

# PI 1138C / PI 1250C

# Cummins G-DRIVE

Rev-1

## **Industrial Generating Set**

MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 1138C / PI 1250C	1800 / 60	480 / 277	1138 kVA / 910.4 kWe	1226 kVA / 980 kWe

Full rated power available upto 100 meter elevation at ambient of 27degC, for other temperature and altitude limits please consult application team.

Rated Output (PRP	1007 kW <sub>m</sub>		
Rated Output (ESP)	1112 kW <sub>m</sub>		
Engine Make & Mod	Cummins KTA38-G14		
No. of Cylinders	12 Cylinder, 60° Vee		
Cycle	4 Strokes		
Aspiration	Turbocharged and After-cooled		
Cooling Method	Water		
Governing Type		Electronic	
Governing Class	G2 - ISO 8528 Part 1		
Compression Ratio	13.9 : 1.0		
Displacement	37.8 L / 2300 in <sup>3</sup>		
Bore/Stroke (mm / in)		(159/159)/(6.25/6.25)	
Battery and Charger	Alternator	24 VDC, 35 Amp	
AIR SYSTEM			
Air Filter Type		Dry Element	
Combustion Air Flor	w (PRP)	81.54 m <sup>3</sup> /min	
Combustion Air Flov	w (ESP)	86.1 m <sup>3</sup> /min	
Radiator Air Flow		1476 m <sup>3</sup> /min	
COOLING SYSTEM			
Total Coolant Capa	city	124 L / 30.7 US gal	
Water Pump Type	Centrifugal Eng-Driven		
. rator i amp Type		Centrifugal Eng-Driven	
Radiator Fan Load		Centrifugal Eng-Driven 35 kW	
	oom (PRP)	-	
Radiator Fan Load		35 kW	
Radiator Fan Load Heat Radiation to Ro	om (ESP)	35 kW 148 Kw	
Radiator Fan Load  Heat Radiation to Ro  Heat Radiation to Ro	oom (ESP)	35 kW 148 Kw	
Radiator Fan Load  Heat Radiation to Ro  Heat Radiation to Ro  LUBRICATION SYS	oom (ESP)	35 kW 148 Kw 163 kW on full flow filter	
Radiator Fan Load  Heat Radiation to Ro  Heat Radiation to Ro  LUBRICATION SYS  Oil Filter Type	oom (ESP)	35 kW 148 Kw 163 kW	
Radiator Fan Load Heat Radiation to Ro Heat Radiation to Ro LUBRICATION SYS Oil Filter Type Total Oil Capacity	oom (ESP) STEM Spin	35 kW 148 Kw 163 kW on full flow filter 135.0 L / 35.7 US gal	

Class A2 Diesel				
266.0 L/hr / 70.2 US gal/hr				
242.0 L/hr / 63.7 US gal/hr				
189.0 L/hr / 49.9 US gal/hr				
136.0 L/hr / 36.1 US gal/hr				
EXHAUST SYSTEM				
Residential grade				
Residential grade				
10.13 kPa				
10.13 kPa 218.46 / 238.02 m³/min				

Fuel Filter: Spin on full flow filter with water separator

ALTERNATOR SPECIFICATIONS			
Rated Output (Prime)	1300.0 kVA		
Rated Output (Stand I	1350.0 kVA		
Alternator Make & Mo	Stamford S6L1D-E4		
Number of Poles	4		
Number of Winding Le	Number of Winding Leads		
Type of Bearing	Type of Bearing		
Insulation Class / Temp Rise		H/H	
Efficiency		95.3%	
Ingress Protection Rating		IP 23	
Excitation System		Separately Excited by P.M.G	
AVR Model Stamfo		rd - MX321	

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ALTERNATOR OPERATING DATA			
Overspeed	2250 r.p.m		
Voltage Regulation	± 0.5 %		
Wafeform distortion	No load <1.5% Linear load <5%		
Radio Interface	Standard EN61000-6-2:2001		
Cooling Air Flow	1.69 m <sup>3</sup> /sec		

<sup>(1)</sup> PRIME POWER RATING (PRP): PRP is defined as the maximum power which a Generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year. The permissible average power output over 24 hours shall not exceed 70% of PRP unless otherwise agreed by RIC engine manufacturer. An overload capability of 10% of 100% of the prime rated electrical power is permitted for emergency use for a period of 1 hour within 12 hours of operation

<sup>(2)</sup> EMERGENCY STANDBY POWER RATING (ESP): ESP is defined as the maximum power available during a variable electrical power sequence, under the stated operation condition, for which a generating set is capable of delivering power in the event of a utility power outage or under test condition for up to 200 Hours of operation per year. The permissible average output over 24 hour of operation shall not exceed 70 % of the ESP power rating noting that no over load is permitted.



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#### **CONTROLLER SPECIFICATIONS** DeepSea 6120 Controller Make & Model Operation Mode MRS / AMF (optional) Graphic Back-lit LCD (128x64) pixles Display Ingress Protection Rating **IP65** Binary Inputs/Outputs 8/6 4 **Analog Inputs** Measurement Vac, A, Hz, kVA, kW, Vdc **Event Log** Alarms log, Hrs log

USB

ENCLOSURE SPECIFICATIONS			
Enclosure Type Acoust		ic & Weather Proof	
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection Rating		IP23	
Lifting	ISO Stand	dard Lifting	
Emergency External E		Emergency Push Button	
Canopy RAL Color		RAL 2000	
Baseframe RAL Color		RAL 9011	
Noise Pressure level @ 7m		86 dB(A)	

### **GENSET DIMENSIONS & WEIGHT**

Communication

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	4570	2480	2700	2330	10350	10500
CLOSE	20 Fe	et HC con	tainer	NA	13650	14050

#### STANDARD MECHANICAL FEATURES

Genset design provides a low noise level with an optimized performance of the ventilation and exhaust systems at 50 °C ambient temperature.

Robust structure design of Enclosure and Baseframe.

Hevy duty lifting lugs.

Multi doors for easy access & maintenance.

Ingress Protection Rating according to BS EN 60529.

Heavy Duty Baseframe with built-in tank & forklift pockets.

Residential grade Muffler with rain cap.

### STANDARD ELECTRICAL FEATURES

An advance Control system is designed to provide a comperhensive protection and to monitor the parameters of generating set.

MCCB power circuit breaker.

Battery with charging alternator, cables, and tray.

Sealed harness & high resistant electrical connections.

Fast and accurate protection response.

Generating Set remote start function.

Numeric display with LED. Various languages capable.

#### **OPTIONAL FEATURES**

Advanced Controllers are available on request.

4 poles manual / Motorized Circuit breaker

Jacket water pre-heater

Static Battery Charger

Critical grade muffler

Fuel Filter / Water seperator Fuel Filter

Remote Annunciator

#### **Application**

Infrastructure, Industrial, Residential, Telecom, Defence, Mining, Agriculture,





