

Diesel Generator Specification

By: MB	Date: 03/03/25	Iss: A	Build code: MCD250-1-500
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General Description:	
<p>Mission Critical Diesel Generator for AMF application with Telemetry Alarms Hard-wired terminal output 500ltr Bunded base fuel tank Inbuilt AMF control system</p>	
Customer Specific: Yes	Customer Reference: n / a

Output Power & Power Factor:	25.0 kVA (20.0 kW)
Power factor	0.8 PF
Environment:	<p>Temperature range: -5°C (without additional starting aids) to +40°C Max relative humidity (non-condensing) @ +20°C, does not exceed 90%. Altitude Maximum 1000m (with slight de-rate)</p>
Performance Class ISO 8528:	<p>Electrical Class G2 Steady state voltage: +/- 2.5% Frequency droop < 5% LTP: Limited Time Performance</p>
Overload Capability:	10% Overload

Voltages and Frequency:	230V 1 Phase 50 Hz
Output Type:	Terminal
Terminals:	Load Out "LNE"; ATS control connections
Electrical Protection Devices:	2 pole main MCB

Generator Control System:	Electronic
Control Module:	DSE7320
Starting Method:	Electric Start; Manually at set using control module or, Automatic start due to Mains Failure detected at the control module.
AMF/ATS Requirements:	<p>Automatic Mains Failure (AMF) Generator controller monitors incoming single phase AC mains supply and, when the voltage of this supply is outside pre-set limits, automatically starts the generating set. Control system initiates disconnection of mains from load and connection of generator to load via separate remote Auto Transfer Switch (ATS)</p> <p>When the mains supply is again satisfactory, the alternator is to be disconnected and the mains supply restored. Standby mode resumes.</p>
Engine Protection:	Low oil pressure, High engine temperature, Over/under speed
Engine Monitoring:	RPM, Battery voltage, Hours run, Low fuel
Electrical Protection:	Over/under Voltage, Current and frequency.
Electrical Monitoring:	Volts, Frequency, Amps, kW, kVA, pf, kWh
Safety Shutdowns:	Low Fuel, Fire Alarm (Fusible Link)
Other:	Emergency Stop Button

Engine model:	Yanmar 4TNV98
Service Interval:	50 hours then every 200 hours

Engine Speed:	1500 rpm
Engine Cooling:	Water cooled
No. of Cylinders:	4
Nominal Power:	30.7 kW _{mech}
Starting Method:	Electric Start
Electrical System:	12V DC system
Emissions Level:	Non-certified
Lowest starting temperature:	-5°C with standard glow plugs without extra aids

Starter Battery System:	12V 95Ah
Battery Charging System:	Engine alternator
Other:	Mains battery charger, 3A, supplied from shore supply

Alternator Model:	MeccAlte ECP32-2SC
Alternator Performance:	26kVA 4-pole Class H with digital automatic voltage regulator

Fuel Tank Capacity:	500ltrs		
Fuel Type:	Commercial diesel with up to 10% bio-diesel . i.e. B10 blend.		
Fuel Fill Location & Size:	Internal 3"		
Run Time at 100 load	59 hrs.	Consumption at 100% load	8.5 l / h
Run Time at 75% load	78 hrs.	Consumption at 75% load	6.4 l / h
Run Time at 50% load	116 hrs.	Consumption at 50% load	4.3 l / h
External Fuel Connection:	N/A		
Fuel Bund Arrangements:	Outer skin of generator acoustic canopy doubles as bund		

Sound Level 75% load at 7 m	62 dBA
Sound Level 75% load LWA	87 dBA
Noise Compliant to EC Regs:	Yes

Canopy Type:	Enclosed acoustic/weather with integral base tank
Colour:	Goosewing Grey: BS4800 10A05
Door Locking Arrangement:	Hasps & Staple
Lifting:	With forklift from below or with slings and a spreader frame.
Dimensions L x W x H	Approx. 2300 x 1400 x 1894 (millimetres)
Operating Clearance:	Minimum of 1m all around and above.
Access for Servicing:	Access of 850 mm required both sides to open doors.
Weight:	1335kg (dry)

Special Features:	<p>Telemetry Alarms (via AMF panel):</p> <ul style="list-style-type: none"> • Mains Fail • High Engine Temperature • Battery Low Volts • Plant Fail (including Low Oil Pressure) • Low Fuel • Start Generator • Fire Alarm <p>USB Controller Program Socket and RJ45 Ethernet socket on rear of control panel</p> <p>ENWL specific modifications (including weather hoods)</p>
Delivery Condition:	<p>Oil in engine.</p> <p>Standard label set.</p> <p>O&M Manual.</p>

Revision:	Description	By:	Date:
A	Initial specification	MB/RS	03/03/25