

Recommendation from Kevin Meagher, Senior Construction Project Manager at Jorgensen:

The CAT Portable Generator is our recommendation at \$63,140.00.

Western States CAT have a generator on order for delivery in November that the Town can purchase.

Western States CAT has service technicians in the area and is a widely renown manufacturer of emergency generators.

Please let me know if you need anything further.

Thank you,

Kevin



PROPOSAL

Project: Alpine Portable
Attn: City

Quote: 125176
Date: 06/26/2024

SALES PERSON	PHONE	EMAIL	VALID
Levi Hughes	406-327-2893	Levi.Hughes@wseco.com	30 Days

EQUIPMENT DESCRIPTION	TOTAL PRICE
<p>Generator Set</p> <p>Manufacturer: Caterpillar Model: XQ60, Fuel: Diesel kW: 48 Voltage: Switchable 60 HZ, 1800 RPM, Rating: Prime</p> <ul style="list-style-type: none"> • Engine: CAT C3.4B • Emissions: EPA Tier 4 Final • Excitation System: PMG Brushless • Control Panel: GCCP 1.2 • Remote Communications: Modbus RS-485 + 4G LTE Telematics • Enclosure: Sound Attenuated Color: White • Sound Level: 63 dba @ 23 ft • Fuel Tank: 80 Gallon, Double Wall UL142 (24 hours @ 100% load) • Trailer: Tandem Axle, Electric Brakes, Pintle Coupler • Electrical Package: 208V Receptacles • Main Circuit Breaker: 175 amp • Coolant Heater: Yes 120 vac • Battery Charger: 10 amp NFPA110 • Battery System: Wet Battery, Rack and Cables 12 vdc • Warranty: One year • Est. Lead Time: September 2024 • Freight: Included + Startup + Owner Training 	\$63,140

Exclusions:

- Applicable Sales Tax, Off-Loading or Setting of Equipment at the Jobsite, Mechanical or Electrical Installation, or Fuel.
- Any 3rd Party testing to include: Infrared Scanning, NETA Testing, Arc Flash Studies, Coordination Studies, Sound Testing.

Thank you for the opportunity to quote quality Caterpillar products and services. Please let me know how we can be of assistance.

Sincerely,

Levi Hughes
Power System Sales
Montana, Idaho, Wyoming
406-327-2893

Accepted By: _____
 PO #: _____
 Date: _____
 Signature: _____

We're Ready When You Are

Meridian, ID 208-888-2287	Twin Falls, ID 208-734-7330	Pocatello, ID 208-232-2640	Idaho Falls, ID 208-552-2287	Lewiston, ID 208-746-3301
Spokane, WA 509-535-1744	Pasco, WA 509-547-9541	Pendleton, OR 541-276-5812	LaGrande, OR 541-963-3101	Missoula, MT 406-721-4050
				Kalispell, MT 406-752-3030



Terms:

100% of payment is required prior to startup and testing on the jobsite.
 Additional trips to jobsite due to installation items beyond our control will be additional. A pre-startup check off list is required to be sent to WSECO project manager prior to startup date.
 Payment terms are in accordance with WSECO Standard terms upon approved account
 No retainer is allowed unless specifically agreed to in writing prior to order placement.
 Cancellation charges minimum of 25% once released. No return on manual transfer switches
 No liquidated damages of any kind unless specifically agreed to in writing prior to order.

Upon the (a) execution of this document, (b) your oral or physical acceptance of equipment, goods, or services to be performed as detailed in this document, or (c) receipt of equipment or goods, or commencement of services, as described herein, you consent and agree that the purchase of services, parts, or goods from Western States Equipment Company will be governed solely by the Western States Equipment Company's Service Agreement Terms and Conditions ("Terms and Conditions"), which are available at <https://www.westernstatescat.com/termsandconditions/>. A hard copy of the Terms and Conditions is available upon written request to legal@wseco.com. Western States Equipment Company's Terms and Conditions are hereby incorporated by reference into this document and all other documents related to your purchase of services, parts, or goods from Western States Equipment Company. By purchasing services, parts, or goods from Western States Equipment Company, you agree to be bound by the Terms and Conditions as exactly written.

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Prime 47.5 kW
60 kVA
60 Hz
U.S. EPA Tier 4 Final

Image shown may not reflect actual configuration

Specifications

Generator	Frequency	Voltage	Prime kW (kVA)	Speed rpm
Standard	60 Hz	480/277 V	47.5 (60)	1800
		208/120 V	47.5 (60)	1800
		240/120 V	39 (39)	1800
Optional	60 Hz	600/349V	47.5 (60)	1800
		480/277V	47.5 (60)	1800
		208/120V	42 (53)	1800
		240/120V	33 (33)	1800

Cat® C3.4B Diesel Engine	Metric	Imperial (English)
Configuration	I-4, 4-stroke diesel	
Bore	99 mm	3.89 in
Stroke	110 mm	4.83 in
Displacement	3.4 L	207 in ³
Aspiration	ATAAC	
Compression Ratio	17:1	
Engine Speed	1800 rpm	
Governor Type	Electronic	
Governor Class	ISO8528 G1 and G2	
Maximum Power at rated speed – bkW (hp)		
Standby	55	74
Prime	49.5	66

Benefits & Features

Fuel/Emissions Strategy

- Meets U.S. EPA Tier 4 Final emission standards and CARB certified for non-road mobile applications at all 60 Hz ratings

Cat® C3.4B Diesel Engine

- Four-stroke diesel engine combines performance and excellent fuel economy with minimum weight
- On-engine aftertreatment consists of NOx Reduction System (NRS), Diesel Oxidation Catalyst (DOC), and Diesel Particle Filter (DPF) for service-free operation
- 500-hour oil change interval
- Electronic engine controls
- Engine block heater 110-120 VAC

Cat LC Series Generator

- Matched to the performance and output characteristics of Cat diesel engines
- Class H Insulation

Cat EMCP 4.2B Control Panel

- Electronic control panel provides power metering, protective relaying, engine and generator parameter viewing, and expanded AC metering
- Graphical display (3.8 in.) denotes text alarm/event descriptions, set points, engine and generator monitoring, and is visible in all lighting conditions
- Simple, user-friendly interface and navigation
- Integrates with the Cat Integrated Voltage Regulator (IVR) to provide precise control, excellent block loading, and constant voltage

Design Features

- 110% spill containment of all engine fluids
- Nonmetallic fuel tank provides > 24-hour run time at 75% prime load
- Two-way valve and external fuel ports to easily switch between onboard and external fuel source
- Solar battery maintainer

Sound-attenuated Enclosure

- Rugged, corrosion-resistant construction:
 - Galvanealed, sheet steel body panels with zinc phosphate pre-treatment prior to polyester powder coating
 - Stainless steel hinges
- Excellent access for service and maintenance:
 - Two doors on each side, and one rear door for power distribution and control panel access
 - Lube oil and coolant drains piped to exterior of the enclosure
- Security and safety features:
 - Control panel located behind rear access door with safety-glass viewing window
 - Padlockable latches on all access doors
 - Exterior emergency stop (E-stop) button

Standard Controls and Power Distribution

- Three-position switch for easy selection of desired output (480/277V 3-phase, 208/120V 3-phase, or 240/120V single phase)
- Controls, sockets, and power distribution all accessible via rear access door
- Hinged door over main bus bars with safety switch to trip breaker

Asset Monitoring and Management

- Cat Connect hardware provides two-way communication for remote control and equipment monitoring via cellular or hardwired network
- Customer-defined, equipment-based real-time status updates and alerts
- Flexible and customer-configurable user interface
- GPS provides asset location and geo-fencing

Options

- Generator anti-condensation heater
- Battery charger
- Trailer brake (electric or hydraulic)
- Trailer hitch (2-in. ball, 2-5/16-in. ball, or pintle)
- 600V generator
- 208V 3-phase sockets with breakers

Standard Equipment

Engine

- Cat C3.4B, heavy-duty, U.S. EPA Tier 4 Final certified diesel engine
- NOx and engine-mounted DOC plus DPF canister
- Block heater, 110-120 VAC
- Requires Ultra Low Sulfur Diesel (ULSD) fuel
- Engine electrical system:
 - 12V, DC electrical system
 - 80A, DC charging alternator
 - Electronic governor and engine controls
 - Oil pressure, coolant temperature, and coolant level shutdown switches
- Engine filtration system:
 - Cartridge-type air filter with service indicator
 - Cartridge-type fuel filter with upstream pre-filter and water separator; requires ULSD fuel
 - Spin-on, full-flow lube oil filter; requires API CJ-4 lube oil

Generator and Voltage Regulation

- Screen protected and drip-proof (IP23), self-regulating, 12-lead, 4-pole, brushless generator
- Sealed-for-life bearing
- Electrical design in accordance with IEC 60034-1, EN 61000-6, NEMA MG 1-22, and CSA
- Self-excited for self protection against short circuits
- Voltage selection switch (3-position) mounted to generator terminal box
- Optional
 - Anti-condensation, space heater, 60-Watt, 110-120 VAC
- Insulation system:
 - Class H insulation system
 - Windings impregnated in a thermo-setting moisture-, oil-, and acid-resisting varnish
 - Heavy coat of anti-tracking varnish for additional protection against moisture or condensation
- IVR:
 - Simplified operation and troubleshooting
 - Configure IVR parameters and view IVR status screens via the EMCP
 - Fully supported by Cat ET service tool

- Waveform distortion, THF, and TIF factors:
 - Total distortion of voltage waveform with open circuit between phases, or phase and neutral, on the order of 1.8 total distortion < 4%, on a 3-phase, balanced, harmonic-free load
 - Total distortion < 2%, under no load
 - Waveform: NEMA (TIF < 50)
 - 2/3 pitch factor standard on all stator windings

Generator Set Packaging

- Base frame and containment tray:
 - Heavy-duty, fabricated steel base frame with specially-designed lifting points
 - Spill containment tray mounted to base frame, with leak-detection switch
- Canopy:
 - Sound attenuated to 63 dBA at 7m (23 ft)
 - Two doors on each side, one rear door for power distribution and control panel access
- Cooling system:
 - Cooling system provides 43°C (109°F) ambient capability at 500 m (2,460 ft) above sea level
- Electrical system:
 - 12V, DC electrical system
 - 850 CCA, maintenance-free, wet battery
 - Battery disconnect switch, lockable
 - Solar battery charger with solar array
 - Resettable, switch-style circuit breakers (DC circuit)
 - Optional – battery charger (12V, 10 A) constant voltage, UL Listed
- Engine and generator mounting:
 - Engine and generator directly coupled by SAE flange
 - Engine flywheel flexibly coupled to the generator rotor, with full torsional analysis completed to ensure no harmful vibration will occur in the assembly
 - Anti-vibration pads between engine/generator feet and base frame
- Fuel system:
 - Cross-linked polyethylene (XLPE) fuel tank;
 - 24 hour runtime @ 75% prime load
 - 2-position valves and external ports (1/4-in.NPT) allow connection of an auxiliary fuel source
- CSA 22.2 Certified

Standard Equipment (continued)

Generator Controls and Power Distribution

- EMCP 4.2B, digital generator set controller, mounted behind a hinged, lockable door with viewing window
- Circuit breaker: 3-pole molded case breaker, 175A, UL Listed and CSA Certified with shunt trip
- Safety switch on hinged main bus cover – trips breaker if cover is opened
- Two-wire, remote start-stop terminals
- Customer auxiliary power connections:
 - Three – 250V, 50A California-style, NEMA, twist lock receptacles
 - Two – 120V, 20A duplex receptacles with GFCI*

*Voltage at receptacle is 120V when switch is in 240/120 and 208 positions, and 139V in 480V position. Receptacles are not powered when 600V is selected.

- Each receptacle protected by a miniature circuit breaker, which also acts as an on/off switch
- Main customer connections:
 - Tin-plated copper bus bars with phase separators, located behind a protective door with shunt trip switch
 - Bus bars sized for full load capacity of generator set at 0.8 power factor

Quality and Product Support

- Factory load-testing of complete generator set
- Factory test certificate available upon request
- Equipment meets the following standards: BS 4999, BS 5000, BS 5514, IEC 60034, EN 61000-6, NEMA MG 1-22 & CSA
- Full set of operation and maintenance manuals



Technical Data

Cat Generator		
Frame Size	1514P	
Pitch	0.6667	
No. of poles	4	
Insulation	Class H	
Enclosure	Drip proof IP23	
Voltage regulation	± 0.25% at steady state from no load to full load	
Frequency regulation	± 0.25% for constant load from no load to full load	
Waveform deviation	THD <4%	
Overspeed limit	2250 rpm	
Available voltages	Standard	Switchable voltage output: 480/277V, 3-phase; 208/120V, 3-phase; 240/120V, single-phase
	Optional	Switchable voltage output: 600/349V, 3-phase; 480/277V, 3-phase; 208/120V, 3-phase; 240/120V, single-phase

Cat Generator Set – 1800 rpm/60 Hz		
	Units	Prime
Power Rating	kW (kVA)	47.5 (60)
Performance Specification		
Lubricating System		
Total oil	L (gal)	9.5 (2.5)
Capacity oil	L (gal)	8 (2.1)
Fuel System		
Fuel consumption**		
100% Load	L/hr (gal/hr)	13.9 (3.7)
75% Load	L/hr (gal/hr)	10.5 (2.8)
50% Load	L/hr (gal/hr)	7.1 (1.9)
Fuel tank capacity	L/hr (gal/hr)	303 (80)
ISO Prime Running Time	Hours	>24
Cooling System		
Radiator system capacity including engine	L (U.S. gal)	18.9 (5.0)
Heat rejected to coolant at rated power	kW (Btu/min)	44.6 (2539)
Air Requirements		
Combustion air flow	m³/min (cfm)	3.3 (117)
Radiator cooling air	m³/min (cfm)	77 (2743)
Generator cooling air	m³/min (cfm)	7.8 (275)
Noise Rating**		
with enclosure at 7 meters (23 feet)	dB(A)	63

**Package fuel consumption and sound levels are for reference only.

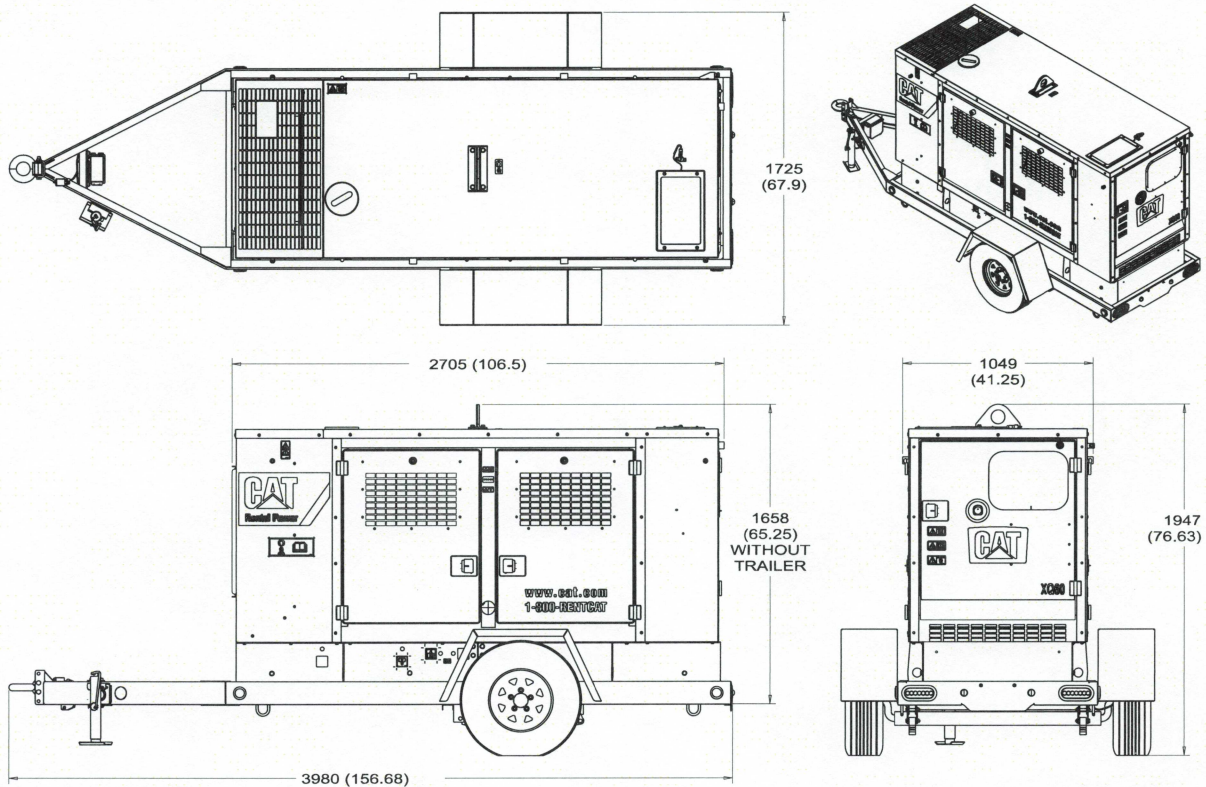
Technical Data (continued)

Dimensions and Weights					
Model	Length mm (in)	Width mm (in)	Height mm (in)	With Lube Oil & Coolant Kg (lb)	With Fuel, Lube Oil & Coolant Kg (lb)
XQ60	2705 (106.5)	1049 (41.3)	1658 (65.3)	1305 (2877)	1565 (3450)
XQ60 with trailer (electric brakes)	3980 (156.7)	1725 (67.9)	1947 (76.6)	1518 (3347)	1778 (3920)
XQ60 with trailer (hydraulic brakes)	4059 (159.8)	1725 (67.9)	1947 (76.6)	1523 (3357)	1783 (3930)

General Layout Dimensions

Dimensions in millimeters (inches).

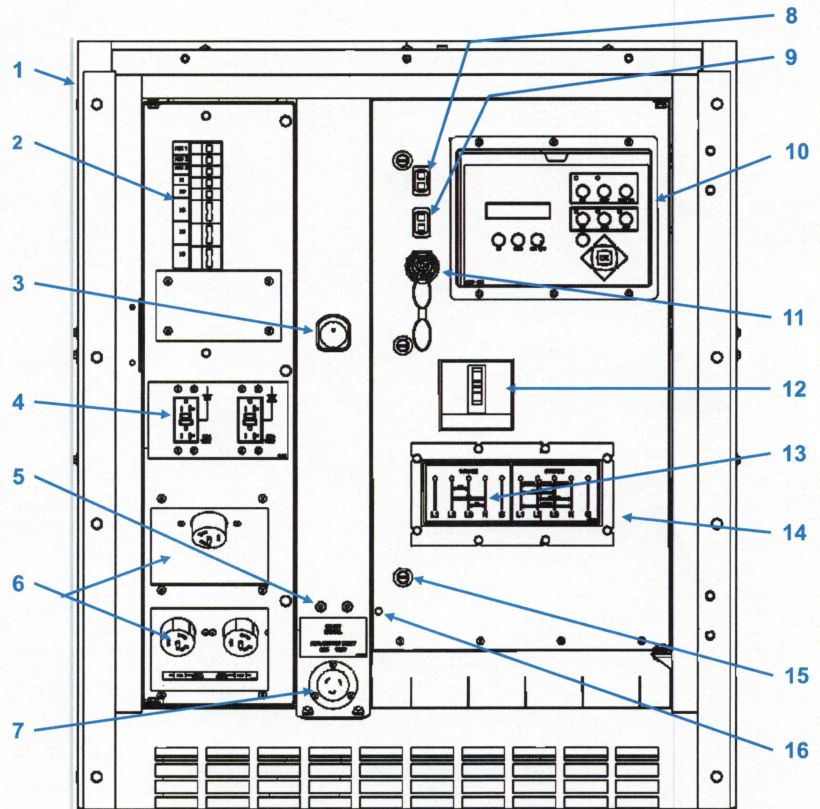
Shown with optional trailer.



XQ60 GENERAL LAYOUT DRAWING

Control Panel and Power Distribution Layout

Item	Description
1	Steel enclosure with hinged, lockable door (not shown)
2	Circuit breakers for receptacles
3	Emergency stop
4	Single-phase GFCI duplex receptacles (20A @120V)
5	Two-wire remote start terminals
6	Single-phase, California-style, twist-lock receptacles, 50A @208V phase-to-phase, 120V phase to neutral, or 240/120 V single phase when in that voltage position
7	Single-phase NEMA locking input receptacle (30A @120V) to power optional block heater, battery charger, and generator space heater
8	HEST and DPF lamp
9	Glow plug lamp
10	EMCP 4.2B digital generator set controller
11	Cat ET service tool connector
12	Circuit breaker, 3-pole molded case, 175A
13	Main bus connection (bus bars attached to breaker) behind door and viewing window
14	Bus bar viewing window w/ phase diagram film
15	Quarter-turn door lock
16	Breaker trip door switch



Ratings Definitions and Conditions

ISO Prime — Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated kW.

www.Cat.com/rentalpower

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