

ATC20, DIESEL GENSET

Powered by Cummins Engines

50Hz , 380V , 1500RPM



A.T. GENERATORS
www.atgenerators.com

STANDARD SPECIFICATION

Voltage Regulation

Voltage regulation maintained within $\pm 0.5\%$

- Between 0.8 and 1.0 lagging and unity
- From no load to full load
- At speed droop variation up to 4.5%

Frequency Adjustable Ratio

- Change load from 0-100%, within 1.0% (electric speed regulator), within 4.5% (mechanical speed regulator)

Frequency Undulation

- Load from 0-100%, Frequency undulation within 0.25%
- No load wire volts max undulation ratio within 1.8%
- Three phrase balanced load in the order of 5%

Effect factor of telecom

- TIF better than 50
- THF to BS4999 Part 40 better than 2%

Electromagnetism

In compliance with BS800 and VDE levels G and N

General Features

- Heavy-duty industrial diesel engine
- Brushless synchronous alternators: four-pole construction, dynamically balanced
- Prototype tested and production tested
- Gen-set accepts rated load in one step
- 8-hour base mounted fuel tank
- Operation & Maintenance manual
- Special Integrated Steel Base tank and sprayed overall in gloss enamel paint
- Canopy Color: Yellow, White and Green
- Optional weather-proof and sound attenuated enclosures available
- Full range of accessories and options available
- Battery Rack and batteries
- Manufactured in an ISO-9001 certified facility
- Backed by a world wide network of parts and service center

CRITERION

ISO 9001:2000, ISO3046, ISO8528 BS4999
BS5000PT99, BS5514, AS1359, IEC34 UTE5100
VDE0530, CSA A22.2, CEMA, NEA



Genset model	ATC20
Power Output (PRP)	16KW 20KVA
Power Output (ESP)	17.6KW 22KVA
Engine Model	4B3.9-G1
Alternator	EUROPEAN
Canopy Type	C20

1. Available in the following voltages:
440/254-415/240V-400/230V-380/220V -220/127V -200/115V.
2. ESP: Standby Power-Standby duty operation under variable, without overload.
3. PRP: Prime Power-Continuous duty operation, under variable load 24/24-h-10% overload permissible 1 hour/12hours.
4. This Generator working Normally under 55°C.

ATC20, DIESEL GENSET

Cummins Engine

Designed with Safety in Mind

The fully GMSC Range generator set powered by the Cummins engines which manufacturing in USA. Cummins water cooled Diesel engine, oil and fuel filter fitted, water separator, Lube-oil drain valve fitted.

GENSET SPECIFICATION

Cast Iron Skirted Block: With main bearing supports between each cylinder, for maximum strength and rigidity, low weight, and optimum crankshaft support.

Compact Size: For ease of installation and easy access for routine maintenance.

Direct Fuel Injection System: With high swirl intake ports for thorough mixing of air and fuel to provide low fuel consumption.

Forged Steel, I-Beam Cross Section Connecting Rods: With angle split cap-to-rod interface and capscrew attachment for maximum structural strength and ease of service.

Starting : 24 volt negative earth. battery charging alternator 35 amp on engine. Cranking current 640 amps at 0 °c.

Fuel System

24 volt fail safe actuator. Spin-on paper element fuel filters with Bosch fuel pump injection system with integral Electronic governor. Dual flexible fuel lines And connectors. Standard fuel water separator.

Filters.

Air cleaner with dry element and restriction indicator.
Spin full flow lube oil filter.

Cooling

55 °c radiator as standard
Oil cooler, Drain Tap

GENSET SPECIFICATION

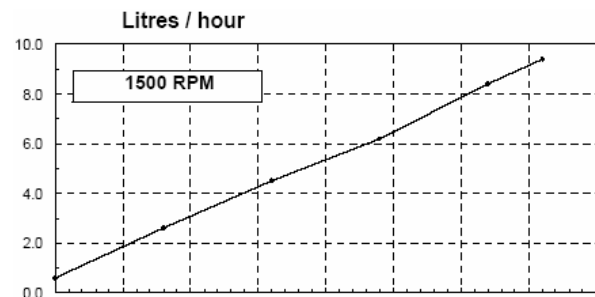
Engine Model		4B3.9-G1
Type		4-cycle diesel engine
Apiration		Natural
Bore x Stroke	mm	102 x 120
Compress the ratio		16.5:1
Engine Speed	rpm	1500
Continuous Rated Output /kw		17.6
Oil Capacity	L	10
Coolant Capacity	L	8
Starting System		Electric - 24 volt DC
Displacement	L	3.9
Lubricant	L	9.5
Battery Voltage /Capacity		24VDC/100A/120
Governing Type		Mechanical / Electrical

Exhaust System

Exhaust Gas Flow	m³/h	254
Exhaust Temperature	°c	410

Fuel System

Fuel Consumption 100%	L/hr	6.7
Tank (L)		220



AC ALTERNATOR

EUROPEAN GENERATOR END

EUROPEAN 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.

Alternator Technical Data

European AC alternator

- Brushless, self exciting
- Class 'H' insulation
- Standard degree of protection is IP23
- Self regulating
- With fan cooling
- Resist humid grease
- AC excitation, rotating rectification tube
- Stator grease insulation covered
- Rotator and excitation high polymer, Resist the corruption of oil and acid.
- Rotator balance is in accordance with BS5625 standard 12.5
- High-quality lubrication sealed long-time bearing
- Rotator silicon steel close tight

Alternator Technical Data

Generator Frame	18/22
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Bearing	Single, double shielded
Windings	100% copper
Connection Type	Reconnectable
Insulation Type	Class H
Pitch	2/3
Amortisseur Winding	Full
Voltage Regulator	SX460 / R230
Voltage Regulation NL - FL	± 1.5%
Underspeed Protection	Standard
Overexcitation Protection	IP23
Standards	NEMA, IEC, IEEE, CSA, BS
Phase Sequence	A(U), B(V), C(W)
TIF (1960 Weightings)	<50
Excitation System	PMG - optional

CONTROL PANELS

DEEPSEA ELECTRONICS CONTROL PANEL 5110

The Model 5110 is an **Automatic Engine Control Module** which has been designed to allow the OEM to meet demand for increased capability within the industry. The module has been designed to automatically start and stop the engine, indicating the operational status and fault conditions, shutting down the engine and indicating the engine failure by means of a graphical LCD display and a flashing LED on the front panel. Selected operational timers and alarms can be adjusted by the customer.

Configuration of the module can be carried out manually utilising the front panel editor, or alternatively by PC, using the 5110 software. Operation of the module is via pushbuttons mounted on the front panel with STOP, AUTO and MANUAL modes.

A further pushbutton provides an LCD DISPLAY SCROLL function to view the instrumentation.

Multiple alarm channels

- ▶ Under/Over speed
- ▶ Charge alternator failure
- ▶ Emergency stop
- ▶ Low oil pressure
- ▶ High engine temperature
- ▶ Fail to start
- ▶ Fail to come to rest
- ▶ Loss of speed sensing signal

Digital Inputs

- ▶ Emergency Stop - A N/C DC positive input
- ▶ 5 fully configurable warning or shutdown inputs.

Metering

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 (PSI & Bar)
 Engine Temperature (°C & °F)
 Plant Battery Volts
 Engine Hours Run

FEATURES

- ▶ Micro-processor based design
- ▶ Fully PC or front panel configuration
- ▶ Automatic engine starting & stopping
- ▶ Automatic shutdown on fault condition
- ▶ Custom graphical icon type display
- ▶ Provide engine and generator instrumentation
- ▶ Provide engine alarms and status information
- ▶ LED & LCD alarm indication
- ▶ Compatible with 5200, 5300 and 5500 series modules for easy upgrade path.



Control Panel By:



OPTIONAL FEATURES

- ▶ Low fuel level alarm shutdown
- ▶ Automatic Fuel Filling System
- ▶ Engine Oil Heater
- ▶ Remote Radiator
- ▶ Charge Voltmeter
- ▶ Charge Ammeter
- ▶ Critical Silencer
- ▶ PMG
- ▶ Tool Kit
- ▶ Residential Silencer

- ▶ Auto Transfer Switch (ATS)
- ▶ Earth Fault Relay
- ▶ Remote Monitor Interface

- ▶ Protection for Alarm Module & Auxiliary Relay
- ▶ Parallel Control Panel
- ▶ Circuit Breaker MCCB & ACB
- ▶ Remote Control Panel



- ▶ Protection for Alarm Module & Auxiliary Relay
- ▶ Circuit Breaker MCCB & ACB
- ▶ Mains auto-charger
- ▶ Engine/Alternator Heaters
- ▶ Trailer
- ▶ Enclosures or Soundproof Canopy
- ▶ Manual Sump Oil Drain Pump
- ▶ Packing-Export Box
- ▶ And More

Voltage Connections

- 277/480V,3 Phase
- 254/440V,3 Phase
- 240/416V,3 Phase
- 230/400V,3 Phase
- 220/380V,3 Phase
- 127/220V,3 Phase
- 115/200V,3 Phase
- 110/190V,3 Phase

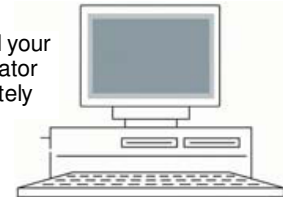


PLC-550 Parallel Control Panel system

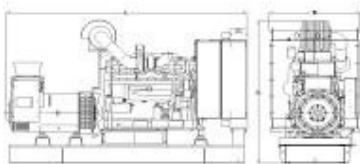


PLC-5220 Remote Control Panel

Control your generator remotely

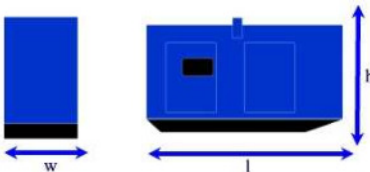


DIMENSIONS



Open Model Excluding option

Overall size (L*W*h), mm:
1650*750*1446
Weight (kg):700



Enclosure Unit

Overall size (L*W*h), mm:
2450*1050*1500
Weight (kg) :1038

In line with our policy of continuous product development, we reserve the right to change specification without notice.

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