

# CRITICAL EVENT/EMERGENCY PURCHASE ORDER



**City of Delray Beach**  
PURCHASING DIVISION  
100 NW First Avenue  
Delray Beach, Florida 33444  
561-243-7115  
561-400-1116

**PO Number**

**Page**

E2017-001

1 of 1

THIS NUMBER MUST APPEAR ON ALL  
INVOICES, PACKING LISTS, LABELS, BILLS OF  
LADING AND CORRESPONDENCES.

DATE: 9/12/17

PROJECT: IRMA 170909

SUPPLIER:

SHIP TO:

PANTROPIC POWER PRODUCTS, INC.

PUBLIC WORKS

8205 NW 58th Street

434 S SWINTON AVE

MIAMI, FL 33166

DELRAY BEACH, FL 33444

Item	Description	Quantity	Unit Price	Total
XQ200_N	XQ200 RENTAL PKG	12	\$198,564.00	\$2,382,768.00
MSPMDXQ_I	RENATL EPG	12	\$0.00	\$0.00
MSCEC77_I	PUBLIC OR CIVIL SERVICES	12	\$0.00	\$0.00
MWCODEF_I	STANDBY POWER	12	\$0.00	\$0.00
CERTUSA_I	INSIDE US EPA LOCATIONS	12	\$0.00	\$0.00
LANENGO_I	ENGLISH LANGUAGE OPTION	12	\$0.00	\$0.00
60H0480_I	60Hz 480 VOLTS	12	\$0.00	\$0.00
STDRL_I	STANDARD SPRING RIDE CHASIS	12	\$0.00	\$0.00
LITENGE_S	ENGLISH LITERATURE	12	\$0.00	\$0.00
ESCONI_I	NO ESC	12	\$0.00	\$0.00
DISC	FLORIDA SHERIFF – 10% OFF LIST	12	(\$19,856.40)	(\$238,276.80)
DISC2	ADDITIONAL DISCOUNT	12	(\$53,707.60)	(\$644,491.20)

PO TOTAL \$1,500,000.00

BILL TO:  
CITY OF DELRAY BEACH  
ACCOUNTS PAYABLE  
100 NW 1ST AVENUE  
DELRAY BEACH, FL 33444

APPROVED:

FLORIDA STATE SALES TAX EXEMPTION  
CERTIFICATE NO. 85-8012621559C-4  
EXPIRATION DATE 08/31/2017

Neal de Jesus, Interim City Manager

ORDER SUBJECT TO TERMS AND CONDITIONS AS ON REVERSE OR ATTACHED.

September 12, 2017

City of Delray Beach

CSQ # 3034 / 4347 R2

**REF: Quoted per Florida Sheriff's Association Contract # 15-13-0904**  
**Specification # 73 Contract expires September 30, 2017**

CONTRACT PRICING

BID SPEC CATERPILLAR XQ570

\$ 275,000.00

BASE XQ200 CATERPILLAR DIESEL GENERATOR,  
FREIGHT& PREP ONLY

**NON- SPECIFIED OPTIONAL MODEL BID**  
**FLORIDA SHERIFF ASSOCIATION CONTRACT**

Part Number	Qty	DESCRIPTION	LIST PRICE
XQ200_N	1	XQ200 RENTAL PKG	\$ 198,564.00
MSPMDXQ_I	1	RENTAL EPG	BASE
MSCEC77_I	1	PUBLIC OR CIVIL SERVICES	0.00
MWCODEF_I	1	STANDBY POWER	0.00
CERTUSA_I	1	INSIDE US EPA LOCATIONS	BASE
LANENGO_I	1	ENGLISH LANGUAGE OPTION	0.00
60H0480_I	1	60HZ 480 VOLTS	0.00
STDTRL_I	1	STANDARD SPRING RIDE CHASSIS	BASE
LITENGE_S	1	English Literature	BASE
ESCNONE_I	1	NO ESC	BASE
		<b>USD List Total</b>	<b>\$ 198,564.00</b>
		<b>FLORIDA SHERRIFF - 10% OFF LIST</b>	<b>(\$ 19,856.40)</b>

<b>B</b>		<b>ADDITIONAL DISCOUNT (DISCOUNT)</b>	<b>(\$ 53,707.60)</b>
		<b>QUOTATION TOTAL – DETAILED ABOVE</b>	<b>\$ 125,000.00</b>
		SEE BELOW CLARIFICATIONS	

XQ200 RENTAL PKG each = \$125,000.00 (plus applicable sale tax)

Quantity of twelve (12) units = \$ 1,500,000.00 (plus applicable sale tax)

**Exceptions / Clarifications to specification to proposal:**

1. No written specifications or drawings provided at the time of this proposal.
2. Diesel fuel is to be provided by others.

**Important: Quote does not include the following (unless otherwise specifically noted above in the General Scope of Supply):**

**Fuel, Fuel Piping, Fuel Venting  
Fuel Equipment Installation  
Exhaust Equipment Installation  
Exhaust Pipe & Insulation  
Electrical Equip. Installation**

**Cables, Wires and Conduits  
All Equipment Installation  
Engineering & Design  
Engineering Drawings  
Installation Permitting & Fees**

**Foundation Concrete Pad  
Equipment Unloading  
Equipment Storing  
Equipment Rental  
Equipment Anchoring**

Thank you for consideration of our product. Quote is valid for thirty days.

PANTROPIC POWER PRODUCTS, INC.

Robert Cosgrove  
(305) 477-3329 Ext. 3110  
(305) 477-1943 Fax

# XQ 200 RENTAL



Shown without optional trailer

**STANDBY 200 kW**  
**PRIME 182 kW**  
**POWER MODULE**  
**60 Hz 1800 rpm 480V**

Frequency	Voltage	Standby kW (kVA)	Prime kW (kVA)
60 Hz	480/277V	200 (250)	182 (227.5)
60 Hz	240/139V	200 (250)	182 (227.5)
60 Hz	208/120V	200 (250)	182 (227.5)

## FEATURES

### FUEL/EMISSIONS STRATEGY

- EPA and CARB Tier 4 Final Technology for Non-Road Mobile applications at all 60 Hz ratings

### SINGLE-SOURCE SUPPLIER

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

### CAT® C7.1 Interim 4 ACERT™ DIESEL ENGINE

- Utilizes ACERT Technology and Cat NOx Reduction System (NRS)
- Cat CEM exhaust after treatment
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic engine control

### CAT LC SERIES GENERATOR

- Matched to the performance and output characteristics of Cat engines
- UL 1446 Recognized Class H insulation

### CAT EMCP 4.2 CONTROL PANEL

- Fully featured power metering, protective relaying and engine/generator control and monitoring
- Simple user friendly interface and navigation
- Automatic set-point adjustment

### CAT DIGITAL VOLTAGE REGULATOR (CDVR)

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

## ENCLOSURE

- Highly corrosion resistant 12 gauge galvanealed sheet steel construction
- Two coat polyester powder-coated finish
- Six access doors for ease of maintenance
- Secure and safe design with safety glass control panel viewing window with lockable access door
- Fuel fill and battery can only be reached through lockable access doors
- Certified single point lifting eye and lifting points on the base frame

## DISTRIBUTION PANEL

- Switchable voltage from 480/277V 3 phase to 240/139V 3 phase (can be adjusted down to 208/120V 3 Phase), 240/120V 1 phase

## REAR CUSTOMER ACCESS

- Separate control panel and distribution panel access doors
- Hinged door over main bus connectors
- Emergency stop on panel
- Remote start/stop contacts

## REDUCED ENVIRONMENTAL IMPACT

- EPA Tier 4 Interim technology
- 110% spill containment of onboard engine fluids
- Meets 71 dB(A) at 7 m per SAE J1074

## RENTAL READY FEATURES

- Anti-condensation heater 110-120 VAC
- Coolant heater 110-120 VAC
- UL Listed battery charger
- Solar powered battery maintainer
- Cam lock distribution system

## FACTORY INSTALLED STANDARD EQUIPMENT

SYSTEM	STANDARD EQUIPMENT
<b>Air Inlet</b>	Air cleaner, two stage cyclonic/paper with dust cup and service indicator Series turbocharger and air-to-air aftercooler
<b>Charging System</b>	12V - 100 Amp charging alternator UL/CSA listed 120V-10A battery charger Solar powered battery maintainer
<b>Control Panel</b>	EMCP 4.2 genset mounted controller Automatic start/stop with cool down timer Idle/rated switch Generator Protection features: 32, 32RV, 46, 50/51, 27/59, 81 O/U Metering display: voltage, current, frequency, power factor, kW, WHM, and kVAR
<b>Cooling System</b>	Package mounted radiator with vertical air discharge provides 43° C ambient capability at standby rating 120VAC coolant heater, fuse protected, thermostatically controlled, automatically disconnected on start-up Coolant drain line with internal control valve piped to base-frame Coolant sight gauge, level switch and shutdown 50% Coolant antifreeze with corrosion inhibitor
<b>Distribution System</b>	NEMA 1 steel enclosure with separate hinged, lockable door Main bus connections with hinged load cover with clear Plexiglas window closed for operation 4-pole 800A 100% UL circuit breaker with 12V DC shunt trip wired to load door safety switch Multiple duplex and twist lock receptacles with individual circuit breakers Two wire remote start/stop terminals and 120 VAC shore power connection for rapid starting CamLock distribution system
<b>Enclosure</b>	Sound attenuating, 12gauge galvanealed sheet metal enclosure limits overall noise to 71 dB(A) @ 7m (23') Interior walls and ceilings insulated with sound attenuating foam Black stainless steel pad-lockable latches, doorkeepers on all doors and zinc die-cast hinges/grab handles All components are pretreated for anti-corrosive protection prior to painting with polyester powder coat Painted Cat power module white with Cat rental decals
<b>Engine</b>	EPA Tier 4 Interim technology Cat C7.1 ATAAC heavy duty diesel engine Electronic ADEM™ A4 controls 12VDC energized to shutdown solenoid
<b>Exhaust System</b>	Cat Clean Emissions Module and integrated silencer with flexible connectors
<b>Fuel System</b>	350 gal fuel tank, UL listed, double wall, 24 hr runtime @ 100% prime rating Fuel cooler, primary fuel filters with integral water separator, and engine mounted secondary Switch operated electric priming pump Interconnected three way fuel for switching between remote and integral tank
<b>Generator</b>	Three-phase, random wound, 12-lead design, 0.667 pitch Screen protected and drip proof, self regulating, brushless generator with fully interconnected damper windings, IC06 cooling system and sealed for life bearings Class H insulation with coastal insulation protection. Windings are impregnated in a triple dip, thermo-setting moisture, oil and acid resisting polyester varnish. Heavy coat of anti-tracking varnish for additional protection against moisture and condensation Permanent magnet provides 350% short circuit, enhanced motor starting and non-linear performance 120VAC anti-condensation heater Cat digital voltage regulator (Cat DVR) with VAR/PF control
<b>Lube System</b>	Lubricating oil system including pump, integral oil cooler, lube oil, filter, open crankcase breather with filter Oil drain line with internal valve routed to connection point accessible from exterior 500 hour oil change intervals
<b>Mounting System</b>	Generator set soft mounted to the heavy duty, fabricated steel base frame using captive anti-vibration pads between the generator set and base-frame to ensure complete isolation of rotating assemblies Base frame includes integral fuel tank and provides 110% spill containment of all engine fluids
<b>Starting System</b>	Single 12V electric starting motor on engine One 12V-1000 CCA Cat brand maintenance free battery with disconnect switch, battery rack, and cables Glow plugs fitted on the engine
<b>General</b>	Factory testing of standard generator set and complete power module Full manufacturer's warranty O&M manuals
	<b>OPTIONAL EQUIPMENT</b>
<b>Available Options</b>	Canadian Standards Authority certification (CSA) Transport Canada compliant fuel tank (IBC CGSB43) Tandem axle trailers with either hydraulic or electric brakes

# XQ 200 RENTAL



## TECHNICAL DATA

CAT GENERATOR	ENGINE
Frame Size ..... LC5034H	Manufacturer .....Caterpillar
Pitch ..... 0.667	Model.....C7.1
No. of poles ..... 4	Type .....4-cycle
Excitation ..... Static regulated brushless PM excited	Cylinder configuration .....In-line 6
Number of bearings. .... Single bearing, close coupled	Displacement – L (cu in) .....7.01 L (427.7 in <sup>3</sup> )
Insulation..... Class H	Bore – mm (in). .... 105mm (4.13 in)
Enclosure ..... Drip proof IP23	Stroke – mm (in) ..... 135 mm (5.3 in)
Alignment..... Pilot shaft	Compression ratio. .... 16.5:1
Overspeed capability – % of rated .....125% of rated	Engine RPM ..... 2200
Voltage regulator ..... 3 phase sensing with Volts-per-Hertz	Aspiration..... ATAAC
Voltage regulation..... Less than $\pm 1/2\%$ voltage gain	Fuel system ..... MEUI™-C
Adjustable to compensate for engine speed droop and line loss	Governor type ..... ADEM™ A4
Wave form deviation ..... 2%	Fuel..... Requires ULSD
Telephone Influence Factor (TIF)..... Less than 50	
Harmonic Distortion (THD)..... Less than 5%	

Materials and specifications are subject to change without notice.

Generator Set Technical Data	Units	60Hz Standby	60Hz Prime
<b>Power Rating</b>	kW (KVA)	200 (250)	182 (227.5)
<b>Performance Specification</b>		DM	DM
<b>Lubricating System</b>			
Oil pan capacity	L (gal)	16(4.3)	16(4.3)
<b>Fuel System</b>			
Fuel consumption			
100% Load	L/hr (gal/hr)	59.5 (15.7)	53.1 (14.0)
75% Load	L/hr (gal/hr)	44.6 (11.8)	39.8 (10.5)
50% Load	L/hr (gal/hr)	29.8 (7.9)	27.8 (7.3)
Fuel Tank Capacity	L (gal)	1295 (350)	1295 (350)
Running time @ 75% rating	Hr	29	33
<b>Cooling System</b>			
Ambient Capability	°C (°F)	43	43
Engine & Radiator coolant capacity	L (gal)	28 (7.6)	28 (7.6)
Engine coolant capacity	L (gal)	11.5 (3.1)	11.5 (3.1)
<b>Air Requirements</b>			
Combustion air flow	m <sup>3</sup> /min (cfm)	14.3 (505)	13.6 (480.3)
Maximum dirty air cleaner restriction	kPa (in H <sub>2</sub> O)		
<b>Exhaust System</b>			
Exhaust flow at rated	m <sup>3</sup> /min (cfm)	N/A	13.1 (462.6)
Exhaust temperature at rated kW – dry exhaust	°C (°F)	506 (942.8)	N/A
<b>Noise Rating (with enclosure)*</b>			
@ 7 meters (23 feet)	dB(A)	71	71
<b>Emissions (Tier 4 interim regulation)</b>			
NOx	g/hp-hr	1.9	1.9
CO	g/hp-hr	.2	.2
HC	g/hp-hr	.02	.02
PM	g/hp-hr	.005	.005

Model XQ200	Length mm (in)	Width mm (in)	Height mm (in)		Weight kg (lb)
				Lube Oil & Coolant – Empty Fuel Tank	4,053 (8,916)
				Fuel Tank 200 Gallons of Fuel	4,701 (10,346)
XQ200 w/o chassis	4,083 (161)	1,401 (52)	2,162 (85)	Full Fuel Tank	5,300 (11,660)
XQ200 w/ chassis	6,019 (237)	2,235 (88)	2,577 (101)	Chassis Weight Addition	916 (2,016)

## CONTROL PANEL

### FEATURES

- EMCP 4.2 engine operator interface
- Battery charger indicator
- Fuel level display
- Idle /rated switch
- Panel light momentary pushbutton
- Voltage adjust potentiometer
- Regeneration alarm indications for DPF 80% soot level and high exhaust temperature
- Coolant alarm
- Emergency stop pushbutton
- Alarm horn
- Convenient service access for Cat (service tools not included).

### EMCP 4.2 ENGINE OPERATOR INTERFACE

- Controls
  - Run/Auto/Stop
  - Speed Adjust
  - Cool-down timer
  - Emergency Stop
  - Cycle crank
- Engine Monitoring:
  - RPM
  - Operating hours
  - Coolant Temperature
  - DC Volts
  - Oil pressure
  - Oil Temperature
- True RMS AC metering, 3 phase
  - L-L volts, L-N volts, phase amps
  - Average volts, Amps, Frequency
  - kW, kVA, kVAR, kW-hr, %kW
  - Power Factor (Average, Phase)
  - kW-hr, kVA-hr (total)
- Shutdowns with common indicating light for:
  - Low oil pressure
  - High Coolant Temp
  - Failure to Start (Overcrank)
  - Emergency stop
  - Overspeed
  - High Oil Temp
  - Low Coolant level
- Fuel level monitoring and control.

### EMCP 4.2 GENERATOR PROTECTIVE RELAYING

- Generator protective features provided by EMCP 4.2
  - Phase over/under voltage (Device 27/59)
  - Over/Under frequency (Device 81 O/U)
  - Reverse Power (Device 32/32RV)
  - Current Balance (46)
  - Overcurrent (Device 50/51) (GCB trip unit)
  - Loss of Excitation (Device 40) (CDVR)
  - Generator Phase Sequence



### DISTRIBUTION PANEL

- One 4 pole 800 A MCCB, with 12 VDC shunt trip coil activated on any monitored engine or electrical
- Under-voltage release NEMA 1 steel enclosure with hinged lockable door with clear Plexiglas window
- Bus bars are sized for full load capacity of the generator set at 0.8 power factor.
- Includes ground bus, tin-plated copper, for connection to the generator frame ground and field ground cable.
- Customer convenience panel with multiple output receptacles:
  - 1 – 125V, 30 A single phase auxiliary supply
  - 2 – 240V, 50A California style Twist Lock.
  - 2 – 120/208V, 20A Twist Lock.
  - 2 – 120V, 20A Duplex Receptacles with GFI..
- CamLock distribution system
- Consistent 120VAC output from GFCI receptacles independent of bus bar voltage

### AC DISTRIBUTION

- Provides 120 VAC for all module accessories.
- Includes controls to de-energize jacket water heaters, battery charger, and generator space heater when the engine is running.

## RATING DEFINITIONS AND CONDITIONS

### **Meets or Exceeds International Specifications:**

CSA 22.0 No. 100, IEC60034-22, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-16, UL1004B, NEC, CEC, 2006/42/EEC, 2006/95/EC, 2004/108/EC, 2000/EC/14, UL142, ULc601, IBC CGSB43, API 546, EGSA 101P, IEEE 43, DEFRA, UL1741, NFPA 99/110, OSHA, 97/68/EC, BS4999, BS5000, IEC60034-5

**Fuel Rates** are based on fuel oil of 35o API {16oC (60oF)} gravity having an LHV of 42780 kj/kg (18390 Btu/lb) when used at 29oC (85oF) and weighing 838.9 g/liter (7.001 /b/U.S. gal). Additional ratings may be available for Specific customer requirements, contact your Caterpillar Representative for details. For information regarding Low Sulfur fuel and biodiesel capability, consult your Cat Dealer.

**Standby** – Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator on the generator set is peak prime rated (as defined in ISO852 at 30° C (86° F).

**Ratings** are based on SAE J1349 standard conditions. These ratings also apply at ISO0346 standard conditions.

**Prime** – Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchase power. There is no limitation on the annual hours of operation and the generator can supply 10% overload power.

Information contained in this publication may be considered confidential. Discretion is recommended when distributing. CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow", the "Power Edge" trade dress as well as corporate and product identify used herein, are trademarks of Caterpillar and may not be used without permission

[www.Cat-ElectricPower.com](http://www.Cat-ElectricPower.com)