CATERPILLAR®

Arrangement shown with optional trailer

# XQ400 SOUND ATTENUATED

## 50/60 Hz

## FEATURES

### EMISSIONS

- EPA Tier 3 and CARB Emissions Certified for non-road mobile applications at all 50 Hz and 60 Hz ratings

### CAT® C15 ATAAC DIESEL ENGINE

- Utilizes ACERT™ Technology
- Reliable, rugged, durable design
- Field-proven in multiple applications worldwide
- Four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy
- 50/60 Hz convertibility

### CAT® SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Permanent magnet excitation
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections

### ENCLOSURE

- Made with 12-gauge steel
- Single point lifting eye
- Sound attenuated
- Convenient hand holds and steps for safe operation
- Two coat polyester powder-coated finish

### ENVIRONMENTALLY FRIENDLY DESIGN

- Sound attenuated for low noise operation
- OSHA compliant safe design
- 110% spill containment for coolant and oil
- UL 142 certified dual wall fuel tank

### MULTI-VOLTAGE DISTRIBUTION PANEL

- Dual voltage, manual changeover board
- Load door safety switch
- Rust-free hinges on rear opening door
- Adequate space for line and plug connection without interference
- Remote start and stop contacts
- Remote monitoring hardware

### SINGLE-SOURCE SUPPLIER

- Complete systems designed at Caterpillar ISO 9001:2000 certified facilities
- **Certified Prototype Tested** with torsional analysis

### WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1,875 dealer outlets operating in 200 countries, you're never far from the Caterpillar part you need.
- 99.7% of parts orders filled within 48 hours. The best product support record in the industry.
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system.

## FACTORY INSTALLED STANDARD AND OPTIONAL EQUIPMENT

| STANDARD FEATURES | |
|---|---|
| **Air Inlet System** | Air cleaner, dual element<br>Turbocharger |
| **Charging System** | Battery charger<br>Heavy duty charging alternator |
| **Control Panel** | Generator controls and monitoring<br>Fuel tank monitoring<br>Engine controls and monitoring<br>Digital displays<br>Remote monitoring hardware |
| **Cooling System** | Fan and belt guards<br>Base mounted radiator<br>Air to air aftercooling |
| **Distribution Panel** | Lockable doors<br>Load door safety switch (trips breaker upon door opening)<br>Individual bus bar connections<br>Circuit breaker with 24 VDC shunt trip<br>Remote start/stop contacts<br>Shore power connections |
| **Enclosure** | Sound attenuated<br>12-gauge steel<br>Lockable doors<br>Separate vented battery compartment<br>Single point lifting<br>Exterior oil and water drains with interior valves<br>Hidden exterior fuel drain<br>Hand holds and steps<br>Powder-coated finish |
| **Fuel System** | Primary fuel filter/water separator<br>UL 142 dual wall fuel tank, 1970 L (520 g)<br>Radiator-mounted fuel cooler |
| **Generator** | Brushless, permanent magnet<br>Coastal corrosion protection<br>Shock mounted VR6 voltage regulator<br>Space heater<br>UL approved<br>Reconnectable 240-480 volt |
| **Mounting System** | Generator soft mounted to base<br>Base contains integral fuel tank<br>Skiddable structural steel design<br>110% oil and coolant spill containment |
| **Starting System** | Electric starting motor<br>Battery set with disconnect switch<br>Jacket water heater with thermostat, shut-off valves |

| OPTIONAL FEATURES | |
|---|---|
| **Trailer** | Full frame support<br>Tandem axle trailer frame with tongue<br>Electric actuated hydraulic brakes with rechargeable battery backup breakaway system<br>Overcenter mechanical parking brake<br>Full length fenders<br>Non-skid surface on steps<br>Heavy duty safety chains and grab hooks<br>Reinforced 4540 kg (10,000 lb) top wind drop jack |

# SPECIFICATIONS

## CAT SR4B GENERATOR

Frame size ..... 450
Type..... Permanent magnet brushless
Construction..... Single bearing, close coupled
Three phase ..... 12 lead reconnectable
Insulation ..... Class H with coastal insulation protection
IP rating..... 22
Alignment..... Pilot shaft
Voltage regulator ..... 3-phase sensing with Volts-per-Hertz
Voltage regulation..... ± ½% steady state/± ½% no load to full load
TIF ..... Less than 50
THD ..... Less than 4%

## CAT ENGINE

C15 ATAAC, 4-stroke-cycle watercooled diesel
Bore – mm (in) ..... 137.2 (5.4)
Stroke – mm (in) ..... 171.45 (6.75)
Displacement – L (cu in) ..... 15.2 (928)
Compression ratio ..... 16.1:1
Aspiration..... Turbocharged-ATAAC
Engine control ..... ADEM™ A4

## CAT CONTROL PANEL – EMCP 3.2

**24 Volt DC Control**
NEMA 1, IP22 enclosure
Lockable hinged door
Enclosure mounted
Single location customer connector point
16 light alarm module with alarm horn
Electric fuel level gauge

**Consult your Caterpillar dealer for available voltages.**

# TECHNICAL DATA

| | | XQ400 | | | |
|---|---|---|---|---|---|
| **Power Rating** | | **Standby** | **TMI Ref.** | **Prime** | **TMI Ref.** |
| 60 Hz | ekW | 400 | DM9100 | 365 | DM9117 |
| 50 Hz | kVA | 400 | DM9101 | 365 | DM9118 |
| **Engine and Container Information** | | | | | |
| Engine model | | C15 | | | |
| Container dimensions | | see chart on page 6 | | | |
| **Shipping Weight (Dry)** | | | | | |
| Unit with trailer | kg (lb) | 7952 (17,530) | | | |
| Unit without trailer | kg (lb) | 6546 (14,430) | | | |
| **Maximum Fuel Capacity Weight** | | | | | |
| Unit with trailer | kg (lb) | 9662 (21,300) | | | |
| Unit without trailer | kg (lb) | 8256 (18,200) | | | |
| **Engine Lubricating Oil Capacity** | L (qts) | 60 (15.8) | | | |
| **Engine Coolant Capacity with Radiator** | L (gal) | 38.1 (10.1) | | | |
| **Fuel Tank Capacity** | L (gal) | 1970 (520) | | | |
| **Fuel Consumption** | L/hr (gal/hr) | 120.8 (31.9) | | 112.5 (29.7) | |
| **Fuel Consumption (75% Prime)** | L/hr (gal/hr) | 94.0 (24.8) | | | |
| **Running Time @ 75% Prime** | hours | 21.0 | | | |
| **Sound Level** | | | | | |
| Standby | dB(A) | 74.6 | | | |
| No load @ 7 m (23 ft) | dB(A) | 71.7 | | | |
| Prime | dB(A) | 73.9 | | | |
| **Ambient Capability** | Deg C (Deg F) | 43 (109.4) | | | |

## RATING DEFINITIONS AND CONDITIONS

**Meets or Exceeds International Specifications:**

- NEMA MG1-32, IEC 60034, CSA, 98/37/EEC, 72/23/EEC, UL 508, UL142, ISO3046/1, ISO8528, 89/336/EEC

**Standby** – Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514.

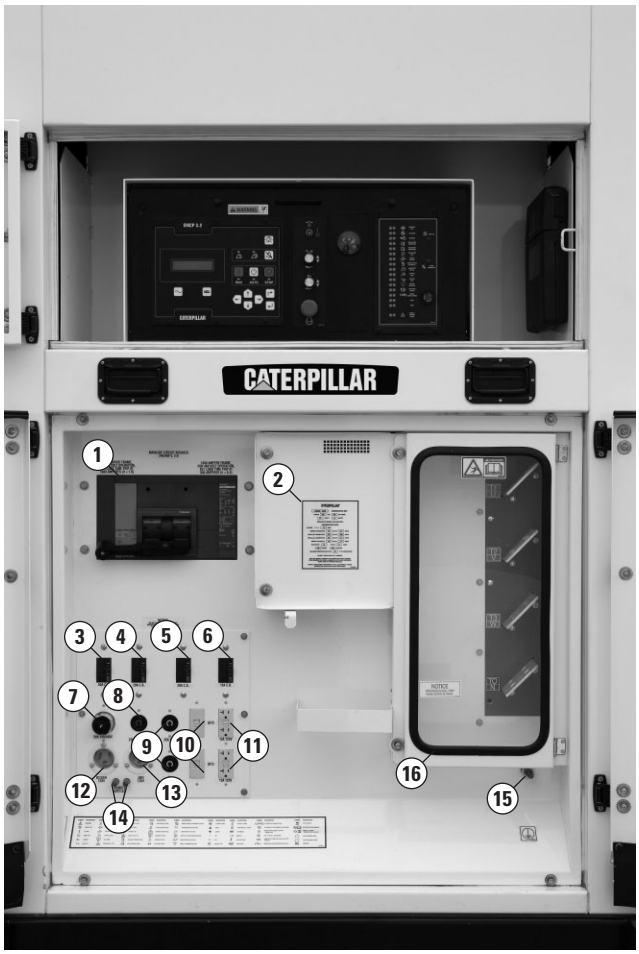
**Prime** – Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request.

**Ratings** are based on SAE J1349 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

**Fuel rates** are based on fuel oil of 35° API [@ 16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

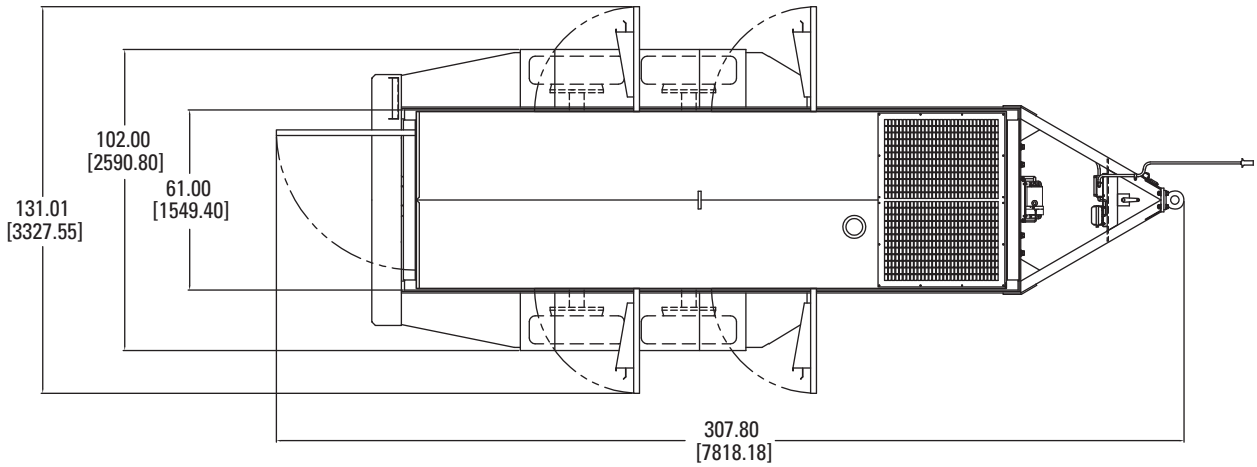
## DISTRIBUTION PANEL



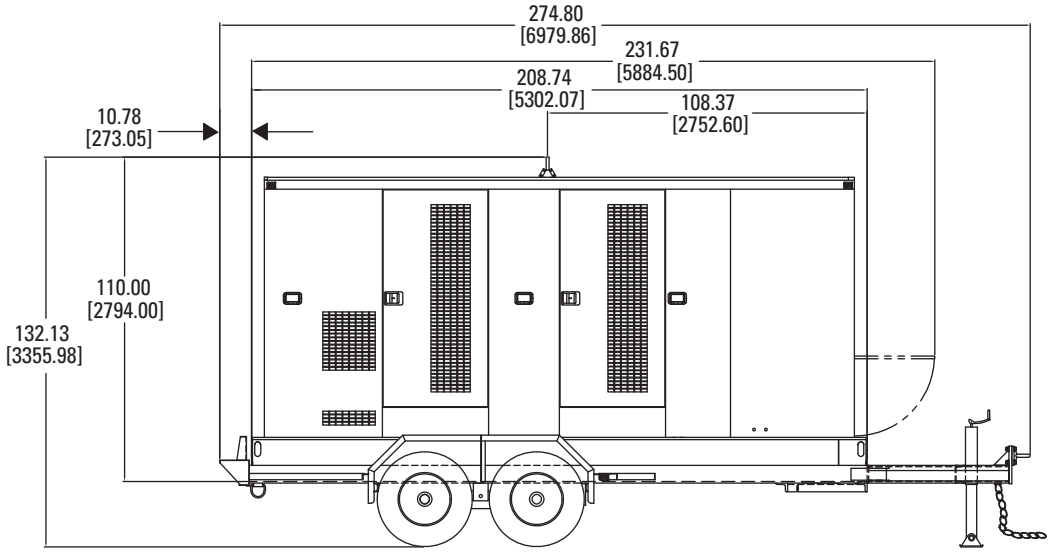

Wiring Descriptions

1. 1600A main breaker 240V/480V with adjustable trip and 24V DC shunt trip
2. Voltage change over board
3. 50 amp 240V branch breaker
4. 20 amp 240V branch breaker
5. 20 amp 120V branch breaker
6. 15 amp 120V branch breaker
7. 50 amp 240V twistlock receptacle
8. 20 amp 240V twistlock receptacle
9. 20 amp 120V twistlock receptacle (2x)
10. 20 amp 120V ground fault interrupter, (2x)
11. 15 amp 120V ground fault interrupter, duplex receptacle (2x)
12. 30 amp 120V battery charger/generator space heater receptacle
13. 30 amp 120V JWH receptacle
14. Remote start/stop contacts
15. 12.7 mm (½") ground stud
16. Load connection bus board [6.35 mm × 101.6 mm × 101.6 mm (¼" × 4" × 4") bus bars]

## CONTAINER DIMENSIONS — TOP VIEW




## CONTAINER DIMENSIONS — RIGHT SIDE VIEW




| Overall Dimensions | | | | |
|---|---|---|---|---|
| | Package | | With Trailer | |
| **Length** | 5302.07 mm | 208.74 in | 6979.8 mm | 274.8 in |
| **Width** | 1549.4 mm | 61.0 in | 2590.8 mm | 102.0 in |
| **Height** | 2794.0 mm | 110.0 in | 3355.98 mm | 132.13 in |

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U.S. Sourced

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