/Installer to provide to Town of Dundee:

- Generator renderings and itemized installation details for the project

On **Wednesday, March 27, 2024 at 2:00 P.M.**, at Town Hall, 202 Main Street, Dundee, FL 33838 bids will then and there be publicly opened and read aloud at a meeting of the Purchasing Review Committee.

A **MANDATORY Site Visit** will be held at each location beginning at 9:00A.M. at the Dundee Community Center, 603 Lake Marie Dr, Dundee, Florida 33838, then at the Economy Inn Lift Station, 28550 US Highway 27, Dundee FL 33838 on **Wednesday, March 6, 2024 at 9:00 A.M.**

A **MANDATORY Pre-Bid meeting** will be held at Town Hall, 202 East Main Street, Dundee, Florida 33838, on **Wednesday, March 6, 2024 at 10:30 A.M.** for the purpose of answering any questions bidders may have in reference to the project(s).

NOTE: ANY CONTRACTOR/INSTALLER WHO FAILS TO ATTEND A MANDATORY PRE-BID MEETING/SITE VISIT WILL NOT BE ELIGIBLE TO BID ON THE PROJECT. ALL BIDDERS MUST BE PRESENT AND SIGNED IN PRIOR TO THE START OF THE

MANDATORY PRE-BID MEETING AND SITE VISIT. ANYONE NOT SIGNED IN AT THE COMMENCEMENT OF THE PRESENTATION FROM THE PROJECT MANAGER WILL NOT BE CONSIDERED PRESENT AND WILL NOT BE ALLOWED TO BID ON THE PROJECT.

The project specified shall be furnished in accordance with this Request for Proposal, Work Specifications, Terms and Conditions, and Work Summary attached hereto and made a part hereof as if fully set forth herein.

For more information regarding this RFP 24-06, please contact **Trevor Douthat, Town Clerk, (863) 438-8330** or by e-mail at tdouthat@townofdundee.com.

Questions **shall be submitted in writing** to the Town Clerk until **Wednesday, March 12, 2024 at 3:30 P.M.**

Public Records - It is the policy of this state that all state, county, and municipal records are open for personal inspection and copying by any person. Providing access to public records is a duty of each governmental agency. §119.01, Fla. Stat. (2023). As such, do not submit any document(s) that you do not want to be made public. Bidders shall submit bids on the Proposal and Bid Form furnished by the Town. Please note the NON-COLLUSION AFFIDAVIT OF PRIME BIDDER form which must also be completed. A W-9 form must be attached to the bid when returned by the responding vendor. Payment will be rendered to the name and ID appearing on the W-9. A client reference list that includes at least three (3) references and a summary of the bidders' qualifications and experience should be submitted in the bid packet. The bidder shall submit a tentative timeline detailing the process and anticipated timeline necessary to complete the project.

An original and five (5) copies, a total of six (6), of the proposal shall be submitted in sealed envelopes/packages addressed to Jenn Garcia, Town Clerk, Town of Dundee, Florida, and marked RFP 24-06: DESIGN CONSTRUCTION AND INSTALLATION OF EMERGENCY GENERATORS

The Town of Dundee welcomes your response to this **RFP 24-06**. The Town of Dundee reserves the right to reject any proposal found to be non-responsive, vague, non-conforming, or irresponsible. The Town of Dundee may withdraw all or part of this **RFP 24-06** at any time to protect its best interest. The desire of the Town of Dundee to pursue proposals shall in no way obligate the Town to compensate you for your efforts or to execute a contract. All proposers are asked to be thorough yet concise in the response(s) to this **RFP 24-06**. The failure to provide a response in the manner prescribed herein shall be grounds for disqualification.

The Town of Dundee, a municipal corporation organized and existing under the laws of the State of Florida, reserves the right to reject any and all proposals received pursuant to this RFP 24-05, re-advertise RFP 24-06, waive informalities, and the Town of Dundee may enter into a contract determined, in the sole discretion of the Town of Dundee, to be in its best interest, in accordance with the Terms and Conditions referenced herein.

**TOWN OF DUNDEE – GENERAL PROVISION CLAUSE(S) TERMS AND
CONDITIONS**

1) GENERAL CONDITIONS AND STATE LAW COMPLIANCE:

I. General Conditions:

- a) Bidders are required to submit their proposals subject to and upon the express terms and conditions set forth herein.
- b) Bidders shall thoroughly examine the specifications, instructions, all other Contract Documents (as defined in Section 2), visit the site of this project (if applicable) and fully acquaint itself, at its own risk, with all conditions which may affect completion of this project and/or delivery of bid items.
- c) These Terms and Conditions and any Contract Documents are subject and subordinate to any existing or future state, federal, or local law, regulation, or written policy, which may be applicable hereto, including any applicable building codes.
- d) Notwithstanding anything in this **Request For Proposal FY 2023-2024 – DESIGN, CONSTRUCTION, AND INSTALLATION OF EMERGENCY GENERATORS FIRE DEPARTMENT MINI PUMPER No. 24-06** (the “RFP”) to the contrary, the obligation of the Town of Dundee (the “Town”) to furnish payment is expressly subject to appropriation(s) of sufficient public funds by the Town Commission of the Town of Dundee, Florida. In the event the Town Commission of the Town of Dundee fails to appropriate sufficient funds to satisfy the payment obligations to the successful bidder of any kind or type, the Town and/or successful bidder may immediately terminate any agreement entered into pursuant to this RFP and be released from any future responsibility or liability thereunder.
- e) **PUBLIC RECORDS:**

The Town and Contractor (as defined in Section 2) agree that the Contractor shall comply with Florida’s public records laws to specifically include the following:

Public Records. Consultant/Bidder/Contractor agrees to:

- i) Keep and maintain public records required by the public agency to perform the service.
- ii) Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copies within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law.

- iii) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract and/or any amendment(s) issued hereunder if the Contractor does not transfer the records to the public agency.
- iv) Upon completion of the Contract (as defined in Section 2) and/or any amendment(s) issued hereunder, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the Contractor transfers all public records to the public agency upon completion of the Contract and/or any amendment(s) issued hereunder, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract and/or any amendment(s) issued hereunder, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.
- f) **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 863-438-8330, tdouthat@townofdundee.com, Trevor Douthat, P.O. Box 1000, 202 East Main Street, Dundee, Florida 33838.**

If the Contractor does not comply with a public records request, the Town shall enforce the Contract and/or any amendment(s) issued hereunder which may include immediate termination of the Contract and/or any amendment(s) issued hereunder. This Section shall survive the termination of this Contract.

- g) It shall be understood and agreed that by the submission of a proposal, the Contractor, if awarded a contract, shall save harmless and fully indemnify the Town and any of its officers, or agents from any and all damages that may, at any time, be imposed or claimed for infringement of any patent right, trademark, or copyright of any person or persons, association, or corporation, as the result of the use of such articles by the Town, or any of its officers, agents, or employees, and of which articles the Contractor is not the patentee, assignee, licensee, or lawfully entitled to sell same.
- h) It is the intent of the Town that this RFP promotes competitive bidding. It shall be the bidder's responsibility to advise the Town at the address noted on the cover letter, if any language, requirements, etc. inadvertently limits the requirements stated in this RFP to a single source. Such notification shall be received in writing not later than ten (10) days prior to the bid opening date.

- i) Bidders must possess any applicable business, contractor, or occupational licenses at the time of submission of the bid. The Town may request proof of such licensure. Bidders shall also obtain all permits required for this project.
- j) The Town shall be entitled to rely on the written representations of the bidder. No claims shall be paid by the Town unless in writing and approved by the Town. Additionally, sovereign immunity is not waived as to any verbal representations or comments made by the Town.
- k) Unless detailed elsewhere in the bid documents, proof of insurance naming the Town as an additional insured shall be required of the successful bidder (on any project requiring work, labor, and/or installation on Town property) with the following minimum coverage: workers compensation, general liability, and automobile insurance in an amount and form acceptable to the Town, with limits of not less than one-million dollars and zero cents (\$1,000,000.00).

II. State Law Compliance:

- a) ***Scrutinized Companies.*** Section 287.135 of the Florida Statutes states that a company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with the TOWN for goods or services in any amount if at the time of bidding on, submitting a proposal for, or entering into or renewing a contract if the company is on the *Scrutinized Companies that Boycott Israel List*, created pursuant to Section 215.4725 of the Florida Statutes or is engaged in a boycott of Israel; or for One Million Dollars (\$1,000,000.00) or more if, at the time of bidding on submitting a proposal for, or entering into or renewing a contract, the company is on the *Scrutinized Companies with Activities in Sudan List*, the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*, created pursuant to Section 215.473 of the Florida Statutes, or is engaged in business operations in Cuba or Syria. By entering into the CONTRACT, CONTRACTOR certifies that it does not and did not at any time since the submission of a response to the initial solicitation participate in a boycott of Israel; that it is not on the *Scrutinized Companies that Boycott Israel List*, *Scrutinized Companies with Activities in Sudan List*, or the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*; and that it does not engage in business operations in Cuba or Syria. CONTRACTOR understands that a false certification may subject it to civil penalties, attorneys' fees and costs pursuant to Section 287.135 of the Florida Statutes and that the TOWN may terminate this RFP 24-06 and/or the CONTRACT at the TOWN's option if the CONTRACTOR is found to have submitted a false certification.
- b) ***Public Entity Crimes; Convicted Vendor List.*** A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or

consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of the Florida Statutes for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list. By Entering into the CONTRACT, CONTRACTOR certifies that it is not on the convicted vendor list.

- c) ***Drug-Free Workplace.*** By entering into the CONTRACT, CONTRACTOR certifies that it has a drug-free workplace and has a substance abuse policy in accordance with and pursuant to Section 440.102 of the Florida Statutes.
- d) ***E-Verify.*** By entering into the CONTRACT, the CONTRACTOR becomes obligated to comply with the provisions of Section 448.095(5)(a), Florida Statutes, to register with and use the E-Verify system to verify the work authorization status of all new employees of the CONTRACTOR and any subcontractor hired by the CONTRACTOR. If the CONTRACTOR enters into a contract with a subcontractor, the subcontractor must provide the CONTRACTOR with an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply will lead to termination of this CONTRACT, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than 20 calendar days after the date of termination. If the CONTRACT is terminated for a violation of the statute by the CONTRACTOR, the CONTRACTOR may not be awarded a public contract for a period of one (1) year after the date of termination.
- e) ***No Consideration of Social, Political, and Ideological Interests.*** CONTRACTOR acknowledges receipt of notice from the TOWN of the provisions of Section 287.05701 of the Florida Statutes which prohibits local governments from giving preference to a prospective contractor based on the prospective contractor's social, political or ideological interests or requesting documentation from, or considering, a prospective contractor's social, political, or ideological interests when determining if the prospective contractor is a responsible vendor. CONTRACTOR affirms and agrees that the TOWN did not request any documentation about, or give any consideration to, the CONTRACTOR's social, political, or ideological interests in the award of this RFP 24-06 and/or the CONTRACT.
- f) ***Contracting with Foreign Entities.*** By entering into the CONTRACT, CONTRACTOR certifies that it is not owned by the government of the People's Republic of China, the Russian Federation, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Republic of Cuba, the Venezuelan regime of Nicolás Maduro, or the Syrian Arab Republic (collectively "Foreign Countries of Concern"), nor is it owned by any agency of or any other entity of significant control of any such government. Further, CONTRACTOR certifies that no government of a Foreign Country of Concern has a "controlling interest" in CONTRACTOR as the term is defined in Section 287.138(1)(a) of the Florida Statutes, nor is the CONTRACTOR organized under the laws of a Foreign Country of Concern, nor does the

CONTRACTOR have its principal place of business located in a Foreign Country of Concern. If this RFP 24-06 and/or the CONTRACT permits the CONTRACTOR to access the personal identifying information of any individual, CONTRACTOR agrees to notify the TOWN in advance of any contemplated transaction that would cause CONTRACTOR to be disqualified from such access under Section 287.138 of the Florida Statutes. CONTRACTOR agrees to furnish the TOWN with an affidavit signed by an officer or representative of the CONTRACTOR under penalty of perjury at any time and upon request that the statements in this paragraph are true and correct.

2) DEFINITIONS

Words used in the RFP and/or Contract Documents any and all attachment(s) and/or exhibit(s) incorporated and made a part hereof shall possess their everyday and ordinary meaning, provided however, that where one (1) of the following listed terms is used, such term(s) shall possess the corresponding meaning, as follows:

- a) **APPLICABLE LAW:** Any contract entered into pursuant to this RFP shall be construed in accordance with the laws of the State of Florida.
- b) **BUSINESS DAYS:** Any calendar day which is not a Saturday, Sunday or holiday which is recognized by the Town of Dundee, Florida.
- c) **CALENDAR DAYS:** Any and all days in a 365-day calendar year.
- d) **CHANGES:** The Town, without invalidating the Contract, may order changes, including additions, deletions, or modifications. The Parties recognize that said changes may affect price and time for performance, in which event appropriate adjustments will be considered. All such changes in the work shall be authorized in writing, signed by the Town Manager or his/her designee. The price and the time for performance may be changed only by Change Order Request. By written instructions to the Contractor, the Town may make minor changes in the work which are consistent with the purpose of the work, and which do not change the contract price or time for completion. The Town Manager shall be notified of any proposed changes in: (a) materials used, (b) manufacturing process, or (c) construction. However, changes shall not be binding upon the Town unless evidenced by a Change Order Request issued and signed by the Town Manager.
- e) **DAYS:** A calendar day unless specifically stated otherwise.
- f) **TOWN:** The Town of Dundee, Florida, a Florida municipal corporation, and/or its authorized representative vested with home rule authority pursuant to the Municipal Home Rule Powers Act, Chapter 166 of the Florida Statutes, and Article VIII, §2 of the Florida Constitution; and the Town is therefore vested with governmental, corporate and proprietary powers to enable it to conduct municipal government, perform municipal functions and render municipal services, including the general exercise of any power for municipal purposes.

- g) **CONTRACT:** The agreement entered into and executed by the Town and Contractor and includes, but shall not be limited to, the Contract Documents.
- h) **CONTRACTOR:** The successful bidder who enters into the Contract with the Town to complete the project set forth in the RFP.
- i) **DEFAULT:** Default in promised delivery of supplies, completion of project, or failure to meet specifications authorizes the Town to terminate the Contractor's right to proceed with the order/work by giving the Contractor written notice. The defaulting Contractor may, at the discretion of the Town, be charged the increase in cost(s) of obtaining the goods/services elsewhere.
- j) **CONTRACT DOCUMENTS:** The RFP; Terms and Conditions; Contract; Bond; Performance Bond; Maintenance Bond; Contract Bond; Special Provisions; Specifications; Technical Specifications; Proposal and Bid Form; Engineering Plans and/or Drawings; Addenda issued before, during and after the bidding period for the RFP; Change Orders issued after the Contract is let; and any other document incorporated by reference and/or annexed hereto.
- k) **INDEMNIFY / INDEMNIFICATION:** Contractor shall hold harmless, indemnify, and defend the Town, its elected officials, appointed officers, and employees, representatives, or agents, against any claims, action, loss, damage, injury, liability, tax, assessment, cost or expense of whatever kind (including, but not by way of limitation, attorneys' fees and court costs (in bankruptcy, trial and appellate matters in any judicial and/or administrative tribunal) arising out of and/or incidental to the Contractor performance of this Contract. Other specific references to the Contractor duty to indemnify the Town and hold it harmless, which may be set forth herein, shall be construed as in addition to, and not as a limitation of the requirements of this section. The Town shall be entitled to recover its reasonable attorneys' fees, including trial and appellate, and court costs in the event judicial and/or administrative enforcement of this Contractor indemnity is required.
- l) **INSPECTION:** The goods and services purchased are subject to the inspection and approval by the Town. The Town reserves the right to reject goods and services which do not conform to provisions of the Contract Documents.
- m) **INSURANCE:** As specified in the Contract Documents.
- n) **LIMITATION ON MUNICIPAL INDEMNITY:** To the extent that the Contract calls for the Town to indemnify any party thereto, the following sentence shall be appended to the indemnity and shall control the indemnity as if set forth therein, as follows:
 - i) "Provided, however, that regardless of whether any such obligations incurred hereunder are based on tort, contract, statute, strict liability, negligence, product liability or otherwise, the obligations of the Town of Dundee under this

indemnification provision shall be limited in the same manner that would have applied if such obligations were based on, or arose out of, an action at law to recover damages in tort and were subject to Section 768.28, Florida Statutes, as that section existed at the inception of this Contract." Provided further, no waiver of the Town's sovereign immunity is intended to be made herein.

- ii) The addition of this language shall not be construed to create Town indemnifications where none are expressly made in the terms and conditions of the contract or agreement.
- o) **STATEMENT OF ASSURANCE:** No bids submitted shall be considered unless the bidder warrants that, upon execution of a Contract with the Town, it shall:
 - i) not engage in employment practices that have the effect of discriminating against employees or prospective employees because of race, color, religion, sex, national origin, age, handicap, or marital status; and
 - ii) will submit such reports as the Town may thereafter require to assure compliance.
- p) **SUB-CONTRACTOR:** An individual, person, firm, company, corporation, association, entity, society, or group which enters into a contract with the Contractor to do a portion of the work on and/or for the project.
- q) **TITLE:** The risk of loss of goods covered by the Contract Documents shall remain with the Seller and/or Contractor until the goods have been delivered to a designated site and actually received by the Town. Any damage to the material and equipment, or loss of any kind, occasioned in transit shall be borne by the Seller and/or Contractor.
- r) **WARRANTY:** The Contractor shall not incorporate in the work of a project any materials or equipment subject to a chattel mortgage, a conditional sales contract, or any other agreement permitting a vendor to retain an interest. The Contractor shall warrant clear title to all materials and equipment incorporated in the work when the project is completed, and the Contractor shall deliver to the Town the improvements it has incorporated free of any lien or claim. The provisions of this section shall be included in all contracts with vendors and Sub-Contractors. **Vendors who furnish materials without a formal contract shall be given notice by the Contractor that this provision exists.**
- s) **VENUE:** Any legal or equitable action or proceeding concerning this Contract shall be brought in the State Courts of Polk County, Florida.

3) INTERPRETATIONS OR ADDENDA:

- a) No oral interpretation will be made to any Contractor as to the meaning of the Contract Documents or any part thereof to include any error, omission, discrepancy, or vagueness. Every request for such an interpretation shall be made in writing to the Town

Manager. Any inquiry received prior to the cut-off time and date for questions will be given consideration. Where necessary, interpretations made to a Contractor will be in the form of an Addendum to the Contract Documents ("Addenda"), and when issued by the Town, will be on file and available to the public upon request at the Town.

- b) The Town shall not be responsible for the safe delivery of the Addenda and/or notification of same. It shall be the Contractor responsibility to make inquiry as to the Addenda issued. All such Addenda shall become part of the Contract Documents, whether received or not.

4) MANUFACTURER'S NAMES AND APPROVED EQUIVALENTS:

- a) Unless specifically set forth in the specifications, any manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not intended to unfairly limit competition. The Contractor may offer any brand for which they are an authorized representative, which meets or exceeds the specification(s) for any item(s) and/or deliverables required in the RFP. If bids are based on equivalent products, indicate on the Bid Form (see attachment), the manufacturer's name and number. The Contractor shall submit with their proposal descriptive literature and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy the provision. The Contractor shall also explain in detail the reasons why the proposed equivalent will meet the specifications and not be considered an exception thereto. Bids which do not comply with these requirements are subject to rejection within the discretion of the Town.
- b) **Alternate bids shall not be considered unless alternate bids are specifically required by the technical specifications set forth in the Contract Documents. For purposes of this provision, alternate bids shall mean any bid which deviates from the specific type of product; method of construction; or plans specified in the RFP.**

5) SAMPLES:

Samples of products, when called for, must be furnished free of expense and may, upon request, be returned at the Contractor expense. Each individual sample must be labeled with the Contractor name, manufacturer's name brand name and number, bid number and item reference. If forwarding instructions, payment for postage, and/or pick-up, is not made by the Contractor within ninety (90) days of the bid opening, the commodities shall be disposed of by the Town.

6) PROTEST PROCEDURES:

The Town encourages prompt and fair handling of all complaints and disputes with the business community. In order to resolve disputed matters in a fair, timely and equitable manner, without fear of retribution on the part of a vendor or person, the following shall apply:

- a) All formal responses to the RFP shall include the following statement: "**NOTE: THE FAILURE TO FOLLOW THE BID PROTEST PROCEDURE**

REQUIREMENTS WITHIN THE TIME FRAMES PRESCRIBED HEREIN AS ESTABLISHED BY THE TOWN OF DUNDEE, FLORIDA, SHALL CONSTITUTE A WAIVER OF BIDDERS PROTEST AND ANY RESULTING CLAIMS."

- b) **RIGHT TO PROTEST:** Any aggrieved, actual, or prospective bidder in connection with the RFP may protest to the Town Manager of the Town prior to the award of a contract by the Town Commission of the Town of Dundee.
- c) **NOTIFICATION:** The Town shall post all recommendation of awards available for review by the General Public.
- d) **INITIAL NOTICE:** Any person adversely affected by an intended decision or action with respect to the initial recommendation of award of any bid or action shall file a written notice of intent to file a protest. For the purpose of computation of time, the initial notice of intent to file a protest must be received by the Town Manager no later than 3:00 p.m. on the third (3rd) workday following the date of the notice of the initial recommendation of award (excluding Saturdays, Sundays and legal Town holidays).

In addition, a non-refundable protest bond (the "Bond") in the amount of one thousand dollars and zero cents (\$1,000.00) in the form of a cashier's check payable to the Town shall be submitted with the initial notice of intent to file a protest. The initial notice of intent to file protest shall be in writing and shall state the basis of the protest (recommendation of award protest or other) and clearly indicate that its purpose is to serve as the initial notice of intent to file a protest. Failure to clearly indicate its intent or failure to provide a Bond shall constitute a waiver of the right to seek any remedy provided under these protest procedures.

Upon the timely receipt of an initial notice of intent to file a protest and the required Bond, the Town shall toll (put on hold) any further actions related to the recommendation of award (except as noted below). Should the affected party decide to withdraw its initial notice of intent to file a protest during the tolled action the Bond will be refunded in full. This is the only reason the Town will refund the Bond other than a finding in favor of the protestor.

If during tolled action, the Town Manager determines that an Emergency Purchase (as defined by the Code of Ordinances of the Town of Dundee) is necessary, action may be taken to secure the goods or services.

- e) **FORMAL NOTICE:** Any person who has filed an initial notice of intent to file a protest, as described above, shall file a formal written protest within ten (10) calendar days after the date of the filing of the initial notice of intent to file a protest. Any amendment to the formal written protest shall be in writing and received by the Town Manager within ten (10) calendar days of the date of the initial notice of intent to file a protest. No amendments to the protest will be allowed after the ten (10) calendars day period has expired.

The formal written protest shall contain the following:

- i) Town bid number and/or title (if applicable);
 - ii) Name and/or address of the Town department, division or agency affected;
 - iii) The name and address of the affected party;
 - iv) The title and position of the person submitting the protest;
 - v) A statement of disputed issues of material fact;
 - vi) If there are no disputed material facts, the written letter must so indicate;
 - vii) Concise statement of the facts alleged;
 - viii) Statement identifying with specificity the rule(s), regulation(s), statute(s), ordinance(s), and/or constitutional provision(s) entitling the affected party to the relief requested;
 - ix) Statement identifying with specificity the relief which an entitlement is alleged;
and
 - x) Such other information as the affected party deems to be material to the issue.
- f) **PROTEST MEETING:** The Town will notify all parties and schedule a protest meeting. The protest will be presented to the Protest Committee, which shall be made up of three (3) members consisting of the Town Manager or his/her designee who shall serve as the Chairperson, the Town of Dundee Finance Director or his/her designee and a designated member of the Purchasing Review Committee. The Town Attorney or designee shall be present and act in an advisory capacity to the Protest Committee.

The Protest Committee shall meet with the protesting party within fourteen (14) business days of receipt of the formal written protest. The response time may be extended, if necessary. All affected parties will be notified of the location, date and time of the bid protest meeting and will be allowed the opportunity to make their presentation to the Bid Protest Committee. The parties may bring a representative if they so choose.

The Town Manager shall present the background for the protest to the Bid Protest Committee. The purpose of the protest meeting is: (1) to question and review the basis of the protest; (2) to evaluate the facts and merits of the protest; and (3) gather information in order to make a decision.

The agenda for the bid protest meeting will be:

- i) The background as to why the recommendation for award was made or why the vendor was not selected.
- ii) The protesting party or their representative will speak to how they were adversely affected by the decision of the Town.
- iii) Any other affected parties or their representative will be given the opportunity for rebuttal and to present any facts that they deem are relevant to the protest.
- iv) During the meeting, the Bid Protest Committee may ask questions of all parties as necessary.

- g) The Bid Protest Committee will render their decision in writing within five (5) business days of the bid protest meeting.
- h) The Town Manager may conduct an evidentiary hearing if there are disputed issues of material fact. The Town Manager will conduct a review and make a final written decision within ten (10) business days after the rendering of the decision of the Bid Protest Committee. **The Town Manager's decision shall be final and binding. No further protests of the action in question will be heard by the Town.**
- i) Any person who is aggrieved by the final and binding decision of the Town Manager shall be entitled to a review of the final and binding decision by the 10th Judicial Circuit Court of Polk County, Florida, by filing an appropriate petition with the Clerk of the Court within 30 calendar days following the rendering of the Town Manager's final and binding decision.

7) PROPOSALS:

- a) The bid must contain a manual signature of an authorized representative in the space provided on the applicable form. Each party shall be responsible for the accuracy of his/her/its proposal. A party cannot obtain relief by pleading that its bid was in error.
- b) Submittals to the RFP shall be received no later than the time and date set forth in the RFP. No bid shall be accepted after the specified deadline or at any location other than that specified in the RFP. Any bid received late or because of submittal to another location will be maintained unopened in the bid file. Bids properly received will be opened at the time, date, and place set forth in the RFP.
- c) The Town may elect to cancel or postpone the RFP at any time prior to the time and date set to open the subject bid(s).
- d) Sealed bids, proposals, or replies received by the Town pursuant to the RFP are exempt from disclosure under Section 119.071 of the Florida Statutes and s.24(a), Art. I of the Florida Constitution until such time as the Town provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier.
- e) If the Town rejects all bids, proposals, or replies submitted in response to the RFP and the Town concurrently provides notice of its intent to reissue the RFP, the rejected bids, proposals, or replies remain exempt from disclosure under Section 119.071 of the Florida Statutes and s. 24(a), Art. I of the Florida Constitution until such time as the Town provides notice of an intended decision concerning the reissued RFP or until the Town withdraws the reissued RFP. A bid, proposal, or reply is not exempt for longer than twelve (12) months after the initial Town notice rejecting all bids, proposals, or replies.
- f) Bid and a non-collusion affidavit(s) (see attachments) should be submitted on the forms furnished by the Town and completed without additions, modifications, deletions, and

erasures. Bids not submitted on attached bid form(s) shall be rejected. Bids must be typed or printed in ink. All corrections must be initialed. Each bidder shall deliver its sealed proposal to the location specified by the RFP. It is the bidder responsibility to assure that its bid is delivered at the proper time and place of the bid opening. Bids which are not received, as set forth in the RFP, shall not be considered by the Town.

- g) Telegraph, telephone, e-mail, electronically transmitted, or facsimile (FAX) bids shall not be considered. Bids may be modified, in writing, provided such modification is received at the location specified for submission and prior to the time and date set for the bid opening. Each bidder shall be solely responsible for the costs associated with the preparation and submittal of its bid in response to the RFP.
- h) **BIDS RECEIVED AFTER THE TIME AND DATE SET FOR THE BID OPENING SHALL NOT BE CONSIDERED.**

8) PRICES, TERMS, AND PAYMENT:

- a) Prices shall be firm and good for ninety (90) days after the bid opening and shall include all labor, materials, supplies, equipment, overhead, profit, insurance, applicable taxes, packing, shipping charges, and delivered to any point designated by the Town.
- b) **Taxes:** (For purchase of products only) - Bids shall not include federal excise or state sales taxes in bid prices of products only as these are not applicable to municipalities.
- c) **Discounts:** Contractor may offer a cash discount for prompt payment; however, such discounts shall NOT be considered in determining the lowest net cost for bid evaluation purposes. The bidder(s) are encouraged to reflect cash discounts in the unit prices quoted. Any discount offered shall allow no less than fifteen (15) business days for payment.

9) SUBMITTING A "NO BID" OR A "NO CHARGE":

Any bidder intending to not bid on some of the item(s) sought by this solicitation must mark those item(s) as "No Bid." However, if some of the item(s) are being offered at no charge, then items must be marked as "No Charge." Items that are left blank shall be considered a "No Bid" for that item, and the bid shall be evaluated accordingly.

10) MISTAKES; INACCURACIES; INCOMPLETE INFORMATION:

- a) All bidders are expected to examine the specifications, delivery schedule, bid prices, and all instructions pertaining to supplies and services. The failure to do so will be at the bidder risk.
- b) **In the Purchasing of goods or supplies, without labor, where the bid contains a mistake in extension or total bid amount, the unit price will govern.** The Town shall

be entitled to presume that a mistake has been made where the unit price and total or extension do not equate.

- c) The Town reserves the right to contact a bidder, telephonically or in writing, to clarify inconsistent, inaccurate, or confusing information regarding the proposal submitted. As well, the Town reserves the right to demand the execution or re-execution of the proposal, affidavits, or certification required to be accompanied with the bid proposal, when it appears to the Town that the deficiency was an oversight in good faith. It shall be presumed that proposals submitted without a single signature on an affidavit or on the proposal is non-responsive and shall not be considered for clarification or correction.

11) SAFETY STANDARDS:

Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of federal, state, and local law, including, but not limited to, the Occupational Safety and Health Act and regulations or standards thereunder.

12) INVOICING AND PAYMENT:

The Contractor shall be paid upon submission of proper invoices to the Town at the prices stipulated in the Contract at the time the order is placed, after delivery and acceptance of the goods, less deductions, if any, within thirty (30) business days after approval of invoice by the Town. If a cash discount is taken by the Town on a prompt payment invoice, payment shall be made within the time specified, but not less than fifteen (15) business days. All invoices shall include the purchase order number for purchases against any contract resulting from this bid. An original and one (1) copy of the invoice shall be submitted. Failure to follow these instructions may result in delay in processing invoices for payment. In addition, the purchase order number must appear on bills of lading, packages, cases, delivery lists and correspondence. No overcharge will be paid. In the event an invoice is submitted with an overcharge, a credit memo must be submitted in order to correct such overcharge. Any applicable discounts that apply as a result of the Contract shall be taken even though the allowable time has lapsed due to the time awaiting credit memorandum(s).

13) WITHDRAWAL OF PROPOSALS:

A bid proposal may be withdrawn prior to the time fixed for the bid opening, if proper written notification is received, at the location specified for submission in the RFP, prior to the time fixed for the bid opening. A proposal may also be withdrawn if the Town does not accept it within ninety (90) calendar days after the date fixed for the bid opening. Notwithstanding any withdrawal, all bid documents received by the Town in response to the RFP shall remain the property of the Town.

14) NONCOLLUSION AGREEMENT:

Any bidder submitting a bid for the RFP shall execute and submit with its bid a non-collusion affidavit (see attachments) which states that it has not entered into a collusive agreement with any other person, firm, or corporation in regard to any bid submitted in response to the RFP.

15) REJECTION OF BIDS:

The Town may reject a bid if:

- a) The bidder misstates or conceals any material fact in the bid;
- b) The bid does not strictly conform to the law or the requirements which includes, but is not limited to, the terms and conditions set forth in the RFP; or
- c) A bid is submitted in bad faith and/or in a manner intended to undermine the competitive sealed bid selection process.

The Town Manager and/or the Town Commission shall have the right to act in the best interests of the Town and reject any and all bids and request the entire transaction be rebid. The Town may also waive any minor informalities, irregularities, or technicalities in any bid.

16) STATEMENT OF QUALIFICATIONS:

Each bidder shall, upon request of the Town, submit a statement of qualifications, its experience record in furnishing a particular commodity or constructing any type of improvements embraced in the Contract Documents, its organization and equipment available for the work contemplated, and, when specifically requested by the Town, appropriate financial information which would assist in determining the ability and solvency to perform work contemplated by the Contract Documents.

The bidder may also be requested to furnish references which the Town may use to verify claims of competency. The Town shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform its obligations under the Contract Documents; and the bidder shall furnish the Town all such information and data for this purpose as it may request.

The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the Town that the bidder is qualified to carry out properly the terms of the Contract Documents.

17) AWARD OF CONTRACT:

- a) The Town reserves the right to award contract(s) to more than one Contractor, to split awards, to award contracts by item or group of items, to make partial awards, or to decrease or increase any or all quantities that is in the Town's best interest.
- b) The Contractor may qualify its bid for acceptance by the Town on an "All or None" basis. An "All or None" basis bid must include all items upon which bids are invited. Contractor is hereby notified that a bid submitted on an "All or None" basis is at risk for rejection in instances where the Town may deem it necessary to split or divide a project as set forth herein. **Contractor shall denote on the front page of the bid proposal as to whether the bid is an "All or None" bid.**

- c) A written award of acceptance mailed or otherwise furnished to the Contractor results in a binding contract without further action by either party.
- d) After issuance of a notice of intent to award and no protests having been timely filed, award shall be made to the lowest, most responsive, and responsible party (or as specified in the RFP). Additional criteria as set forth in the RFP will be considered in the award of the bid. The lowest most responsive and responsible party will be determined after evaluation of the bid by the Town. In determining the lowest most responsive and responsible party, in addition to price, the following may be considered as criteria if noted in the bid documents:
 - i) Evaluations and quality of performance on previous projects;
 - ii) Ability, capacity, equipment and skill of the party to fulfill the contract;
 - iii) Ability to fulfill the contract within the time specified, without delay;
 - iv) Character, integrity, reputation, judgment, experience and efficiency;
 - v) Previous compliance with laws and ordinances relating to the contract;
 - vi) Sufficiency of the financial resources to fulfill the contract;
 - vii) Quality, availability and adaptability of the supplies or contractual services;
 - viii) Ability to provide future maintenance and service, as required or needed; and
 - ix) Number and scope of conditions attached to the bid.

18) OTHER GOVERNMENTAL ENTITIES:

The Town encourages and agrees to the Contractor extending the pricing, terms, and conditions of this RFP and the Contract (if there is any such resulting contract) to other governmental entities at the discretion and/or option of the Contractor.

19) PERFORMANCE:

- a) Contractor shall keep the Town advised at all times of status of the work performed pursuant to the Contract Documents. The Contractor's default in promised delivery of supplies, completion of project, or failure to meet specifications authorizes the Town to terminate the Contractor's right to proceed with the Contract. In the event the Town terminates the Contractor's right to proceed, the Town shall provide the Contractor with written notice; and thereafter, the Town may purchase supplies and services elsewhere. Any increase in charge(s) and/or cost(s) incurred by the Town shall be charged to the defaulting Contractor.
- b) The Contract shall not be terminated, or the Contractor charged with liquidated damages (if otherwise provided for in the Contract Documents) because of any delays due to unforeseeable cause beyond the fault or negligence of the Contractor including, but not limited to, acts of God, acts of the Town, fires, floods, epidemics, strikes, (with which the Contractor has no direct connections), and unusually severe weather. The Contractor shall, within ten (10) calendar days from the beginning of such delay, notify the Town, in writing, of the cause for the delay. If, in the opinion of the Town, the

failure of Contractor to perform the conditions of this Contract is occasioned by or is the result of acts or events over which the Contractor has no control, said delay in performance may be excused.

- c) The Contractor shall take into account all contingent work which has to be done by other parties, arising from any cause whatsoever, and shall not plead its want of knowledge of said contingent work as an excuse for delay in its work or for the non-performance thereof.

20) SERVICE AND WARRANTY:

Unless otherwise specified, the Contractor shall define any warranty service and replacements that will be provided during and subsequent to this Contract. Contractor shall explain on an attached sheet to what extent warranty and service facilities are provided.

21) GOVERNMENTAL RESTRICTIONS:

In the event any governmental restrictions may be imposed which would necessitate alteration of the materials, quality, workmanship, or performance of the items offered on this proposal prior to their delivery, it shall be the responsibility of the Contractor to notify the Town immediately after learning of such restriction including, but not limited to, indicating in writing the specific regulation which required an alteration. The Town reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the Contract at no expense to the Town.

22) PRICE AND ADJUSTMENTS:

Any price decrease effectuated during the term of the Contract and/or any time specified for performance therein, either by reason of market change or on the part of the Contractor to other customers, shall be passed on to the Town.

23) EQUAL EMPLOYMENT OPPORTUNITY:

No bids submitted shall be considered unless the bidder(s) warrants that upon execution of a Contract with the Town, it shall not engage in employment practices which have the effect of discriminating against employees or prospective employees because of race, color, religion, sex, national origin, age, handicap, or marital status, and will submit such reports as the Town may thereafter require to assure compliance.

24) OCCUPATIONAL HEALTH AND SAFETY (FLORIDA RIGHT-TO-KNOW-LAW):

- a) In compliance with Chapter 442, Florida Statutes, any item delivered from a Contract resulting from this RFP, which contains a toxic substance as listed on the FLORIDA SUBSTANCE LIST, shall be accompanied by a Material Safety Data Sheet (MSDS) which product shall be labeled as such as well. These MSDS shall be forwarded to:

Town of Dundee, Attn: Town Manager, P.O. Box 1000, 202 East Main Street, Dundee, Florida 33838.

- b) The MSDS shall be maintained by the Town and must include the following information:
 - i) The Division/Department to which the material was shipped.
 - ii) The chemical name and the common name of the toxic substance.
 - iii) The hazards or other risks in the use of the toxic substance, including:
 - (1) The potential for fire, explosion, corrosivity, and reactivity;
 - (2) The known acute health effects and chronic health effects of risks from exposure to the toxic substance, including those medical conditions which are generally recognized as being aggravated by exposure to toxic substance; and
 - (3) The primary routes of entry and symptoms of overexposure.
 - iv) The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of overexposure.
 - v) The emergency procedures for spills, fire, disposal, and first aid.
 - vi) A description of the known specific potential health risks posed by the toxic substance, which description is written in lay terms and is intended to alert any person who reads this information.
 - vii) The year and month, if available, that the information was compiled and the name, address, and emergency telephone number of the manufacturer responsible for preparing the information.

25) TIE BIDS:

The Town Manager shall make award of all tie bids. In accordance with Florida law, a firm which is a drug-free workplace shall have precedence. In the event that both or neither firm is a drug-free workplace, tie bids may be awarded to one of the bidders based on any of the criteria listed below (in descending order), or as otherwise directed by the Town Manager to comply with all of the Source Selection provisions of Town of Dundee Ordinance No. 14-17 (*codified in Sec. 2-159*) and the Code of Ordinances of the Town of Dundee:

- a) Where tie bids are between bidders, one of which is a business whose principal place of business is located in the Town of Dundee utility service area and the other bidder is

not, the recommended award shall be to the bidder located in the Town of Dundee utility service area.

- b) Where tie bids are between bidders, one of which is a business whose principal place of business is located in Polk County and the other bidder is not, the recommended award shall be to the bidder located in Polk County.
- c) Availability or completion period.
- d) Previous vendor record on similar projects or requirements.
- e) Business location closest to the Town.

26) NOTICE:

- a) A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- b) A company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with an agency or local governmental entity for goods or services of One Million (\$1,000,000) or more if that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, the company: (a) Is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statutes, or is engaged in a boycott of Israel.
- c) Any contract for goods and/or services in and amount of \$1,000,000.00 or more will be subject to termination by the Town if the contractor is found to have been placed on the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Sector List, or been engaged in business operations in Cuba or Syria or has been placed on the Scrutinized Companies that Boycott Israel list, or is engaged in a boycott of Israel.

27) UNAUTHORIZED ALIEN(S):

- a) The Contractor agrees that unauthorized aliens shall not be employed nor utilized in the performance of the requirements of this solicitation. The Town shall consider the employment or utilization of unauthorized aliens a violation of Section 274A(e) of the Immigration and Naturalization Act (8 U.S.C. 1324a). Such violation shall be cause for unilateral termination of any agreement and/or the Contract by the Town. As part of the

response to this RFP, the successful party shall complete and submit the attached form "AFFIDAVIT CERTIFICATION IMMIGRATION LAWS".

- b) Employers may avail themselves of a program by the U.S. Immigration and Customs Enforcement called E-Verify. E-Verify is an Internet-based system operated by U.S. Citizenship and Immigration Services (USCIS), part of the Department of Homeland Security (DHS), in partnership with the Social Security Administration (SSA). E-Verify is currently free to employers. E-Verify provides an automated link to Federal databases to help employers determine employment eligibility of new hires and the validity of their Social Security numbers.
- c) If your company wishes to avail themselves of this program, you can register online for E-Verify at <https://www.vis-dhs.com/EmployerRegistration>, which provides instructions for completing the registration process. At the end of the registration process, you will be required to sign a Memorandum of Understanding (MOU) that provides the terms of agreement between you as the employer, the SSA, and DHS. An employee who has signatory authority for the employer can sign the MOU. Employers can use their discretion in identifying the best method by which to sign up their locations for E-Verify. To find out more about E-Verify, please visit www.dhs.gov le-verify or contact USCIS at **1-888-464- 4218**.

CONSTRUCTION AND OTHER CLAUSES

(provisions related to construction)

The construction-related clauses shall apply to all work performed pursuant to the Contract Documents by either the Contractor or by any Subcontractor engaged to do a portion of the work. The Contractor shall supply each of its Subcontractors with a copy of all of the Contract Documents.

28) ERRORS:

If the Contractor discovers any error, omission, or vagueness in the Contract Documents, the Contractor shall report this discovery to the Town immediately upon learning of same. Work done after such a discovery and before the Town corrects the error, omission, or vagueness shall be at the Contractor's risk.

29) UNIT PRICES:

The unit prices for each of the several items in the proposal (see attached Bid Form) of each bidder shall include its pro rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. Any bid not conforming to this requirement may be rejected as non-responsive. Special attention is called to this provision for should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities of such items of work

(i.e., difference in cost) shall not increase or decrease the original contract price by more than twenty-five percent (25%) for work not covered in the drawings and technical specifications.

30) SALES TAX SAVINGS PROCEDURE/OWNER DIRECT PURCHASES:

This procedure will be in accordance with Florida Administrative Code, Public Works Contracts, and Section 212.08(6) of the Florida Statutes.

The Town reserves the right to purchase all equipment, materials, and supplies that are components of a construction bid, but generally will purchase only major equipment, materials, and supplies. When the Town exercises this option the following procedures shall be used for ordering, receiving, and paying for the component(s) selected.

a) BID PRICES.

The bid shall include the appropriate Florida State sales tax for all components of the bid that makes up the lump sum amount submitted.

b) ORDERING.

- i) The Town may exercise its right to direct purchase any component of the bid, at the Contractor's rate, in order to save the sales tax on the selected component, which may include equipment, materials, and supplies contained within the bid. The items selected will then be purchased directly from the vendors that the Contractor used to submit their bid to the Town and therefore made a part of the Contract. The Contractor shall fully cooperate with the Town, providing information for the preparation of purchase orders for these direct purchases, monitoring deliveries, and approving invoices.
- ii) Following receipt of a sales tax savings form from the Contractor, the Town will issue a purchase order, and certificate of entitlement, to the material supplier for the component selected for owner direct purchase (ODP). The purchase order, and certificate, will be sent to the Contractor, who shall verify that the order was issued correctly, and if so, send to the material supplier. A separate form shall be used for each item or group of items selected for ODP.
- iii) The Contract shall be reduced by the amount of all construction materials plus taxes selected by the Town, for direct purchase.

c) EXPEDITING.

The Contractor shall be responsible for expediting delivery to ensure that material is received on time to maintain the construction schedule.

d) RECEIPT.

The Contractor shall sign for and receive all materials; and retain packing slips and delivery tickets for all materials delivered for the performance of the Contract. The Contractor and Subcontractors shall be responsible for the safe care, custody, and control of all materials.

i) BILLINGS/PAYMENTS.

- i) All ODP's shall be billed to the Town in care of the Contractor.
- ii) The Contractor shall check all invoices for accuracy and completeness when received. The Contractor shall be responsible for immediately notifying the supplier of any billing errors and requesting corrected invoices as necessary.
- iii) Receipts and invoices must be processed in a timely manner in order to take advantage of any discount payment terms. **All discounts shall accrue to the Town.**
- iv) The Contractor shall prepare a direct purchase report for the Town upon submittal of each pay request.

j) OTHER CONSIDERATIONS.

- i) The Town shall have title to all items of which any payment has been made pursuant to the Contract Documents.
- ii) The Contractor shall assume the risk of damage or loss at the time of the purchase.
- iii) The selection of ODP for any item(s) contained within the bid does not relieve the Contractor from liability for that item as it may related to the quantity ordered, the maintenance and care of the item when delivered, or the installation or incorporation of the item in the work to be performed in accordance with the Contract Documents.
- iv) The Town shall have access to all necessary records in order to conduct audits to determine the correctness and accuracy of any item purchased in accordance with the Contract Documents.
- v) To be entitled to purchase materials tax exempt for a public works project, a governmental entity is required to issue a Certificate of Entitlement to each vendor and to the governmental entity's contractor to certify that the tangible personal property purchased from that vendor will go into or become a part of a public works.

31) INSPECTION:

- a) For the Town, the Contractor shall provide facilities for safe and convenient access to any completed work, work-in-progress, and preparation for work to be done.
- b) The Town shall examine the work to assure its conformity with the Contract Documents. The Town will assist the Contractor in correctly interpreting the plans, specifications, and other Contract Documents, but this assistance will not require that the Town give early notice of rejection of work or materials.
 - i) The examination and/or assistance by the Town shall not relieve the Contractor of the Contractor's responsibility of any actions it may take or neglect by Contractor or its Subcontractors in performing the work.
 - ii) The Town shall not be responsible for Contractor's means, methods, techniques, sequences of starting, stopping, or resuming work, or procedures of construction, or the safety precautions and programs incident thereto, and the Town shall not be responsible for Contractor's failure to perform the work in accordance with the Contract Documents.
 - iii) The Town shall not be responsible for the acts or omissions of Contractor or any Subcontractors, or any of Contractor's agents or employees.
 - iv) Neither the Town's authority to act under these Contract Documents, nor any decision made by the Town in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Town to Contractor, any subcontractor, any materialman, fabricator, supplier or any of their agents, or employees or any other person performing any of the work.
- c) The Town shall retain authority to make a final decision in any matter which involves interpretation of plans and other Contract Documents including, but not limited to, quality and quantities of materials used, construction and progress of work, work completed and estimates.
- d) If the Town finds any materials or work faulty, it shall so inform the Contractor; the Contractor shall replace, at its expense, and as soon as possible, said faulty materials or work. If the Contractor does not replace the faulty materials or work within a reasonable length of time, the Town may stop the work, furnish materials and men to replace the faulty work, and deduct the expense incurred by the Town from the amount due, or which will become due the Contractor.
- e) The Town may reinspect work which has been passed and it shall be permitted to reject faulty work which existed but was not apparent at the time of a previous inspection.
- f) The Town may order the Contractor to uncover work which has been covered without the consent of the Town. The Contractor shall bear the expense of the extra work. The

Town may order the Contractor to uncover work which has been covered with the consent of the Town. If the questioned work is found to be without fault, the Contractor may charge the Town for this extra work; if the questioned work is found faulty, the Contractor shall bear the expense of the extra work.

32) SUPERVISION:

The Contractor shall maintain a superintendent, who fulfills the Town's requirements, on this project at any time work is in progress and furnish efficient and skilled supervision of all work. The Contractor may change project superintendents only if the change is approved by the Town or if the Contractor discharges the project superintendent. If the Contractor is not present, the Town shall be permitted to consider the project superintendent the Contractor's agent; and the Town shall consider instructions given to the superintendent as binding as instructions given to the Contractor.

33) ACCIDENT PREVENTION:

- a) No laborer or mechanic employed in the performance of the Contract shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to health or safety as determined under construction safety and health standards promulgated by the Secretary of Labor.
- b) The Contractor shall exercise proper precautions at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of Contractor's prosecution of the work. Machinery, equipment, and all hazards shall be guarded in accordance with safety provisions to the extent that such provisions are not in conflict with applicable laws.
- c) The Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the Town with these reports.

34) CLAIMS FOR ADDITIONAL PAY:

If the Town issues written instructions which the Contractor believes will involve additional work and cost, the Contractor may assert a claim for extra cost only if it gives written notice to the Town Manager or his/her designee immediately after it receives the instructions and before it complies with those instructions. **The Contractor may assert a claim for extra cost without advance written notice only if immediate compliance with the instructions given by the Town is necessary to meet an emergency which endangers life or property.**

If the Contractor asserts a claim for extra pay, the Town may cancel the instructions and deny the claim or follow the procedure(s) set forth herein for "CHANGES". The cost or credit to the Town from a change in the work shall be determined from price information in the bid form, or by a lump sum price agreement with the Contractor, or a price based on the Contractor's cost for labor,

materials, equipment, supervision, and insurance plus fifteen percent (15%) for profit and overhead, or as the parties otherwise agree.

35) FITTING AND COORDINATION OF THE WORK:

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, subcontractors, or materialmen engaged in the performance of the Contract. The Contractor shall be prepared to guarantee to each of its Subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work.

36) SUB-CONTRACTING:

Nothing in the Contract Documents shall be construed to create a contractual relationship between the Town and a Subcontractor doing a portion of the work on this project, nor shall it create any obligation on the part of the Town to pay or see to the payment of any moneys due any Subcontractor. The Town shall hold the Contractor responsible for the work done by any of its Subcontractors. For any portion of the work to be sub-contracted, a list of the Subcontractors shall be furnished to the Town Manager prior to the commencing of this project(s).

37) MUTUAL RESPONSIBILITY OF CONTRACTORS:

If, through acts or neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage in the performance of the Contract, the Contractor shall settle with such other, contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Town on account of any damage alleged to have been so sustained, the Town will notify the Contractor, who shall defend at Contractor's own expense any suit based upon such claim, and, if any judgment or claims against the Town shall be allowed, the Contractor shall pay or satisfy such judgment or claim and pay all attorney's fees, costs, and expenses in connection therewith.

38) LINES AND GRADES:

The Town shall establish a base line and a benchmark at each location of any separate portion of this project. The Contractor shall reference all base lines, benchmarks, and property monuments and re-establish in their original state any which are disturbed during work on this project. The Contractor shall verify in the field all base lines, elevations, and dimensions shown on the plans, report any error, omission, or discrepancy it discovers, and assume full responsibility for its grades.

39) ASSIGNMENT OR NOVATION:

The Contractor shall not assign or transfer, whether by assignment or novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under the Contract without the express written consent of the Town; provided however, that assignments to banks, trust companies and/or other financial institutions of payments due to Contractor may be made without the consent of the Town.

40) OTHER CONTRACTS:

The Town may award, or may have awarded other contracts for additional work, and the Contractor shall cooperate fully with such other contractors, by scheduling its own work with that to be performed under other contracts as may be directed by the Town or Town Manager. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor as scheduled, on this project or any other project.

41) PATENT INFRINGEMENT:

The Contractor shall indemnify the Town, its officers, its agents, and its employees and hold all free of liability and unharmed by any suit or claim which results from the incorporation of any patented or unpatented invention, device, process, or system in the work of this project.

42) SHOP DRAWINGS:

Where a portion of this project requires the use of shop drawings, the Contractor shall submit four (4) copies of these drawings and a schedule of the required work to the Town. The Town shall review these drawings promptly and note any corrections required to meet the intent of the plans and specifications. The Contractor shall make the noted revisions and submit four (4) copies of the revised drawings to the Town. The Town's approval of the shop drawings shall not relieve the Contractor of its responsibility for any error in the shop drawings and any deviation from the plans and specifications.

43) PLANS AND SPECIFICATIONS:

- a) The Town shall furnish the Contractor one (1) set of the plans and specifications when the Town notifies the Contractor to begin work. The Contractor shall keep this set available at the project site at all times. If the Contractor wants more than one (1) set of plans and specifications, the Contractor may obtain these if it pays the cost of reproduction.
- b) The original plans and specifications, and any copies of these plans and specifications the Town furnishes the Contractor, shall remain the property of the Town. They shall not be used on work other than this project. The Town may ask the Contractor to return all copies of the plans and specifications when the work is completed. The Contractor shall coordinate the requirements of the plans, specifications, and all other Contract Documents prepared for this project.

44) SUB-SURFACE DATA:

The Town does not guarantee the accuracy of the sub-surface data shown on the plans. Where it will influence its execution of the Contract, the Contractor shall, with its own resources, verify ground water elevations, soil conditions, wetland jurisdictional boundary, the location of underground structures, sewers, water pipes, gas lines, telephone cables, electric cables, conduits and other such underground infrastructure.

45) FACILITIES, MATERIALS, AND EMPLOYEES:

- a) Unless it is otherwise stipulated in the Contract Documents, the Contractor shall be responsible for supervision, electric power, water, and any other facilities required to complete this project.
- b) The Contractor shall incorporate in the work of this project only materials, equipment, and methods which conform to the Town's applicable specifications.
- c) Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials, and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles, or workmanship are referred to in the Technical Specifications as "equal to" any particular standard, the Town shall decide the question of equality.
- d) The Contractor shall furnish to the Town for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which it contemplates installing, together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval, as required, full information concerning all other materials or articles which it proposes to incorporate in the work.
- e) Machinery, mechanical and other equipment, materials, or articles installed or used without such prior approval shall be at the risk of subsequent rejection.
- f) Materials specified by reference to the number or symbol of a specific standard, such as an A.S.T.M. Standard, a federal specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the RFP, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the technical specifications shall have full force and effect as though printed therein.
- g) The Contractor shall use only employees with skills at least equal to the requirements of their work assignment on this project.

46) TESTS AND INSPECTIONS OF MATERIALS AND EQUIPMENT:

- a) Unless it is otherwise stipulated in the Contract Documents, the tests and inspections of materials and equipment incorporated in the work of this project shall be made at the Contractor's expense by independent laboratories and agencies approved by the Town.
- b) The Contractor shall instruct any laboratory or agency making, required tests to furnish the Town with a copy of the report made on each test and inspection.

47) PROTECTION OF WORK, MATERIALS, PROPERTY, AND THE PUBLIC:

The Contractor shall protect the work of this project and the stored materials not yet incorporated in the work, on site or off site, from injury, damage, and loss. The Contractor shall protect and save from damage all public and private property adjacent to the project site. The Contractor shall guard all excavations by appropriate means; and shall protect the public from hazard. Receipt of progress payment(s) shall not affect the obligations of the Contractor under this provision.

48) PROTECTION OF MONUMENTS:

The Contractor shall protect and save from damage or movement all survey monuments, permanent reference monuments, property monuments, reference points, and benchmarks. If the work demands the temporary removal of such a monument, point, or benchmark, the Contractor shall notify the Town who shall reference the monument, point, or benchmark and reset it without cost to the Contractor. If the Contractor damages, moves, or destroys a monument, point, or benchmark, the Town may restore such by a registered surveyor at the Contractor's expense and withhold the cost from money otherwise due the Contractor from the Town.

49) USE OF PREMISES:

The Contractor shall confine its equipment, storage or materials, and construction operations to the limits set forth in the Contract Documents and as prescribed by ordinances or permits, or as determined by the Town, and shall not unreasonably encumber the site or public right-of-way with its materials and construction equipment.

50) WORK PROGRESS:

- a) If the Contractor fails to proceed with the diligence required to complete the project within the time set forth in the Contract or within an extension of that time which the Town may grant, the Town may terminate the Contractor's right to proceed with the work by providing written notice to the Contractor.
- b) If the Town terminates the Contractor's right to proceed, the Town may choose to proceed with the work, take possession of the materials on the project site, incorporate these materials in the work, and hold the Contractor and its sureties liable for payment of excess costs the Town may incur, or demand the surety to complete the project as permitted under the terms and conditions of the performance bond. The execution of the Contract by Contractor shall constitute an acknowledgment of the surety's consent to this provision.
- c) If the Town does not terminate the Contractor's rights to proceed, the Contractor shall proceed with the work; in this event, it will be impossible to determine the actual damage the delay has caused. In lieu of payment of actual damage, the Contractor and its sureties shall be liable for the payment of the fixed, agreed, and liquidated damages as may be set forth in the Contract Documents for each calendar day of delay beyond the contract time.

51) REQUESTS FOR INTERPRETATION AND INFORMATION:

- a) All requests for interpretation shall be in writing and submitted to the Town Manager. Whenever a written request for interpretation(s) of the Contract Documents is properly submitted, the request(s) shall be answered by way of Addenda. All Addenda will be sent to each party holding Contract Documents. The Town shall not be responsible for the safe delivery of the Addenda.

It shall be the responsibility of the party to make inquiry as to the issuance of any Addenda to the Contract. All Addenda shall become part of the Contract Documents and all parties shall be bound by such Addenda, whether received or not.

- b) It shall be the responsibility of the Contractor to make timely requests of the Town for any additional information not already in its possession which should be furnished by the Town under the terms of the Contract, and which it will require in the planning and execution of the work. Such request may be submitted from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing and list the various times and the latest date by which each will be required by the Contractor. The first list shall be submitted, within two (2) weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the Town may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in its work or to others arising from its failure to comply fully with the provisions of this section.

52) DISPUTES:

- a) All disputes arising under this Contract or its interpretation, except those disputes covered by FEDERAL LABOR STANDARD PROVISIONS (if applicable), whether involving law or fact, extra work, and/or all claims for alleged breach of the Contract shall within ten (10) calendar days of commencement of the dispute be presented by the Contractor to the Town for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. At all time(s) during the pendency of a dispute, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived by the Contractor.
- b) The Contractor shall submit in detail its claim and proof thereof. Each decision by the Town shall be final. Each decision by the Town will be in writing and mailed to the Contractor by registered or certified mail, return receipt requested, directed to the Contractor's last known address.

- c) If the Contractor does not agree with any decision of the Town, it shall in no case allow the dispute to delay the work but shall notify the Town promptly that it is proceeding with the work under protest.

d)

53) CONTRACTOR INSURANCE:

For contracts not exceeding \$500,000.00 dollars the following insurance requirements shall be met:

- i) The Contractor shall, at its own expense, procure and maintain, with insurers acceptable to the Town (the "Owner"), the types and amounts of insurance conforming to the minimum requirements set forth herein. The Contractor shall not commence work until the required insurance is in force and evidence of insurance acceptable to the Owner has been provided to and approved by the Owner. As evidence of compliance with the insurance required herein, the Contractor shall furnish Owner with (a) a fully completed satisfactory Certificate of Insurance evidencing all coverage required herein, with a copy of the actual notice of cancellation endorsement(s) as issued on the policies and a copy of the actual additional insured endorsement as issued on the Commercial General Liability policy, signed by an authorized representative of the insurer(s) verifying inclusion of Owner's officials, officers and employees as Additional Insureds in the Commercial General Liability coverage; (b) the original of the policy(ies); or (c) other evidence satisfactory to Owner. Such evidence shall include thirty (30) days written notice of cancellation to the Owner for all coverage. With respect to Property Insurance, an appropriate Evidence of Property Insurance form, or a copy of the policy itself shall be satisfactory evidence of insurance. Until such insurance is no longer required by this Contract, the Contractor shall provide the Owner with renewal or replacement evidence of insurance at least thirty (30) days prior to the expiration or termination of such insurance.

(1) Worker's Compensation Insurance:

- (a) Such insurance shall be no more restrictive than that provided by the Standard Workers' Compensation Policy, as filed for use in Florida by the National Council of Compensation Insurance, without restrictive endorsements. In addition to coverage for the Florida Workers' Act, where appropriate, coverage is to be included for the Federal Employer's Liability Act and any other applicable Federal or State law. The policy shall be endorsed to provide the Owner with thirty (30) days' notice of cancellation. The minimum amount of coverage (inclusive of any amount provided by an umbrella or excess policy) shall be:

- (i) Part One: "Statutory"
- (ii) Part Two: \$500,000.00 Each Accident

\$500,000.00	Disease-Policy Limit
\$500,000.00	Disease-Each Employee

(b) The policy shall be endorsed to waive the insurer's right to subrogation against Owner and its officials, officers and employees in the manner which would result from the attachment of National Council on Compensation Insurance's (NCCI) Waiver of Our Right to Recover from Others' Endorsement (Advisory Form WC 00 03 13) with Owner and its officials, officers and employees scheduled thereon.

(2) General Liability Insurance:

(a) Such insurance shall be no more restrictive than that provided by the standard Commercial General Liability Form (ISO Form CG 00 01) as filed for use in the State of Florida without any restrictive endorsements other than those required by ISO or the State of Florida or those described below. The policy must be endorsed to provide the Owner with thirty (30) days' notice of cancellation. The coverage may include restrictive endorsements excluding coverage for liability arising out of:

- (i) Mold, Fungus or Bacteria
- (ii) Terrorism
- (iii) Sexual Molestation

(b) Unless the work under this Contract includes activities, which would be the subject of such exclusions, the coverage may also exclude coverage for liability arising out of:

- (i) Architects and Engineers Professional Liability
- (ii) Exterior Insulation and Finish Systems (EIFS)

(c) The minimum limits (inclusive of amounts provided by an umbrella or excess policy) shall be:

- | | |
|----------------------|---|
| (i) \$1,000,000.00 | General Aggregate |
| (ii) \$1,000,000.00 | Products/Completed Operations Aggregate |
| (iii) \$1,000,000.00 | Personal and Advertising Injury |
| (iv) \$1,000,000.00 | Each Occurrence |

(3) Automobile Liability Insurance:

Such insurance shall be no more restrictive than that provided by Section II (Liability Coverage) of the most recent version of the standard Business Auto Policy (ISO Form CA 00 01) without restrictive endorsements, including coverage for liability contractually assumed, and shall cover all

owned, non- owned, and hired autos used in connection with the performance of the work. The policy must be endorsed to provide the Owner with thirty (30) days' notice of cancellation. Such insurance shall not be subject to any aggregate limit and the minimum limits (inclusive of any amounts provided by an umbrella or excess policy) shall be:

- (i) \$1,000,000.00 Each Occurrence – BI/PD Combined

(4) Property Insurance:

- (a) If the Contract includes: (1) construction of a new above-ground structure or structures; (2) any addition(s), improvement(s), alteration(s) or repair(s) to an existing above-ground structure or structures; or (3) the installation of machinery or equipment into an existing structure or structures, the Contractor shall provide, in a policy acceptable to Owner, "all risk" (i.e., Special Form) property insurance on any such construction, additions, machinery or equipment. The amount of the insurance shall be no less than the estimated replacement value at the time of the Owner's final acceptance of such new structures, addition(s), improvement(s), alteration(s), repair(s), machinery or equipment. The coverage shall not be subject to any restriction with respect to occupancy or use by the Owner and, subject to thirty (30) days prior written notice to the Owner, shall remain in full effect until final acceptance by the Owner. The policy must be endorsed to provide the Owner with thirty (30) days' notice of cancellation. The Owner shall be an insured on this policy. The maximum deductible shall be \$500 per occurrence.
- (b) If the Contract includes: (1) construction of a new above-ground structure or structures located within a Special Flood Hazard Area (100 year floodplain), or (2) any addition(s), improvement(s), alteration(s) or repair(s) to an existing above-ground structure or structures located within a Special Flood Hazard Area (100 year floodplain), Flood insurance must also be provided on such new structure(s), addition(s), improvement(s), alteration(s) or repair(s) for the lesser of: (1) the estimated replacement value at the time of the final acceptance of such new structure(s), addition(s), improvement(s), alteration(s) or repair(s), or (2) the maximum amount of flood insurance available through the National Flood Insurance Program.
- (c) The insurance provided by the Contractor and its Subcontractors shall apply on a primary basis. Any insurance maintained by the Owner, shall be excess of and shall not contribute with the insurance provided by the Contractor and its subcontractors. Except as otherwise specifically authorized in this Contract, or for which prior written approval has been obtained hereunder, the insurance maintained by the Contractor shall apply on a first dollar basis without application of a deductible or self-

insured retention. Under limited circumstances, the Owner may permit the application of a deductible or permit the Contractor to self-insure, in whole or in part, one or more of the insurance coverages required by the Contract. The Contractor shall pay on behalf of the Owner or Owner's officials, officers, and employees any deductible or self-insured retention applicable to a claim against the Owner or the Owner's officials, officers, and employees.

- ii) The insurance provided by the Contractor shall be endorsed to provide that the Insurer waives its rights against the Owner and Owner's officials, officers, and employees.
- iii) Compliance with these insurance requirements shall not limit the liability of the Contractor or its Subcontractors. Any remedy provided to the Owner by the insurance provided by the Contractor and its subcontractors shall be in addition to and not in lieu of any other remedy (including, but not limited to, as an indemnitee of the Contractor) available to the Owner under the Contract or otherwise.
- iv) Neither approval nor failure to disapprove insurance furnished by the Contractor shall relieve the Contractor from responsibility to provide insurance as required by the Contract and the Contract Documents.

54) INDEMNIFICATION:

- a) The Contractor shall indemnify and hold harmless the Town, its elected officials, officers, agents, and employees, from and against any and all claims, costs, losses, and damages (including but not limited to all fees and reasonable charges of attorneys, and other professionals, and all court or other dispute resolution costs), liabilities, expenditures, taxes and assessments, or cause and/or causes of action of any kind (including negligent, reckless, or willful or intentional acts or omission of the Contractor including but not limited to subcontractors, sub-subcontractors, materialmen, or agents of any tier or their respective employees and any person or organization directly or indirectly employed and/or utilized by the Contractor to perform or furnish any work or anyone for whose acts any of them may be liable), to the extent arising from, relative to, or caused by the performance of any services as may be described or provided in the Contract Documents, and/or any services pursuant to the Contract issued hereunder. Such indemnification shall specifically include, but not be limited to, claims, damages, losses, liabilities, and expenses (including but not limited to all fees and reasonable charges of attorneys, and other professionals, and all court or other dispute resolution costs) to the extent arising out of or from:
 - i) Any omission, default, or negligent act of the Contractor including but not limited to subcontractors, sub-subcontractors, sub-consultants, sub-sub-consultants, materialmen, or agents of any tier or their respective employees, (including negligent, reckless, willful or intentional acts or omissions);

- ii) Any and all bodily injuries, sickness, disease or death;
 - iii) Injury to or destruction of tangible property, including the loss of use resulting therefrom;
 - iv) Other such damages, liabilities, or losses received or sustained by any person or persons during or on account of any operations connected with this Contract and/or any work arising out of the Contract Documents; and/or
 - v) The violation of any federal, state, county or city laws, by-laws, ordinances, or regulations by the Contractor including but not limited to subcontractors, sub-subcontractors, sub-consultants, sub-sub-consultants, materialmen, or agents of any tier or their respective employees and/or persons and/or entities under Contractor's direction and/or control.
 - vi) Any indemnification hereunder shall not include claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of the Town or its elected officials, officers, agents, and employees, or for statutory violation or punitive damages **except** and to the extent the statutory violation or punitive damages are caused by or result from the acts or omissions of the Contractor or any of the Contractor's subcontractors, sub-subcontractors, sub-consultants, sub-sub-consultants, materialmen, or agents of any tier or their respective employees.
- b) This contractual indemnity is authorized by Section 725.06 of the Florida Statutes.
 - c) This contractual indemnity shall survive the termination of this Contract.
 - d) Contractor shall indemnify, and hold harmless the Town, its elected officials, officers, agents, and employees from liability for damages to persons or property caused by any act, omission, or default of Contractor (specifically including, but not limited to, Contractor's negligent or grossly negligent acts, omissions, or defaults) to the extent it relates to, pertains to, or arises from the Contract or Contractor's performance thereof. This contractual indemnity is authorized by Sections 725.06 and 725.08 (if applicable) of the Florida Statutes. Contractor also agrees to indemnify, defend, save and hold harmless the Town, its elected officials, officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and cause and causes of action of every name and description including but not limited to reasonable attorney's fees and reasonable attorney's fees in appellate or bankruptcy proceedings, that may be brought against the Town, its elected officials, officers, agents and employees, on account of any claims, fees, royalties, or costs for any invention or patent or for the infringement of any and all copyrights or patent rights claimed by any person, firm, or corporation.
 - e) In the event of any claims or suits which fall within either of the foregoing indemnities, payment of any amount due pursuant thereto shall, after receipt of written notice by Contractor from the Town that such amount is due, be made by Contractor prior to the

Town being required to pay same, or in the alternative, the Town, at the Town's option, may make payment of an amount so due and the Contractor shall promptly reimburse the Town for same, together with interest thereon at the rate of 6% per annum simple interest from the day of the Town's payment.

- f) Additionally, if Contractor, after receipt of written notice from the Town fails to make any payment due hereunder to the Town, Contractor shall pay any reasonable attorney's fees or costs incurred by the Town in securing any such payment from Contractor.
- g) Nothing contained herein is intended nor shall it be construed to waive the Town's Sovereign Immunity and/or the Town's limits of liability as set forth in Section 768.28 of the Florida Statutes, as amended from time to time, regardless of whether any such obligations are based in tort, contract, statute, strict liability, and negligence, product liability or otherwise. This obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist in the Town's favor
- h) The Contractor shall not be entitled to an increase in the contract price or payment or compensation of any kind from Town for direct, indirect, consequential, impact or other costs, expenses or damages including but not limited to costs of acceleration or inefficiency or extended overhead, arising because of delay, disruption, interference or hindrance from any cause whatsoever whether such delay, disruption, interference or hindrance be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery of damages by Contractor for hindrances or delays due solely to fraud, bad faith or active malicious interference on the part of Town. Otherwise, Contractor shall be entitled only to extensions of the contract time as the sole and exclusive remedy for excusable events of delay.
- i) The Town reserves the right to include a provision for liquidated damages as a result of any delay by the Contractor.
- j) The Contractor and its subcontractors and/or sub-subcontractors agree by entering into the Contract to a waiver of subrogation for each required policy herein. When required by the insurer or should a policy condition not permit the Contractor or subcontractor or sub-subcontractor to enter into a pre-loss agreement to waive subrogation without an endorsement, then the Contractor or subcontractor or sub-subcontractor agree to notify the insurer and request the policy be endorsed with a "waiver of transfer of rights against others" or its equivalent. This "waiver of subrogation" requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should the Contractor or subcontractor or sub-subcontractor enter into such an agreement on a pre-loss basis.
- k) Acceptance by the Contractor of the last payment shall be a release to the Town and every officer and agent thereof, from all claim(s) and liability hereunder for anything

done or furnished for, or relating to the work, or for any act or neglect of the Town or of any person relating to or affecting the work.

- l) The parties agree that to the extent the written terms of this Indemnification conflict with any provisions of Florida law or Florida Statute(s), in particular Sections 725.06 and 725.08 of the Florida Statutes, the written terms of this Indemnification shall be deemed by any court of competent jurisdiction to be modified in such a manner as to be in full and complete compliance with all such laws or statutes and to contain such limiting conditions, or limitations of liability, or to not contain any unenforceable, or prohibited term or terms, such that this Indemnification shall be enforceable in accordance with and to the greatest extent permitted by Florida law.

55) BID BOND:

- a) In cases where the bid price exceeds \$30,000.00, each bid must be accompanied by a certified check, cashier's check or a bid bond in an amount not less than five per-cent (5%) of the base bid, as guarantee that the Contractor will not withdraw from the competition after the opening of the bids, and will, within twenty-five (25) calendar days after receipt of written notice of award, enter into the Contract with the Town in accordance with the Contract Documents. **Should the Contractor fail to enter into a contract, the bid bond shall be forfeited as liquidated damages.**
- b) **No proposal or bid shall be considered unless accompanied by a bid bond in the amount and form specified.**

56) PERFORMANCE AND PAYMENT BOND:

- a) In cases where the bid price exceeds \$30,000.00 and/or for utility contracts covered by Section 180.24 of the Florida Statutes, the successful bidder shall be required to furnish a performance bond in an amount equal to one hundred percent (100%) of the contract price as security for the faithful performance of the contract. The Contractor shall also furnish a payment bond in an amount equal to one hundred percent (100%) of the contract price as security for the payment of all persons performing labor on the project under the contract and furnishing material(s).
- b) The performance bond and the payment bond may be in one or separate instruments in accordance with applicable law. Subject bonds are due within twenty-five (25) calendar days after written notice of award is received. Subject bonds shall also be recorded in the public records of Polk County [per F.S. 255.05(1)(a)] with proof of the recording furnished with the bonds or a certified recorded copy.

57) BONDING COMPANY QUALIFICATIONS:

- a) All bonds shall be written through a reputable and responsible surety bond agency licensed to do business in the State of Florida and with a surety company or corporation meeting the following specifications:
 - i) Minimum rating of "A-" or better;
 - ii) Financial Size Category of "VII" according to the A.M. Best Company; and
 - iii) Current Certificate of Authority as acceptable surety on Federal Bonds in accordance with the latest edition of the United States Treasury Department Circular 570 entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and As Acceptable Reinsurance Companies" and shall be accepted for an amount not exceeding the underwriting limitations thereon.
- b) All surety companies are subject to approval and may be rejected by the Town without cause in the same manner that bids may be rejected.
- c) **Awards of \$500,000 or less:** Bonds shall be written with a surety company meeting the qualifications as set forth in Paragraph a) above, or the qualifications set forth in Section 287.0935 of the Florida Statutes.
- d) **Power of Attorney:** An Attorney-in-fact which signs a contract bond shall file with said bond a certified and effectively dated copy of the power of attorney. The power of attorney shall bear the raised seal of the surety company.
- e) The failure to furnish the required bond(s) within twenty-five (25) calendar days or within such extended period as the Town may grant shall constitute a default, and the Town may either award the contract to the next most responsive and responsible bidder or re-advertise for bids, and may charge against the original successful bidder the difference between the amount of its bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the Town for a refund.

58) PAYMENT:

The Contract Documents shall set forth the terms and condition(s) relating to the contract price, payment(s), timing of payment(s), progress payment(s), and final payment. The Contract Documents shall be negotiated, approved, and executed by the Town and Contractor no later than 30 calendar days following the date on which the Town awards the contract and/or project.

59) LIENS:

No liens of any type shall be allowed, including labor, materials, rentals, or services furnished.

60) GUARANTEE:

- a) The Contractor shall guarantee all materials, equipment, and workmanship for a period of no less than one (1) year from the date the Town accepts the completed project in its entirety. The Contractor shall replace, repair, or restore any faulty materials, equipment, work, and incidental damage during this period of guarantee.
- b) Neither the final payment nor any provision in the Contract Documents shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship within the extent and period provided by law. Upon written notice, the Contractor shall remedy all defects due thereto and pay all expenses for any damage to other work and/or property of the Town resulting therefrom.
- c) A notice of defect(s) will be issued by the Town. Upon receipt by the Contractor of such written notice, the Contractor shall immediately investigate any and all claimed defects. Should the Contractor feel that any claimed defect is invalid, it shall so advise, in writing, to the Town within ten (10) calendar days after receipt of said notice.
- d) Defects shall be remedied by the Contractor within thirty (30) calendar days after receipt of notice. Within ten (10) calendar days after completion of such corrective measures, the Contractor shall notify the Town, in writing, of correction in defects. The Contractor shall transmit to the Town a copy of each certified statement as required below.
- e) Each Subcontractor shall transmit to the Contractor, in duplicate, on its business letterhead, addressed to both the Contractor and Town, a certified statement as to:
 - i) The work performed and/or materials supplied; and
 - ii) A guarantee in accordance with requirements of the Contract Documents appertaining to said work and/or materials.

61) THE CONSTRUCTION AGREEMENT:

- a) The Town will require the Contractor to execute a contract. Upon execution of the Contract, the Contract and Contract Documents become the Contract between the Town and Contractor.
- b) The contract between the Town and Contractor shall be negotiated, approved, and executed by the Town and Contractor no later than 30 calendar days following the date on which the Town awards the contract and/or project to the Contractor.
- c) The Contractor cannot claim modification of the Contract because of any representation made by an employee of the Town or any other person.

- d) In the event the contract is not negotiated, approved, and executed within the time period set forth herein, the Town may, in its sole discretion, award the project and/or contract to the next most responsive and responsible bidder or withdraw the RFP and re-advertise the RFP.

62) CONSTRUCTION SCHEDULE:

- a) The Contractor shall submit to the Town for review and approval, a construction schedule at least five (5) business days before the start of project.
- b) The Contractor shall complete the work, phase(s), and/or part(s) of the project in the order set forth in the approved construction schedule.
- c) The Contractor's receipt of an approved construction schedule does not authorize the Contractor to begin work on the project.
- d) The Town's issuance of a Notice to Proceed authorizes the Contractor to commence work on the project.

63) FINAL INSPECTION:

- a) When the work on this project(s) is substantially completed, the Contractor shall notify the Town, in writing, at least three (3) business days before the inspection date that the work will be ready for final inspection on a definite date. The Contractor shall expressly provide the date for final inspection.
- b) Prior to the final inspection, the Contractor shall clear the project site of all trash, rubbish, and debris and restore all damage done to the project site and adjacent areas during the performance of the project. The Contractor's duty to clear the project site prior to final inspection does not relieve the Contractor of the obligation to keep the project site free from trash, rubbish, and debris during the performance of the Contract.

64) CONSTRUCTION AND CONSULTING EVALUATION:

- a) The award of contracts by the Town for construction and/or consulting service(s) is based on the lowest responsive/responsible bid (for construction) or in accordance with the guidelines and requirements of Section 287.055 of the Florida Statutes (Consultants Competitive Negotiation Act) for applicable consulting services. In addition, the Town will consider the previous performance of any bidder who may have completed work for the Town or other entity
- b) A Construction and Consulting Evaluation Form shall be completed by the department head or Town Manager for the project. The form shall be completed upon the completion of the project and submitted to the Office of the Town Clerk for retention.

- c) This form will be completed on all firms performing construction and/or consulting work for the Town of Dundee. Furthermore, the Town may, at its discretion, provide this form to other entities for whom the noted firm has completed work.

WORK SUMMARY

PART 1 – GENERAL

- 1.01 – WORK BY CONTRACTOR
- 1.02 – CONTRACTOR USE OF SITE
- 1.03 – SEQUENCE OF WORK

PART 2 – PRODUCTS

PART 3 – CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 – WORK BY CONTRACTOR

The Town of Dundee is seeking a qualified standby generator supplier and installer for the design, construction, and installation of one (1) – 140kw generator/ATS switch 480 volt 3 phase (project# 4337-381-R) Community Center and one (1) – 65KW 480 volt 3 phase (project# 4337-481-R) generator for a sewer lift station in the Town of Dundee. The scope of the design-build services is to design, construct, and installation of one (1) – 140kw generator/ATS switch 480 volt 3 phase (project# 4337-381-R) Community Center and one (1) – 65KW 480 volt 3 phase (project# 4337-481-R) generator for a sewer lift station in the Town of Dundee. The Contractor shall be responsible for making sure that the new generator(s) have the capacity to operate current load(s) and address the demand for emergency utility service(s) concurrently with demand arising out residential growth. As mentioned above, The Town of Dundee has identified two (2) locations which are the subject of this RFP. Please reference project numbers for location(s).

Project# 4337-381-R – Community Center – 603 Lake Maire Drive, Dundee Florida 33838

Project# 4337-481-R – Economy Inn Lift Station – 28550 US Hwy 27, Dundee Florida 33838

- **Sizes noted above, or adequate size determined by the vendor and/or electrical engineer during the bid process to appropriately support the facility or lift station in outages or emergencies.**
- **Generators shall be installed at location(s) protected against a 500-year flood event or located outside the Special Flood Hazard Area (SFHA).**

The proposals shall require the following:

The purpose of this project is to install a new generator at two (2) of our project sites which are mentioned above. The project shall include, but not be limited to, the design, permitting, installation and construction of the aforementioned generator(s) at the identified location(s). The project shall also include, but not be limited to, the generator, all supplies and materials, labor, and any equipment necessary to construct and install the Generator which includes, but shall not be limited to, the following:

- Automatic transfer switch
- Panel racks
- Panels
- Breakers
- Conduits
- Wiring and electrical connections
- Anchors
- Grounding
- Block heater
- Crane
- Permits
- Inspections
- 24hr fuel tank
- Concrete pads

Other items generator must include are as follows:

- Microprocessor based, digital readout control system;
- Engine vitals monitored by LCD display (engine vitals include oil pressure, running time, engine temperature, safety shutdowns, battery voltage, generator AC voltage, AC amperage, frequency);
- Oil drain extension;
- Vibration isolation pads;
- Water heater; and
- Fuel solenoid valve.

Generator and Equipment Enclosure:

- Must be, at a minimum, level 2 (weatherproof enclosure with foam) powder coated steel;
- Constructed to 200mph wind rating;
- Keyed with lockable doors with draw down latches and stainless-steel component hinges;
- Structural steel base with mounting and lifting holes; and
- Pad type vibration mounts to isolate unit from mounting surface

Circuit breaker(s):

- 500A breaker – 600V thermal magnetic 80% rated mounted and wired in a NEMA 1 enclosure
- Circuit breaker – UL listed, and CSA certified

Cooling system(s):

- Unit mounted radiator
- Low coolant shutdown

Block heater(s):

- 4000W 240VAC
- Standard @ 20F w/isolation valves

Battery charger(s):

- 24Volt 5 amps

Sub base tank(s): (sub base fuel tank steel with sub up – 24 hour run capacity)

- UL 142 approved
- Double wall
- Emergency pressure relief vent cap set (1/2 PSI) – 2”
- 1.5” normal vent cap

Muffler(s):

- Critical grade muffler with rain cap – if applicable

The bid packet shall include, but not be limited to, the following:

- Complete specifications on all models
- Bid must accompany a manufacturer’s brochure.
- Must show warranties on material and labor

Design must include a price to supply/install a 350KW 480 volt 3 phase generator for a sewer lift station as well as demo and removal of the existing generator.

Contractor/Installer to provide to Town of Dundee:

- Generator renderings and itemized installation details for the project

1.01 — CONTRACTOR USE OF SITE

- A. The Contractor shall not work on or keep any equipment on any private property without the express written permission of the property owner involved. The Contractor shall be responsible for damages to any private property including, but not to be limited to, trees, curbs, mailboxes, and private yards.
- B. The Contractor shall be responsible for locating and securing required storage and/or staging areas.
- C. The Contractors shall be responsible for obtaining a water construction meter, if required or deemed necessary by the Town, for any water that may be needed on this project.

- D. All surfaces shall be swept clean after the completion of the work. Sweeping shall include the removal of mud, dirt, rocks, debris, and may require scraping. The sweeping must pick up the debris from the surface and not merely blow it onto adjacent yards.

1.02 – SEQUENCE OF WORK

The Town of Dundee reserves the right to determine what locations will be completed and in what order.

PART 2 – PRODUCTS

All products and material shall meet or exceed all specifications set forth by this RFP, as described in either graphical or in written form, and/or as required in writing by the Town of Dundee.

PART 3 – CONTRACT CLOSEOUT

1.1 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected and work is complete in accordance with Contract Documents and ready for Town inspection.
- B. Submit final application for payment identifying total adjusted contract sum, previous payments, and sum remaining due.

1.2 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean surfaces exposed to view, remove stains and foreign substances.
- C. Clean disturbed portions of site, sweep paved areas, rake clean landscaped surfaces.
- D. Remove waste and surplus materials, rubbish and construction facilities from the site.

1.3 ADJUSTING

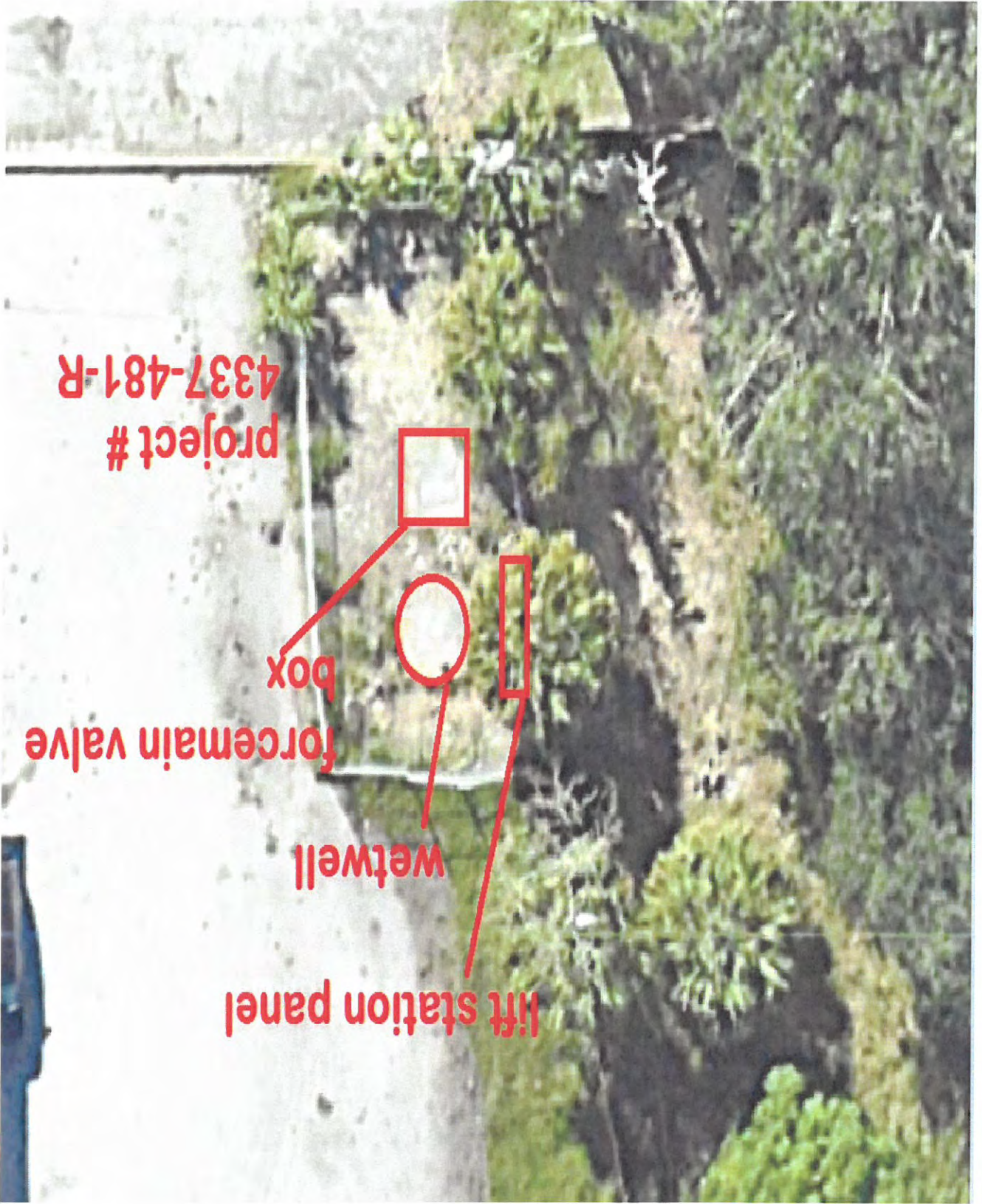
In the sole and absolute discretion of the Town Manager or her authorized designee, cause to be made or constructed any adjustment(s) in order to ensure: (i) smooth/unhindered operation of the Community Center; and (ii) the renovation(s), product(s), and/or installed equipment (i.e., includes all fixtures) conform to the plans, specifications, and drawings approved by the Town of Dundee for this RFP.

1.4 WARRANTIES

All work, product(s), equipment, materials, and workmanship shall be warranted for a minimum of one (1) calendar year from the date of acceptance by the Town Commission of the Town of Dundee, Florida.

(Exhibit A)





(EXHIBIT B)



BID FORM
FY 2023-24 DESIGN CONSTRUCTION AND INSTALLATION
OF EMERGENCY GENERATORS

RETURN DATE: Wednesday, March 26, 2024 by 4:00 P.M.

RETURN TO: Office of the Town Clerk

Attn: RFP #24-06

Town of Dundee
 P.O. Box 1000
 202 East Main Street
 Dundee, Florida 33838

ITEM	ESTIMATED QTY	UNIT BID	EXTENDED AMOUNT
1.			
2.			
3.			
4.			
5.			
		TOTAL	

ALL BID FORMS SHOULD INCLUDE THE FOLLOWING INFORMATION:

Company Submitting Bid: _____
 Company Address: _____
 Company City: _____ State: _____ Zip: _____
 Company Phone Number: _____ Fax Number: _____
 Authorized Representative: _____
 Signature: _____ Date: _____
 Print Name: _____
 Title: _____
 Phone Number: _____

AFFIDAVIT CERTIFICATION
IMMIGRATION LAWS

THE TOWN OF DUNDEE, FLORIDA, WILL NOT INTENTIONALLY AWARD TOWN CONTRACTS TO ANY CONTRACTOR WHO KNOWINGLY EMPLOYS UNAUTHORIZED ALIEN WORKERS, CONSTITUTING A VIOLATION OF THE EMPLOYMENT PROVISIONS CONTAINED IN 8 U.S.C. SECTION 1324 a(e) AND/OR SECTION 274A(e) OF THE IMMIGRATION AND NATIONALITY ACT ("INA").

THE TOWN OF DUNDEE, FLORIDA, MAY CONSIDER THE EMPLOYMENT BY ANY CONTRACTOR OF UNAUTHORIZED ALIENS A VIOLATION OF SECTION 274A(e) OF THE INA. SUCH VIOLATION BY THE RECIPIENT OF THE EMPLOYMENT PROVISIONS CONTAINED IN SECTION 274A(e) OF THE INA SHALL BE GROUNDS FOR UNILATERAL CANCELLATION OF THE CONTRACT BY THE TOWN OF DUNDEE.

BIDDER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

Company Name

Signature

Date: _____

Printed Name

Title

PRIVATE PROVIDER FIRM

THIS SECTION TO BE COMPLETED BY A NOTARY PUBLIC:

STATE OF _____ COUNTY OF _____

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 20__

NOTARY PUBLIC: CHECK ONE PERSONALLY KNOWN TO ME _____ Produced I.D. _____

TYPE OF ID PRODUCED

SIGN:

PRINT:

NONCOLLUSION AFFIDAVIT OF BIDDER

State of Florida

County of Polk

I, _____ ("Affiant"), being first duly sworn, deposes and says that:

(1) Affiant is _____ (insert job title) of _____ (insert name of company) the bidder that submitted the attached bid;

(2) Affiant is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;

(3) Such bid is genuine and is not a collusive or sham bid;

(4) Neither the said Affiant nor any of his/her/its officers, partners, owners, agents, representatives, employees or parties in interest, including Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or has refrained from bidding in connection with such Contract; nor in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder; nor has fixed any overhead, profit or cost element of the bid price, or the bid price of any other bidder; nor has secured through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Town of Dundee or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Affiant or any of its agents, representatives, owners, employees, or parties in interest.

THIS SECTION TO BE COMPLETED BY A NOTARY PUBLIC:

STATE OF _____ COUNTY OF _____

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 20____

NOTARY PUBLIC: CHECK ONE PERSONALLY KNOWN TO ME _____ Produced I.D. _____

TYPE OF ID PRODUCED _____

SIGN: _____

PRINT: _____

CERTIFICATION OF DRUG-FREE WORKPLACE

I _____ ("Undersigned"), certify that:

- (1) Undersigned is _____ (insert job title) and duly authorized to act on behalf of the Contractor _____ that submitted the attached bid.
- (2) Undersigned acknowledges that Preference shall be given to businesses with drug-free workplace programs.
- (3) Undersigned acknowledges that whenever two (2) or more bids which are equal with respect to price, quality, and service are received by the Town for the Purchasing of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process.
- (4) In order to have a drug-free workplace program, a business shall:
 - (a) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in-the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
 - (b) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
 - (c) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (a).
 - (d) In the statement specified in subsection (a), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 of the Florida Statutes or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
 - (e) Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
 - (f) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

The Undersigned, as the person authorized to sign this CERTIFICATION OF DRUG FREE

WORKPLACE, does hereby certify that the Contractor, _____, acknowledges, understands, and complies fully with the above requirements.

DATE: _____ NAME OF ENTITY: _____

PHONE/FAX: _____

ADDRESS: _____

SIGNATURE: _____

PRINT NAME: _____

SALES TAX SAVINGS FORM

CONTRACT NUMBER: _____

NAME OF PROJECT: _____

MATERIALS	(1) Amount in Contract	(2) Sales Tax	(3) Net Amount

(1) This is the amount to be deducted from contract by change order.

(2) The amount of the sales tax included in the material purchase line item supplied by the Contractor.

(3) The amount to be used by the Town to make the material purchase per the Contractor's stated quantities

EXHIBIT B





BID FORM
FY 2023-24 DESIGN CONSTRUCTION AND INSTALLATION
OF EMERGENCY GENERATORS

RETURN DATE: Wednesday, March 26, 2024 by 4:00 P.M.

RETURN TO: Office of the Town Clerk
Attn: RFP #24-06
Town of Dundee
P.O. Box 1000
202 East Main Street
Dundee, Florida 33838

ITEM	ESTIMATED QTY	UNIT BID	EXTENDED AMOUNT
1. 4337-381-R	1 Each	\$91,995.00	\$91,995.00
2. 4337-481-R	1 Each	\$85,000.00	\$85,000.00
3.			
4.			
5.			
		TOTAL	\$156,995.00

ALL BID FORMS SHOULD INCLUDE THE FOLLOWING INFORMATION:

Company Submitting Bid: Mid Florida Diesel, Inc.

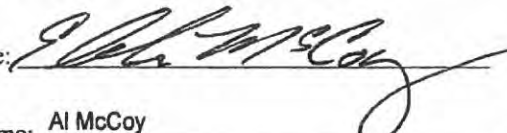
Company Address: 2215 Hwy 60 East

Company City: Bartow State: FL Zip: 33830

Fax Number: N/A

Company Phone Number: 863-519-0107

Authorized Representative: _____

Signature:  Date: March 25, 2024

Print Name: Al McCoy Phone Number: 863-698-1267

Title: President

AFFIDAVIT CERTIFICATION
IMMIGRATION LAWS

THE TOWN OF DUNDEE, FLORIDA, WILL NOT INTENTIONALLY AWARD TOWN CONTRACTS TO ANY CONTRACTOR WHO KNOWINGLY EMPLOYS UNAUTHORIZED ALIEN WORKERS, CONSTITUTING A VIOLATION OF THE EMPLOYMENT PROVISIONS CONTAINED IN § U.S.C. SECTION 1324 a(e) AND/OR SECTION 274A(e) OF THE IMMIGRATION AND NATIONALITY ACT ("INA").

THE TOWN OF DUNDEE, FLORIDA, MAY CONSIDER THE EMPLOYMENT BY ANY CONTRACTOR OF UNAUTHORIZED ALIENS A VIOLATION OF SECTION 274A(e) OF THE INA. **SUCH VIOLATION BY THE RECIPIENT OF THE EMPLOYMENT PROVISIONS CONTAINED IN SECTION 274A(e) OF THE INA SHALL BE GROUNDS FOR UNILATERAL CANCELLATION OF THE CONTRACT BY THE TOWN OF DUNDEE.**

BIDDER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

Company Name Mid Florida Diesel, Inc.

Signature  Date: 3/25/2024

Printed Name Al McCoy

Title President

PRIVATE PROVIDER FIRM N/A

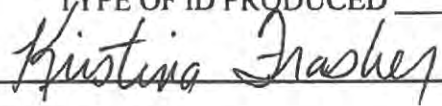
THIS SECTION TO BE COMPLETED BY A NOTARY PUBLIC:

STATE OF Florida COUNTY OF Polk

SWORN TO AND SUBSCRIBED BEFORE ME THIS 25 DAY OF March, 2024

NOTARY PUBLIC: CHECK ONE PERSONALLY KNOWN TO ME Produced I.D. _____

TYPE OF ID PRODUCED _____

SIGN: 

PRINT: Kristina Frasher



NONCOLLUSION AFFIDAVIT OF BIDDER

State of Florida

County of Polk

I, Al McCoy ("Affiant"), being first duly sworn, deposes and says that:

Al McCoy

- (1) Affiant is President (insert job title) of Mid Florida Diesel, Inc (insert name of company) the bidder that submitted the attached bid;
- (2) Affiant is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;
- (3) Such bid is genuine and is not a collusive or sham bid;
- (4) Neither the said Affiant nor any of his/her/its officers, partners, owners, agents, representatives, employees or parties in interest, including Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or has refrained from bidding in connection with such Contract; nor in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder; nor has fixed any overhead, profit or cost element of the bid price, or the bid price of any other bidder; nor has secured through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Town of Dundee or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Affiant or any of its agents, representatives, owners, employees, or parties in interest.

THIS SECTION TO BE COMPLETED BY A NOTARY PUBLIC:

STATE OF Florida COUNTY OF Polk

SWORN TO AND SUBSCRIBED BEFORE ME THIS 25 DAY OF March, 20 24

NOTARY PUBLIC: CHECK ONE PERSONALLY KNOWN TO ME Produced I.D. _____

TYPE OF ID PRODUCED _____

SIGN: _____

Kristina Frasher

PRINT: Kristina Frasher



CERTIFICATION OF DRUG-FREE WORKPLACE

I Al McCoy ("Undersigned"), certify that:


- (1) Undersigned is President (insert job title) and duly authorized to act on behalf of the Contractor Mid Florida Diesel, Inc that submitted the attached bid.
- (2) Undersigned acknowledges that Preference shall be given to businesses with drug-free workplace programs.
- (3) Undersigned acknowledges that whenever two (2) or more bids which are equal with respect to price, quality, and service are received by the Town for the Purchasing of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process.
- (4) In order to have a drug-free workplace program, a business shall:
 - (a) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in-the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
 - (b) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
 - (c) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (a).
 - (d) In the statement specified in subsection (a), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 of the Florida Statutes or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
 - (e) Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
 - (f) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

The Undersigned, as the person authorized to sign this CERTIFICATION OF DRUG FREE WORKPLACE, does hereby certify that the Contractor, Mid Florida Diesel, Inc, acknowledges, understands, and complies fully with the above requirements.

DATE: March 25, 2024 NAME OF ENTITY: Mid Florida Diesel, Inc

PHONE/FAX: 863-519-0107

ADDRESS: 2215 Hwy 80 E.
Bartow, FL 33830

SIGNATURE: 
PRINT NAME: Al McCoy

SALES TAX SAVINGS FORM

CONTRACT NUMBER: _____

NAME OF PROJECT: _____

MATERIALS	(1) Amount in Contract	(2) Sales Tax	(3) Net Amount

- (1) This is the amount to be deducted from contract by change order.
- (2) The amount of the sales tax included in the material purchase line item supplied by the Contractor.
- (3) The amount to be used by the Town to make the material purchase per the Contractor's stated quantities

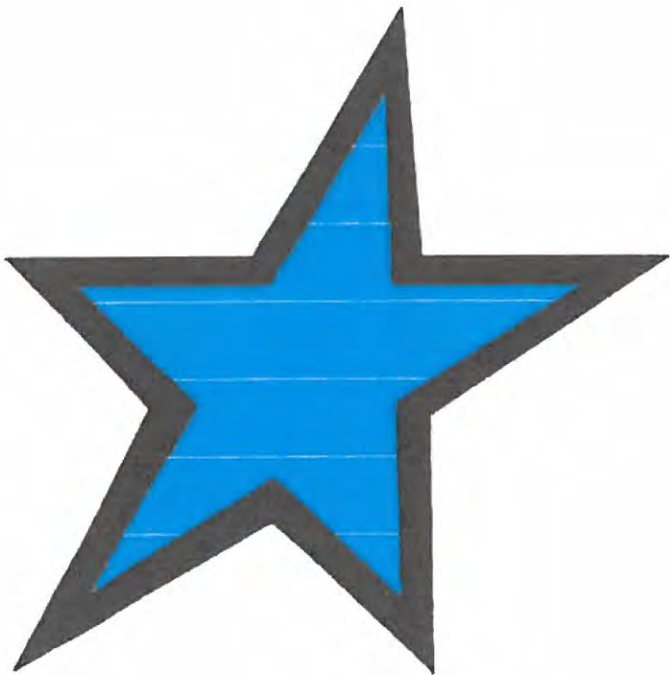
BLUE ST★R

Power Systems Inc.

Submittal

3/21/2024

Project Title Dundee Community Center 100KW Generator
Quote Number: 0107619-2
Model: JD100-01



Mid Florida Diesel
Joe Antonini
2215 Hwy 60 East
Bartow FL 33830
Office: 863-519-0107
Cell: 863-944-0400
Email: joe@midfloridadiesel.com

BLUE STAR

Power Systems Inc.

Table of Contents

- Sales Quote
- Specification Sheet
- 4045HF285 158 HP
- 11 Industrial Alternators
- 14 MX321 Voltage Regulator
- 8 DGC-2020 Control Panel
- 44 Paint and Powder Coat
- 19 Enclosures
- 20 Sound Attenuation Foam
- 17 Radiators
- 22 Circuit Breakers
- 29 TPS Series Block Heaters
- 31 Single Stage Air Cleaner
- 33 CPJ Series Silencers
- 27 Industrial Batteries
- 23 BC1206A Series Battery Chargers
- 21 Sub-Base Fuel Tanks
- 47 Factory Load Test
- 2yr 2000hr limited warranty

BLUE STAR

Power Systems Inc.

Sales Quote

Quote Date: 3/21/2024 11:32:30 AM
Quote Number: 0107619-2
Project Title: Dundee Community Center 100KW Generator
Prepared for: Mid Florida Diesel

Distributed
by:

Unit Model	JD100-01	Standby / Prime	Emergency Stationary Standby
kWe Rating	100 kWe	UL 2200 Listed	Yes
Fuel	Diesel	CSA Approved	Yes
EPA	Tier 3	Paint Color	White

Engine Model: John Deere 4045HF285 100kW Standby Power Rating at 1800 RPM
Governor - Electronic Isochronous

Voltage: 208/120V 3 Phase 60 Hz 0.8 PF

Gen Model: Stamford UCI274E 12 Lead Wired 208V 3 Phase Low Wye 105°C Rise Over 40°C Ambient

Voltage Regulator: Stamford MX321 Automatic Voltage Regulator with PMG Excitation

Control Panel: Blue Star DGC-2020 Microprocessor Based Gen-Set Controller
Mounted Facing Left from Generator End (Unless Specified Otherwise)
Standard Features: Low Oil Pressure, High Coolant Temp, Overspeed, Overcrank Shutdowns
Emergency Stop Pushbutton, Audible Alarm Buzzer with Silencing Switch
Optional Features Include: Generator Protection (Undervoltage, Overvoltage, Underfrequency,
Overfrequency, Overcurrent), 15 Contact Outputs, RS-485 Communications

Control Panel Options: Low Water Level Sensor with Shutdown

Unit Color: White

Enclosure: Level 3 (Sound Attenuated Enclosure) Powder Coated .090 Aluminum
Rugged and Durable 200 MPH Wind Rated Enclosure with Exhaust Hood
Pitched Roof for Increased Structural Integrity and Improved Watershed
Punched Intake with Baffle and Punched Exhaust Openings
Keyed Alike Lockable Doors with Draw Down Latches and Stainless Steel Component Hinges
Additional 1.5" Thick Polydamp Type D Acoustical Foam (PAF)
Formed Steel Base with Mounting and Lifting Holes
Includes Vibration Mounts to Isolate Unit from Base Rail

Sound Attenuation Foam: Sound Attenuation Installed in Enclosure and Exhaust Hood

Cooling: Unit Mounted Radiator (50°C Ambient)

Oil Drain Extension: Plumbed to Bulkhead Fitting in Base

Mainline Breaker: 350 Amp 3 Pole 240 Volt Breaker Mounted & Wired in a NEMA 1 Enclosure
12VDC Shunt Trip Wired to Engine Shutdowns Breaker- Adjustable Trip to 300amp

Jacket Water Heater: Engine Block Heater 1500W 120VAC Rated for -20°F
Heater Installed with Isolation Valves and Wired to Terminal

Air Cleaner: Dry Single Stage

Silencer: Critical Grade Compact (CPJ Series) Silencer Mounted to Engine

Battery: 12 Volt System with Rack and Cables

Battery Charger: 12 Volt 6 Amp Mounted and Wired to Terminal

Fuel Tank: 24 Hour / 250 Gallon UL 142 Listed Sub-Base Fuel Tank with Stub-up Area
 Double Wall Construction with Secondary Containment Standard
 Includes: Supply & Return Connections, Fuel Level Gauge, Fuel Leak Switch and Fill & Vent Plumbing

Factory Test: Standard Commercial Testing Includes:
 Verification of Alarm Shutdowns, Voltage Settings, Block Loading to Rated kWe and PF

Owner's Manual: Print Copy (Qty 1) **Standard**

Warranty: 2 Year / 2000 Hour Limited

Notes: Coat 250 gallon tank with Extreme Liner \$2,500.00
 2 steps required. one for controller and one for breaker \$800.00

**Additional Options
 (Not Included in Price):**

ATS 1

Series	300	Volts	208/120V 3 PH
Service Entrance Rated	No	Poles	3
Amps	400	Enclosure	Nema 3R

Warranty: Two (2) Year Basic ATS Limited Warranty Standard

Optional Accessories: 11BE Feature Bundle Includes Engine Exerciser/Event Log/RS-485 Enabled/Common AI

ATS Notes:

Payment Terms: Due Upon on Receipt

Lead Time: 20 + Weeks

Payment Terms: Due Upon Receipt

Delivery Schedule: 32-34 Weeks (Contingent on component availability)

Terms & Conditions

- This quote is valid for a period of 30 days.
- This proposal is our interpretation of your requirement. It includes only the items listed on this quotation. Should there be other requirements or specifications, we will re-quote accordingly.
- Units are shipped wet to include lube oil and 50/50 water and antifreeze mix unless otherwise noted in this quotation.
- All extended piping, wiring, or other than listed above is performed by "others".
- Seller is not quoting, offloading, job site startup, personnel instructions, field testing, or unit installation.
- Quoted prices include normal testing, packaging, and instructional literature.
- It is the distributor/purchaser and end user's responsibility to ensure that this equipment is operated in accordance with all applicable local, state, and federal laws and regulations governing the use and operation of this equipment.

Distributor Terms & Conditions

BLUE STAR

Power Systems Inc.

Diesel Product Line

208-600 Volt

JD100-01

60 Hz / 1800 RPM

100 kWe

Standby

Ratings

	240V	208V	240V	480V	600V
Phase	1	3	3	3	3
PF	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Generator Model	UCI274F	UCI274D	UCI274D	UCI274C	UCI274D
Connection	12 LEAD DD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
kWe	100	100	100	100	100
AMPS	417	347	301	151	120
Temp Rise	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C

Standard Equipment

Engine

- Radiator Cooled Unit Mounted (50°C)
- Radiator Duct Flange (OPU Only)
- Blower Fan & Fan Drive
- Starter & Alternator
- Oil Pump & Filter
- Oil Drain Extension w/Valve
- Governor - Electronic Isochronous
- 12V Battery System & Cables
- Air Cleaner (Dry Single Stage)
- Critical Grade Silencer Mounted
- Flexible Fuel Connector
- EPA Certified Tier 3

Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 1% Voltage Regulation
- 4 Pole, Rotating Field
- 125°C Standby Temperature Rise
- 100% of Rated Load - One Step
- 5% Maximum Harmonic Content
- NEMA MG 1, IEEE and ANSI Standards Compliance for Temperature Rise

Additional

- Single Source Supplier
- UL 2200 & cUL Listed
- CSA Certified
- Seismic Certified to IBC 2021
- NFPA 110 / CSA C282 Compliant
- Microprocessor Based Digital Control Panel Mounted in NEMA 12 Enclosure
- Base - Formed Steel
- Main Line Circuit Breaker Mounted & Wired
- Battery Charger 12V 6 Amp
- Jacket Water Heater -20°F 1500W 120V w/Isolation Valves
- Vibration Isolation Mounts
- 2 Year / 2000 Hour Standby Warranty
- Standard Colors - White / Gray

Diesel Product Line

100 kW_e



Application Data

Engine

Manufacturer:	John Deere	Displacement - Cu. In. (lit):	275 (4.50)
Model:	4045HF285	Bore - in. (cm) x Stroke - in. (cm):	4.19 (10.6) x 5.00 (12.7)
Type:	4-Cycle	Compression Ratio:	19.0:1
Aspiration:	Turbo Charged	Rated RPM:	1800
Cylinder Arrangement:	4 Cylinder Inline	Max HP Stby (kW _m):	158 (118)

Exhaust System

Gas Temp. (Stack): °F (°C)	1,076 (580)
Gas Volume at Stack Temp: CFM (m ³ /min)	805 (22.8)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	30.0 (7.50)

Standby

Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	48.0 (182)
Heat Rejection to Coolant: BTUM (kW)	3,544 (62.0)
Heat Rejection to CAC: BTUM (kW)	1,127 (19.8)
Heat Radiated to Ambient: BTUM (kW)	2,016 (35.3)

Air Requirements

Aspirating: CFM (m ³ /min)	288 (8.15)
Air Flow Required for Rad. Cooled Unit: CFM (m ³ /min)	6,638 (188)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m ³ /min)	Consult Factory For Remote Cooled Applications

Fuel Consumption

At 100% of Power Rating: gal/hr (lit/hr)	7.76 (29.4)
At 75% of Power Rating: gal/hr (lit/hr)	6.25 (23.7)
At 50% of Power Rating: gal/hr (lit/hr)	4.55 (17.2)

Fluids Capacity

Total Oil System: gal (lit)	3.43 (13.0)
Engine Jacket Water Capacity: gal (lit)	2.24 (8.50)
System Coolant Capacity: gal (lit)	5.40 (20.4)

Deration Factors: Rated Power is available up to 10,000 ft (3,048 m) at ambient temperatures to 122°F (50°C). Consult factory for site conditions above these parameters.

Diesel Product Line

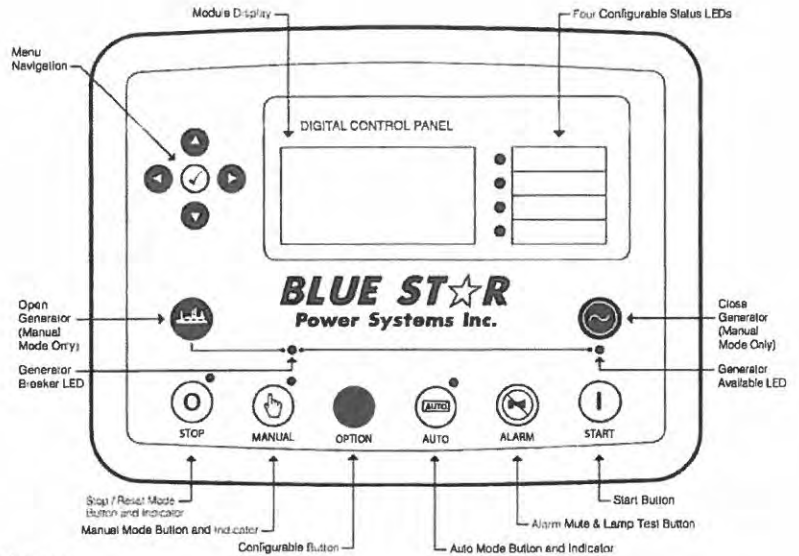
100 kW



DCP7310 Control Panel

Standard Features

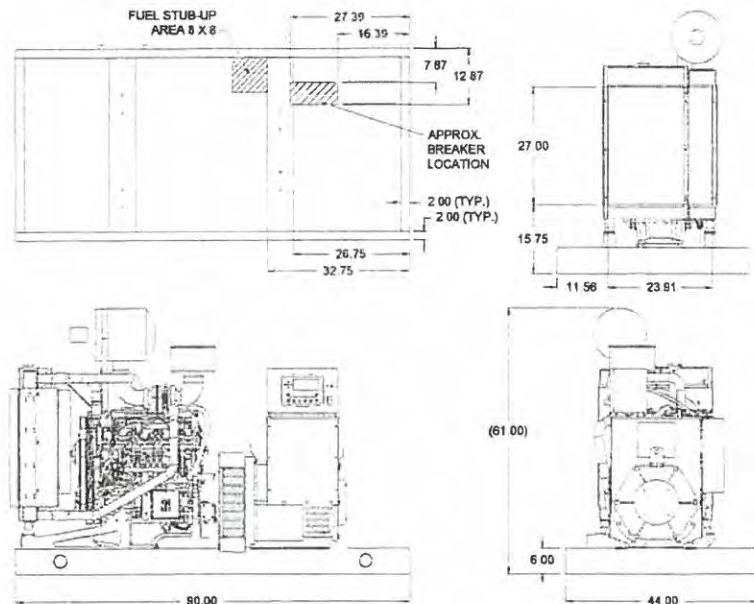
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator Interface
- cULus Listed, CE Approved
- Event Recording
- IP 65 rating (with supplied gasket) offers increased resistance to water ingress
- NFPA 110 Level 1 Compatible



Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	90 x 44 x 61 in	2,750
Level 1	102 x 44 x 66 in	3,350
Level 2	102 x 44 x 66 in	3,400
Level 3	132 x 44 x 66 in	3,575

Please allow 6-12 inches for height of exhaust stack.



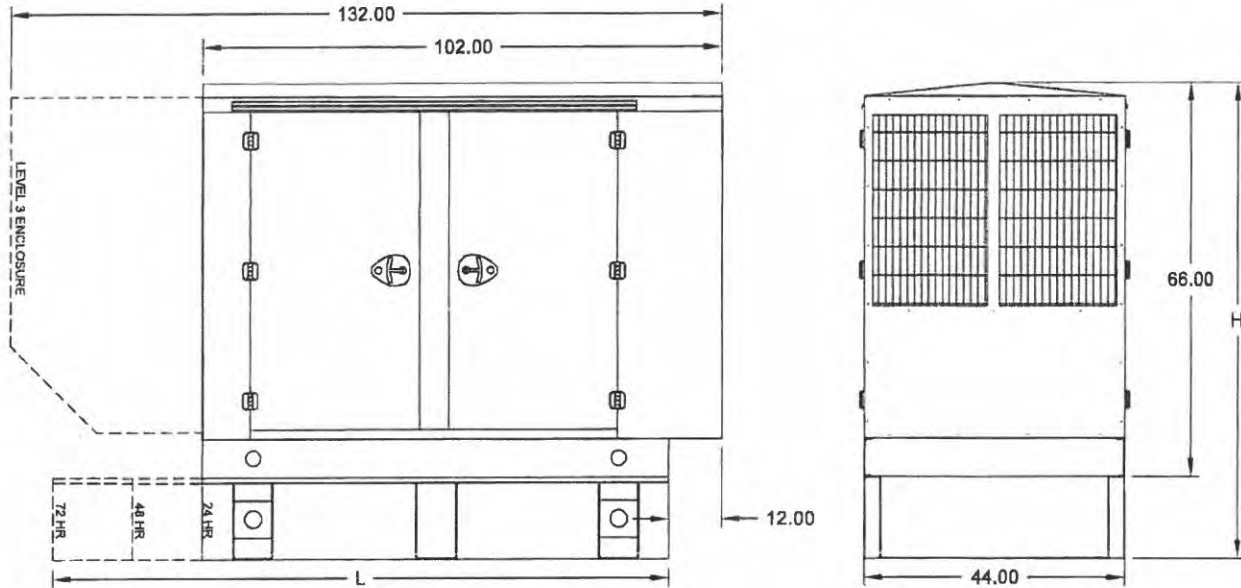
	No Load	Full Load
OPU	78 dBA	82 dBA
Level 1	75 dBA	78 dBA
Level 2	72 dBA	74 dBA
Level 3	66 dBA	68 dBA

Diesel Product Line

100 kWe



Enclosures & Fuel Tanks



- All enclosure models are 200 MPH wind rating certified in accordance with IBC2021 and ASCE/SEI 7-16 standards.
- Level 2 & 3 enclosures include sound attenuation foam
- Level 3 enclosure includes frontal sound & exhaust hood.
- Enclosure height does not include exhaust stack

	24 Hour 250 Gallon	48 Hour 500 Gallon	72 Hour 750 Gallon
L	90.00	120.00	174.00
H	94.00	102.00	102.00

Notes

- All specification sheet dimensions are represented in inches.
- All drawings based on standard 480 volt standby generator. Lengths may vary with other voltages. All drawings and dimensions subject to change without notice.
- All enclosures and fuel tanks are based on the standard unit configuration. Any requested deviation can change dimensions.
- Sound data is measured at 23 feet (7 meters) in accordance with ISO 8528-10.
- All materials and specifications subject to change without notice.

American Owned



American Made

Blue Star Power Systems, Inc.

2250 Carlson Drive

North Mankato, Minnesota 56003

Phone + 1 507 345 1776

bluestarps.com

quote.bluestarps.com

sales@bluestarps.com



ENGINE PERFORMANCE CURVE

Rating: Gross Power
 Application: Generator (60 Hz)
 Target: 100 kWe Standby Market

PowerTech E™ 4.5L Engine
Model: 4045HF285

144 hp (107 kW) Prime
158 hp (118 kW) Standby
 [See Option Code Tables]

Nominal Engine Power @ 1800 RPM			
Prime		Standby	
HP	kW	HP	kW
144	107	158	118

Generator Efficiency %	Fan Power (6% of Standby)		Power Factor	Prime Rating ²		Standby Rating ^{1,2}		ISO 8528 G2 Block Load Capability
	hp	kW		kWe	kVA	kWe	kVA	
88-92	8.7	6.5	0.8	89-93	111-116	98-103	123-129	100%

Note 1: Based on nominal engine power.
 Note 2: kWe / kVA rating assumes 90% efficiency. *Generator Efficiency %* will vary.

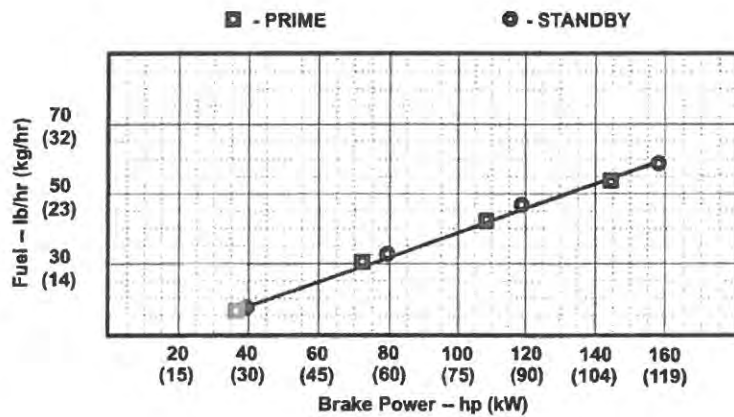
STANDARD CONDITIONS

Air Intake Restriction 12 in.H₂O (3 kPa)
 Exhaust Back Pressure 30 in.H₂O (7.5 kPa)

Gross power guaranteed within + or - 5% at SAE J1995 and ISO 3046 conditions:
 77 °F (25 °C) air Inlet temperature
 29.31 in.Hg (99 kPa) barometer
 104 °F (40 °C) fuel Inlet temperature
 0.853 fuel specific gravity @ 60 °F (15.5 °C)

Conversion factors:
 Power: kW = hp x 0.746
 Fuel: 1 gal = 7.1 lb, 1 L = 0.85 kg
 Torque: N·m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.



Notes:
 All OEM Gen Set Engine Applications must be pre-screened for torsional vibration compatibility with the respective alternator end hardware.
 OEM Engine Application Engineering will perform this computer-based analysis work upon request.

Tier-3 Emission Certifications:	Certified by:
CARB; EPA	<i>V. [Signature]</i>
Ref. Engine Emission Label	22 June '07

* Revised Date
 Curve 4045HF2851800158 Sheet 1 of 2
 June 2007

Engine Installation Criteria

General Data

Model	4045HF285
Number of Cylinders	4
Bore and Stroke—In. (mm)	4.19 x 5.00 (106 x 127)
Displacement—In. ³ (L)	275 (4.5)
Compression Ratio	19.0:1
Valves per Cylinder—Intake/Exhaust	1 / 1
Firing Order	1-3-4-2
Combustion System	Unit Injection
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged
Charge Air Cooling System	Air-to-Air
Engine Crankcase Vent System	Open

Physical Data

Length—In. (mm)	33.9 (860)
Width—In. (mm)	24.1 (612)
Height—In. (mm)	40.9 (1039)
Weight, with oil—lb (kg)	1063 (491)
(Includes flywheel hsg., flywheel & electrics)	
Center of Gravity Location	
From Rear Face of Block (X-axis)—In. (mm)	9.8 (249)*
Right of Crankshaft (Y-axis)—In. (mm)	2.17 (55)*
Above Crankshaft (Z-axis)—In. (mm)	5.7 (145)*
Max. Allow. Static Bending Moment at Rear	
Face of Flywhl Hsg w/ 5-G Load—lb-ft (N·m)	.600 (814)
Thrust Bearing Load Limit —lb (N)	Forward Rearward
Intermittent	899 (4000) 450 (2000)
Continuous	495 (2200) 225 (1000)
Max. Front of Crank. Torsional Vibration—DDA	0.25

Electrical System

		12 Volt	24 Volt
Min. Battery Capacity (CCA)—amp	800	570	
Max. Allow. Start. Circ't Resist.—Ohm	0.0012	0.002	
Starter Rolling Current			
At 32 °F (0 °C)—amp	820	800	
At -22 °F (-30 °C)—amp	1300	700	
Min. Volts at ECU while Cranking—volts	6	10	
Max. ECU Temperature—°F (°C)	221 (106)		
Max. Harness Temperature—°F (°C)	248 (120)		
Maximum Voltage From Engine Crankshaft/Generator Shaft to Ground—VAC			
	0.15	0.15	

Air System

		Prime	Standby
Max. Allowable Temp Rise—Ambient Air to Engine Inlet—°F (°C)			
	15 (8)		
Maximum Air Intake Restriction			
Dirty Air Cleaner—In. H ₂ O (kPa)	25 (6.25)		
Clean Air Cleaner—In. H ₂ O (kPa)	15 (3.75)		
Engine Air Flow—ft ³ /min (m ³ /min)	273 (7.73)	288 (8.16)	
Air Cleaner Efficiency—%	99.9		

Charge Air Cooling System

		Prime	Standby
Air/Air Exchanger Heat Rejection—			
BTU/min (kW)	1002(17.6)	1127 (19.8)	
Compress. Dischrg. Temp.(Rated)			
@ 77 °F (25°C) Amb. Air—°F (°C)	349(176.2)	373(189.6)	
Compress. Dischrg. Temp.(Max.)			
@ 47°C amb. and 80 kPa bar.—°F (°C)	NA (NA)	NA (NA)	
Press. Drop, thru CAC—In. H ₂ O (kPa)			
Max.	52 (13)		
Min.	None*		
Intake Manifold Pressure—psi (kPa)			
CAC Out Temp @ 77°F (25°C) Amb.—°F (°C)	22(149)	24 (165)	
Max.			
Min.	140 (80)	118 (48)	
CAC Out Temp @ any Ambient—°F (°C)			
Max.	190 (88)		

Cooling System

		Prime	Standby
Engine Heat Reject.—BTU/min (kW)			
	NA(NA)	3544 (62)	
Coolant Flow—gal/min (L/min)			
	48(180)	48(180)	
Thermostat Start to Open—°F (°C)			
	160 (82)		
Thermostat Fully Open—°F (°C)			
	203 (95)		
Engine Coolant Capacity—qt (L)			
	9 (8.5)*		
Min. Pressure Cap—psi (kPa)			
	14.5 (100)		
Max. Top Tank Temp—°F (°C)			
	230 (110)		
Min. Coolant Fill Rate—gal/min (L/min)			
	3 (11)		
Min. Air-to-Boil Temperature—°F (°C)			
	117 (47)		
Min. Pump Inlet Pressure—psi (kPa)			
	4.4 (30)		

Exhaust System

		Prime	Standby
Exhaust Flow—ft ³ /min (m ³ /min)			
	750 (21.2)	805(22.8)	
Exhaust Temperature—°F (°C)			
	1040(560)	1076 (580)	
Max. Exhaust Restriction—In. H ₂ O (kPa)			
	30 (7.5)		
Min. Exhaust Restriction—In. H ₂ O (kPa)			
	None		
Max. Bend. Moment, Turbo Out.—lb-ft (N·m)			
	5.2 (7.0)		
Max. Shear on Turbo Outlet—lb (kg)			
	24 (11)		

Fuel System

		Prime	Standby
ECU Description			
	L18 Controller		
Fuel Injection Pump			
	Denso HP3		
Governor Type			
	Electronic		
Total Fuel Flow—lb/hr (kg/hr)			
	122(55.3)	140(63.5)	
Fuel Consumption—lb/hr (kg/hr)			
	51(23.0)	58 (26.5)	
Max. Fuel Inlet Temp.—°F (°C)			
	176 (80)		
Fuel Temp. Rise, Inlt to Retm—°F (°C)			
	82.8(45)	87.3(49)	
Max. Fuel Inlet Restriction—In. H ₂ O (kPa)			
	80 (20)		
Max. Fuel Inlet Pressure—In. H ₂ O (kPa)			
	NA (NA)		
Max. Fuel Return Pressure—In. H ₂ O (kPa)			
	80 (20)		

Lubrication System

		Prime	Standby
Oil Press. at Rated Speed—psi (kPa)			
	45(320)	45 (320)	
Min. Oil Pressure—psi (kPa)			
	15 (105)		
Max. Oil Carryover in Blow-by—lb/hr (g/hr)			
	0.002 (1.0)		
Max. Airflow In Blow-by—gal/min (l/min)			
	26 (100)		
Max. Crankcase Pressure—In. H ₂ O (kPa)			
	2 (0.5)		

Performance Data

		Prime	Standby
Rated Power—hp (kW)			
	144 (107)	158 (118)	
Rated Speed—rpm			
	1800	1800	
Low Idle Speed—rpm			
	1150	1150	
Rated Torque—lb-ft (N·m)			
	772 (569)	849 (626)	
BMEP—psi (kPa)			
	230 (1589)	254 (1748)	
Friction Power			
@ Rated Speed—hp (kW)	17 (13)	17 (13)	
Altitude Capability—ft (m)			
	10,000(3050)	7500(2286)	
Ratio—Air : Fuel			
	22 : 1	21 : 1	
Smoke @ Rated Speed—Bosch No.			
	0.87	1.3	
Noise—dB(A) @ 1 m			
	86.7*	87*	

Fuel Consumption — lb/hr (kg/h)

		Prime	Standby
25 % Power			
	16.3 (7.4)	17.8 (8.1)	
50 % Power			
	30.6 (13.9)	33.3 (15.1)	
75 % Power			
	42.8 (19.4)	46.6 (21.1)	
100 % Power			
	53.6 (24.3)	58.3 (26.5)	

All values at rated speed and power with standard options unless otherwise noted.

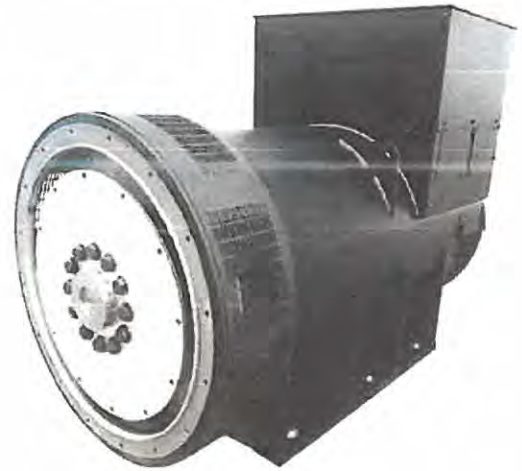
* Revised Data

Curve 4045HF2851800158.	Sheet 2 of 2 June 2007
-------------------------	---------------------------

Industrial Alternators

BLUE STAR
Power Systems Inc.

Blue Star Power Systems, Inc. utilizes the highest quality alternators available. Our industrial alternators provide consistent performance, quality design, and great durability required for long life and versatility. Alternators used by Blue Star Power Systems, Inc. are UL and CSA Listed, which guarantees that each one meets the rigorous demands of industrial power generation and will provide safe and effective service for the life of the alternator. Blue Star Power Systems, Inc. alternators range from 20 kWe through 2000 kWe.



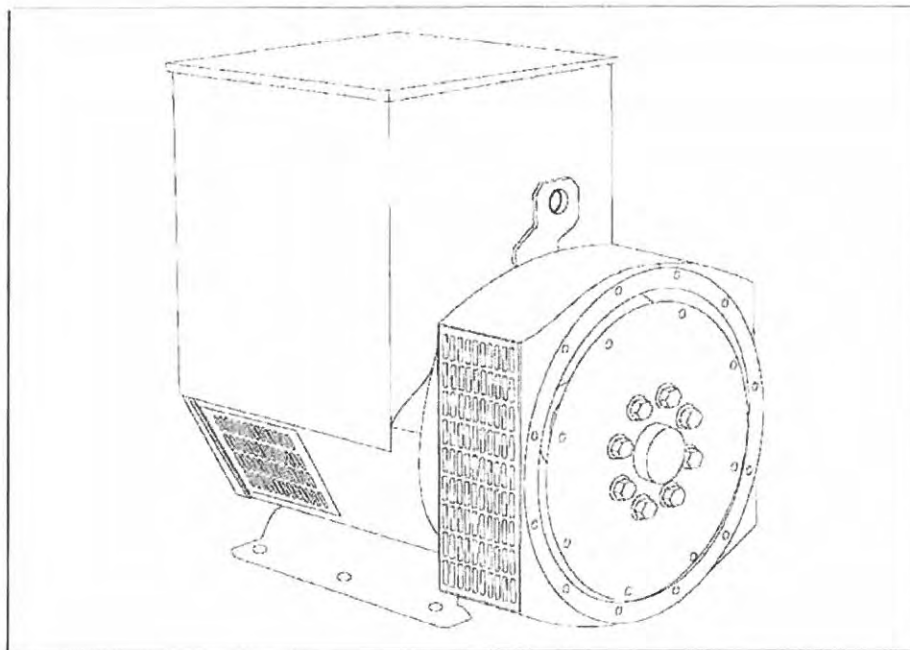
Standard Features

- **Enhanced Ventilation**
Created by a high-efficiency fan that optimizes internal airflow patterns, maximizes heat transfer, and minimizes hot spot differentials for extended winding life.
- **Fully Guarded**
For operator safety and alternator protection. No rotating or electrically energized parts are exposed. All openings are covered by louvers or screens.
- **Large Conduit Box**
Provides ample space for easy connections and allows load line access from all sides, top, or bottom.
- **Design Specs and Agency Approvals**
All Blue Star Power Systems, Inc. alternators are UL and CSA Listed (unless specified otherwise) and meet NEMA MG1-32, BS5000, CSA C22.2, IEC 34 and VDE 0530 requirements.
- **Class H Insulation System**
Utilizes an unsaturated polyester varnish for optimal insulation life and superior moisture protection.
- **Optimized Windings**
Provide low reactances and exceptional motor starting capability. The stator windings utilize a 2/3 pitch to minimize harmonic distortion and facilitate parallel operation.
- **Permanent Magnet Generator (optional)**
Ensures 300% short circuit current during fault conditions and provides the regulator with input power isolated from load distortion.
- **Heavy-Duty Bearing**
Resists contamination and gives a life expectancy up to 40,000 hours.
- **Automatic Voltage Regulator**
Provides accurate 1% regulation, under-speed protection, stability adjustment to optimize transient performance, and EMI filtering to commercial standards. Fully encapsulated for rugged durability in virtually any environment.

STAMFORD[®]

UCI274E - Winding 311

Technical Data Sheet



UCI274E

SPECIFICATIONS & OPTIONS

STAMFORD

STANDARDS

Stamford industrial generators meet the requirements of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

Other standards and certifications can be considered on request.

VOLTAGE REGULATORS

SX460 AVR - STANDARD

With this self excited control system the main stator supplies power via the Automatic Voltage Regulator (AVR) to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier. This rectifier is protected by a surge suppressor against surges caused, for example, by short circuit.

AS440 AVR

With this self-excited system the main stator provides power via the AVR to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three-phase full-wave bridge rectifier. The rectifier is protected by a surge suppressor against surges caused, for example, by short circuit or out-of-phase paralleling.

The AS440 will support a range of electronic accessories, including a 'droop' Current Transformer (CT) to permit parallel operation with other ac generators.

MX341 AVR

This sophisticated AVR is incorporated into the Stamford Permanent Magnet Generator (PMG) control system.

The PMG provides power via the AVR to the main exciter, giving a source of constant excitation power independent of generator output. The main exciter output is then fed to the main rotor, through a full wave bridge, protected by a surge suppressor. The AVR has in-built protection against sustained over-excitation, caused by internal or external faults. This de-excites the machine after a minimum of 5 seconds.

An engine relief load acceptance feature can enable full load to be applied to the generator in a single step.

If three-phase sensing is required with the PMG system the MX321 AVR must be used.

We recommend three-phase sensing for applications with greatly unbalanced or highly non-linear loads.

MX321 AVR

The most sophisticated of all our AVRs combines all the features of the MX341 with, additionally, three-phase rms sensing, for improved regulation and performance.

Over voltage protection is built-in and short circuit current level adjustments is an optional facility.

WINDINGS & ELECTRICAL PERFORMANCE

All generator stators are wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A fully connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

TERMINALS & TERMINAL BOX

Standard generators are 3-phase reconnectable with 12 ends brought out to the terminals, which are mounted on a cover at the non-drive end of the generator. A sheet steel terminal box contains the AVR and provides ample space for the customers' wiring and gland arrangements. It has removable panels for easy access.

SHAFT & KEYS

All generator rotors are dynamically balanced to better than BS6861:Part 1 Grade 2.5 for minimum vibration in operation. Two bearing generators are balanced with a half key.

INSULATION/IMPREGNATION

The insulation system is class 'H'.

All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

QUALITY ASSURANCE

Generators are manufactured using production procedures having a quality assurance level to BS EN ISO 9001.

The stated voltage regulation may not be maintained in the presence of certain radio transmitted signals. Any change in performance will fall within the limits of Criteria 'B' of EN 61000-6-2:2001. At no time will the steady-state voltage regulation exceed 2%.

DE RATES

All values tabulated on page 8 are subject to the following reductions

5% when air inlet filters are fitted.

3% for every 500 metres by which the operating altitude exceeds 1000 metres above mean sea level.

3% for every 5°C by which the operational ambient temperature exceeds 40°C.

Note: Requirement for operating in an ambient exceeding 60°C must be referred to the factory.

NB Continuous development of our products entitles us to change specification details without notice, therefore they must not be regarded as binding.

Front cover drawing typical of product range.

UCI274E
WINDING 311

STAMFORD

CONTROL SYSTEM	SEPARATELY EXCITED BY P.M.G.		
A.V.R.	MX321	MX341	
VOLTAGE REGULATION	± 0.5 %	± 1.0 %	With 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES (page 7)		

CONTROL SYSTEM	SELF EXCITED		
A.V.R.	SX460	AS440	
VOLTAGE REGULATION	± 1.0 %	± 1.0 %	With 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT		

INSULATION SYSTEM	CLASS H
PROTECTION	IP23
RATED POWER FACTOR	0.8
STATOR WINDING	DOUBLE LAYER CONCENTRIC
WINDING PITCH	TWO THIRDS
WINDING LEADS	12
STATOR WDG. RESISTANCE	0.0317 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED
ROTOR WDG. RESISTANCE	1.34 Ohms at 22°C
EXCITER STATOR RESISTANCE	20 Ohms at 22°C
EXCITER ROTOR RESISTANCE	0.091 Ohms PER PHASE AT 22°C
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. refer to factory for others
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%
MAXIMUM OVERSPEED	2250 Rev/Min
BEARING DRIVE END	BALL. 6315-2RS (ISO)
BEARING NON-DRIVE END	BALL. 6310-2RS (ISO)

	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	492 kg				511 kg			
WEIGHT WOUND STATOR	180 kg				180 kg			
WEIGHT WOUND ROTOR	167.51 kg				156.55 kg			
WR ² INERTIA	1.3271 kgm ²				1.2765 kgm ²			
SHIPPING WEIGHTS in a crate	525 kg				539 kg			
PACKING CRATE SIZE	123 x 67 x 103(cm)				123 x 67 x 103(cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF<2%				TIF<50			
COOLING AIR	0.514 m ³ /sec 1090 cfm				0.617 m ³ /sec 1308 cfm			
VOLTAGE SERIES STAR	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	140	140	140	N/A	160	167.5	167.5	178.8
X _d DIR. AXIS SYNCHRONOUS	2.34	2.11	1.96	-	2.68	2.51	2.29	2.25
X' _d DIR. AXIS TRANSIENT	0.21	0.19	0.18	-	0.25	0.23	0.21	0.21
X'' _d DIR. AXIS SUBTRANSIENT	0.14	0.13	0.12	-	0.17	0.16	0.15	0.14
X _q QUAD. AXIS REACTANCE	1.53	1.39	1.28	-	1.74	1.63	1.49	1.46
X'' _q QUAD. AXIS SUBTRANSIENT	0.18	0.16	0.15	-	0.22	0.21	0.19	0.18
X _L LEAKAGE REACTANCE	0.08	0.08	0.07	-	0.09	0.08	0.08	0.08
X ₂ NEGATIVE SEQUENCE	0.16	0.14	0.13	-	0.19	0.18	0.16	0.16
X ₀ ZERO SEQUENCE	0.10	0.09	0.08	-	0.11	0.10	0.09	0.09

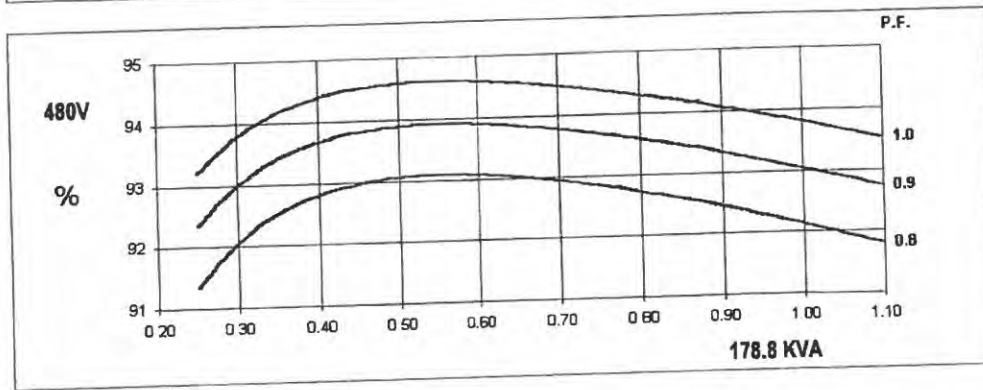
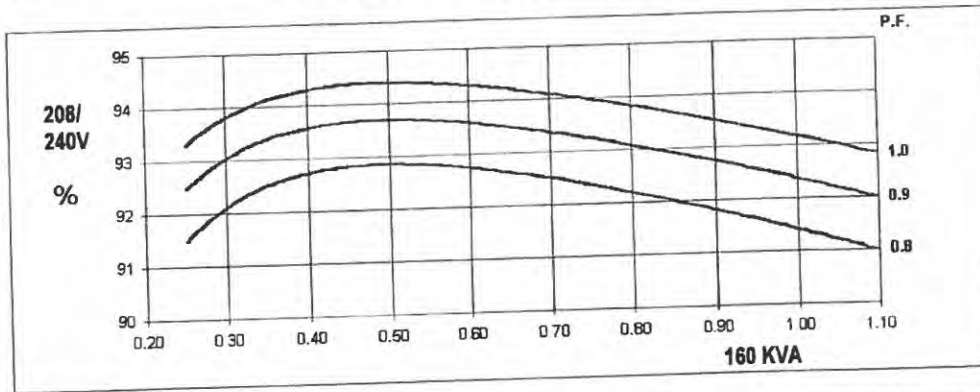
REACTANCES ARE SATURATED		VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED	
T' _d TRANSIENT TIME CONST.	0.032 s		
T'' _d SUB-TRANSTIME CONST.	0.01 s		
T' _{do} O.C. FIELD TIME CONST.	0.85 s		
T _a ARMATURE TIME CONST.	0.007 s		
SHORT CIRCUIT RATIO	1/X _d		

**60
Hz**

UCI274E
Winding 311

STAMFORD

THREE PHASE EFFICIENCY CURVES

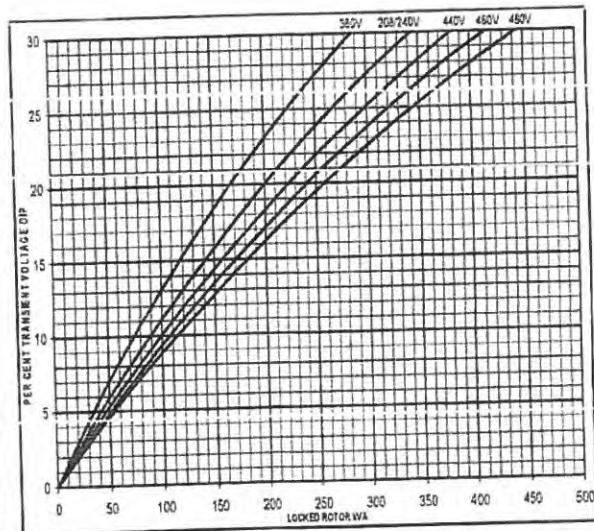
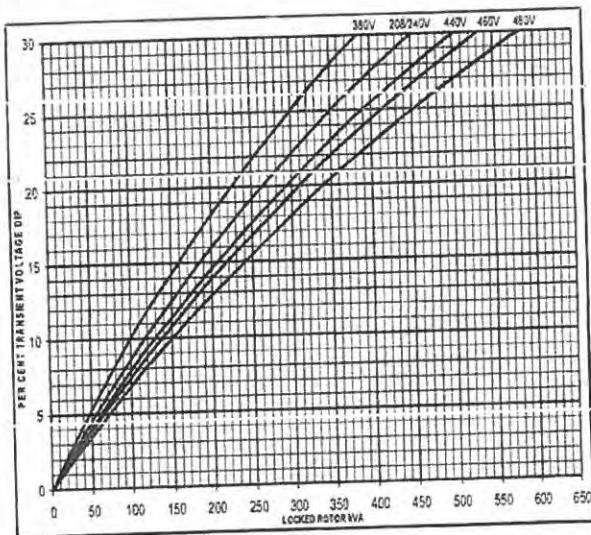


Locked Rotor Motor Starting Curve

MX

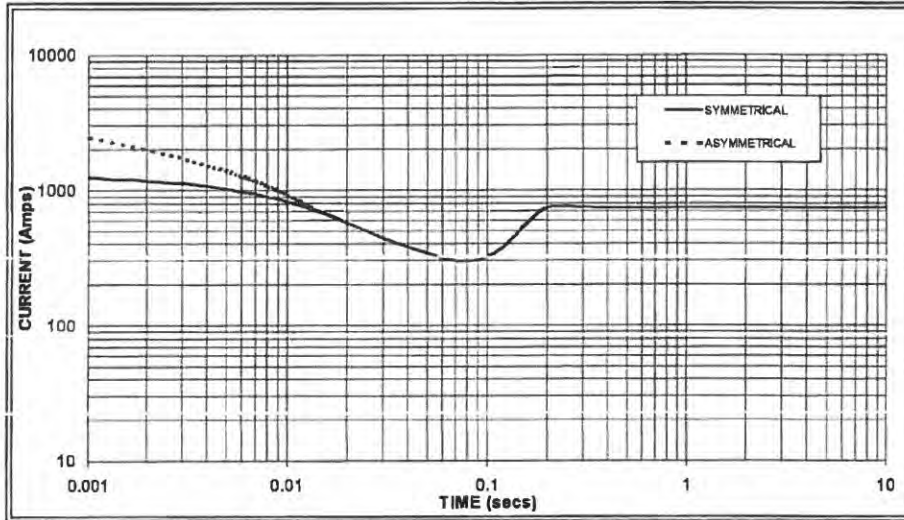
**60
Hz**

SX



**Three-phase Short Circuit Decrement Curve. No-load Excitation at Rated Speed
Based on star (wye) connection.**

**60
Hz**



Sustained Short Circuit = 740 Amps

Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

50Hz		60Hz	
Voltage	Factor	Voltage	Factor
380v	X 1.00	416v	X 1.00
400v	X 1.07	440v	X 1.06
415v	X 1.12	460v	X 1.12
		480v	X 1.17

The sustained current value is constant irrespective of voltage level

Note 2

The following multiplication factor should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3-phase	2-phase L-L	1-phase L-N
Instantaneous	x 1.00	x 0.87	x 1.30
Minimum	x 1.00	x 1.80	x 3.20
Sustained	x 1.00	x 1.50	x 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged

Note 3

Curves are drawn for Star (Wye) connected machines. For other connection the following multipliers should be applied to current values as shown :

Parallel Star = Curve current value X 2

Series Delta = Curve current value X 1.732

RATINGS

Class - Temp Rise		Cont. F - 105/40°C				Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C			
60 Hz	Series Star (V)	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480
	Parallel Star (V)	208	220	230	240	208	220	230	240	208	220	230	240	208	220	230	240
	Series Delta (V)	240	254	266	277	240	254	266	277	240	254	266	277	240	254	266	277
	kVA	140.0	143.8	143.8	160.0	160.0	167.5	167.5	178.8	170.0	175.0	175.0	187.5	175.0	181.3	181.3	193.8
	kW	112.0	115.0	115.0	128.0	128.0	134.0	134.0	143.0	136.0	140.0	140.0	150.0	140.0	145.0	145.0	155.0
	Efficiency (%)	91.9	92.2	92.5	92.5	91.4	91.7	92.1	92.1	91.2	91.5	91.9	92.0	91.0	91.4	91.8	91.9
	kW Input	121.9	124.8	124.4	138.4	140.0	146.1	145.5	155.3	149.1	153.0	152.3	163.0	153.8	158.7	158.0	168.7

MX321 Voltage Regulator

BLUE STAR
Power Systems Inc.

MX321 is a three phase sensed Automatic Voltage Regulator and forms part of the excitation system for a brush-less generator. Excitation power is derived from a three-phase permanent magnet generator (PMG), to isolate the AVR control circuits from the effects of nonlinear loads and to reduce radio frequency interference on the generator terminals. Sustained generator short circuit current is another feature of the PMG system.

Voltage Adjustment

The screwdriver adjustable potentiometer adjusts the generator output voltage. Adjustment clockwise increases the generator output voltage.

When using a remote voltage adjust rheostat, remove the jumper wire across terminals 1 and 2 and install a 1k ohm 1 watt rheostat. This will give $\pm 10\%$ voltage variation from the nominal.

Stability Adjustment

The AVR includes a stability or damping circuit to provide good steady state and transient performance of the generator.

A jumper link selector is provided to optimize the response of the stability circuit to various size generators. The link should be positioned as shown in the diagram according to the kW rating of the generator.

The correct setting of the Stability adjustment can be found by running the generator at no load and slowly turning the stability control anti-clockwise until the generator voltage starts to become unstable.

The optimum or critically damped position is slightly clockwise from this point (i.e. where the machine volts are stable but close to the unstable region).

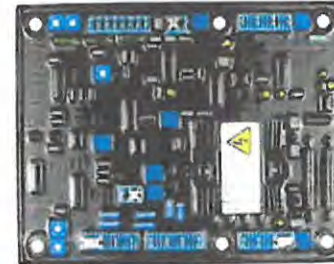
Under Frequency Roll Off (UFRO) Adjustment

The AVR incorporates an underspeed protection circuit which gives a volts/Hz characteristic when the generator speed falls below a presettable threshold known as the "knee" point.

The red Light Emitting Diode (LED) gives indication that the UFRO circuit is operating.

The UFRO adjustment is preset and sealed and only requires the selection of 50 or 60Hz and 4 pole or 6 pole, using the jumper link as shown in the diagram.

For optimum setting, the LED should illuminate as the frequency falls just below nominal, i.e. 47Hz on a 50Hz system or 57Hz on a 60Hz system.



Specifications

Sensing Input

Voltage	190 to 264VAC max, 1 or 3 phase
Frequency	50 to 60 Hz Nominal

Power Input (PMG)

Voltage	170 to 220VAC, 3 phase
Current	3A
Frequency	100 to 120 Hz Nominal

Output

Voltage	max 120VDC
Current	Continuous 3.7A Intermittent 6A for 10 secs
Resistance	15 ohms Minimum

Regulation +/- 0.5% RMS

Thermal Drift 0.02% per 1°C change in AVR ambient

Soft Start Ramp Time 0.4 - 4 seconds

Typical System Response

AVR Response	10 ms
Field Current to 90%	80 ms
Machine Volts to 97%	300 ms

External Voltage Adjustment +/-10% with 1k ohm 1 watt trimmer

Under Frequency Protection

Set Point	95% Hz
Slope	100 to 300% down to 30 Hz
Max. Dwell	20% volts/S Recovery

Unit Power Dissipation 18 watts Maximum

Analog Input

Maximum Input	+/- 5VDC
Sensitivity	1V for 5% Generator Volts (Adjustable)
Input Resistance	1k ohm

Quadrature Droop Input 10 ohms Burden

Max. Sensitivity	0.22A for 5% Droop OPF
Max. Input:	0.33A

Current Limit Input 10 ohms burden

Sensitivity Range	0.5 to 1A
-------------------	-----------

Over Voltage Detection Input 10 ohms Burden

Set Point	300V Time Delay: 1 sec (Fixed)
CB Trip Coil Volts	10 to 30VDC
CB Trip Coil Resistance	20 to 60 ohms
Time Delay	1 second (Fixed)

Over Excitation Protection

Set Point	75VDC
Time Delay	8 to 15 seconds (Fixed)

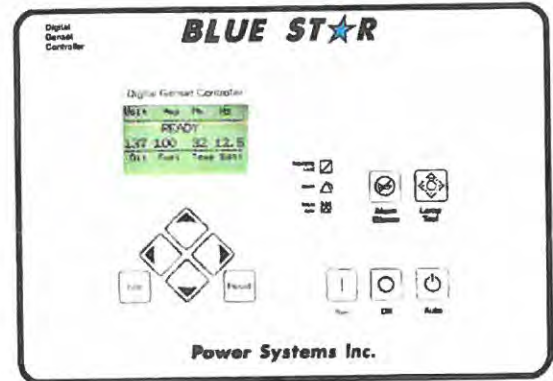
DGC-2020 Control Panel



Blue Star Power Systems, Inc. Digital Generator Set Control Panel (DGC-2020) is a highly advanced integrated generator set control system. The DGC-2020 is perfectly focused, combining rugged construction and microprocessor technology to offer a product that will hold up to almost any environment and flexible enough to meet your application's needs. This device provides generator set control, transfer switch control, metering, protection and programmable logic in a simple, easy to use, reliable, rugged, and cost effective package.

Highlights

- UL Recognized, CSA & CE approved
- Remote communication options
- Microprocessor based
- Rugged encapsulated construction
- Complete system metering



Standard Features

- Generator Metering
- Engine Metering
- Generator Set Control
- Engine Protection:
 - Oil Pressure
 - Engine Temperature
 - Overspeed
 - Overcrank
- BESTCOMS Plus:
 - Programming and Setup Software
 - Intuitive and Powerful
 - Remote Control and Monitoring
 - Programmable Logic
 - USB Communications
- SAE J1939 Engine ECU Communications (Where Applicable)
- Extremely Rugged, Fully Encapsulated Design
- 16 Programmable Inputs
- 7 Contact Outputs: (3) 30ADC and (4) Programmable 2ADC Rated Contacts
- Wide Ambient Temperature Range
- UL Recognized, CSA Certified, CE Approved
- HALT (Highly Accelerated Life Test) Tested
- IP54 Front Panel Rating with Integrated Gasket
- NFPA110 Level One Compliant
- Real Time Clock with Battery Backup and Event Log
- Emergency Stop Pushbutton
- Current Sensing: 5A CT inputs
- Generator Frequency: 50/60 Hz
- LCD Display Heater to -40°F
- Event Recording (up to 99 occurrences)

Standard Gen-Set Monitoring

- Generator parameters: voltage, current, frequency, real power (Watts), apparent power (VA), and power factor
- Engine parameters: oil pressure, coolant temperature, RPM, battery voltage, fuel level, engine runtime, and various J1939 supported parameters where applicable

Standard Engine Control Functions

Cranking Control

- Cyclic or Continuous (Fully Programmable)

Successful Start Counter

- Counts and Records Successful Engine Starts

Timers

- Engine Cooldown Timer (Specify)
- Engine Maintenance Interval Timer (Specify)
- Pre-Alarm Time Delays for Weak/Low

Battery Voltage

- Alarm Time Delay for Overspeed

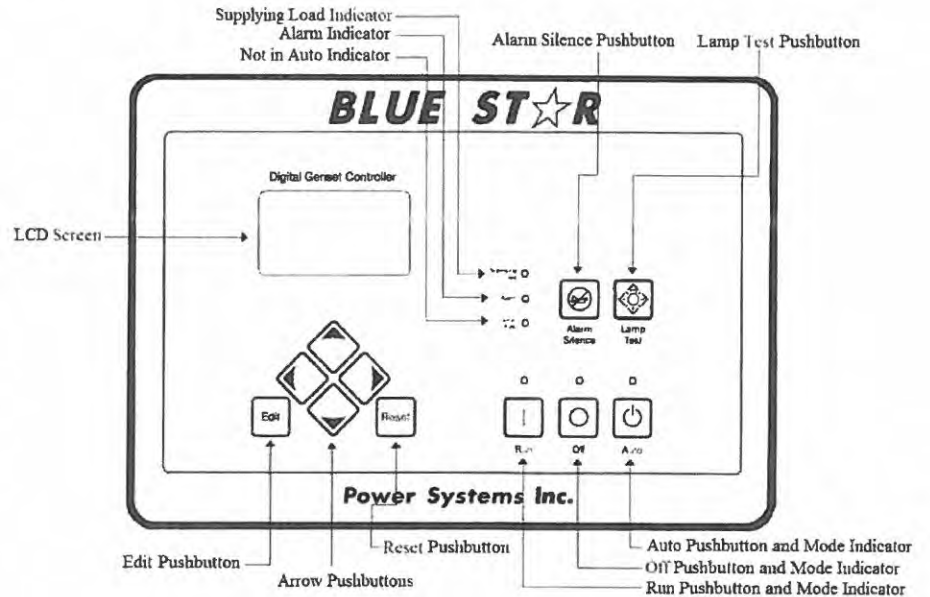
- Alarm Time Delay for Sender Failure
- Arming Time Delays After Crank Disconnect:
 - Low Oil Pressure
 - High Coolant Temperature
 - Pre-Crank Delay
- Continuous/Cyclic Cranking Timing Sequence

DGC-2020 Control Panel



Front Panel LED Indicators:

- Run: Green – Indicates controller is in the RUN mode
- Off: Red – Indicates controller is in the OFF mode
- Auto: Green – Indicates unit is in the AUTO mode
- Not in Auto: Red – Indicates DGC-2020 is not in AUTO mode
- Supplying Load: Green – Indicates system is supplying current to a connected load
- Alarm: Red – Indicates an alarm situation by continuous illumination
A pre-alarm will flash



Standard Engine Protection Functions

Pre-Alarms (Warnings)

- Low Oil Pressure
- High Coolant Temperature
- Low Coolant Temperature
- Battery Overcharge (High Voltage)
- Weak Battery (Low Voltage)
- All alarms and pre-alarms can be configured via the BESTCOMSPPlus PC software or the front panel.

- Battery Charger Failure
- Engine Sender Unit Failure
- Engine kW/e Overload
- Maintenance Interval Timer
- Low Fuel Level
- Fuel Leak Detect

Alarms (Shutdowns)

- Low Oil Pressure
- High Coolant Temperature
- Overspeed
- Overcrank
- Fuel Sender Failure

Optional Features

- Generator Protection 27(2), 32, 40Q, 51(2), 59(2), 81O, 81U
- Enhanced Generator Protection - 51 and 47
- Selection of Integrating Reset or Instantaneous Reset Characteristics for Overcurrent Protection
- Remote Communication to RDP-110 / NFPA-110 Compliant Remote Annunciator
- Additional (8) Programmable 2ADC Contacts
- Remote Dial-out and Dial-in Capability with Modem
- Modbus Communications with RS-485
- Expandable I/O Capability via J1939 CANBUS
- Automatic Transfer Switch Control
- Remote Emergency Stop
- Multilingual Capability
- High Fuel Level Pre-Alarm
- Critical Low Fuel Level Alarm
- Analog Meters

Generator Protection

- Undervoltage (27)
- Underfrequency (81U)
- Overcurrent (51)
- Reverse Power (32)
- Phase Imbalance (47)
- Overvoltage (59)
- Overfrequency (81O)
- Phase Imbalance (57)
- Loss of Excitation (400)
- Generator Overcurrent (51)

All generator protection features are programmable as alarms or pre-alarms.

DGC-2020 Control Panel



Contact Outputs

For those applications where more output contacts are needed, the DGC-2020 can be adapted to include 8 additional 2ADC rated dry contact outputs. These are real contacts and not the solid-state type that require additional external circuitry to properly operate. These contacts are fully programmable via the easy-to-use BESTCOMSPlus PC software and can be assigned to numerous user-defined functions.

DC Voltage Panel Mounted Modem

The DGC-2020 can provide long distance communication by adding a modem. When a modem is used, the user can access the DGC-2020 from virtually anywhere via a dedicated telephone line. The user can monitor and control the gen-set as if standing right in front of it. The DGC-2020 can also dial out for pre-programmed circumstances to alert the user of selected situations.

RS-485 Communication

When the RS-485 option is selected, the user can send and receive information from the DGC-2020 via the RS-485 communications port and Modbus protocol. This feature allows the DGC-2020 to be fully integrated into the building management system. Please see the instruction manual for the Modbus register list.

Enhanced Generator Protection

In addition to the standard generator protection (27, 59, 81O, 81U) the DGC-2020 can be equipped with a more sophisticated generator protection system. This option provides an overcurrent element (51) with 17 selectable time current characteristic curves and a voltage phase balance protection function.

Transfer Switch Control (Mains Failure)

The DGC-2020 monitors utility (mains) and determines if it is providing power that is suitable for the loads. If the utility supply goes outside of predetermined levels, the generator is started and the utility is disconnected from the load and the generator is connected. When the utility returns to acceptable levels for a sufficient time, the generator is disconnected and the utility is reconnected to the load. It also includes appropriate adjustable timers or time delays for establishing stable utility operation.

Contact Expansion Module (CEM)

The CEM add-on module increases the contact input and contact output capability adding 10 contact inputs and 24 form C contact outputs. This module communicates to the DGC-2020 via SAE J1939 CANBUS and allows the user to program the functionality of these inputs and outputs in the BESTCOMS programmable logic program. The user can add labels for the inputs and outputs that appear on BESTCOMS front panel, and in the programmable logic. All the functionality can be assigned to these inputs and outputs as if they were an integrated part of the DGC-2020. The CEM-2020 module has all of the environmental ratings, like the DGC-2020, including a model for UL Class1 Div2 applications (consult price list for part number). The output ratings of the form C contacts are: (12 contacts) 10A @ 30VDC and (12 contacts) 2A @ 30VDC. The 2A rated contacts are gold flash contacts for low current circuits. The CEM-2020 terminals accept a maximum wire size of 12 AWG while the chassis ground requires 12 AWG wire. The CEM-2020 provides the user with the flexibility to use the same model DGC-2020 gen-set controller for simple applications or more complicated applications that require contact functionality or duplication of contacts for remote annunciation. Flexibility is one of the benefits of the DGC-2020, and this add-on module enhances that benefit even further.

ModBus TCP/RTU (NetBiter RTU-TCP Gateway)

NetBiter® RTU-TCP Gateway connects the fully enhanced DGC-2020 with Ethernet and mobile networks. The gateway acts as a transparent bridge translating DGC-2020 Modbus registers allowing control systems, such as PLCs, SCADA, etc. to communicate over Ethernet. One gateway is required per generator allowing multiple generator sets to be accessed and monitored simultaneously. Note: This option does not interface with BESTCOMSPlus software. Features include: connectivity between serial Modbus devices and the Modbus TCP; RS-232, RS-485 and RS-422 connectivity; Ethernet and mobile network connectivity; 10/100 Mbit/s Ethernet; web-based configuration; DIN rail mounting; and network and serial status indicators.

Load Share Module 2020 (LSM-2020)

The LSM is an easy to connect and use add-on module for the DGC-2020 to allow the DGC-2020 to control the kW load sharing of multiple generator sets. The LSM-2020 is remotely mounted and communicates to the DGC-2020 via J1939 CANbus communications.

Paint & Powder Coat



Generator Set

Blue Star Power Systems, Inc. completely paints all of its generator sets in our state-of-the-art downdraft paint booth. It begins with an extensive cleaning of the unit through sanding and a full wipe down using an alkaline-based cleaner. Once completely clean, the unit is then painted with Cardinal Industrial Semigloss paint. Electrostatic paint equipment ensures correct and even coverage. The unit then receives a complete covering of Cardinal Industrial Clear Coat in a hammer texture to provide extra protection and a durable long-lasting easy-to-clean finish.

Performance Characteristics

- 3.0+ Mils TDFT
- Xenon Arc 1100 hours - Excellent Weatherability
- 1000 Hour Salt Spray - Over Primer - Passed (3.0 Mils Total TDFT)
- Adhesion, Crosshatch - 5B
- Gloss 90+ @ 60°

Generator Set Enclosure

Blue Star Power Systems, Inc. provides Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coating as standard on all our enclosures. Long term exterior durability, high performance mechanical properties and high gloss are standard characteristics of Cardinal Powder Coating. Cardinal TGIC Polyester Coating exceeds UL 2200 & CSA requirements.

Performance Characteristics

- Cured Powder Properties 2.0+ Mils DFT
- PCI Powder Smoothness 1 Mil
- Pencil Hardness 2H+
- Flexibility 1/8 in Diameter - No Fracture
- Salt Spray ASTM-B117 1000 Hours - Pass
- Humidity ASTM-02247 1000 Hours - Pass
- Adhesion, Crosshatch - 5B
- Gloss 90+ @ 60°

Standard Colors

White | T012-WH260

Gray | G013-GR08



Custom Colors

Custom Colors: Blue Star Power Systems, Inc. offers custom color options for your generator set enclosure. Cardinal is licensed by PANTONE® to accurately simulate both the PANTONE MATCHING SYSTEM® colors and the PANTONE® Textile Color System® with our powder and liquid coatings. Additional Charges apply.



Sub-Base Fuel Tanks

Blue Star Power Systems, Inc. provides either Diamond Vogel Nexgen Technology Paint or Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coat on all of our sub-base fuel tanks. Nexgen and Cardinal Industrial both offer excellent coverage and performance characteristics. Nexgen and Cardinal Industrial both exceed UL requirements.

Performance Characteristics

- 3.0+ Mils TDFT
- Xenon Arc 1100 Hours
- 500 Hour Salt Spray - Over Primer - Passed (3.0 Mils Total TDFT)
- Adhesion Crosshatch - 5B
- Gloss 90+ @ 60°

Standard Color



Enclosures



Blue Star Power Systems, Inc. enclosures are specifically designed for optimal protection against the elements. They are designed to protect the entire system from even the most extreme environments, and to reduce sound levels to most specified requirements. Blue Star Power Systems, Inc's vast flexibility allows the design of standard enclosures to meet most specifications or requirements. All standard enclosure models are constructed of 14 gauge steel and feature a pitched roof for increased structural integrity and superior watershed. All enclosures feature a rugged UL listed hammer powder coat finish as standard for a long lasting and durable finish in standard white or gray. Custom colors are available as specified.

Enclosure Design Features

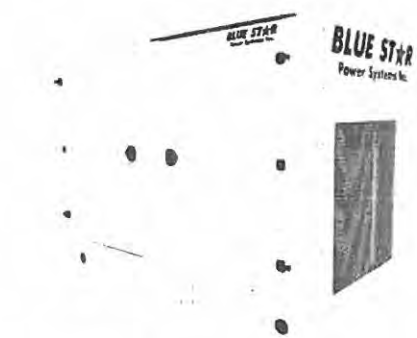


- UL 2200 & CSA Listed as standard
- All enclosure models are 200 MPH wind rating certified in accordance with IBC2018 and ASCE/SEI 7-16 standards.
- Lockable gasketed doors with draw down latches and Stainless Steel component hinges
- All Stainless Steel fasteners
- UL & CSA listed extreme-wear hammer powder coat finish
- Pitched roof for high structural integrity and superior watershed
- Above-door drip guards
- Optimal airflow means no cooling system de-rates on most models
- Internally mounted exhaust silencers standard up to 600 kW
- Sound attenuation options
- Stainless Steel and Aluminum enclosure options

Level 1

Weather Proof Enclosure

Blue Star Power Systems, Inc. Level 1 enclosures have the rugged construction and weather proof protection required for most outdoor environments. These enclosures will effectively protect the gen-set through high wind (200 MPH), rain, snow, and other extreme weather conditions. Weather proof enclosures feature standard hinged lockable doors, a pitched roof to prevent water accumulation and improved structural integrity. The enclosure is painted with extreme-wear UL and CSA listed hammer powder coat finish.



Level 2

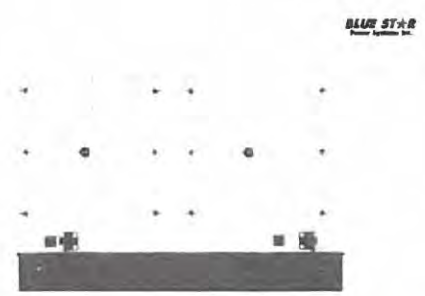
Weather Proof Enclosure with Foam

Blue Star Power Systems, Inc. Level 2 enclosures include all of the same great features of the Level 1 enclosures, and include even more. With the addition of high performance 1.5" Type D Sound Attenuating Foam, our Level 2 Enclosures offer an even lower dBA rating with the same great weather proof protection.

Level 3

Sound Attenuated Enclosure

Blue Star Power Systems, Inc. Level 3 enclosures feature the same great weather proof protection and standard features as the Level 1 & 2 enclosure models, but with a greater emphasis on reducing sound levels. Standard Level 3 features include the same high performance 1.5" type D sound attenuating foam, and also feature the addition of a separate frontal exhaust sound chamber and dual rear air intake to ensure that your system runs exceptionally quiet. These features make this enclosure among the best in the industry for noise reduction and quality.



Sound Attenuation Foam

Polydamp® Type D Acoustical Foam, (PAF) is an acoustical grade, open cell, flexible ether based urethane foam designed to give maximum sound absorption for a given thickness. It has excellent resistance to heat, moisture and chemicals. All applications use 1.5" foam as standard.



Foam Characteristics

Sound Absorption: Nominal values of random incidence sound absorption coefficient per ASTM C384-77 for Plain/Tufflym

Foam Thickness	125	250	500	1000	2000	4000
(1.5 in) 38.1 mm	15/20	27/49	60/96	77/93	90/82	98/67
(2.0 in) 50.8 mm	20/30	40/66	90/98	100/96	96/85	100/75

	Test Standard	U.S. Standard	Service Temperature	
Density, Nominal: (lb/ft ³ -kg/m ³)	ASTM-D-3574-91	1.85	Continuous	-45°F (-43°C) TO 212°F (100°C)
Tensile Strength: (PSI-KPa)	ASTM-D-3574-91	12	Intermittent	250°F (121°C)
Elongation, %	ASTM-D-3574-91	120	Flame Resistance	
Tear Resistance: (lb/in - N/M)	ASTM-D-3574-91	1.3	UL94	HF-1
IFD: (PSI - KN/M ²)	ASTM-D-3574-91	30	FAR.853(B)	PASS
Compression Set (50%): %	ASTM-D-3574-91	10	SAEJ-369(B)	PASS
Air Permeability (Tested at 1" thickness): (Rayles/M)	ASTM C-522		MVSS-302	PASS
Thermal Conductivity			DIN	PASS
(BTU/hr. ft ² , °F/in.)	ASTM C-177	0.25	Humidity Resistance	Excellent; no significant decrease in tensile strength or elongation after 5 hrs. of steam autoclave at 250°F (121°C) per ASTM D3574-86, Test J.
			Chemical Resistance	Excellent - no significant change in strength after 4 weeks immersion in common solvents, alkalis, acids, and water.
			Estimated Service Life:	Min. 10 years at 80F (27°C) and 95% R.H.

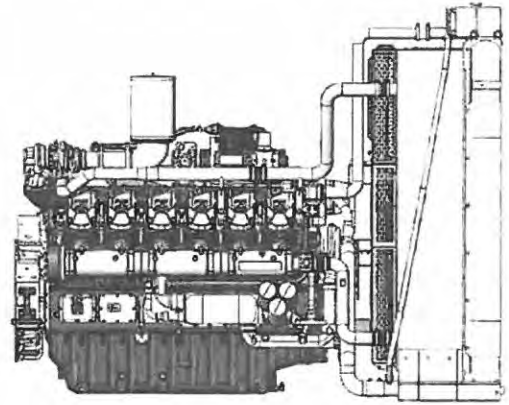
Adhesive Characteristics

P4 is a high performance unsupported acrylic pressure sensitive adhesive exhibiting aggressive tack, high peel and shear, and good heat resistance. In addition, it has good chemical and plasticizer resistance as well as excellent long term aging and the ability to withstand environmental extremes.

Adhesive Thickness (Nominal)	0.004"
Color of Adhesive	Water Clear
Release Liner	76 lb Polycoated bleached kraft paper
Service Temperature	-40°F +200°F

Radiators

Blue Star Power Systems, Inc. radiators offer a variety of styles and configurations including radiator and charged air assemblies, radiator and aftercooler assemblies with durable core construction. Our radiators are compact and efficient meeting the most stringent enclosure footprint requirements. All radiators are sized for 50°C (122°F) ambient. The single-source design ensures a perfect match with your generator set package.



Radiator Features

Standard Radiator Package

- Engine-specific tank design with variant coolant connection locations and sizes (dependant on engine size)
- Complete cooling package with mounting foot and plumbing kit
- All steel construction of top and bottom tanks
- Dual Core designs -
 - Jacket Water / Charged Air Circuit
 - Jacket Water / After Cooler Circuit
- Individual radiators designed to meet manufacturer's specific requirements
- Top tank has built in expansion capacity - no need for an external recover tank
- Full or partial deration system built into the top tank
- Standard cooling package includes fan shroud & fan guard
- Corrosion preventive options:
 - Hot dipped galvanizing on all steel parts or stainless steel
 - Epoxy coated cores

Fan-On Radiator Design

- Engine-specific tank design with variant coolant connection locations and sizes (dependant on engine size)
- Rigid built construction for fan support
- High speed bearings within pillow blocks
- Dual Core designs with variable jacket water / after cooler circuit designs
- All steel construction of top and bottom tanks
- Individual radiators designed to meet manufacturer's specific requirements

Circuit Breakers



Blue Star Power Systems, Inc. MC (Molded Case) Series Circuit Breakers are the highest quality in the industry. They will protect the power system and corresponding equipment from damaging fault currents circuits and overloads.

80% Rated Circuit Breakers

80% rated breakers can only be applied continuously at 80% of the rated breaker. Tripping of the circuit breaker if the current goes above 80% will depend on the amount of current and the duration.

100% Rated Circuit Breakers

100% rated breakers can be applied at 100% of their current rating continuously.

Accessories

Shunt Trip - Provides a means of tripping the circuit breaker from a remote source by energizing a solenoid in the breaker. This can be achieved through the panel faults such as engine shutdowns, overcurrent, etc. The circuit breaker will have to be reset locally in the event of a tripped breaker.

Bell Alarm / Alarm Switch - Provides remote indication of whether the circuit breaker is in a tripped position. The bell alarm will remain unchanged during on-off operations and during operation by the Push-to-Trip button on the circuit breaker.

Auxiliary Switch/Contacts - Provides remote indication of whether the circuit breaker is in an open or closed state.

Ground Fault Indication/Alarm - Adjustable relay that indicates a ground fault condition with adjustable time delay.

Trip Unit

LI Breakers - Includes adjustable Long-Time pickup and delay and adjustable Instantaneous pickup.

LSI Breakers - Includes features of LI Breakers with addition of Short-Time pickup and delay.



Breaker Model	Amperage	Percentage Rated	Maximum Voltage Rating (AC)	UL Listed Interrupting Rating (kA)			Lug Qty. and Size (Cu & Al)
				240	480	600	
H-Frame	15-150	80% or 100%	600	25	18	14	(1) #14-3/0
Q-Frame	70-250	80%	240	10	-	-	(1) #4-300 kcmil
J-Frame	150-175	80% or 100%	600	25	18	14	(1) #4-4/0
	200-250						(1) 3/0-350 kcmil
L-Frame	125-400	80% or 100%	600	65	35	18	(2) 2/0-500 kcmil
	200-600						(3) 3/0-500 kcmil
M-Frame	300-800	80%	600	65	35	18	(3) 3/0-500 kcmil

Breaker Model	Frame Size	Percentage Rated	Maximum Voltage Rating (AC)	UL Listed Interrupting Rating (kA)			Lug Qty. and Size (Cu & Al)
				240	480	600	
P-Frame	600	80% or 100%	600	65	35	18	(3) 3/0-500 kcmil
	800						(4) 3/0-500 kcmil
	1000						(12) 3/0-750 kcmil
	1200						(15) 3/0-750 kcmil
R-Frame (LSI Standard)	1600	100%	600	65	35	18	(18) 3/0-750 kcmil
	2000						(21) 3/0-750 kcmil
	2500						
	3000						

TPS Series Block Heaters

The TPS engine block heater is designed to preheat diesel and gaseous engines. It is simple to install, lightweight, and heats engines up to 12L displacement. Thermosiphon circulation of the coolant delivers even heat throughout the entire engine block.

Features

- cULus Listed
- CE Compliant
- Various temperature settings available, including an optional adjustable thermostat 90° - 130°F (32° - 54°C)
- Can be supplied with UL marked 120 or 240V NEMA plug



Specifications

Part Number	Volts	Watts	Amps	Male Plug	Outlet Size (Inches)
13224	120	500	4.2	Yes	5/8
14209	240	500	2.1	Yes	5/8
10014	120	1000	8.4	Yes	5/8
10015	240	1000	4.2	Yes	5/8
10016	120	1500	12.5	Yes	5/8
10017	240	1500	6.3	Yes	5/8
10018	120	1800	15	Yes	5/8
10019	240	2000	8.3	Yes	5/8

Single Stage Air Cleaner

Single Stage Air Cleaners are tough, non-metallic, lightweight, self-supporting and completely disposable. They are also easy to install, durable, and reliable. They are designed to function well under high and severe pulsation conditions found in many applications. Vibration-resistant media is potted into molded housings of rugged ABS plastic – so they don't fall apart as other designs might. They can be mounted vertically or horizontally.



Specifications

- No serviceable parts - Air cleaner housing and filter are one unit
- Designed to withstand severe intake pulsation
- Economical replacement cost
- Self-supporting, sturdy
- Very reliable: only one critical seal
- Lightweight and compact in size
- Non-metallic, non-corrosive
- Completely disposable - acceptable for normal trash pick-up (should not be incinerated)
- Easily installed and maintained
- Minimal removal clearance needed: only 1.5"
- Three airflow styles available to fit virtually any engine intake configuration
- Various media available for specific generator set applications: high pulsation, high humidity, etc.
- Temperature tolerance: 180°F/83°C continuous 220°F/105°C intermittent

CPJ Series Critical Grade Silencers

Blue Star Power Systems, Inc. "CPJ" Series is the accumulation of research and development offering a compact silencer without compromising performance. It incorporates a unique combination of resonator chambers, acoustically packed internal components and diffusers to achieve a stunning level of performance for its size. All CPJ series silencers are critical grade silencers and are packed with insulation to greatly reduce radiated noise and exterior shell temperature.



Standard Construction Features

- Available in sizes from 2 inch to 12 inch
- Multitude of inlet/outlet design styles to meet almost any requirement
- Packed with fiberglass insulation to reduce shell temperature and noise levels
- Fully welded double shell carbon steel weldment construction, corrosive resistant
- High density fiberglass acoustic blanket good to 1500°F, wrapped with 304 Stainless Steel wire mesh cloth and encased in a carbon steel perforated facing
- Black phenolic resin based finish paint

Optional Construction Features and Accessories

- Stainless Steel construction
- Aluminum construction
- Aluminized Steel construction
- Vertical mounting legs
- Round mounting bands
- Horizontal mounting saddles
- Horizontal and vertical shell lugs
- Special finish per specification
- Air leak test
- ASME code construction
- Oversized flanges
- Acoustic shell lagging
- High temperature acoustic pack material
- Contact factory for additional features to meet your requirements

Model #	Part #	Outlet Size	Flanged Connection	WT (lbs)
CPJS-02	10660	2.0" OD	No	12
CPJS-25	10661	2.5" OD	No	18
CPJS-03	10662	3.0" OD	No	20
CPJS-35	10663	3.5" OD	No	30
CPJS-04	10664	4.0" OD	No	31
CPJS-05	10665	5.0" OD	No	50
CPJS-06	10666	6.0" OD	Yes	50
CPJS-08	10667	8.0" OD	Yes	120
CPJS-10	10668	10.0" OD	Yes	180

Industrial Batteries



Engine Starting Batteries

Blistering heat and bitter cold are ruthless battery killers. That's why Blue Star Power Systems, Inc. utilizes a pioneered climatized battery. Designed to offer you long-life and high-performance starting power that will get your gen-set running even under extreme conditions. Blue Star Power Systems, Inc. "all-climate" batteries stand up to the harshest temperatures and are available in sizes and configurations to fit almost any application.



Standard Features

- Unique Manifold Vent - Virtually eliminates corrosion by venting gases away from terminals and cables
- Exclusive TRP™ Construction - Rib reinforced TRP™ container significantly improves the vibration and impact resistance
- Armored Plate Cell Bonding - Vibration is the number one killer of commercial batteries. To solve this problem, the cells of every battery are bonded
- Polyethylene Enveloped Separator Design - Super tough polyethylene material reduces electrical resistance and provides higher cranking performance
- Center Lug Design - Suppresses the vibration inherent in traditional construction for improved performance (where applicable)
- TTP™ - Through-the-Partition inter-cell connectors create a shorter current path to deliver more power to the terminals
- Heavy Duty Cases - Reinforced polyethylene or hard rubber cases stand up to the demands of standby gen-sets
- Convenient Lifting Slots - a handle is built in the top of the battery for easy carrying and transportation
- Protective Bottom Design - Waffled bottom design provides protection against nuts, bolts, or stones that might become lodged under the battery
- Computer Designed Radical Grids - An improved state-of-the-art design which adds power and resists vibration
- Threaded Accessory Ports - Features a sealed "O" ring that does not work loose during severe service (78DT only)

Specifications

BCI Group Size	NEMA Type			Dimensions (Inches)			
	Part Number	CCA at 0°F	CCA at 32°F	Length	Width	Height	Weight (lbs.)
78DT	78DT-HD	800	960	10-11/16	7-1/16	8-1/8	54
4D	4D-HD	1000	1200	19-9/16	8-5/16	10	95
8D	8D-HD	1300	1560	20-3/4	11	10	117

BC1206A Series Battery Chargers



The BC1206A charger is built to stand up to the punishing power generation environment. It is engineered to exacting performance specifications, including cULus listing for an extra margin of safety.

Features

- Automatic 12V 6A, 2-Stage charge rate
- UL 1236 listed
- Watertight, shock proof and corrosion proof
- LED status indicators
- Reverse polarity protected
- Short circuit protected
- EMI/RFI Shielded



Specifications

Specifications

Output Voltage: 12VDC

Input Rating

Input Voltage Range: 100 - 130VAC

Input Current Rating: 1.6A maximum

Float - Maintenance Stage

Float Voltage: 13.3VDC

Float Current: 0.1 A

LED Status: Green LED On

Full Load - Bulk Stage

Full Load Voltage: 12.0 - 14.1VDC

Full Load Current: 0.2 - 6.0A

LED Status: Red LED On

Reverse Polarity Protection

Available as Standard: Yes

Short Circuit / Overload Protection

Maximum Short Circuit Current: 8A (typical)

Current Limit: 7A (+/- 10%)

Operating Temperature Range

Minimum Temperature: -20° C

Maximum Temperature: 50° C

Agency Certification

This product is listed under UL 1236 for battery chargers.

Warranty

Warranty Period: 1 Year

Weight

3.5 Pounds

Sub-Base Fuel Tanks

Blue Star Power Systems, Inc. sub-base fuel tanks are listed and manufactured under UL 142 & ULC-S601 standards for steel above ground tanks, which guarantees that every fuel tank meets the structural and mechanical integrity requirements for mounting a generator set directly on top of the tank. This provides a convenient, efficient, and safe way to store fuel for your generator set.



Sub-Base Fuel Tank Standard Features

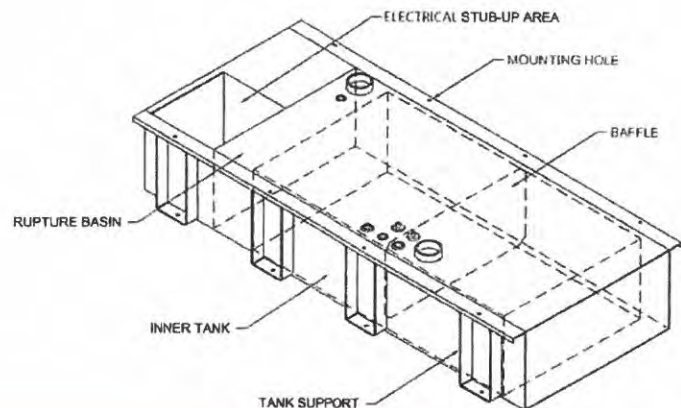
- Double walled secondary containment UL 142 & ULC-S601 Listed
- Electrical stub-up openings are standard to provide generator set wiring provisions through the base tank
- Heavy gauge steel construction
- Diamond Vogel Nexgen Technology Paint or Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coat
- Standard fittings: fuel supply with check valve (sized per unit), fuel return (sized per unit), 2" NPT for normal vent, 2" - 6" NPT for emergency vent (sized per unit), 2" NPT for manual fill, 1 1/2" NPT for fuel level gauge, and 3/8" NPT basin drain (plugged). Removable 1/2" supply dip tube standard (size may vary with gen-set model). 1 1/2" NPT for leak detection
- Interior tank baffle: Separates cold engine supply fuel from hot returning fuel
- Direct reading fuel level gauge
- Low fuel level and fuel leak alarms

Design Options

- High and critical low fuel level shutdowns or alarms
- Full pumping control systems for a true day tank system with a full array of electrical options
- Additional Tank Fittings
- Custom Fuel Tank Designs (sizes and shapes)
- Fuel Heater
- Fill / Spill Containment

Blue Star Power Systems, Inc. offers two distinctive types of double wall sub-base fuel tanks, those with an electrical stub up area (standard) and those without. Each type can be customized to any specification to meet your specific requirements.

UL 142 & ULC-S601 double wall secondary containment sub-base fuel tank with stub-up.



Factory Load Test

Blue Star Power Systems, Inc. factory testing is performed with the same extreme diligence and attention to detail that is given to the prototype testing process. Every engine generator set receives a complete factory load test that certifies and ensures that the set will function in accordance to every specific application. Test metering will have an accuracy of 1.3% or better. This metering equipment is calibrated annually, and is directly traceable to the National Institution of Standards & Technology (NIST). All test procedures are conducted in accordance with MIL-STD-705C where applicable.



Factory Acceptance Testing Procedures

- Insulation Resistance Test (301.1c)*
- High Potential Test (302.1b)*
- Alternator Over Speed
- Complete Engine Inspection
- Generator Inspection
 - Winding Resistance Test (401.1b)
 - Exciter Field Stator
 - Main Field Stator
- Mounting & Coupling Inspection
- Engine Fuel System Inspection
- Engine Lube Oil System Inspection
- Engine Cooling System Inspection
- DC Charging System Inspection
- Main Output Circuit Breaker Inspection
- Anticipatory Alarms and Shutdowns Test (505.2b, 515.1b, 515.2b)
- Optional Equipment Inspection (513.2a)
- Load Test (640.1d)
 - Regulator Range Test (511.1d)
 - No Load
 - MAX Load @ 1.0 P.F. (640.2d)
 - MAX Load @ 0.8 P.F.
 - Block Loads @ 0-25%, 0-50%, 0-75%, 0-100% of rated load tests (640.2d)
- 1.0 Power Factor Max Load
- 1.0 Power Factor Max Block Load Pickup
- Full Name Plate Rated Load.
- Standard Readings Taken Every 5 Minutes.

* Performed By Alternator OEM

Standard Reading Recorded During Load Test Inspection

Run Time	AC Frequency
AC Voltage	Exciter Field Voltage
AC Amperage	Exciter Field Current
kVA	Lube Oil Pressure
kWe	Engine Coolant Temp.
Power Factor	Ambient Temp.

Factory Load Test Summary

All engine generator sets are visually inspected prior to testing. This includes a complete visual/mechanical inspection to ensure that all fasteners and electrical connections are secure, that all rotating components are free of obstruction/interference and are properly guarded.

Once the unit is started, the AC voltage and frequency are set to rated values. The unit is operated at no load while all of the safety shutdowns and warnings are verified and tested. The unit is then restarted and run at 25%, 50% and 100% of rated load and power factor until the engine temperature has stabilized for at least ten minutes. During the rated and maximum load pickup portion of the test, the voltage regulator gain, stability and under frequency compensation adjustments are set for optimal performance. All test procedures are performed in accordance with MIL-STD-705C where applicable.

Throughout these test procedures the AC parameters, engine oil pressure, engine temperature, exhaust temperature, timing and air/fuel ratio (gaseous units) are monitored and recorded. The unit and all installed accessory equipment are continually examined for oil and coolant leaks, excessive vibration and foreign noises.

Once all test procedures are performed and recorded, the unit is allowed a cool down period prior to being shut down. The unit is once again inspected for leaks, loose fasteners and connections prior to leaving the test facility.

The unit receives another complete final inspection process prior to packaging and shipment.

Note: All units are tested after the painting process is complete to prevent unforeseen difficulties resulting from the painting process being performed after testing.

Witnessed Factory Load Test

Standard witnessed factory load testing must be scheduled and approved at least four weeks prior to the engine generator sets scheduled shipping date. Any requests for witnessed factory load testing after this four week period may incur additional charges.

Witnessed Extended Run Factory Load Test

Witnessed extended run factory load testing must be scheduled and approved at the time of order placement. Any requests for witnessed extended run factory load testing after this time could be denied and would if approved incur additional cost.

All units are built and tested to cUL, CSA and NFPA 110 standards.



Engine Generator Set Two (2) Year 2000 Hour Standby Limited Warranty



Your Blue Star Power Systems, Inc. product has been designed and manufactured with care by people with many years of experience. Blue Star Power Systems, Inc. warrants to its buyer that the product is free from defects in materials and/or workmanship for the period of time outlined below. If the product should prove defective within the time period outlined below, it will be repaired, adjusted or replaced at the option of Blue Star Power Systems, Inc., provided that the product, upon inspection by Blue Star Power Systems, Inc., has been properly installed, maintained and operated in accordance with Blue Star Power Systems, Inc.'s Generator Set Installation Guide and Operating Instructions. This limited warranty is not valid or enforceable unless: (1) all supporting maintenance records are kept on file with the end user and made available upon request from factory, and (2) the generator set is routinely exercised in accordance with operating instructions. This warranty does not apply to malfunctions caused by physical damage, misuse, improper installation, repair or service by unauthorized persons, or normal wear and tear. The warranty is not assignable.

Blue Star Power Systems, Inc. product warranty period: Engine generator set: Parts and Labor for two (2) years from the date of factory invoice or 2000 hours (whichever occurs first). Accessories (installed on the engine generator set or shipped loose): Parts and Labor for one (1) year from the date of factory invoice or 2000 hours (whichever occurs first). Transfer Switches: If purchased with a generator set (same order number): Parts and Labor for two (2) years from the date of factory invoice or 2000 hours (whichever occurs first).

The start of the warranty period can be adjusted to the date of unit start-up (limited to 180 days from invoice date) provided that the following information is provided to Blue Star Power Systems, Inc. within 30 days of start-up. The warranty will not be effective unless a copy of the Blue Star Power Systems, Inc. Start-Up Instructions & Warranty Validation form is properly filled out and returned to Blue Star Power Systems, Inc. within 30 days of start-up. If the Start-Up Instructions & Warranty Validation Form is received after 365 days (1 year) from invoicing date, all unit warranties will be void. Additionally, the engine manufacturer's engine registration form must be completed and returned to the engine manufacturer as stated in the instructions with the registration form.

To obtain warranty service: Contact your nearest Blue Star Power Systems, Inc. Service Representative. For assistance in locating your nearest authorized service representative, contact Blue Star Power Systems, Inc. at warranty@bluestarps.com.

Warranty service may be performed by authorized Blue Star Power Systems, Inc. service providers only. Service work performed by unauthorized persons will void all warranties and not be paid.

Blue Star Power Systems, Inc. shall not be liable for any claim in amount greater than the purchase price of the product. In no event shall Blue Star Power Systems, Inc. be held liable for any special, indirect, consequential or liquidated damages including but not limited to: loss of profits, loss of time, increased overhead, delays, loss of business opportunity, good will, or any commercial or economic loss.

Blue Star Power Systems, Inc. shall not be liable for any claim that requires replacement of engine, part, or component of the gen-set that is no longer manufactured or available. Additionally, Blue Star Power Systems, Inc. will not be liable for any engine replacement that may require emissions tier level change.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE DESCRIBED HEREIN. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, OR OTHERWISE CREATED UNDER THE UNIFORM COMMERCIAL CODE, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, OR WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

The following items and/or circumstances are excluded from this limited warranty:

- Improper installation or operation as outlined in the Generator Set Installation Guide and Operating Instructions.
- Misapplication and misuse of the equipment outside the original design parameters as stated on the nameplate of the equipment.
- Equipment purchased at the standby rating that is being used in a prime power application(s).
- Failure to properly exercise and maintain your equipment per manufacturer's specifications will void all warranty.
- Any equipment or components adding including fuel tanks and enclosures not installed at the Blue Star Power Systems, Inc. factory.
- Equipment modifications made without the written consent of Blue Star Power Systems, Inc. will void all warranty.
- Damages caused by acts of nature, such as lightning, wind, flood, or earthquake.
- Any damage due to situations beyond the control of the manufacturing and/or workmanship of the product.
- Engine starting batteries: The battery manufacturers' warranty applies. Consult your local battery supplier for warranty service.
- Fuel system and/or governing system adjustments performed during or after start-up.
- Normal maintenance items and consumable items such as belts, filters, fluids, and hoses.
- Adjustments and tune-ups performed during start-up or thereafter. Start-up, training, tuning, and adjustments for any paralleling or bi-fuel system.
- Loose connections (electrical and mechanical) before and after unit start-up. Including fittings, connectors, clamps and fasteners.
- Diesel engine "Wet Stacking" due to lightly loaded diesel engines. Regeneration issues, aftertreatment exhaust systems, including DEF related issues.
- All fluid level related items found before, during, or after unit start up.
- Use of steel enclosure within 25 miles of the coast.
- Requested rental generators used while warranty work is being performed.
- Charges, fees, and site delays due to a replacement components availability with the product manufacturer.
- Any labor charges deemed excessive by Blue Star Power Systems, Inc. factory or component manufacturer.
- Travel labor and mileage for mobile generator sets.
- Additional trips to the site due to a service vehicle was not stocked with normal service parts.
- Any special access fees, equipment, requirements or after hours scheduling to gain access to the equipment for warranty service purposes.
- Lodging expense associated with unit repair and excessive mileage charges (limit to 300 miles and 6 hours travel round trip from nearest service center).
- Shipping damage of any type. All equipment is shipped F.O.B. Blue Star Power Systems, Inc. and risk of loss transfers to the carrier once loaded for shipment. It is the responsibility of the receiving party to sign for the receipt of and note any shipping damage to the equipment. Freight damage claim filing is the responsibility of the receiving party. In the rare event that damage occurs resulting from shrink wrap during shipment, Blue Star Power Systems, Inc. will not warrant any damage to the unit.

This agreement is deemed made and executed in North Mankato, Nicollet County, Minnesota and shall be construed and interpreted in accordance with the laws of the state of Minnesota without giving effect to its conflicts of laws principals. Each of the parties submits to the exclusive personal jurisdiction and venue with respect to any action or proceeding arising out of, in connection with, relating to, or by reason of this agreement before the district court of the state of Minnesota, located in Nicollet County and agrees that all claims in respect of the action or proceeding may be heard and determined in any such court.

BLUE ST★R

Power Systems Inc.

Submittal

3/21/2024

Project Title Dundee LS- 60KW Generator
Quote Number: 0107630-2
Model: JD60-02



Mid Florida Diesel
Joe Antonini
2215 Hwy 60 East
Bartow FL 33830
Office: 863-519-0107
Cell: 863-944-0400
Email: joe@midfloridadiesel.com

BLUE STAR

Power Systems Inc.

Table of Contents

- Specification Sheet
- 4045TF280 85 HP
- 11 Industrial Alternators
- 14 MX321 Voltage Regulator
- 8 DGC-2020 Control Panel
- 44 Paint and Powder Coat
- 19 Enclosures
- 20 Sound Attenuation Foam
- 17 Radiators
- 22 Circuit Breakers
- 29 TPS Series Block Heaters
- 31 Single Stage Air Cleaner
- 33 CPJ Series Silencers
- 27 Industrial Batteries
- 23 BC1206A Series Battery Chargers
- 21 Sub-Base Fuel Tanks
- 47 Factory Load Test
- 2yr 2000hr limited warranty

BLUE STAR

Power Systems Inc.

Quote Date: 3/21/2024 11:30:01 AM
 Quote Number: 0107630-2
 Project Title: Dundee LS- 60KW Generator
 Prepared for: Mid Florida Diesel

Distributed by:

Unit Model	JD60-02	Standby / Prime	Emergency Stationary Standby
kWe Rating	60 kWe	UL 2200 Listed	Yes
Fuel	Diesel	CSA Approved	Yes
EPA	Tier 3	Paint Color	White

Engine Model: John Deere 4045TF280 60kW Standby Power Rating at 1800 RPM
Governor - Electronic Isochronous

Voltage: 480/277V 3 Phase 60 Hz 0.8 PF

Gen Model: Stamford UC1224G 12 Lead Wired 480V 3 Phase High Wye 80°C Rise Over 40°C Ambient

Voltage Regulator: Stamford MX321 Automatic Voltage Regulator with PMG Excitation

Control Panel: Blue Star DGC-2020 Microprocessor Based Gen-Set Controller
Mounted Facing Left from Generator End (Unless Specified Otherwise)
Standard Features: Low Oil Pressure, High Coolant Temp, Overspeed, Overcrank Shutdowns
Emergency Stop Pushbutton, Audible Alarm Buzzer with Silencing Switch
Optional Features Include: Generator Protection (Undervoltage, Overvoltage, Underfrequency, Overfrequency, Overcurrent), 15 Contact Outputs, RS-485 Communications

Control Panel Options: Low Water Level Sensor with Shutdown

Unit Color: White

Enclosure: Level 3 (Sound Attenuated Enclosure) Powder Coated .090 Aluminum
Rugged and Durable 200 MPH Wind Rated Enclosure with Exhaust Hood
Pitched Roof for increased Structural Integrity and Improved Watershed
Punched Intake with Baffle and Punched Exhaust Openings
Keyed Alike Lockable Doors with Draw Down Latches and Stainless Steel Component Hinges
Additional 1.5" Thick Polydamp Type D Acoustical Foam (PAF)
Formed Steel Base with Mounting and Lifting Holes
Includes Vibration Mounts to Isolate Unit from Base Rail

Sound Attenuation Foam: Sound Attenuation Installed in Enclosure and Exhaust Hood

Cooling: Unit Mounted Radiator (50°C Ambient)

Oil Drain Extension: Plumbed to Bulkhead Fitting in Base

Mainline Breaker: 90 Amp 3 Pole 480 Volt Breaker Mounted & Wired in a NEMA 1 Enclosure Adjustable Trip to 70amps

Jacket Water Heater: Engine Block Heater 1500W 120VAC Rated for -20°F
Heater Installed with Isolation Valves and Wired to Terminal

Air Cleaner: Dry Single Stage

Silencer: Critical Grade Compact (CPJ Series) Silencer Mounted to Engine

Battery: 12 Volt System with Rack and Cables

Battery Charger: 12 Volt 6 Amp Mounted and Wired to Terminal

Fuel Tank: 24 Hour / 120 Gallon UL 142 Listed Sub-Base Fuel Tank with Stub-up Area
Double Wall Construction with Secondary Containment Standard
Includes: Supply & Return Connections, Fuel Level Gauge, Fuel Leak Switch and Fill & Vent Plumbing

Factory Test: Standard Commercial Testing Includes:
Verification of Alarm Shutdowns, Voltage Settings, Block Loading to Rated kWe and PF

Owner's Manual: Print Copy (Qty 1) **Standard**

Warranty: 2 Year / 2000 Hour Limited

Notes: Coat 120 gallon tank with Extreme Liner
2 steps required. one for controller and one for breaker

**Additional Options
(Not Included in Price):**

ATS 1

Series	300	Volts	480/277V 3 PH
Service Entrance Rated	No	Poles	3
Amps	104	Enclosure	Nema 4X (316)

Warranty: Two (2) Year Basic ATS Limited Warranty Standard

Optional Accessories: 11BE Feature Bundle Includes Engine Exerciser/Event Log/RS-485 Enabled/Common Al

ATS Notes:

Lead Time:

BLUE STAR

Power Systems Inc.

Diesel Product Line

JD60-02

60 kWe

208-600 Volt

60 Hz / 1800 RPM

Standby

Ratings

	240V	208V	240V	480V	600V
Phase	1	3	3	3	3
PF	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Generator Model	UCI224G	UCI224F	UCI224F	UCI224E	UCI224E
Connection	12 LEAD DD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
kWe	60	60	60	60	60
AMPS	250	208	181	90	72
Temp Rise	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C

Standard Equipment

Engine

- Radiator Cooled Unit Mounted (50°C)
- Radiator Duct Flange (OPU Only)
- Blower Fan & Fan Drive
- Starter & Alternator
- Oil Pump & Filter
- Oil Drain Extension w/Valve
- Governor - Electronic Isochronous
- 12V Battery System & Cables
- Air Cleaner (Dry Single Stage)
- Critical Grade Silencer Mounted
- Flexible Fuel Connector
- EPA Certified Tier 3

Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 1% Voltage Regulation
- 4 Pole, Rotating Field
- 125°C Standby Temperature Rise
- 100% of Rated Load - One Step
- 5% Maximum Harmonic Content
- NEMA MG 1, IEEE and ANSI Standards Compliance for Temperature Rise

Additional

- Single Source Supplier
- UL 2200 & cUL Listed
- CSA Certified
- Seismic Certified to IBC 2021
- NFPA 110 / CSA C282 Compliant
- Microprocessor Based Digital Control Panel Mounted in NEMA 12 Enclosure
- Base - Formed Steel
- Main Line Circuit Breaker Mounted & Wired
- Battery Charger 12V 6 Amp
- Jacket Water Heater -20°F 1500W 120V w/Isolation Valves
- Vibration Isolation Mounts
- 2 Year / 2000 Hour Standby Warranty
- Standard Colors - White / Gray

Diesel Product Line

60 kWe



Application Data

Engine

Manufacturer:	John Deere	Displacement - Cu. In. (lit):	275 (4.50)
Model:	4045TF280	Bore - in. (cm) x Stroke - in. (cm):	4.19 (10.6) x 5.00 (12.7)
Type:	4-Cycle	Compression Ratio:	19.0:1
Aspiration:	Turbo Charged	Rated RPM:	1800
Cylinder Arrangement:	4 Cylinder Inline	Max HP Stby (kWm):	85.0 (63.4)

Exhaust System

Gas Temp. (Stack): °F (°C)	1,074 (579)
Gas Volume at Stack Temp: CFM (m ³ /min)	679 (19.2)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	30.0 (7.50)

Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	38.0 (144)
Heat Rejection to Coolant: BTUM (kW)	2,049 (35.9)
Heat Radiated to Ambient: BTUM (kW)	1,237 (21.6)

Air Requirements

Aspirating: CFM (m ³ /min)	187 (5.29)
Air Flow Required for Rad. Cooled Unit: CFM (m ³ /min)	4,760 (135)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m ³ /min)	Consult Factory For Remote Cooled Applications

Fuel Consumption

At 100% of Power Rating: gal/hr (lit/hr)	4.95 (18.7)
At 75% of Power Rating: gal/hr (lit/hr)	3.86 (14.6)
At 50% of Power Rating: gal/hr (lit/hr)	2.72 (10.3)

Fluids Capacity

Total Oil System: gal (lit)	3.88 (14.7)
Engine Jacket Water Capacity: gal (lit)	2.32 (8.50)
System Coolant Capacity: gal (lit)	5.40 (20.4)

Deration Factors: Rated Power is available up to 10,000 ft (3,048 m) at ambient temperatures to 122°F (50°C). Consult factory for site conditions above these parameters.

Diesel Product Line

60 kWe

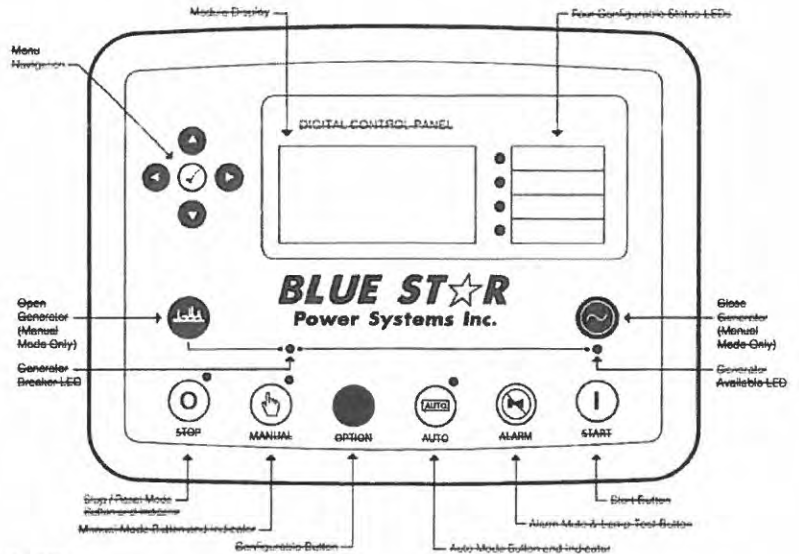


~~DGP7310 Control Panel~~

2020 Controller on following pages

Standard Features

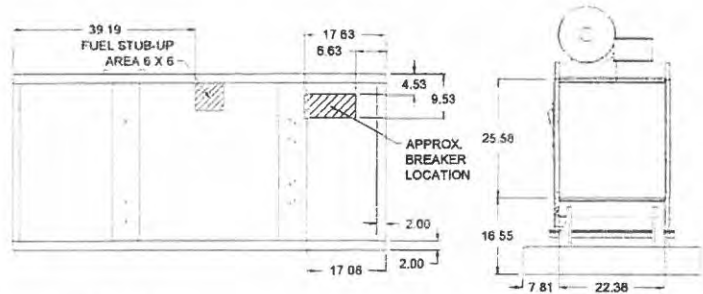
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator Interface
- eULus Listed, GE Approved
- Event Recording
- IP 65 rating (with supplied gasket) offers increased resistance to water ingress
- NFPA 110 Level 1 Compatible



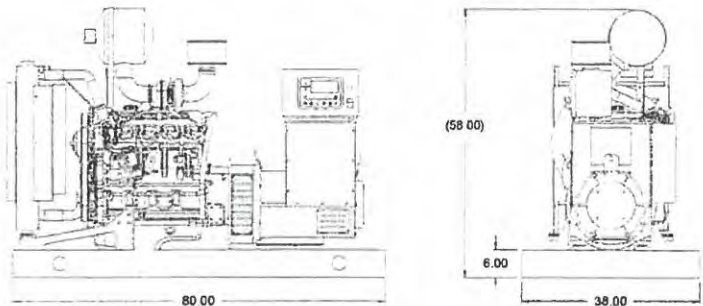
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	80 x 38 x 58 in	2,225
Level 1	90 x 38 x 60 in	2,725
Level 2	90 x 38 x 60 in	2,775
Level 3	120 x 38 x 60 in	2,925

Please allow 6-12 inches for height of exhaust stack.



	No Load	Full Load
OPU	73 dBA	77 dBA
Level 1	71 dBA	73 dBA
Level 2	68 dBA	70 dBA
Level 3	63 dBA	65 dBA

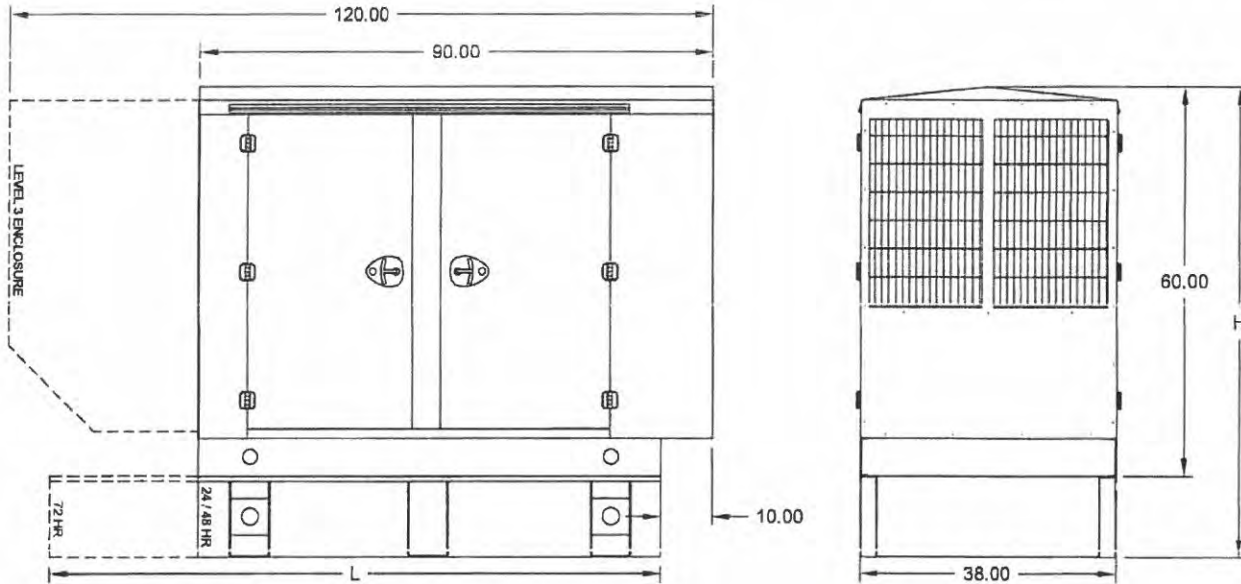


Diesel Product Line

60 kW_e



Enclosures & Fuel Tanks



- All enclosure models are 200 MPH wind rating certified in accordance with IBC2021 and ASCE/SEI 7-16 standards.
- Level 2 & 3 enclosures include sound attenuation foam
- Level 3 enclosure includes frontal sound & exhaust hood.
- Enclosure height does not include exhaust stack.

	24 Hour 120 Gallon	48 Hour 240 Gallon	72 Hour 360 Gallon
L	80.00	80.00	108.00
H	80.00	96.00	96.00

Notes

- All specification sheet dimensions are represented in inches.
- All drawings based on standard 480 volt standby generator. Lengths may vary with other voltages. All drawings and dimensions subject to change without notice.
- All enclosures and fuel tanks are based on the standard unit configuration. Any requested deviation can change dimensions.
- Sound data is measured at 23 feet (7 meters) in accordance with ISO 8528-10.
- All materials and specifications subject to change without notice.



Blue Star Power Systems, Inc.

2250 Carlson Drive
 North Mankato, Minnesota 56003
 Phone + 1 507 345 1776
bluestarps.com
quote.bluestarps.com
sales@bluestarps.com



JOHN DEERE

ENGINE PERFORMANCE CURVE

Rating: Gross Power
 Application: Generator (60 Hz)
 Target: 55 kWe Standby Market

PowerTech M™ 4.5L Engine
 Model: 4045TF280

76 hp (57 kW) Prime
85 hp (63 kW) Standby

[See Option Code Tables]

Nominal Engine Power @ 1800 RPM			
Prime		Standby	
HP	KW	HP	KW
76	57	85	63

Generator Efficiency %	Fan Power (3% of Standby)		Power Factor	Prime Rating ²		Standby Rating ^{1,2}		ISO 8528 G2 Block Load Capability
	hp	kW		kWe	kVA	kWe	kVA	
88-92	2.5	1.9	0.8	48-51	60-64	54-56	68-70	NA

Note 1: Based on nominal engine power.
 Note 2: kWe / kVA rating assumes 90% efficiency. *Generator Efficiency %* will vary

STANDARD CONDITIONS

Air Intake Restriction 12 in.H₂O (3 kPa)
 Exhaust Back Pressure 30 in.H₂O (7.5 kPa)

Gross power guaranteed within + or - 5% at SAE J1995 and ISO 3046 conditions:

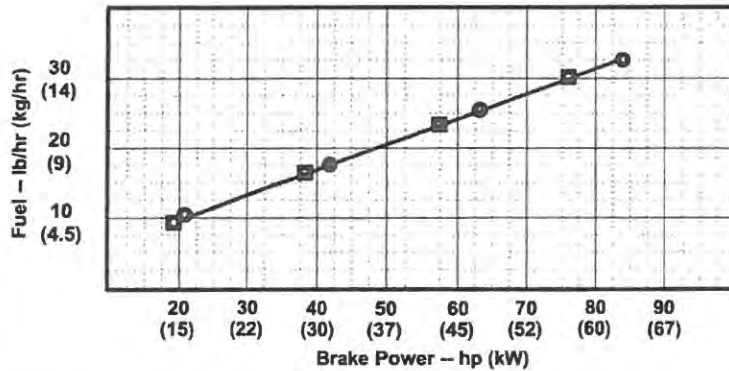
- 77 °F (25 °C) air inlet temperature
- 29.31 in.Hg (99 kPa) barometer
- 104 °F (40 °C) fuel inlet temperature
- 0.853 fuel specific gravity @ 60 °F (15.5 °C)

Conversion factors:

- Power: kW = hp x 0.746
- Fuel: 1 gal = 7.1 lb, 1 L = 0.85 kg
- Torque: N·m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.

■ - PRIME ● - STANDBY



Notes:

All OEM Gen Set Engine Applications must be pre-screened for torsional vibration compatibility with the respective alternator end hardware.

OEM Engine Application Engineering will perform this computer-based analysis work upon request.

Tier-3 Emission Certifications: Certified by:

CARB; EPA
 Ref: Engine Emission Label *Vincent Pralle* 08-24-07

* Revised Data
 Curve 4045TF280180085..... Sheet 1 of 2
 August 2007

Engine Installation Criteria

General Data

Model	4045TF280
Number of Cylinders	4
Bore and Stroke-in. (mm)	4.19 x 5.00 (106 x 127)
Displacement-in. ³ (L)	275 (4.6)
Compression Ratio	19.0 : 1
Valves per Cylinder-Intake/Exhaust	1 / 1
Firing Order	1-3-4-2
Combustion System	Direct Injection
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged
Engine Crankcase Vent System	Open

Physical Data

Length-in. (mm)	33.9 (860)
Width-in. (mm)	24.1 (612)
Height-in. (mm)	39.1 (994)
Weight, with oil-lb (kg)	872 (398)
(Includes flywheel hsg., flywheel & electrics)	
Center of Gravity Location (Estimated based on Tier 2)	
From Rear Face of Block (X-axis)-in. (mm)	10.6 (269)
Right of Crankshaft (Y-axis)-in. (mm)	-0.3 (-3)
Above Crankshaft (Z-axis)-in. (mm)	5.9 (151)
Max. Allow. Static Bending Moment at Rear	
Face of Flywhl Hsg w/ 5-G Load-lb-ft (N·m)	600 (814)
Thrust Bearing Load Limit-lb (N)	Forward Rearward
Intermittent	900 (4003) 450 (2000)
Continuous	500 (2224) 225 (1000)
Max. Front of Crank. Torsional Vibration-DDA	0.25

Air System

Max. Allowable Temp Rise-Ambient Air to	
Engine Inlet-°F (°C)	15 (8)
Maximum Air Intake Restriction	
Dirty Air Cleaner-in.H ₂ O (kPa)	25 (6.25)
Clean Air Cleaner-in.H ₂ O (kPa)	12 (3)
Engine Air Flow-ft ³ /min (m ³ /min)	180 (5.1) 187 (5.3)
Intake Manifold Pressure-psi (kPa)	9 (63) 10 (72)
Air Cleaner Efficiency-%	99.9

Cooling System

	Prime	Standby
Engine Heat Reject-BTU/min (kW)	1878(33)	2049(36)
Coolant Flow-gal/min (L/min)	38 (144)	38 (144)
Thermostat Start to Open-°F (°C)	180 (82)	180 (82)
Thermostat Fully Open-°F (°C)	202 (94)	202 (94)
Engine Coolant Capacity-qt (L)	9 (8.5)*	9 (8.5)*
Min. Pressure Cap-psi (kPa)	14.6 (100)	14.6 (100)
Max. Top Tank Temp-°F (°C)	230 (110)	230 (110)
Min. Coolant Fill Rate-gal/min (L/min)	3 (11)	3 (11)
Min. Air-to-Boll Temperature-°F (°C)	117 (47)	117 (47)
Min. Pump Inlet Pressure-psi (kPa)	4.4 (30)	4.4 (30)

Electrical System

	12 Volt	24 Volt
Min. Battery Capacity (CCA)-amp	640	570
Max. Allow. Start. Circ't Resist.-Ohm	0.0012	0.002
Starter Rolling Current:		
At 32 °F (0 °C)-amp	760	600
At 22 °F (-30 °C)-amp	1000	700
Maximum Voltage From Engine Crankshaft/		
Generator Shaft to Ground-VAC*	0.15	0.15

Exhaust System

	Prime	Standby
Exhaust Flow-ft ³ /min (m ³ /min)	645 (18.3)	679(19.2)
Exhaust Temperature-°F (°C)	1024(551)	1074 (579)
Max. Exhaust Restriction-in. H ₂ O (kPa)	30 (7.5)	30 (7.5)
Min. Exhaust Restriction-in. H ₂ O (kPa)	None	None
Max. Bend. Moment, Turbo Out.-lb-ft (N·m)	5.2 (7.0)	5.2 (7.0)
Max. Shear on Turbo Outlet-lb (kg)	24 (11)	24 (11)

Fuel System

	Prime	Standby
Fuel Injection Pump	Stanadyne DB4	Stanadyne DB4
Governor Type	Mechanical	Mechanical
Total Fuel Flow-lb/hr (kg/hr)	106(48.0)	117(53.0)
Fuel Consumption-lb/hr (kg/hr)	45(20)	49 (22)
Max. Fuel Inlet Temp.-°F (°C)	176 (80)	176 (80)
Max. Fuel Inlet Restriction-in. H ₂ O (kPa)	80 (20)	80 (20)
Max. Fuel Return Pressure-in. H ₂ O (kPa)	80(20)	80(20)

Lubrication System

	Prime	Standby
Oil Press. at Rated Speed-psi (kPa)	46(320)	46(320)
Min. Oil Pressure-psi (kPa)	15 (105)	15 (105)
Max. Oil Carryover in Blow-by-lb/hr (g/hr)	0.002 (1.0)	0.002 (1.0)
Max. Airflow in Blow-by-gal/min (l/min)	26 (100)	26 (100)
Max. Crankcase Pressure-in. H ₂ O (kPa)	2 (0.5)	2 (0.5)

Performance Data

	Prime	Standby
Rated Power-hp (kW)	76 (57)	85 (63)
Rated Speed-rpm	1800	1800
Low Idle Speed-rpm	1150	1150
Rated Torque-lb-ft (N·m)	409 (302)	453 (334)
BMEP-psi (kPa)	230 (1569)	254 (1748)
Friction Power		
@ Rated Speed-hp (kW)	17 (13)	17 (13)
Altitude Capability-ft (m)	10,000(3050)	10,000(3050)
Ratio-Air : Fuel	25.2 : 1	24 : 1
Smoke @ Rated Speed-Bosch No.	1.7	1.9
Noise-dB(A) @ 1 m	86.3*	86.6*

Fuel Consumption -- lb/hr (kg/hr)

	Prime	Standby
25 % Power	9.2 (4.2)	10.3 (4.7)
50 % Power	16.7 (7.6)	17.6 (8.0)
75 % Power	23.3 (10.6)	25.3 (11.5)
100 % Power	29.9 (13.6)	32.6 (14.8)

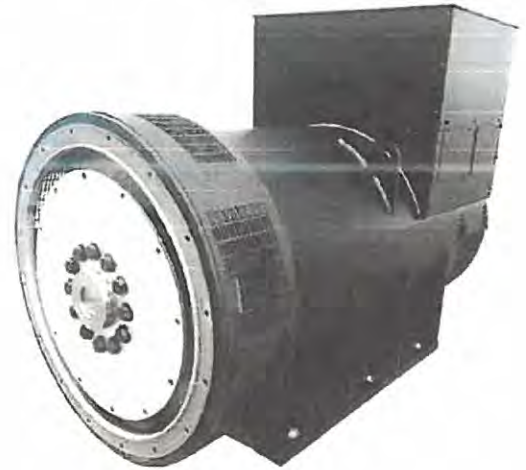
All values at rated speed and power with standard options unless otherwise noted.

* Revised Data

Curve 4045TF280180085 Sheet 2 of 2
August 2007

Industrial Alternators

Blue Star Power Systems, Inc. utilizes the highest quality alternators available. Our industrial alternators provide consistent performance, quality design, and great durability required for long life and versatility. Alternators used by Blue Star Power Systems, Inc. are UL and CSA Listed, which guarantees that each one meets the rigorous demands of industrial power generation and will provide safe and effective service for the life of the alternator. Blue Star Power Systems, Inc. alternators range from 20 kWe through 2000 kWe.



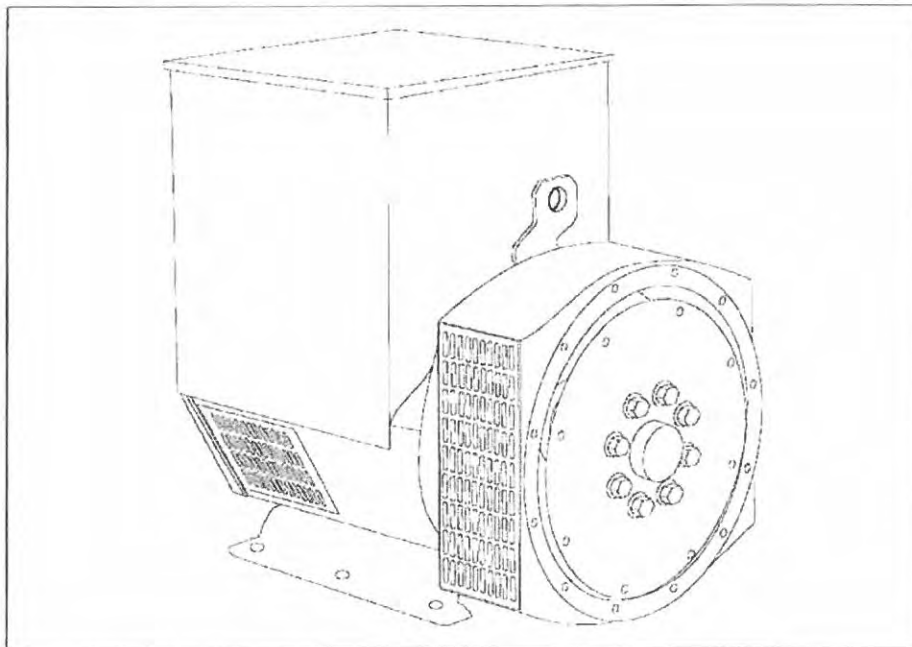
Standard Features

- **Enhanced Ventilation**
Created by a high-efficiency fan that optimizes internal airflow patterns, maximizes heat transfer, and minimizes hot spot differentials for extended winding life.
- **Fully Guarded**
For operator safety and alternator protection. No rotating or electrically energized parts are exposed. All openings are covered by louvers or screens.
- **Large Conduit Box**
Provides ample space for easy connections and allows load line access from all sides, top, or bottom.
- **Design Specs and Agency Approvals**
All Blue Star Power Systems, Inc. alternators are UL and CSA Listed (unless specified otherwise) and meet NEMA MG1-32, BS5000, CSA C22.2, IEC 34 and VDE 0530 requirements.
- **Class H Insulation System**
Utilizes an unsaturated polyester varnish for optimal insulation life and superior moisture protection.
- **Optimized Windings**
Provide low reactances and exceptional motor starting capability. The stator windings utilize a 2/3 pitch to minimize harmonic distortion and facilitate parallel operation.
- **Permanent Magnet Generator (optional)**
Ensures 300% short circuit current during fault conditions and provides the regulator with input power isolated from load distortion.
- **Heavy-Duty Bearing**
Resists contamination and gives a life expectancy up to 40,000 hours.
- **Automatic Voltage Regulator**
Provides accurate 1% regulation, under-speed protection, stability adjustment to optimize transient performance, and EMI filtering to commercial standards. Fully encapsulated for rugged durability in virtually any environment.

STAMFORD™

UCI224G - Winding 311

Technical Data Sheet



SPECIFICATIONS & OPTIONS

STANDARDS

Stamford industrial generators meet the requirements of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

Other standards and certifications can be considered on request.

VOLTAGE REGULATORS

SX460 AVR - STANDARD

With this self excited control system the main stator supplies power via the Automatic Voltage Regulator (AVR) to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier. This rectifier is protected by a surge suppressor against surges caused, for example, by short circuit.

AS440 AVR

With this self-excited system the main stator provides power via the AVR to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three-phase full-wave bridge rectifier. The rectifier is protected by a surge suppressor against surges caused, for example, by short circuit or out-of-phase paralleling.

The AS440 will support a range of electronic accessories, including a 'droop' Current Transformer (CT) to permit parallel operation with other ac generators.

MX341 AVR

This sophisticated AVR is incorporated into the Stamford Permanent Magnet Generator (PMG) control system.

The PMG provides power via the AVR to the main exciter, giving a source of constant excitation power independent of generator output. The main exciter output is then fed to the main rotor, through a full wave bridge, protected by a surge suppressor. The AVR has in-built protection against sustained over-excitation, caused by internal or external faults. This de-excites the machine after a minimum of 5 seconds.

An engine relief load acceptance feature can enable full load to be applied to the generator in a single step.

If three-phase sensing is required with the PMG system the MX321 AVR must be used.

We recommend three-phase sensing for applications with greatly unbalanced or highly non-linear loads.

MX321 AVR

The most sophisticated of all our AVRs combines all the features of the MX341 with, additionally, three-phase rms sensing, for improved regulation and performance.

Over voltage protection is built-in and short circuit current level adjustments is an optional facility.

WINDINGS & ELECTRICAL PERFORMANCE

All generator stators are wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A fully connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

TERMINALS & TERMINAL BOX

Standard generators are 3-phase reconnectable with 12 ends brought out to the terminals, which are mounted on a cover at the non-drive end of the generator. A sheet steel terminal box contains the AVR and provides ample space for the customers' wiring and gland arrangements. It has removable panels for easy access.

SHAFT & KEYS

All generator rotors are dynamically balanced to better than BS6861:Part 1 Grade 2.5 for minimum vibration in operation.

INSULATION/IMPREGNATION

The insulation system is class 'H'.

All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

QUALITY ASSURANCE

Generators are manufactured using production procedures having a quality assurance level to BS EN ISO 9001.

The stated voltage regulation may not be maintained in the presence of certain radio transmitted signals. Any change in performance will fall within the limits of Criteria 'B' of EN 61000-6-2:2001. At no time will the steady-state voltage regulation exceed 2%.

DE RATES

All values tabulated on page 8 are subject to the following reductions

5% when air inlet filters are fitted.

3% for every 500 metres by which the operating altitude exceeds 1000 metres above mean sea level.

3% for every 5°C by which the operational ambient temperature exceeds 40°C.

Note: Requirement for operating in an ambient exceeding 60°C must be referred to the factory.

NB Continuous development of our products entitles us to change specification details without notice, therefore they must not be regarded as binding.

Front cover drawing typical of product range.

UCI224G

STAMFORD

WINDING 311

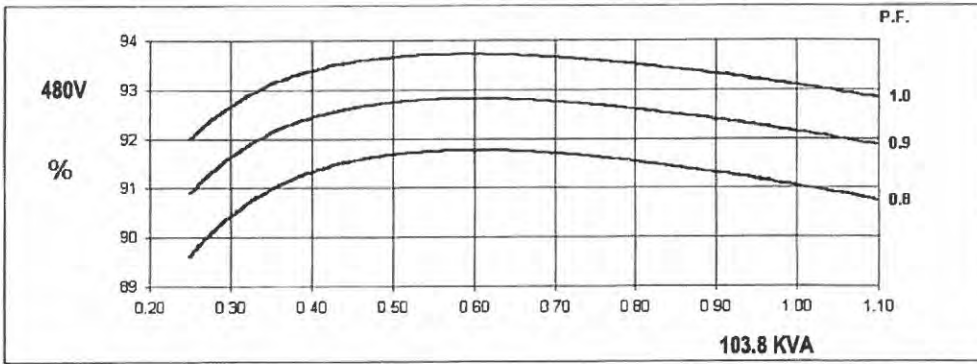
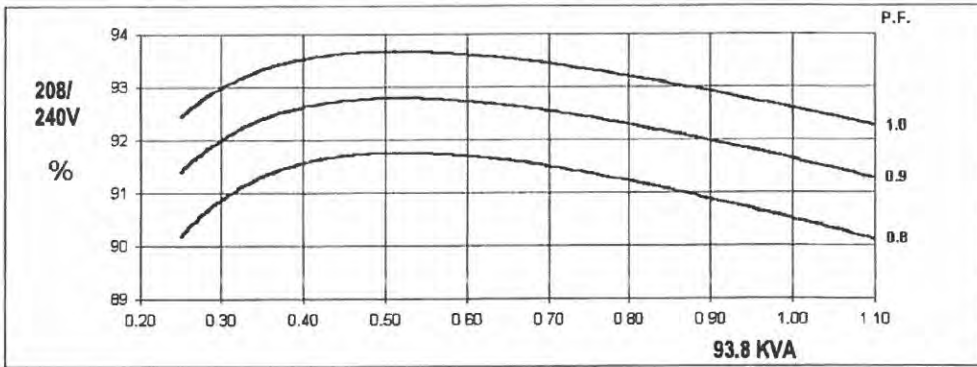
CONTROL SYSTEM	SEPARATELY EXCITED BY P.M.G.							
A.V.R.	MX321	MX341						
VOLTAGE REGULATION	± 0.5 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES (page 7)							
CONTROL SYSTEM	SELF EXCITED							
A.V.R.	SX460	AS440						
VOLTAGE REGULATION	± 1.0 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT	SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT							
INSULATION SYSTEM	CLASS H							
PROTECTION	IP23							
RATED POWER FACTOR	0.8							
STATOR WINDING	DOUBLE LAYER CONCENTRIC							
WINDING PITCH	TWO THIRDS							
WINDING LEADS	12							
STATOR WDG. RESISTANCE	0.055 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED							
ROTOR WDG. RESISTANCE	0.94 Ohms at 22°C							
EXCITER STATOR RESISTANCE	20 Ohms at 22°C							
EXCITER ROTOR RESISTANCE	0.078 Ohms PER PHASE AT 22°C							
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4,VDE 0875G, VDE 0875N. refer to factory for others							
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%							
MAXIMUM OVERSPEED	2250 Rev/Min							
BEARING DRIVE END	BALL. 6312-2RS (ISO)							
BEARING NON-DRIVE END	BALL. 6309-2RS (ISO)							
	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	383 kg				400 kg			
WEIGHT WOUND STATOR	139 kg				139 kg			
WEIGHT WOUND ROTOR	126.75 kg				118.38 kg			
WR ² INERTIA	0.7136 kgm ²				0.6818 kgm ²			
SHIPPING WEIGHTS in a crate	404 kg				420 kg			
PACKING CRATE SIZE	105 x 57 x 98(cm)				105 x 57 x 98(cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF<2%				TIF<50			
COOLING AIR	0.216 m ³ /sec 458 cfm				0.281 m ³ /sec 595 cfm			
VOLTAGE SERIES STAR	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	85	85	85	75	93.8	97.5	100	103.8
X _d DIR. AXIS SYNCHRONOUS	2.43	2.20	2.04	1.60	2.66	2.47	2.32	2.21
X' _d DIR. AXIS TRANSIENT	0.19	0.17	0.16	0.13	0.20	0.19	0.17	0.17
X'' _d DIR. AXIS SUBTRANSIENT	0.13	0.12	0.11	0.09	0.14	0.13	0.12	0.12
X _q QUAD. AXIS REACTANCE	1.12	1.01	0.94	0.74	1.22	1.13	1.06	1.01
X'' _q QUAD. AXIS SUBTRANSIENT	0.17	0.15	0.14	0.11	0.15	0.14	0.13	0.12
X _L LEAKAGE REACTANCE	0.07	0.06	0.06	0.05	0.08	0.07	0.07	0.07
X ₂ NEGATIVE SEQUENCE	0.16	0.14	0.13	0.10	0.15	0.14	0.13	0.12
X ₀ ZERO SEQUENCE	0.11	0.10	0.09	0.07	0.11	0.10	0.10	0.09
REACTANCES ARE SATURATED				VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED				
T' _d TRANSIENT TIME CONST.	0.03 s							
T'' _d SUB-TRANSTIME CONST.	0.008 s							
T' _{do} O.C. FIELD TIME CONST.	0.75 s							
T _a ARMATURE TIME CONST.	0.007 s							
SHORT CIRCUIT RATIO	1/X _d							

**60
Hz**

UCI224G
Winding 311

STAMFORD

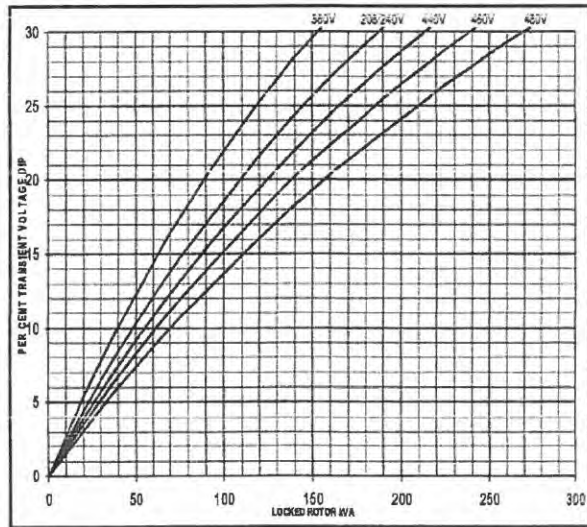
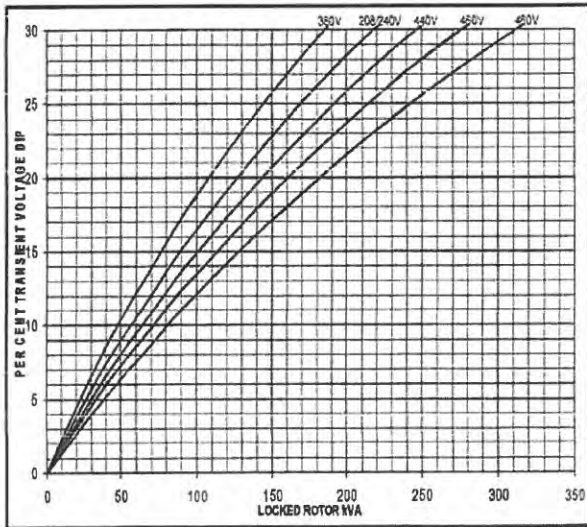
THREE PHASE EFFICIENCY CURVES



MX

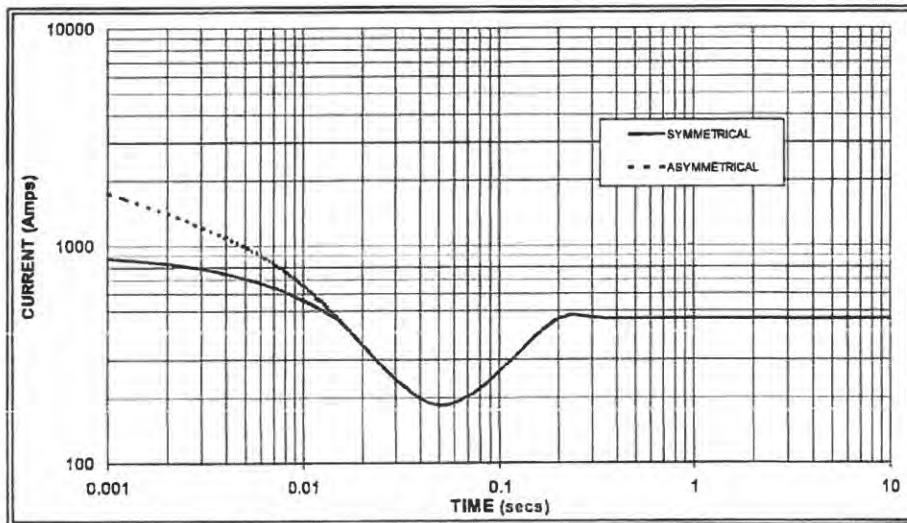
**60
Hz**

SX



**Three-phase Short Circuit Decrement Curve. No-load Excitation at Rated Speed
Based on star (wye) connection.**

**60
Hz**



Sustained Short Circuit = 460 Amps

Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

50Hz		60Hz	
Voltage	Factor	Voltage	Factor
380v	X 1.00	416v	X 1.00
400v	X 1.07	440v	X 1.06
415v	X 1.12	460v	X 1.12
440v	X 1.18	480v	X 1.17

The sustained current value is constant irrespective of voltage level

Note 2

The following multiplication factor should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3-phase	2-phase L-L	1-phase L-N
Instantaneous	x 1.00	x 0.87	x 1.30
Minimum	x 1.00	x 1.80	x 3.20
Sustained	x 1.00	x 1.50	x 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged

Note 3

Curves are drawn for Star (Wye) connected machines. For other connection the following multipliers should be applied to current values as shown :

Parallel Star = Curve current value X 2

Series Delta = Curve current value X 1.732

RATINGS

Class - Temp Rise	Cont. F - 105/40°C				Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C				
	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480	
60 Hz	Series Star (V)	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480
	Parallel Star (V)	208	220	230	240	208	220	230	240	208	220	230	240	208	220	230	240
	Delta (V)	240	254	266	277	240	254	266	277	240	254	266	277	240	254	266	277
kVA	87.5	90.0	93.8	95.0	93.8	97.5	100.0	103.8	98.1	102.5	102.5	110.0	101.3	106.3	106.3	113.8	
kW	70.0	72.0	75.0	76.0	75.0	78.0	80.0	83.0	78.5	82.0	82.0	88.0	81.0	85.0	85.0	91.0	
Efficiency (%)	90.8	91.0	91.1	91.3	90.5	90.8	90.9	91.0	90.3	90.6	90.9	90.9	90.2	90.4	90.7	90.8	
kW Input	77.1	79.1	82.4	83.2	82.9	85.9	88.0	91.3	86.9	90.5	90.2	96.8	89.8	94.1	93.8	100.3	

MX321 Voltage Regulator

BLUE STAR
Power Systems Inc.

MX321 is a three phase sensed Automatic Voltage Regulator and forms part of the excitation system for a brush-less generator. Excitation power is derived from a three-phase permanent magnet generator (PMG), to isolate the AVR control circuits from the effects of nonlinear loads and to reduce radio frequency interference on the generator terminals. Sustained generator short circuit current is another feature of the PMG system.

Voltage Adjustment

The screwdriver adjustable potentiometer adjusts the generator output voltage. Adjustment clockwise increases the generator output voltage.

When using a remote voltage adjust rheostat, remove the jumper wire across terminals 1 and 2 and install a 1k ohm 1 watt rheostat. This will give $\pm 10\%$ voltage variation from the nominal.

Stability Adjustment

The AVR includes a stability or damping circuit to provide good steady state and transient performance of the generator.

A jumper link selector is provided to optimize the response of the stability circuit to various size generators. The link should be positioned as shown in the diagram according to the kW rating of the generator.

The correct setting of the Stability adjustment can be found by running the generator at no load and slowly turning the stability control anti-clockwise until the generator voltage starts to become unstable.

The optimum or critically damped position is slightly clockwise from this point (i.e. where the machine volts are stable but close to the unstable region).

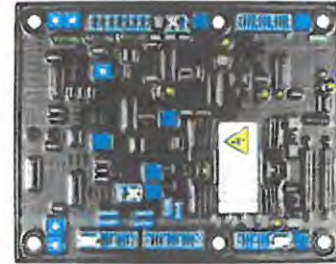
Under Frequency Roll Off (UFRO) Adjustment

The AVR incorporates an underspeed protection circuit which gives a volts/Hz characteristic when the generator speed falls below a presettable threshold known as the "knee" point.

The red Light Emitting Diode (LED) gives indication that the UFRO circuit is operating.

The UFRO adjustment is preset and sealed and only requires the selection of 50 or 60Hz and 4 pole or 6 pole, using the jumper link as shown in the diagram.

For optimum setting, the LED should illuminate as the frequency falls just below nominal, i.e. 47Hz on a 50Hz system or 57Hz on a 60Hz system.



Specifications

Sensing Input

Voltage	190 to 264VAC max, 1 or 3 phase
Frequency	50 to 60 Hz Nominal

Power Input (PMG)

Voltage	170 to 220VAC, 3 phase
Current	3A
Frequency	100 to 120 Hz Nominal

Output

Voltage	max 120VDC
Current	Continuous 3.7A Intermittent 6A for 10 secs
Resistance	15 ohms Minimum

Regulation $\pm 0.5\%$ RMS

Thermal Drift 0.02% per 1°C change in AVR ambient

Soft Start Ramp Time 0.4 - 4 seconds

Typical System Response

AVR Response	10 ms
Field Current to 90%	80 ms
Machine Volts to 97%	300 ms

External Voltage Adjustment $\pm 10\%$ with 1k ohm 1 watt trimmer

Under Frequency Protection

Set Point	95% Hz
Slope	100 to 300% down to 30 Hz
Max. Dwell	20% volts/S Recovery

Unit Power Dissipation 18 watts Maximum

Analog Input

Maximum Input	$\pm 5\text{VDC}$
Sensitivity	1V for 5% Generator Volts (Adjustable)
Input Resistance	1k ohm

Quadrature Droop Input 10 ohms Burden

Max. Sensitivity	0.22A for 5% Droop 0PF
Max. Input:	0.33A

Current Limit Input 10 ohms burden

Sensitivity Range 0.5 to 1A

Over Voltage Detection Input 10 ohms Burden

Set Point	300V Time Delay: 1 sec (Fixed)
CB Trip Coil Volts	10 to 30VDC
CB Trip Coil Resistance	20 to 60 ohms
Time Delay	1 second (Fixed)

Over Excitation Protection

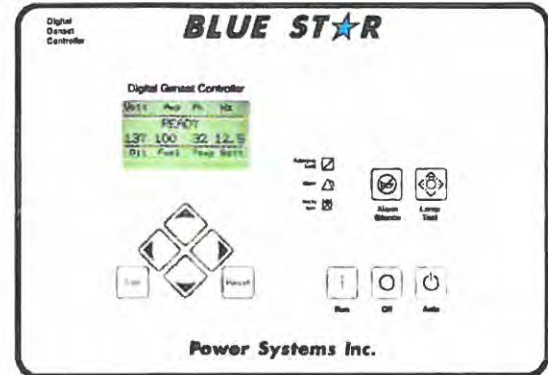
Set Point	75VDC
Time Delay	8 to 15 seconds (Fixed)

DGC-2020 Control Panel

Blue Star Power Systems, Inc. Digital Generator Set Control Panel (DGC-2020) is a highly advanced integrated generator set control system. The DGC-2020 is perfectly focused, combining rugged construction and microprocessor technology to offer a product that will hold up to almost any environment and flexible enough to meet your application's needs. This device provides generator set control, transfer switch control, metering, protection and programmable logic in a simple, easy to use, reliable, rugged, and cost effective package.

Highlights

- UL Recognized, CSA & CE approved
- Microprocessor based
- Complete system metering
- Remote communication options
- Rugged encapsulated construction



Standard Features

- Generator Metering
- Engine Metering
- Generator Set Control
- Engine Protection:
 - Oil Pressure
 - Engine Temperature
 - Overspeed
 - Overcrank
- BESTCOMS Plus:
 - Programming and Setup Software
 - Intuitive and Powerful
 - Remote Control and Monitoring
 - Programmable Logic
 - USB Communications
- SAE J1939 Engine ECU Communications (Where Applicable)
- Extremely Rugged, Fully Encapsulated Design
- 16 Programmable Inputs
- 7 Contact Outputs: (3) 30ADC and (4) Programmable 2ADC Rated Contacts
- Wide Ambient Temperature Range
- UL Recognized, CSA Certified, CE Approved
- HALT (Highly Accelerated Life Test) Tested
- IP54 Front Panel Rating with Integrated Gasket
- NFPA110 Level One Compliant
- Real Time Clock with Battery Backup and Event Log
- Emergency Stop Pushbutton
- Current Sensing: 5A CT inputs
- Generator Frequency: 50/60 Hz
- LCD Display Heater to -40°F
- Event Recording (up to 99 occurrences)

Standard Gen-Set Monitoring

- Generator parameters: voltage, current, frequency, real power (Watts), apparent power (VA), and power factor
- Engine parameters: oil pressure, coolant temperature, RPM, battery voltage, fuel level, engine runtime, and various J1939 supported parameters where applicable

Standard Engine Control Functions

Cranking Control

- Cyclic or Continuous (Fully Programmable)

Successful Start Counter

- Counts and Records Successful Engine Starts

Timers

- Engine Cooldown Timer (Specify)
- Engine Maintenance Interval Timer (Specify)
- Pre-Alarm Time Delays for Weak/Low

Battery Voltage

- Alarm Time Delay for Overspeed

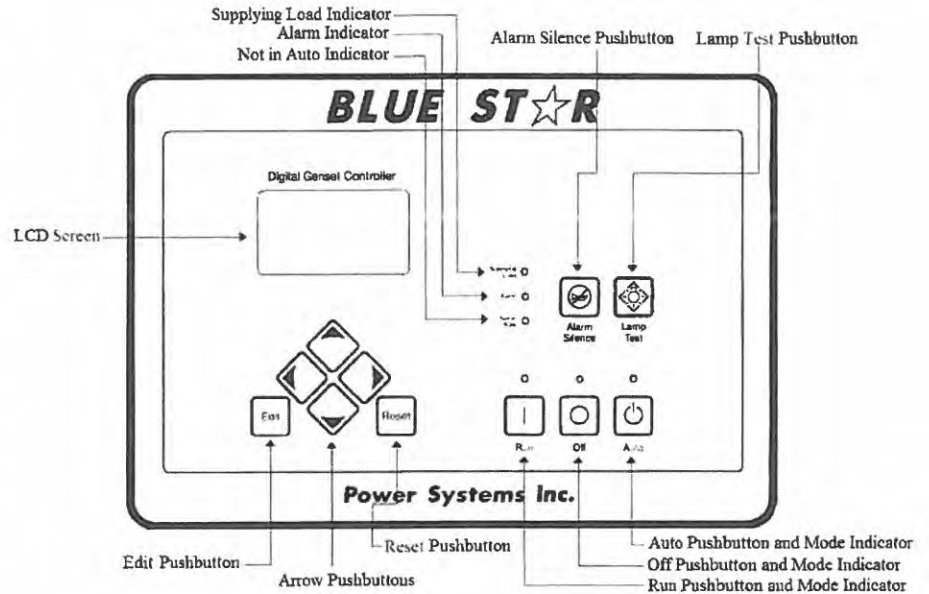
- Alarm Time Delay for Sender Failure
- Arming Time Delays After Crank Disconnect:
 - Low Oil Pressure
 - High Coolant Temperature
 - Pre-Crank Delay
- Continuous/Cyclic Cranking Timing Sequence

DGC-2020 Control Panel



Front Panel LED Indicators:

- Run: Green – Indicates controller is in the RUN mode
- Off: Red – Indicates controller is in the OFF mode
- Auto: Green – Indicates unit is in the AUTO mode
- Not in Auto: Red – Indicates DGC-2020 is not in AUTO mode
- Supplying Load: Green – Indicates system is supplying current to a connected load
- Alarm: Red – Indicates an alarm situation by continuous illumination
A pre-alarm will flash



Standard Engine Protection Functions

Pre-Alarms (Warnings)

- Low Oil Pressure
- High Coolant Temperature
- Low Coolant Temperature
- Battery Overcharge (High Voltage)
- Weak Battery (Low Voltage)
- All alarms and pre-alarms can be configured via the BESTCOMPlus PC software or the front panel.

- Battery Charger Failure
- Engine Sender Unit Failure
- Engine kWe Overload
- Maintenance Interval Timer
- Low Fuel Level
- Fuel Leak Detect

Alarms (Shutdowns)

- Low Oil Pressure
- High Coolant Temperature
- Overspeed
- Overcrank
- Fuel Sender Failure

Optional Features

- Generator Protection 27(2), 32, 40Q, 51(2), 59(2), 81O, 81U
- Enhanced Generator Protection - 51 and 47
- Selection of Integrating Reset or Instantaneous Reset Characteristics for Overcurrent Protection
- Remote Communication to RDP-110 / NFPA-110 Compliant Remote Annunciator
- Additional (8) Programmable 2ADC Contacts
- Remote Dial-out and Dial-in Capability with Modem
- Modbus Communications with RS-485
- Expandable I/O Capability via J1939 CANBUS
- Automatic Transfer Switch Control
- Remote Emergency Stop
- Multilingual Capability
- High Fuel Level Pre-Alarm
- Critical Low Fuel Level Alarm
- Analog Meters

Generator Protection

- Undervoltage (27)
- Underfrequency (81U)
- Overcurrent (51)
- Reverse Power (32)
- Phase Imbalance (47)
- Overvoltage (59)
- Overfrequency (81O)
- Phase Imbalance (57)
- Loss of Excitation (400)
- Generator Overcurrent (51)

All generator protection features are programmable as alarms or pre-alarms.

DGC-2020 Control Panel

Contact Outputs

For those applications where more output contacts are needed, the DGC-2020 can be adapted to include 8 additional 2ADC rated dry contact outputs. These are real contacts and not the solid-state type that require additional external circuitry to properly operate. These contacts are fully programmable via the easy-to-use BESTCOMSPPlus PC software and can be assigned to numerous user-defined functions.

DC Voltage Panel Mounted Modem

The DGC-2020 can provide long distance communication by adding a modem. When a modem is used, the user can access the DGC-2020 from virtually anywhere via a dedicated telephone line. The user can monitor and control the gen-set as if standing right in front of it. The DGC-2020 can also dial out for pre-programmed circumstances to alert the user of selected situations.

RS-485 Communication

When the RS-485 option is selected, the user can send and receive information from the DGC-2020 via the RS-485 communications port and Modbus protocol. This feature allows the DGC-2020 to be fully integrated into the building management system. Please see the instruction manual for the Modbus register list.

Enhanced Generator Protection

In addition to the standard generator protection (27, 59, 81O, 81U) the DGC-2020 can be equipped with a more sophisticated generator protection system. This option provides an overcurrent element (51) with 17 selectable time current characteristic curves and a voltage phase balance protection function.

Transfer Switch Control (Mains Failure)

The DGC-2020 monitors utility (mains) and determines if it is providing power that is suitable for the loads. If the utility supply goes outside of predetermined levels, the generator is started and the utility is disconnected from the load and the generator is connected. When the utility returns to acceptable levels for a sufficient time, the generator is disconnected and the utility is reconnected to the load. It also includes appropriate adjustable timers or time delays for establishing stable utility operation.

Contact Expansion Module (CEM)

The CEM add-on module increases the contact input and contact output capability adding 10 contact inputs and 24 form C contact outputs. This module communicates to the DGC-2020 via SAE J1939 CANBUS and allows the user to program the functionality of these inputs and outputs in the BESTCOMS programmable logic program. The user can add labels for the inputs and outputs that appear on BESTCOMS front panel, and in the programmable logic. All the functionality can be assigned to these inputs and outputs as if they were an integrated part of the DGC-2020. The CEM-2020 module has all of the environmental ratings, like the DGC-2020, including a model for UL Class1 Div2 applications (consult price list for part number). The output ratings of the form C contacts are: (12 contacts) 10A @ 30VDC and (12 contacts) 2A @ 30VDC. The 2A rated contacts are gold flash contacts for low current circuits. The CEM-2020 terminals accept a maximum wire size of 12 AWG while the chassis ground requires 12 AWG wire. The CEM-2020 provides the user with the flexibility to use the same model DGC-2020 gen-set controller for simple applications or more complicated applications that require contact functionality or duplication of contacts for remote annunciation. Flexibility is one of the benefits of the DGC-2020, and this add-on module enhances that benefit even further.

ModBus TCP/RTU (NetBiter RTU-TCP Gateway)

NetBiter® RTU-TCP Gateway connects the fully enhanced DGC-2020 with Ethernet and mobile networks. The gateway acts as a transparent bridge translating DGC-2020 Modbus registers allowing control systems, such as PLCs, SCADA, etc. to communicate over Ethernet. One gateway is required per generator allowing multiple generator sets to be accessed and monitored simultaneously. Note: This option does not interface with BESTCOMSPPlus software. Features include: connectivity between serial Modbus devices and the Modbus TCP; RS-232, RS-485 and RS-422 connectivity; Ethernet and mobile network connectivity; 10/100 Mbit/s Ethernet; web-based configuration; DIN rail mounting; and network and serial status indicators.

Load Share Module 2020 (LSM-2020)

The LSM is an easy to connect and use add-on module for the DGC-2020 to allow the DGC-2020 to control the kW load sharing of multiple generator sets. The LSM-2020 is remotely mounted and communicates to the DGC-2020 via J1939 CANbus communications.

Paint & Powder Coat

Generator Set

Blue Star Power Systems, Inc. completely paints all of its generator sets in our state-of-the-art downdraft paint booth. It begins with an extensive cleaning of the unit through sanding and a full wipe down using an alkaline-based cleaner. Once completely clean, the unit is then painted with Cardinal Industrial Semigloss paint. Electrostatic paint equipment ensures correct and even coverage. The unit then receives a complete covering of Cardinal Industrial Clear Coat in a hammer texture to provide extra protection and a durable long-lasting easy-to-clean finish.

Performance Characteristics

- 3.0+ Mils TDFT
- Xenon Arc 1100 hours - Excellent Weatherability
- 1000 Hour Salt Spray - Over Primer - Passed (3.0 Mils Total TDFT)
- Adhesion, Crosshatch - 5B
- Gloss 90+ @ 60°

Generator Set Enclosure

Blue Star Power Systems, Inc. provides Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coating as standard on all our enclosures. Long term exterior durability, high performance mechanical properties and high gloss are standard characteristics of Cardinal Powder Coating. Cardinal TGIC Polyester Coating exceeds UL 2200 & CSA requirements.

Performance Characteristics

- Cured Powder Properties 2.0+ Mils DFT
- PCI Powder Smoothness 1 Mil
- Pencil Hardness 2H+
- Flexibility 1/8 in Diameter - No Fracture
- Salt Spray ASTM-B117 1000 Hours - Pass
- Humidity ASTM-02247 1000 Hours - Pass
- Adhesion, Crosshatch - 5B
- Gloss 90+ @ 60°

Standard Colors

White | T012-WH260

Gray | 6813-GR95

Custom Colors

Custom Colors: Blue Star Power Systems, Inc. offers custom color options for your generator set enclosure. Cardinal is licensed by PANTONE® to accurately simulate both the PANTONE MATCHING SYSTEM® colors and the PANTONE® Textile Color System® with our powder and liquid coatings. Additional Charges apply.



Sub-Base Fuel Tanks

Blue Star Power Systems, Inc. provides either Diamond Vogel Nexgen Technology Paint or Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coat on all of our sub-base fuel tanks. Nexgen and Cardinal Industrial both offer excellent coverage and performance characteristics. Nexgen and Cardinal Industrial both exceed UL requirements.

Performance Characteristics

- 3.0+ Mils TDFT
- Xenon Arc 1100 Hours
- 500 Hour Salt Spray - Over Primer - Passed (3.0 Mils Total TDFT)
- Adhesion Crosshatch - 5B
- Gloss 90+ @ 60°

Standard Color



Enclosures

BLUE STAR Power Systems Inc.

Blue Star Power Systems, Inc. enclosures are specifically designed for optimal protection against the elements. They are designed to protect the entire system from even the most extreme environments, and to reduce sound levels to most specified requirements. Blue Star Power Systems, Inc.'s vast flexibility allows the design of standard enclosures to meet most specifications or requirements. All standard enclosure models are constructed of 14 gauge steel and feature a pitched roof for increased structural integrity and superior watershed. All enclosures feature a rugged UL listed hammer powder coat finish as standard for a long lasting and durable finish in standard white or gray. Custom colors are available as specified.

Enclosure Design Features

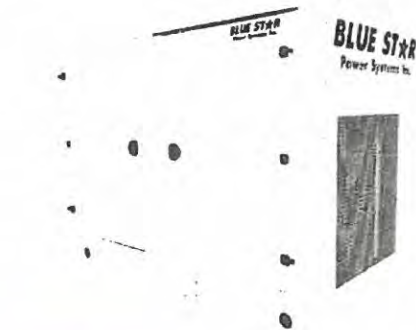
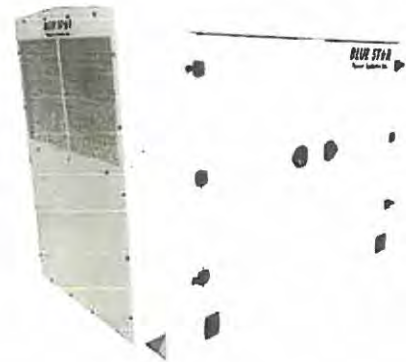


- UL 2200 & CSA Listed as standard
- All enclosure models are 200 MPH wind rating certified in accordance with IBC2018 and ASCE/SEI 7-16 standards.
- Lockable gasketed doors with draw down latches and Stainless Steel component hinges
- All Stainless Steel fasteners
- UL & CSA listed extreme-wear hammer powder coat finish
- Pitched roof for high structural integrity and superior watershed
- Above-door drip guards
- Optimal airflow means no cooling system de-rates on most models
- Internally mounted exhaust silencers standard up to 600 kW
- Sound attenuation options
- Stainless Steel and Aluminum enclosure options

Level 1

Weather Proof Enclosure

Blue Star Power Systems, Inc. Level 1 enclosures have the rugged construction and weather proof protection required for most outdoor environments. These enclosures will effectively protect the gen-set through high wind (200 MPH), rain, snow, and other extreme weather conditions. Weather proof enclosures feature standard hinged lockable doors, a pitched roof to prevent water accumulation and improved structural integrity. The enclosure is painted with extreme-wear UL and CSA listed hammer powder coat finish.



Level 2

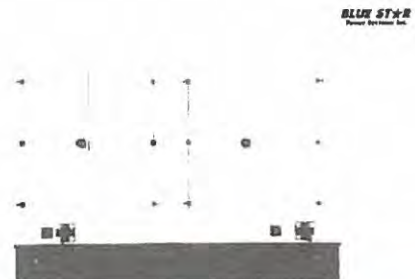
Weather Proof Enclosure with Foam

Blue Star Power Systems, Inc. Level 2 enclosures include all of the same great features of the Level 1 enclosures, and include even more. With the addition of high performance 1.5" Type D Sound Attenuating Foam, our Level 2 Enclosures offer an even lower dBA rating with the same great weather proof protection.

Level 3

Sound Attenuated Enclosure

Blue Star Power Systems, Inc. Level 3 enclosures feature the same great weather proof protection and standard features as the Level 1 & 2 enclosure models, but with a greater emphasis on reducing sound levels. Standard Level 3 features include the same high performance 1.5" type D sound attenuating foam, and also feature the addition of a separate frontal exhaust sound chamber and dual rear air intake to ensure that your system runs exceptionally quiet. These features make this enclosure among the best in the industry for noise reduction and quality.



Sound Attenuation Foam

Polydamp® Type D Acoustical Foam, (PAF) is an acoustical grade, open cell, flexible ether based urethane foam designed to give maximum sound absorption for a given thickness. It has excellent resistance to heat, moisture and chemicals. All applications use 1.5" foam as standard.



Foam Characteristics Sound Absorption: Nominal values of random incidence sound absorption coefficient per ASTM C384-77 for Plain/Tufflym

Foam Thickness	125	250	500	1000	2000	4000
(1.5 in) 38.1 mm	15/20	27/49	60/96	77/93	90/82	98/67
(2.0 in) 50.8 mm	20/30	40/66	90/98	100/96	96/85	100/75

	Test Standard	U.S. Standard	Service Temperature	
Density, Nominal: (lb/ft ³ -kg/m ³)	ASTM-D-3574-91	1.85	Continuous	-45°F (-43°C) TO 212°F (100°C)
Tensile Strength: (PSI-KPa)	ASTM-D-3574-91	12	Intermittent	250°F (121°C)
Elongation, %	ASTM-D-3574-91	120	Flame Resistance	
Tear Resistance: (lb/in - N/M)	ASTM-D-3574-91	1.3	UL94	HF-1
IFD: (PSI - KN/M ²)	ASTM-D-3574-91	30	FAR.853(B)	PASS
Compression Set (50%): %	ASTM-D-3574-91	10	SAEJ-369(B)	PASS
Air Permeability (Tested at 1" thickness): (Rayles/M)	ASTM C-522		MVSS-302	PASS
Thermal Conductivity			DIN	PASS
(BTU/hr. ft ² , °F/in.)	ASTM C-177	0.25	Humidity Resistance	Excellent; no significant decrease in tensile strength or elongation after 5 hrs. of steam autoclave at 250°F (121°C) per ASTM D3574-86, Test J.
			Chemical Resistance	Excellent - no significant change in strength after 4 weeks immersion in common solvents, alkalies, acids, and water.
			Estimated Service Life:	Min. 10 years at 80F (27°C) and 95% R.H.

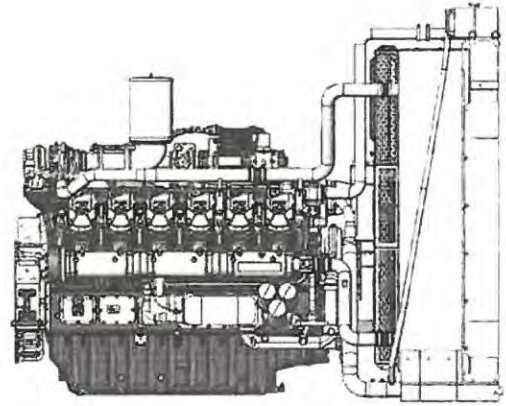
Adhesive Characteristics

P4 is a high performance unsupported acrylic pressure sensitive adhesive exhibiting aggressive tack, high peel and shear, and good heat resistance. In addition, it has good chemical and plasticizer resistance as well as excellent long term aging and the ability to withstand environmental extremes.

Adhesive Thickness (Nominal)	0.004"
Color of Adhesive	Water Clear
Release Liner	76 lb Polycoated bleached kraft paper
Service Temperature	-40°F +200°F

Radiators

Blue Star Power Systems, Inc. radiators offer a variety of styles and configurations including radiator and charged air assemblies, radiator and aftercooler assemblies with durable core construction. Our radiators are compact and efficient meeting the most stringent enclosure footprint requirements. All radiators are sized for 50°C (122°F) ambient. The single-source design ensures a perfect match with your generator set package.



Radiator Features

Standard Radiator Package

- Engine-specific tank design with variant coolant connection locations and sizes (dependant on engine size)
- Complete cooling package with mounting foot and plumbing kit
- All steel construction of top and bottom tanks
- Dual Core designs -
 - Jacket Water / Charged Air Circuit
 - Jacket Water / After Cooler Circuit
- Individual radiators designed to meet manufacturer's specific requirements
- Top tank has built in expansion capacity - no need for an external recover tank
- Full or partial deration system built into the top tank
- Standard cooling package includes fan shroud & fan guard
- Corrosion preventive options:
 - Hot dipped galvanizing on all steel parts or stainless steel
 - Epoxy coated cores

Fan-On Radiator Design

- Engine-specific tank design with variant coolant connection locations and sizes (dependant on engine size)
- Rigid built construction for fan support
- High speed bearings within pillow blocks
- Dual Core designs with variable jacket water / after cooler circuit designs
- All steel construction of top and bottom tanks
- Individual radiators designed to meet manufacturer's specific requirements

Circuit Breakers

Blue Star Power Systems, Inc. MC (Molded Case) Series Circuit Breakers are the highest quality in the industry. They will protect the power system and corresponding equipment from damaging fault currents circuits and overloads.

80% Rated Circuit Breakers

80% rated breakers can only be applied continuously at 80% of the rated breaker. Tripping of the circuit breaker if the current goes above 80% will depend on the amount of current and the duration.

100% Rated Circuit Breakers

100% rated breakers can be applied at 100% of their current rating continuously.

Accessories

Shunt Trip - Provides a means of tripping the circuit breaker from a remote source by energizing a solenoid in the breaker. This can be achieved through the panel faults such as engine shutdowns, overcurrent, etc. The circuit breaker will have to be reset locally in the event of a tripped breaker.

Bell Alarm / Alarm Switch - Provides remote indication of whether the circuit breaker is in a tripped position. The bell alarm will remain unchanged during on-off operations and during operation by the Push-to-Trip button on the circuit breaker.

Auxiliary Switch/Contacts - Provides remote indication of whether the circuit breaker is in an open or closed state.

Ground Fault Indication/Alarm - Adjustable relay that indicates a ground fault condition with adjustable time delay.

Trip Unit

LJ Breakers - Includes adjustable Long-Time pickup and delay and adjustable Instantaneous pickup.

LSI Breakers - Includes features of LJ Breakers with addition of Short-Time pickup and delay.



Breaker Model	Amperage	Percentage Rated	Maximum Voltage Rating (AC)	UL Listed Interrupting Rating (kA)			Lug Qty. and Size (Cu & Al)
				240	480	600	
H-Frame	15-150	80% or 100%	600	25	18	14	(1) #14-3/0
Q-Frame	70-250	80%	240	10	-	-	(1) #4-300 kcmil
J-Frame	150-175	80% or 100%	600	25	18	14	(1) #4-4/0
	200-250						(1) 3/0-350 kcmil
L-Frame	125-400	80% or 100%	600	65	35	18	(2) 2/0-500 kcmil
	200-600						(3) 3/0-500 kcmil
M-Frame	300-800	80%	600	65	35	18	(3) 3/0-500 kcmil

Breaker Model	Frame Size	Percentage Rated	Maximum Voltage Rating (AC)	UL Listed Interrupting Rating (kA)			Lug Qty. and Size (Cu & Al)
				240	480	600	
P-Frame	600	80% or 100%	600	65	35	18	(3) 3/0-500 kcmil
	800						(4) 3/0-500 kcmil
	1000						(12) 3/0-750 kcmil
	1200						(15) 3/0-750 kcmil
	1600						(18) 3/0-750 kcmil
R-Frame (LSI Standard)	2000	100%	600	65	35	18	(21) 3/0-750 kcmil
	2500						(18) 3/0-750 kcmil
	3000						(15) 3/0-750 kcmil

TPS Series Block Heaters



The TPS engine block heater is designed to preheat diesel and gaseous engines. It is simple to install, lightweight, and heats engines up to 12L displacement. Thermosiphon circulation of the coolant delivers even heat throughout the entire engine block.

Features

- cULus Listed
- CE Compliant
- Various temperature settings available, including an optional adjustable thermostat 90° - 130°F (32° - 54°C)
- Can be supplied with UL marked 120 or 240V NEMA plug



Specifications

Part Number	Volts	Watts	Amps	Male Plug	Outlet Size (Inches)
13224	120	500	4.2	Yes	5/8
14209	240	500	2.1	Yes	5/8
10014	120	1000	8.4	Yes	5/8
10015	240	1000	4.2	Yes	5/8
10016	120	1500	12.5	Yes	5/8
10017	240	1500	6.3	Yes	5/8
10018	120	1800	15	Yes	5/8
10019	240	2000	8.3	Yes	5/8

Single Stage Air Cleaner

Single Stage Air Cleaners are tough, non-metallic, lightweight, self-supporting and completely disposable. They are also easy to install, durable, and reliable. They are designed to function well under high and severe pulsation conditions found in many applications. Vibration-resistant media is potted into molded housings of rugged ABS plastic – so they don't fall apart as other designs might. They can be mounted vertically or horizontally.



Specifications

- No serviceable parts - Air cleaner housing and filter are one unit
- Designed to withstand severe intake pulsation
- Economical replacement cost
- Self-supporting, sturdy
- Very reliable: only one critical seal
- Lightweight and compact in size
- Non-metallic, non-corrosive
- Completely disposable - acceptable for normal trash pick-up (should not be incinerated)
- Easily installed and maintained
- Minimal removal clearance needed: only 1.5"
- Three airflow styles available to fit virtually any engine intake configuration
- Various media available for specific generator set applications: high pulsation, high humidity, etc.
- Temperature tolerance: 180°F/83°C continuous 220°F/105°C intermittent

CPJ Series Critical Grade Silencers

BLUE STAR
Power Systems Inc.

Blue Star Power Systems, Inc. "CPJ" Series is the accumulation of research and development offering a compact silencer without compromising performance. It incorporates a unique combination of resonator chambers, acoustically packed internal components and diffusers to achieve a stunning level of performance for its size. All CPJ series silencers are critical grade silencers and are packed with insulation to greatly reduce radiated noise and exterior shell temperature.



Standard Construction Features

- Available in sizes from 2 inch to 12 inch
- Multitude of inlet/outlet design styles to meet almost any requirement
- Packed with fiberglass insulation to reduce shell temperature and noise levels
- Fully welded double shell carbon steel weldment construction, corrosive resistant
- High density fiberglass acoustic blanket good to 1500°F, wrapped with 304 Stainless Steel wire mesh cloth and encased in a carbon steel perforated facing
- Black phenolic resin based finish paint

Optional Construction Features and Accessories

- Stainless Steel construction
- Aluminum construction
- Aluminized Steel construction
- Vertical mounting legs
- Round mounting bands
- Horizontal mounting saddles
- Horizontal and vertical shell lugs
- Special finish per specification
- Air leak test
- ASME code construction
- Oversized flanges
- Acoustic shell lagging
- High temperature acoustic pack material
- Contact factory for additional features to meet your requirements

Model #	Part #	Outlet Size	Flanged Connection	WT (lbs)
CPJS-02	10660	2.0" OD	No	12
CPJS-25	10661	2.5" OD	No	18
CPJS-03	10662	3.0" OD	No	20
CPJS-35	10663	3.5" OD	No	30
CPJS-04	10664	4.0" OD	No	31
CPJS-05	10665	5.0" OD	No	50
CPJS-06	10666	6.0" OD	Yes	50
CPJS-08	10667	8.0" OD	Yes	120
CPJS-10	10668	10.0" OD	Yes	180

Industrial Batteries



Engine Starting Batteries

Blistering heat and bitter cold are ruthless battery killers. That's why Blue Star Power Systems, Inc. utilizes a pioneered climatized battery. Designed to offer you long-life and high-performance starting power that will get your gen-set running even under extreme conditions. Blue Star Power Systems, Inc. "all-climate" batteries stand up to the harshest temperatures and are available in sizes and configurations to fit almost any application.



Standard Features

- Unique Manifold Vent - Virtually eliminates corrosion by venting gases away from terminals and cables
- Exclusive TRP™ Construction – Rib reinforced TRP™ container significantly improves the vibration and impact resistance
- Armored Plate Cell Bonding - Vibration is the number one killer of commercial batteries. To solve this problem, the cells of every battery are bonded
- Polyethylene Enveloped Separator Design – Super tough polyethylene material reduces electrical resistance and provides higher cranking performance
- Center Lug Design - Suppresses the vibration inherent in traditional construction for improved performance (where applicable)
- TTP™ - Through-the-Partition inter-cell connectors create a shorter current path to deliver more power to the terminals
- Heavy Duty Cases - Reinforced polyethylene or hard rubber cases stand up to the demands of standby gen-sets
- Convenient Lifting Slots - a handle is built in the top of the battery for easy carrying and transportation
- Protective Bottom Design - Waffled bottom design provides protection against nuts, bolts, or stones that might become lodged under the battery
- Computer Designed Radical Grids - An improved state-of-the-art design which adds power and resists vibration
- Threaded Accessory Ports - Features a sealed "O" ring that does not work loose during severe service (78DT only)

Specifications

BCI Group Size	NEMA Type			Dimensions (Inches)			
	Part Number	CCA at 0°F	CCA at 32°F	Length	Width	Height	Weight (lbs.)
78DT	78DT-HD	800	960	10-11/16	7-1/16	8-1/8	54
4D	4D-HD	1000	1200	19-9/16	8-5/16	10	95
8D	8D-HD	1300	1560	20-3/4	11	10	117

BC1206A Series Battery Chargers



The BC1206A charger is built to stand up to the punishing power generation environment. It is engineered to exacting performance specifications, including cULus listing for an extra margin of safety.

Features

- Automatic 12V 6A, 2-Stage charge rate
- UL 1236 listed
- Watertight, shock proof and corrosion proof
- LED status indicators
- Reverse polarity protected
- Short circuit protected
- EMI/RFI Shielded



Specifications

Specifications

Output Voltage: 12VDC

Input Rating

Input Voltage Range: 100 - 130VAC

Input Current Rating: 1.6A maximum

Float - Maintenance Stage

Float Voltage: 13.3VDC

Float Current: 0.1 A

LED Status: Green LED On

Full Load - Bulk Stage

Full Load Voltage: 12.0 - 14.1VDC

Full Load Current: 0.2 - 6.0A

LED Status: Red LED On

Reverse Polarity Protection

Available as Standard: Yes

Short Circuit / Overload Protection

Maximum Short Circuit Current: 8A (typical)

Current Limit: 7A (+/- 10%)

Operating Temperature Range

Minimum Temperature: -20° C

Maximum Temperature: 50° C

Agency Certification

This product is listed under UL 1236 for battery chargers.

Warranty

Warranty Period: 1 Year

Weight

3.5 Pounds

Sub-Base Fuel Tanks

Blue Star Power Systems, Inc. sub-base fuel tanks are listed and manufactured under UL 142 & ULC-S601 standards for steel above ground tanks, which guarantees that every fuel tank meets the structural and mechanical integrity requirements for mounting a generator set directly on top of the tank. This provides a convenient, efficient, and safe way to store fuel for your generator set.



Sub-Base Fuel Tank Standard Features

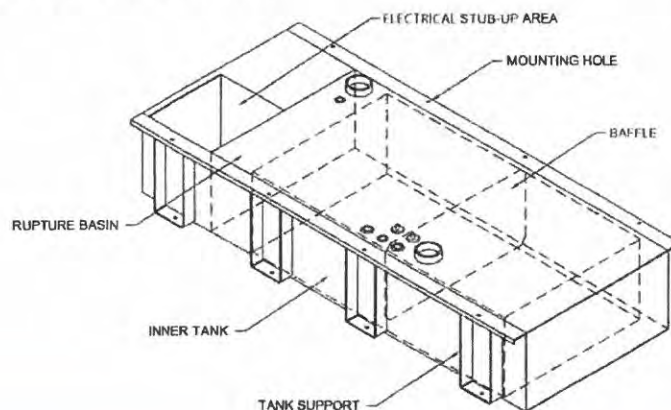
- Double walled secondary containment UL 142 & ULC-S601 Listed
- Electrical stub-up openings are standard to provide generator set wiring provisions through the base tank
- Heavy gauge steel construction
- Diamond Vogel Nexgen Technology Paint or Cardinal Industrial Hammer Textured Semi-Gloss Polyester Powder Coat
- Standard fittings: fuel supply with check valve (sized per unit), fuel return (sized per unit), 2" NPT for normal vent, 2" - 6" NPT for emergency vent (sized per unit), 2" NPT for manual fill, 1 1/2" NPT for fuel level gauge, and 3/8" NPT basin drain (plugged). Removable 1/2" supply dip tube standard (size may vary with gen-set model). 1 1/2" NPT for leak detection
- Interior tank baffle: Separates cold engine supply fuel from hot returning fuel
- Direct reading fuel level gauge
- Low fuel level and fuel leak alarms

Design Options

- High and critical low fuel level shutdowns or alarms
- Full pumping control systems for a true day tank system with a full array of electrical options
- Additional Tank Fittings
- Custom Fuel Tank Designs (sizes and shapes)
- Fuel Heater
- Fill / Spill Containment

Blue Star Power Systems, Inc. offers two distinctive types of double wall sub-base fuel tanks, those with an electrical stub up area (standard) and those without. Each type can be customized to any specification to meet your specific requirements.

UL 142 & ULC-S601 double wall secondary containment sub-base fuel tank with stub-up.



Factory Load Test

Blue Star Power Systems, Inc. factory testing is performed with the same extreme diligence and attention to detail that is given to the prototype testing process. Every engine generator set receives a complete factory load test that certifies and ensures that the set will function in accordance to every specific application. Test metering will have an accuracy of 1.3% or better. This metering equipment is calibrated annually, and is directly traceable to the National Institution of Standards & Technology (NIST). All test procedures are conducted in accordance with MIL-STD-705C where applicable.



Factory Acceptance Testing Procedures

- Insulation Resistance Test (301.1c)*
- High Potential Test (302.1b)*
- Alternator Over Speed
- Complete Engine Inspection
- Generator Inspection
 - Winding Resistance Test (401.1b)
 - Exciter Field Stator
 - Main Field Stator
- Mounting & Coupling Inspection
- Engine Fuel System Inspection
- Engine Lube Oil System Inspection
- Engine Cooling System Inspection
- DC Charging System Inspection
- Main Output Circuit Breaker Inspection
- Anticipatory Alarms and Shutdowns Test (505.2b, 515.1b, 515.2b)
- Optional Equipment Inspection (513.2a)
- Load Test (640.1d)
 - Regulator Range Test (511.1d)
 - No Load
 - MAX Load @ 1.0 P.F. (640.2d)
 - MAX Load @ 0.8 P.F.
 - Block Loads @ 0-25%, 0-50%, 0-75%, 0-100% of rated load tests (640.2d)
- 1.0 Power Factor Max Load
- 1.0 Power Factor Max Block Load Pickup
- Full Name Plate Rated Load.
- Standard Readings Taken Every 5 Minutes.

* Performed By Alternator OEM

Standard Reading Recorded During Load Test Inspection

Run Time	AC Frequency
AC Voltage	Exciter Field Voltage
AC Amperage	Exciter Field Current
kVA	Lube Oil Pressure
kWe	Engine Coolant Temp.
Power Factor	Ambient Temp.

Factory Load Test Summary

All engine generator sets are visually inspected prior to testing. This includes a complete visual/mechanical inspection to ensure that all fasteners and electrical connections are secure, that all rotating components are free of obstruction/interference and are properly guarded.

Once the unit is started, the AC voltage and frequency are set to rated values. The unit is operated at no load while all of the safety shutdowns and warnings are verified and tested. The unit is then restarted and run at 25%, 50% and 100% of rated load and power factor until the engine temperature has stabilized for at least ten minutes. During the rated and maximum load pickup portion of the test, the voltage regulator gain, stability and under frequency compensation adjustments are set for optimal performance. All test procedures are performed in accordance with MIL-STD-705C where applicable.

Throughout these test procedures the AC parameters, engine oil pressure, engine temperature, exhaust temperature, timing and air/fuel ratio (gaseous units) are monitored and recorded. The unit and all installed accessory equipment are continually examined for oil and coolant leaks, excessive vibration and foreign noises.

Once all test procedures are performed and recorded, the unit is allowed a cool down period prior to being shut down. The unit is once again inspected for leaks, loose fasteners and connections prior to leaving the test facility.

The unit receives another complete final inspection process prior to packaging and shipment.

Note: All units are tested after the painting process is complete to prevent unforeseen difficulties resulting from the painting process being performed after testing.

Witnessed Factory Load Test

Standard witnessed factory load testing must be scheduled and approved at least four weeks prior to the engine generator sets scheduled shipping date. Any requests for witnessed factory load testing after this four week period may incur additional charges.

Witnessed Extended Run Factory Load Test

Witnessed extended run factory load testing must be scheduled and approved at the time of order placement. Any requests for witnessed extended run factory load testing after this time could be denied and would if approved incur additional cost.

All units are built and tested to cUL, CSA and NFPA 110 standards.



Engine Generator Set Two (2) Year 2000 Hour Standby Limited Warranty



Your Blue Star Power Systems, Inc. product has been designed and manufactured with care by people with many years of experience. Blue Star Power Systems, Inc. warrants to its buyer that the product is free from defects in materials and/or workmanship for the period of time outlined below. If the product should prove defective within the time period outlined below, it will be repaired, adjusted or replaced at the option of Blue Star Power Systems, Inc., provided that the product, upon inspection by Blue Star Power Systems, Inc., has been properly installed, maintained and operated in accordance with Blue Star Power Systems, Inc.'s Generator Set Installation Guide and Operating Instructions. This limited warranty is not valid or enforceable unless: (1) all supporting maintenance records are kept on file with the end user and made available upon request from factory, and (2) the generator set is routinely exercised in accordance with operating instructions. This warranty does not apply to malfunctions caused by physical damage, misuse, improper installation, repair or service by unauthorized persons, or normal wear and tear. The warranty is not assignable.

Blue Star Power Systems, Inc. product warranty period: Engine generator set: Parts and Labor for two (2) years from the date of factory invoice or 2000 hours (whichever occurs first). Accessories (installed on the engine generator set or shipped loose): Parts and Labor for one (1) year from the date of factory invoice or 2000 hours (whichever occurs first). Transfer Switches: If purchased with a generator set (same order number): Parts and Labor for two (2) years from the date of factory invoice or 2000 hours (whichever occurs first).

The start of the warranty period can be adjusted to the date of unit start-up (limited to 180 days from invoice date) provided that the following information is provided to Blue Star Power Systems, Inc. within 30 days of start-up. The warranty will not be effective unless a copy of the Blue Star Power Systems, Inc. Start-Up Instructions & Warranty Validation form is properly filled out and returned to Blue Star Power Systems, Inc. within 30 days of start-up. If the Start-Up Instructions & Warranty Validation Form is received after 365 days (1 year) from invoicing date, all unit warranties will be void. Additionally, the engine manufacturer's engine registration form must be completed and returned to the engine manufacturer as stated in the instructions with the registration form.

To obtain warranty service: Contact your nearest Blue Star Power Systems, Inc. Service Representative. For assistance in locating your nearest authorized service representative, contact Blue Star Power Systems, Inc. at warranty@bluestarps.com.

Warranty service may be performed by authorized Blue Star Power Systems, Inc. service providers only. Service work performed by unauthorized persons will void all warranties and not be paid.

Blue Star Power Systems, Inc. shall not be liable for any claim in amount greater than the purchase price of the product. In no event shall Blue Star Power Systems, Inc. be held liable for any special, indirect, consequential or liquidated damages including but not limited to: loss of profits, loss of time, increased overhead, delays, loss of business opportunity, good will, or any commercial or economic loss.

Blue Star Power Systems, Inc. shall not be liable for any claim that requires replacement of engine, part, or component of the gen-set that is no longer manufactured or available. Additionally, Blue Star Power Systems, Inc. will not be liable for any engine replacement that may require emissions tier level change.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE DESCRIBED HEREIN. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, OR OTHERWISE CREATED UNDER THE UNIFORM COMMERCIAL CODE, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, OR WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

The following items and/or circumstances are excluded from this limited warranty:

- Improper installation or operation as outlined in the Generator Set Installation Guide and Operating Instructions.
- Misapplication and misuse of the equipment outside the original design parameters as stated on the nameplate of the equipment.
- Equipment purchased at the standby rating that is being used in a prime power application(s).
- Failure to properly exercise and maintain your equipment per manufacturer's specifications will void all warranty.
- Any equipment or components adding including fuel tanks and enclosures not installed at the Blue Star Power Systems, Inc. factory.
- Equipment modifications made without the written consent of Blue Star Power Systems, Inc. will void all warranty.
- Damages caused by acts of nature, such as lightning, wind, flood, or earthquake.
- Any damage due to situations beyond the control of the manufacturing and/or workmanship of the product.
- Engine starting batteries: The battery manufacturers' warranty applies. Consult your local battery supplier for warranty service.
- Fuel system and/or governing system adjustments performed during or after start-up.
- Normal maintenance items and consumable items such as belts, filters, fluids, and hoses.
- Adjustments and tune-ups performed during start-up or thereafter. Start-up, training, tuning, and adjustments for any paralleling or bi-fuel system.
- Loose connections (electrical and mechanical) before and after unit start-up. Including fittings, connectors, clamps and fasteners.
- Diesel engine "Wet Stacking" due to lightly loaded diesel engines. Regeneration issues, aftertreatment exhaust systems, including DEF related issues.
- All fluid level related items found before, during, or after unit start up.
- Use of steel enclosure within 25 miles of the coast.
- Requested rental generators used while warranty work is being performed.
- Charges, fees, and site delays due to a replacement components availability with the product manufacturer
- Any labor charges deemed excessive by Blue Star Power Systems, Inc. factory or component manufacturer.
- Travel labor and mileage for mobile generator sets.
- Additional trips to the site due to a service vehicle was not stocked with normal service parts.
- Any special access fees, equipment, requirements or after hours scheduling to gain access to the equipment for warranty service purposes.
- Lodging expense associated with unit repair and excessive mileage charges (limit to 300 miles and 6 hours travel round trip from nearest service center).
- Shipping damage of any type. All equipment is shipped F.O.B. Blue Star Power Systems, Inc. and risk of loss transfers to the carrier once loaded for shipment. It is the responsibility of the receiving party to sign for the receipt of and note any shipping damage to the equipment. Freight damage claim filing is the responsibility of the receiving party. In the rare event that damage occurs resulting from shrink wrap during shipment, Blue Star Power Systems, Inc. will not warrant any damage to the unit.

This agreement is deemed made and executed in North Mankato, Nicollet County, Minnesota and shall be construed and interpreted in accordance with the laws of the state of Minnesota without giving effect to its conflicts of laws principals. Each of the parties submits to the exclusive personal jurisdiction and venue with respect to any action or proceeding arising out of, in connection with, relating to, or by reason of this agreement before the district court of the state of Minnesota, located in Nicollet County and agrees that all claims in respect of the action or proceeding may be heard and determined in any such court.

