Cat® XQP60 Rental Generator Set





Prime 60 kVA (48 kW) 50/60 Hz Switchable EU Stage V

Image shown may not reflect actual configuration.

Specifications

Frequency Hz	Speed (rpm)	Voltage	Pri kVA	me ekW	Output Amps (A)	Breaker Rating (A)
		415 / 240V	60	48	83	
50	1500	400 / 230V	60	48	86	125
		380 / 220V	58	46.4	88	
		480 / 277V	53	42.4	64	
60	1800 440 / 254V	440 / 254V	53	42.4	70	125
		380 / 220V	52.5	42	80	

Cat® C3.6 Diesel Engine	Metric	Imperial (English)			
Configuration	Inline 4-cylinders, 4-Strok	Inline 4-cylinders, 4-Stroke-Cycle, Water Cooled, Diesel			
Bore	98 mm	3.85 In			
Stroke	120 mm	4.7 In			
Displacement	3.6 L	219.6 in ³			
Aspiration	Turbocharge	Turbocharged (T), Aftercooled			
Compression Ratio		17:1			
Engine rpm	150	1500 – 1800			
Aftercooler Type	A	ATAAC			
Turbocharger		Single			
Fuel System	Con	Common Rail			
Governor Type	Ele	ectronic			
Fuel	See Fuel S	See Fuel Specification Table			

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Benefits & Features

Rental-ready Features

- · 24 hr dual wall fuel tank
- Forklift pockets
- Integrated heavy duty drag pockets with robust skid plate base
- Externally certified single point lift
- · Coolant and oil drains piped to Baseframe
- · Externally certified spark arrest Capability
- 50/60 Hz frequency switch via terminal link
- · Optimized cable entry for easy hook-up
- Robust busbar connection for lugged cable connection
- Sound isolated side mounted control panel with integrated power distribution access
- AC protected by limit switch on distribution door

Fuel/Emissions Strategy

· EU Stage V

Single-source Supplier

- Factory designed and fully prototype tested with torsional vibration analysis available
- ISO 9001:2000 compliant facility

Cat C3.6 Diesel Engine

- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- On-engine aftertreatment consists of Diesel Oxidation Catalyst (DOC), and Diesel Particle Filter (DPF) for service-free operation
- · Electronic governor

XQCP Control Panel

- Fully featured power metering, protective relaying, engine/generator control and monitoring
- · Simple, user-friendly interface and navigation
- Single point interface for voltage and frequency adjustment

Cat M1775L4 Generator

- Designed to match performance and output characteristics of Cat diesel engines
- Coastal insulation protection
- · Self (Shunt) excitation

Available Options

- CE socket box with integrated MCB & RCBO protection
- · Anti condensation heater 240V
- Coolant heater 220V
- 12V battery charger
- Permanent Magnet Generator (PMG)
- Earth leakage detection
- · Lube oil sump pump

Automatic Voltage Regulator (AVR)

- · Three-phase sensing
- Adjustable Volts-per-Hertz regulation
- Provides precise control, excellent block loading, and constant voltage in the normal operating range

Enclosure

- Galvanized sheet steel construction
- · Two coat polyester powder-coated finish
- · 6 access doors for improved service access
- Secure design with safety glass control panel viewing window and padlockable or keylock access doors
- Fuel fill, battery and controls accessible only through lockable access doors

Environmental Considerations

- Dual wall base tank with 110% spill containment
- Bund Level alarm
- · Low noise enclosure
- Inboard mounted 3-way valve for external fuel connection

Cat Connect

· Fleet management and asset tracking*

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^{*}Subject to local certifications.



Standard Equipment

Generator

- Cat M1775L4 frame; 3-phase random wound, 4 lead, self excited, 2/3 pitch
- Coastal insulation protection (CIP)

Cat C3.6 Diesel Engine

- Common Rail Fuel Injection system and Electronic governor
- On-engine aftertreatment consists of Diesel Oxidation Catalyst (DOC), and Diesel Particle Filter (DPF) for service-free operation

Air Filter

· Cartridge-type air filter with service indicator

Cooling System

- Package mounted radiator with vertical air discharge
- High ambient performance
- · Fully guarded pusher fan
- Low coolant level shutdown
- · Coolant piped to base via radiator-mounted ball valve
- · 50% glycol mix with corrosion inhibitor

Charging System

 Charging alternator; 12V, heavy duty with integral regulator and belt guards

Starting System

- · Single 12V electric starting motor
- Single 12V 900CCA maintenance-free battery with padlockable single-pole isolator switch

Fuel System

- 24hr dual wall fuel tank (based on 75% Prime load)
- Internal fuel fill
- · Cartridge-type air filter with service indicator
- Cartridge-type fuel filter with upstream pre-filter and water separator; requires ULSD fuel
- Auxiliary connections for remote supply with 3-way valve
- · 3-way valve internally mounted within bunded area
- Mechanical fuel gauge
- Electronic fuel gauge with panel display, low fuel level warning and shutdown

Control Panel

- XQCP set mounted digital controller
- 50/60 Hz frequency switch (via terminal link)
- R150 and R180 AVR's
- Panel & enclosure mounted emergency stop

Distribution System

- Single robust steel enclosure for controls & distribution
- Separately hinged distribution door with 12V DC shunt trip safety switch
- · 4 pole, 125A main circuit breaker
- Two-wire remote start/stop terminals and AC aux power connection for rapid starting

Mounting System

- Heavy duty steel baseframe with integral fuel tank (dual wall)
- Provides 110% spill containment including all on- board fluids
- · Forklift pockets
- · Heavy duty drag Points with skid plates
- Generator set soft mounted using captive vibration mounts

Enclosure

- Sound attenuating, galvanised sheet steel enclosure with exceptional noise reduction performance
- Interior walls, ceilings and ducts insulated with precision cut noise insulating materials
- Sealed quarter-turn compression latches with key or padlock capabilities
- Front and rear service access provided through hinged doors
- External single point lift
- Powder coated with Cat Rental Power decals

Exhaust System

· Integrated certified spark arresting capability

Lube Oil System

- On-engine primary and secondary oil filters, dipstick and oil filler
- Oil piped to edge of baseframe with internally mounted ball valve
- · 500 hour oil change requirement

General

- Factory Tested
- Full manufacturer's warranty, O&M manuals

Telematics

PL444 Telematics

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Cat® XQP60 Rental Generator Set



Technical Data

Cat Generator	
Frame size	M1775L4
Pitch	2/3
No. of poles	4
Excitation	Static regulated, brushless, self excited
No. of bearings	Single bearing, close coupled
Insulation	Class H
Temperature rise	125/40°C
Enclosure	Drip proof IP23
Overspeed capability (% of rated)	25%
Voltage regulation	3-phase sensing with adjustable volts per hertz
ASTM D1655	Less than ± 1%
Wave form deviation	
Telephone Harmonic Factor (THF)	Less than 2%
Total Harmonic Content (THC)	Less than 2%

Cat Generator Set			
	Units	Prime – 50 Hz	Prime – 60 Hz
Power Rating	kVA (kW)	60 (48)	53 (42.4)
Performance Specification			
Lubricating System Capacity oil	L (gal)	9 (2.37)	9 (2.37)
Fuel System Fuel consumption — 100% Load 75% Load 50% Load Fuel tank — Fillable capacity Usable capacity Running time @ 75% rating	L/hr (gal/hr) L/hr (gal/hr) L/hr (gal/hr) L (gal) L (gal) Hr	14.3 (3.77) 10.5 (2.76) 7.3 (1.94) 317 (83.7) 295 (77.9) 28.2	13.1 (3.46) 10.4 (2.74) 7.5 (1.98) 317 (83.7) 295 (77.9) 28.5
Cooling System Ambient capability Engine & radiator coolant capacity Engine coolant capacity	°C (°F) L (gal) L (gal)	42 13.5 (3.56) 4.9 (1.29)	57 13.5 (3.56) 4.9 (1.29)
Air Requirements Combustion air flow	m³/min (cfm)	3.3 (116.5)	3.8 (134.2)
Exhaust System Exhaust flow at rated — dry exhaust Exhaust temperature at rated kW	m³/min (cfm) °C (°F)	8.6 (303.7) 544 (1011)	8.5 (300.2) 444 (831)
Noise Rating*(with enclosure)* Sound Power* Sound Pressure Levels @— 7 meters @ 75% load 7 meters @ 100% load 1 meter @ 75% load 1 meter @ 100% load	dB(A) dB(A) dB(A) dB(A) dB(A)	93 63.0 63.7 73.2 73.8	97 65.9 66.0 75.8 75.7

^{*}Guaranteed sound power as per 2000/14/EC.

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Fuel Specifications

Specification Standard	Fuel Description
EU Stage V specifies Ultra-Low Suphur Diesel (USLD)	Ultra-Low Suphur Diesel (USLD) USLD with a maximum sulphur content of 10 ppm (mg/kg) or 0.001% mass
	Bio-diesel may be used up to B8 (92% ULSD with 8% bio-fuel dilution by volume)

Oil Specifications

Specification Standard	Oil Description		
Cat ECF-3, API CK-4, AECA E9	Cat DEO-ULS (Recommended)		

Dimensions and Weights

Length (L)	Width (W)	Height (H)	With Lube Oil & Coolant	With Fuel, Lube Oil & Coolant	
mm (in)	mm (in)	mm (in)	Kg (lb)	Kg (lb)	
2646 (104.2)	1142 (45.0)	1775 (69.9)	1777 (3918)		

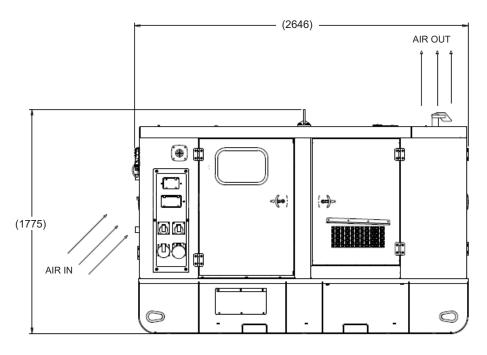
Socket Box Options

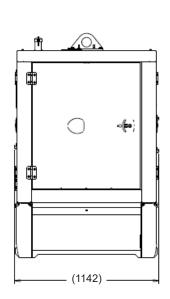
Sockets	15A	16A	32A	50A	63A	125A
CEE Form* (SBOX3)	_	2x1 ph+N+E	1x3ph+N+E	_	1x3ph+N+E	_
CEE Form (SBOX7)	-	1x1 ph+N+E	1x3ph+N+E	-	1x3ph+N+E	1x3ph+N+E

^{*}Busbar connection is standard. Distribution sockets are optional.

Layout for General Dimensions

Dimensions in millimeters



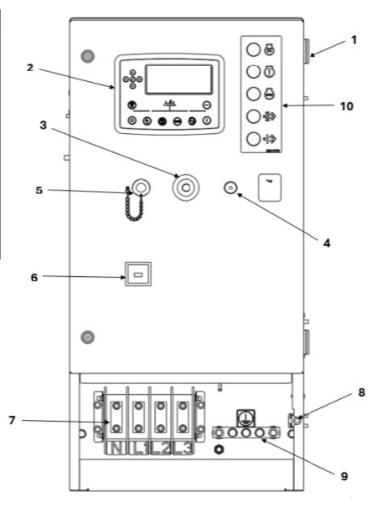


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Control Panel and Power Distribution Layout

Item	Description
1	Steel enclosure with hinged, lockable door
2	XQCP control panel
3	Emergency stop button
4	Alarm
5	Service tool connector
6	Circuit breaker. 4-pole molded case
7	Main bus connection (bus bars with M8 studs)
8	Micro safety switch for bus bar door
9	Main earth terminal
10	Indication Lamps



Ratings Definition

Designed to Meet Specifications: ISO 8528, EN 12601, EN 60204-1, ISO 3046, IEC 60034.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 standard conditions.

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 ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

Fuel rates Fuel consumption reported in accordance with ISO 3046-1, 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 15°C (59°F) and weighing 850 g/liter (7.0936 lbs/U.S. gal.) All fuel consumption values refer to rated engine power.

Additional ratings may be available for specific customer requirements, contact your Cat representative for details. For information regarding low sulfur fuel and biodiesel capability, please consult your Cat dealer.