

600 kW Cummins Powered Fully Packaged Diesel Generator

The XC Power Generation AC commercial series generator set is a fully integrated power generation system providing optimum performance with the reliability and versatility of a Cummins Engine.

All XC units meet the following standards: VDE 0530, BS 4999, BS 5000, IEC 34. Manufactured in accordance with ISO 9001.

Optional sound attenuated weather-protective enclosures are available to shield the generator set from extreme operating conditions.

Diesel powered generator sets remain the number-one choice for standby and emergency power systems worldwide. XC diesel generator sets are the epitome of rugged dependability and reliable mechanical and electrical performance.

Standard Features

- ▶ Electric Starter
- ▶ Electronic Governor
- ▶ Single Bearing Alternator
- ▶ Insulation class H/H
- ▶ Skid Mounted with Vibration Isolators
- ▶ Dry Type Air Filter
- ▶ Main Line Circuit Breaker
- ▶ Battery Rack and Cables
- ▶ User Manual
- ▶ Heavy Duty Fabricated Steel Base Frame
- ▶ 8 Hour Base Mounted Fuel Tank
- ▶ One Year Limited Warranty
- ▶ Deep Sea Control Panel

Model XC600



- ▶ High quality and reliable
- ▶ Compact design
- ▶ Easy start and maintenance possibility
- ▶ Every gen-set is subject to a comprehensive test program which includes full and overload testing, checking and proving of all control and safety shut down functions

Powered By: CUMMINS

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GENERATOR ENGINE

Cummins heavy-duty diesel engines use advanced combustions technology for reliable and stable power, low emissions, and fast response to sudden load changes.

Electronic governing is available for applications requiring constant (isochronous) frequency regulation such as Uninterruptible Power Supply (UPS) systems, non-linear loads, or sensitive electronic loads. Electronic governing is standard on 100 kW and up. Optional coolant heaters are recommended for all emergency standby installations or for any application requiring fast load acceptance after startup.

Base Engine	Cummins Model VTA28-G5 Turbocharged
Displacement in3 (L)	1710.0 (28.0)
Overspeed Limit, RPM	2100
Regenerative Power, kW	105.00
Cylinder Block Configuration	Cast Iron, In-Line 6 Cylinder
Cranking Current	600 Amps at Ambient Temp. 32°F (0°C)
Battery Charging Alternator	35 Amps
Starting Voltage	24 Volt, Negative Ground
Lube Oil Filter Types	Single Spin-On Canister, Full Flow
Standard Cooling System	122°F (50°C) Ambient Radiator

Power Output	Standby	Prime
Gross Engine Output	900.0 bhp (671.4 kWm)	815.0 bhp (608.0 kWm)
BMEP at Rated Load	226.0 psi (1558.2 kPa)	206.0 psi (1420.3 kPa)
Bore	5.50 in. (139.7 mm)	5.50 in. (139.7 mm)
Stroke	6.00 in. (152.4 mm)	6.00 in. (152.4 mm)
Piston Speed	1800.0 ft/min (9.1 m/s)	1800.0 ft/min (9.1 m/s)
Compression Ratio	13.1 : 1	13.1 : 1
Lube Oil Capacity	89.0 qt (84.2 L)	89.0 qt (84.2 L)

Fuel Flow	Standby	Prime
Fuel Flow at Rated Load	89.0 Gal/hr (336.9 L/hr)	89.0 Gal/hr (336.9 L/hr)
Maximum Inlet Restriction	4.0 in. Hg (101.6 mm Hg)	4.0 in. Hg (101.6 mm Hg)
Maximum Return Restriction	6.5 in. Hg (165.1 mm Hg)	6.5 in. Hg (165.1 mm Hg)

Air Cleaner	Standby	Prime
Maximum Air Cleaner Restriction	25.0 in. H ₂ O (6.2 kPa)	25.0 in. H ₂ O (6.2 kPa)

Exhaust	Standby	Prime
Exhaust Flow at Rated Load	5040.0 cfm (142.6 m ³ /min)	4635.0 cfm (131.2 m ³ /min)
Exhaust Temperature	935.0°F (501.7°C)	885.0°F (473.9°C)
Max Back Pressure	41.0 in. H ₂ O (10.2 kPa)	41.0 in. H ₂ O (10.2 kPa)

Fuel System	Direct Injection, Number 2 Diesel, Fuel Filter; Water Separator; Automatic Electric Fuel Shutoff
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RATING DEFINITIONS

Standby Rating based on: Applicable for supplying emergency power for the duration of normal power interruption. No sustained overload capacity is available for this rating.

Prime Rating based on: Applicable for supplying power in lieu of commercially purchased power. Continuous running at variable load for unlimited periods with 10% overload available 1 hour in any 12 hour period.

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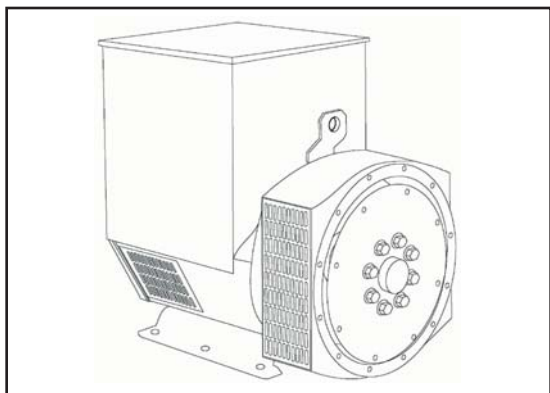
STAMFORD NEWAGE GENERATOR END

All TRC generators are built using Stamford Newage Generator Ends in order to provide high quality power generators.

STAMFORD NEWAGE has a long history of producing high-quality reliable products for the power generation market. Their portfolio of high quality generator ends is recognized as an industry standard.

CONTROL SYSTEM	SELF EXCITED		SEPARATELY EXCITED BY P.M.G.					
A.V.R.	SX 440	SX 421	MX 321	MX 341				
VOLTAGE REGULATION	± 1.0%	± 0.5%	WITH 4% ENGINE GOVERNING	± 0.5%	± 1.0%	WITH 4% ENGINE GOVERNING		
INSULATION SYSTEM	CLASS H							
PROTECTION	IP23							
RATED POWER FACTOR	0.8							
STATOR WINDING	DOUBLE LAYER LAP							
WINDING PITCH	TWO THIRDS							
WINDING LEADS	12							
STATOR WDG, RESISTANCE	0.0037 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED							
ROTOR WDG, RESISTANCE	2.16 Ohms AT 22°C							
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. REFER TO FACTORY FOR OTHERS							
WAVEFORM DISTORTION	NO LOAD < 1.5% NON DISTORTING BALANCED LINEAR LOAD < 5.0%							
MAXIMUM OVERSPEED	2250 REV/MIN							
BEARING DRIVE END	BALL. 6220 (ISO)							
BEARING NON-DRIVE END	BALL. 6314 (ISO)							
WEIGHT COMP. GENERATOR	1685 kg							
WEIGHT WOUND STATOR	805 kg							
WEIGHT WOUND ROTOR	654 kg							
WR ² INERTIA	10.033 kgm ²							
SHIPPING WEIGHT (CRATED)	1775 kg							
SHIPPING CRATE SIZE	166cm x 87cm x 124cm							
	50 Hz		60 Hz					
TELEPHONE INTERFERENCE	THF < 2%		TIF < 50					
COOLING AIR	1.035 m ³ /sec 2202 cfm		1.59 m ³ /sec 3366 cfm					
VOLTAGE SERIES STAR	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138

HCI544D - Technical Data



DEEP SEA ELECTRONICS CONTROL PANEL 5210

Model 5210 is an Automatic Engine Control Module. The module is used to automatically start and stop the engine, indicating the operational status and fault conditions, automatically shutting down the engine and indicating an engine failure by means of an LCD display and an appropriate flashing LED on the front panel. Selected timers and alarms can be altered by the customer from the front panel. Alterations to the system are made using the 810 interface and a PC. This interface also provides real-time diagnostic facilities.

It is possible to monitor operation of the system either locally or remotely. (Optional: remote communications output versions only.)

Easy Pushbutton Control

Operation of the module is via pushbutton controls (with security locking facility) mounted on the front panel with STOP/RESET, AUTO, MANUAL, and START buttons. The first three buttons feature LED 'selected' indications. Further buttons provide LCD DISPLAY SCROLL and EVENT LOG VIEW functions.

Microprocessor Control

The module features 16 bit microprocessor control and a comprehensive list of timers and pre-configured sequences. This allows demanding specifications to be achieved. Configurable expansion facilities are also provided.

Metering

The 5210 module provides metering via the LCD display with the following instrumentation displays, accessed via the LCD DISPLAY SCROLL push buttons:

- ▶ Generator Volts L1-N, L2-N, L3-N
- ▶ Generator Volts L1-L2, L2-L3, L3-L1
- ▶ Generator Amps L1, L2, L3
- ▶ Generator Frequency Hz
- ▶ Engine Speed RPM
- ▶ Engine Oil Pressure
- ▶ Fuel Level %
- ▶ Engine Temperature
- ▶ Plant Battery Volts
- ▶ Engine Hours Run
- ▶ Generator kVA
- ▶ Generator kW
- ▶ Generator Cosφ

Additional Features

- ▶ Event Log
- ▶ Digital Inputs
- ▶ Analog Inputs
- ▶ Relay Outputs
- ▶ Multiple Alarm Channels
- ▶ Emergency Shutdowns
- ▶ Built-in Exerciser Scheduler
- ▶ Multi-Functional Timers
- ▶ Magnetic Pickup or Alternator
- ▶ Speed Monitoring
- ▶ System Lock Input
- ▶ And More



Control Panel By:



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Optional Features

- ▶ Electronic Governor Control System
- ▶ Automatic Fuel Filling System
- ▶ Engine Oil Heater
- ▶ Remote Radiator
- ▶ Low Fuel Level Alarm
- ▶ Charge Voltmeter
- ▶ Charge Ammeter
- ▶ Critical Silencer
- ▶ Enclosure or Soundproof Canopy
- ▶ Residential Silencer
- ▶ PMG
- ▶ Tool Kit



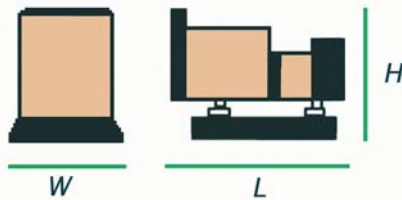
- ▶ U.L. Breaker
- ▶ Anti Condensation Heater for Alternator
- ▶ Sub-base, Remote, or Day Fuel Tank
- ▶ 4 Pole Contactor
- ▶ Oversized Alternator
- ▶ Automatic Transfer Switch
- ▶ Trailer
- ▶ Remote Monitoring System
- ▶ NFPA Controls
- ▶ Manual Sump Oil Drain Pump
- ▶ And More



control your generator remotely



DIMENSIONS (Open Unit)

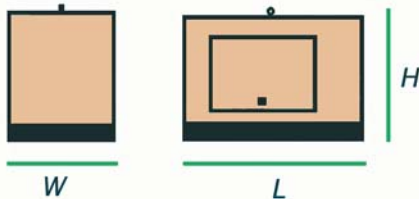


Size (L x W x H) in Inches
149.6" x 54.3" x 87.8"

Dry Weight in Pounds (lbs)
11510 lbs.



DIMENSIONS (Enclosed Unit)



Size (L x W x H) in Inches
216.54" x 63" x 99.6"

Dry Weight in Pounds (lbs)
15104 lbs.



Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your dealer for more information. **DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.**