



Image for demonstration purposes



Generating Set Silent Pro - Diesel

GE.BD.017/015.SP+011

1500 rpm - Trifase - 50Hz - 400V Automatic panel without switching on board



Standard equipment

Canopy Soundproofing

Removable soundproof canopy Painting canopy (RAL) in galvanized sheet steel Soundproofing with class 1 polyester material Handles with key lock and automatic closing Inspection doors for controls and maintenance Inspection doors with hermetic gasket

Exhaust

Exhaust rain cap Insulated exhaust pipes Internal residential muffler

Fuel Supply

Single wall daily tank with bunded base Automatic shutdown system for low fuel level Fuel gauge

Handling

n.2 lifting hooks integrated into the bearing structure Base frame with anti-overturning forklift pockets Loadable side by side for truck transportation

Base Frame

Anti-vibrating mounting pads Anti pollution Bunded base

Engine

Tropicalized radiator

Alternator

AVR Automatic Voltage Regulator Impregnation for marine environment

Panel & connection

Emergency Stop button Tamperproof panel IP55 Cable output from side IP44 wiring Start-up battery (pre-charged) Grounding point

Documentation

CE conformity declaration User and Maintenance manual Wirings diagrams

Normatives

All Generating sets are compliant to CE Marking 2014/30/UE Electromagnetic compatibility 2000/14/CE Noise Emission for outdoor use Factory-designed systems built according to ISO 9001:2015 CEI EN 60204-1:2018 - Electrical equipment of machines

COMAP optional - AMF25 and INTELIGEN 200

CM-RS232-485 Plug-in module (RS232-485 communication port)















Primary data

Dimensions (L x W x H)

Weight with liquids (excluding optionals and fuel)

Speed	RPM	1500
Frequency	Hz	50
PRP - Prime power	KVA	15
LTP - Standby power	KVA	17
PRP - Prime power	KW	12
LTP - Standby power	KW	13,6
Standard Voltage	V	400/230
Current	А	21.68
Voltage for current calculation	V	400
COSFI	0,8	0,8
General electrical protection		
Rated current	А	20
Туре		Magnetothermal switch on panel board
Poles	N	3P
Optional/notes		Opening coil
Noise level +/- 3dB(A)		
LWA	dB(A)	85
Sound pressure level @ 7 mt	dB(A)	60
Sound pressure level @ 1 mt	dB(A)	69
Fuel Consumption		
TYPE		Diesel
Standard Fuel Tank capacity	lt	35
Autonomy @ 75% load	h	10
Fuel consumption at 100% load	lt/h	4,7
Fuel consumption at 75% load	lt/h	3,6
Fuel consumption at 50% load	lt/h	2,6
General data		
Rated capacity	Ah	1x70
Auxiliary Voltage	V	12
Exhaust gas temperature	℃	N/A
Exhaust gas flow	l/s	71,6
Combustion air flow	l/s	23
Cooling fan airflow	mc/s	0,8
Exhaust diameter	mm	50

186x86x113

718

Kg (+/-3%)





Engine

Factory		Baudouin
Model		4M06G2D0/S
Emissions stage		Stage 0
Speed governor		Electronic
Radiator	$^{\circ}$ C	50
Cooling	Tipo	liquid (water + 50% Paraflu11)
Active net power	Kwm	16,7
Nominal net power	CV	22,7
Cycle	Tipo	4 strokes
Injection	Tipo	Direct
Aspiration	Tipo	Natural
Numbers of cylinders	N	4
Cylinders arrangement		L
Bore	mm	89
Stroke	mm	92
Total displacement	lt	2,3
Engine oil features		15W40-API CI-4/CH-4 ACEA E5-E7
Engine oil consumption	%	<0,4
Total oil capacity	lt	9,5
Total coolant capacity	lt	8,6
ISO 8528-5 class		G3

Alternator

* May vary based on stock availability. However, a primary brand will be used.

	. ,		
Factory		MeccAlte	
Model		ECP3 3L 4	
PRP continuous power	KVA	15	
Voltage Regulator (voltage accuracy)	+/- %	1	
Poles	N°	4	
Phases	N°	3+N	
Standard windings connection		Star Series	
Stator/rotor impregnation		H (Outdoor Temp 40°C)	
Efficiency	%	86,3	
Engine coupling		Elastic disk	
Short circuit current		>= 300% (3In)	
Protection degree	IP	23	
Cooling system		Self ventilating	
Maxium overspeed	rpm	2250	
Waveform distortion	%	<3	
Exciter		Ponte a diodi - MAUX	

Environmental conditions

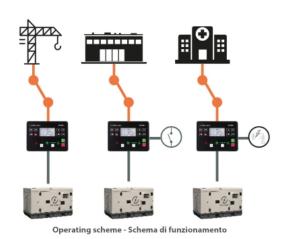
Ambient temperature	°C	40
Relative Humidity	%	60
Max altitude	mt	1000





Control Systems on board QBM-SP-AMF25-00





$\label{eq:QBM} \textbf{A} \textbf{utomatic panel without switching on board}$

Mechanical features

Protection degree	IP	55

Battery charger

Model		ELCOS - CB1	
Maximum output current	Α	2,5	
Output DC voltage (selectable)	Vdc	12-24	
Input AC voltage (selectable)	Vac	220-260	
Frequency	Hz	50-60	

Remotable functions in terminal box

GS start
Genset contactor close/open command (1)
Common Alarm - Volt free output
Genset running

GS lock

Mains contactor close/open command (2)
Management of the automatic fuel refilling system





Control Module



Specifics

Applications

Emergency to the Mains Stand-alone Construction site/Rental Self-production

ENGINE MEASURES

Fuel tank level % Engine oil pressure BAR (1) Engine Coolant temperature °C (1)

Partial run time Hours to maintenance Battery voltage

Total run time

Battery charging voltage

Start-ups counter Engine speed Engine speed (2) Engine Oil temperature (2) Cooler temperature (2) Engine oil level (2) Engine coolant level (2) Engine coolant pressure (2) Turbo pressure (2)

Fuel Consumption (2)

ALTERNATOR MEASURES

Generator Voltage L1, L2, L3 Generator Voltage L1-N, L2-N, L3-N Generator frequency Generator current L1 Generator current L1, L2, L3 Generator Apparent Power kVA Generator Active Power kW Generator Reactive Power kVAR Generator accumulated power kWh Power factor Cosfi

MAINS MEASURES

Mains voltage L1, L2, L3 Mains voltage L1-N, L2-N, L3-N Mains frequency

COMMUNICATION PORTS

Can-bus port Configurable via PC using USB port

EQUIPMENT

Microprocessor Logic Back-lit display Programmable by PC software 250 event log Multiple display languages STOP button

START button AUT mode button MAN mode button OFF mode button Reset alarm button Alarm mute button Transfer to Mains button Transfer to generator button

PRE-ALARMS/ ALARMS

Common Alarm Fuel reserve (pre-alarm) Low fuel level (alarm) Tank overflow

Charge alternator failed (dinamo) Low oil pressure (pre-alarm) (1) Low oil pressure (alarm) Oil sensor failed (alarm)

High coolant temperature (pre-alarm) (1) High coolant temperature (alarm) Low coolant temperature (pre-alarm)

Low water level (1) Water in fuel (1) Battery undervoltage Battery overvoltage GS failure to start GS failure to stop Can-bus Failure

No Can-bus communication Genset overload L1, L2, L3 phases

Genset short circuit Genset overvoltage Genset undervoltage Genset high frequency Genset low frequency

overspeed Reverse power Maintenance request Emergency button pressed Remote emergency active

Fuel theft

Genset negative phase sequence Mains negative phase sequence Fuel theft protection

VISUALIZATIONS ON CONTROL

AMF25

AMF - MRS

MODULE/DISPLAY Pre-alarms

Model

Operating mode

Alarms Engine measures Alternator measures Mains measures Date and time Operating mode Genset status

Mains status Mains contactor status Genset contactor status Digital Input and Output status

CONTROL MODULE FUNCTIONS

Automatic start and stop when the Mains Fails (7)

Manual Start and stop

Emergency stop button on panel board

Remote emergency stop

Remote lock

Scheduled start-ups

MODBUS commands (Start, Stop, Reset, Test) Scada available with PC connected to the

controller PLC editor

Manual switching commands

CONTROL MODULE SPECIAL FUNCTIONS

(on demand) Dummy load (4) Load shedding (4) Idle mode Master / Slave mode





PRP

Engines of this rating provide unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's prime power rating with a maximum number of 500 operational hours at 100% prime power rating. An overload capability of 10% is available, however, is limited to a period of 1 in every 12 hours

LTP

Limited-time running power is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500h of operation per year with the maintenance intervals. The overload is not allowed.





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