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VDE88-5

DIESEL GENERATOR SET / SILENT

88	80	50	400/230
kVA	kVA	Hz	V
STANDBY POWER	PRIME POWER	FREQUENCY	VOLTAGE

DEUTZ BF4M2012C G1

3 phase · 0.8 PF · 1500 rpm

CONFIGURATION COMPARISON

Configuration	Dimensions (L × W × H)	Dry weight	Fuel tank
Open set	2000 × 950 × 1483 mm	1080 kg	170 L
Silent set	2720 × 1100 × 1650 mm	1395 kg	200 L

Performance, engine, alternator and controller data are common to both configurations.

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GENERAL CHARACTERISTICS

VDE88-5 · 50 Hz · 3 Phase

RATED PERFORMANCE

Standby Power (kVA)	**88**
Standby Power (kW)	**70**
Prime Power (kVA)	**80**
Prime Power (kW)	**64**
Power Factor (Cos Phi)	**0.8**
Diesel Engine	**BF4M2012C G1**
Frequency (Hz)	**50**
Rated Speed (rpm)	**1500**
Phase	**3**
Standard Voltage (V)	**400/230**
Available Voltages (V)	**380/220 · 415/240**

POWER DEFINITIONS

STANDBY POWER (ESP)

Available for supplying emergency power during a utility interruption. The stated rating follows ISO 8528-1.

PRIME POWER (PRP)

Available for an unlimited number of annual operating hours in variable-load applications, in accordance with ISO 8528-1.

TERMS OF USE

Nominal power is stated at 25 °C inlet-air temperature, 100 kPa barometric pressure (100 m A.S.L.) and 30% relative humidity.

RATED OUTPUT CURRENT BY VOLTAGE

Rated voltage	Standby current (88 kVA)	Prime current (80 kVA)
380/220 V	**133.7 A**	**121.5 A**
400/230 V	**127.0 A**	**115.5 A**
415/240 V	**122.4 A**	**111.3 A**

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ENGINE DATA

DEUTZ BF4M2012C G1

GENERAL ENGINE DATA

Engine brand	**DEUTZ**
Engine model	**BF4M2012C G1**
Engine type	**4-stroke diesel**
Governor type	**Electronic**
Injection type	**Direct**
Aspiration type	**Turbocharged and Air to Air**
Cylinders and arrangement	**4-L**

GENERAL ENGINE DATA

Bore × stroke	**101 × 126 mm**
Displacement	**4.04 L**
Cooling system	**Water-cooled**
Lube oil consumption at full load	**0.15%of fuel consumption**
Compression ratio	**19:1**
Air filter	**Dry**

FUEL CONSUMPTION

100% load ESP	**19.9 L/h**
100% load PRP	**18.1 L/h**
75% load PRP	**13.3 L/h**
50% load PRP	**8.9 L/h**

AIR SYSTEM

Intake air flow	**74.3 L/s**
Cooling air flow	**1500 L/s**

EXHAUST SYSTEM

Maximum exhaust temperature	**600 °C**
Exhaust gas flow	**230.3 L/s**
Maximum allowed back pressure	**3 kPa**

STARTING SYSTEM

Starting power	**6 kW**
Recommended battery	**60 Ah**
Number of batteries	**2**
Auxiliary voltage	**24 VDC**

OIL AND COOLING CAPACITIES

Engine oil capacity	**8.5 L**
Total coolant capacity	**15.9 L**

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ALTERNATOR DATA

3-phase · Brushless · Electronic AVR

GENERAL ALTERNATOR DATA

Number of phases	**3**
Power factor (Cos Phi)	**0.8**
Poles	**4**
Winding connections (standard)	**Star-series**
Insulation	**H class**
Enclosure (according to IEC 34-5)	**IP23**
Excitation system	**Self-excited, brushless**
Voltage regulator	**AVR (Electronic)**
Number of bearings	**Single bearing**
Coupling system	**Flexible disc**
Coating type	**Standard (vacuum impregnation)**

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CONTROL MODULE

ComAp InteliNano AMF 5

AUTOMATIC MAINS FAILURE

AMF CONTROL

Provides automatic mains failure control plus manual or remote start/stop, with generator and mains measurement, protection, event logging and timer functions.

CORE FUNCTIONS

01 Automatic Mains Failure plus manual or remote start/stop

02 Configuration, commissioning and monitoring through InteliConfig

03 3-phase generator and mains voltage measurement, plus 3-phase generator current measurement

04 6 binary outputs, 4 + 1 binary inputs and 3 analog inputs for flexible I/O integration

05 Detailed event history with up to 100 records for fault analysis

06 USB-C for configuration/firmware update; CAN supports J1939 communication

07 User setpoints, protections and dedicated emergency-stop functionality

08 One slot for optional Ethernet, 4G-GPS or dual-port RS232/RS485 module

CONNECTIVITY

InteliNano AMF 5 · Communication options

USB-C CAN / J1939 INTERNET MODBUS RTU

COMMUNICATION AND MONITORING FEATURES

01 USB-C supports controller configuration and firmware updates, including power-over-USB-C

02 CAN interface supports J1939 communication with compatible engine ECUs

03 One plug-in slot: choose Ethernet, 4G-GPS or dual-port RS232/RS485 (HW 2.0+)

04 Remote monitoring support via AirGate 2.0, WebSupervisor and InteliScada

05 Internet access is available through the optional Ethernet or 4G-GPS module

06 Modbus RTU is available through the optional dual-port RS232/RS485 module

07 4G-GPS supports geo-fencing; User Access Management improves access control

PLUG-IN MODULES

CM3-ETHERNET · CM2-4G-GPS · CM-RS232-485

Only one module can be installed. Plug-in support requires controller HW 2.0 or higher.