

VDE53-6

DIESEL GENERATOR SET / SILENT



53

kVA

STANDBY POWER

48

kVA

PRIME POWER

60

Hz

FREQUENCY

440/254

V

VOLTAGE

DEUTZ BFM3T G2

3 phase · 0.8 PF · 1800 rpm

CONFIGURATION COMPARISON

Configuration	Dimensions (L × W × H)	Dry weight	Fuel tank
Open set	1980 × 855 × 1290 mm	770 kg	150 L
Silent set	2320 × 1050 × 1250 mm	1050 kg	100 L

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

GENERAL CHARACTERISTICS

VDE53-6 · 60 Hz · 3 Phase

RATED PERFORMANCE

Standby Power (kVA)	53
Standby Power (kW)	42
Prime Power (kVA)	48
Prime Power (kW)	38
Power Factor (Cos Phi)	0.8
Diesel Engine	BFM3T G2
Frequency (Hz)	60
Rated Speed (rpm)	1800
Phase	3
Standard Voltage (V)	440/254
Available Voltages (V)	220/127 or 480/277

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 (53 kVA)	Prime current (48 kVA)
220/127 V	139.1 A	126.0 A
440/254 V	69.5 A	63.0 A
480/277 V	63.7 A	57.7 A

ENGINE DATA

DEUTZ BFM3T G2

GENERAL ENGINE DATA

Engine brand	DEUTZ
Engine model	BFM3T G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Naturally Aspirated
Cylinders and arrangement	4-L

FUEL CONSUMPTION

100% load ESP	12.4 L/h
100% load PRP	11.3 L/h
75% load PRP	8.8 L/h
50% load PRP	6.2 L/h

AIR SYSTEM

Intake air flow	61.1 L/s
Cooling air flow	1413 L/s

GENERAL ENGINE DATA

Bore × stroke	93 × 100 mm
Displacement	2.72 L
Cooling system	Water-cooled
Lube oil consumption at full load	0.5%-1% of fuel consumption
Compression ratio	18.3:1
Air filter	Dry

EXHAUST SYSTEM

Maximum exhaust temperature	476 °C
Exhaust gas flow	119.4 L/s
Maximum allowed back pressure	10 kPa

STARTING SYSTEM

Starting power	3 kW
Recommended battery	60 Ah
Number of batteries	1
Auxiliary voltage	12 VDC

OIL AND COOLING CAPACITIES

Engine oil capacity	7 L
Total coolant capacity	4.8 (engine only) L

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)

CONTROL MODULE

ComAp IntelliNano 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	05	Detailed event history with up to 100 records for fault analysis
02	Configuration, commissioning and monitoring through IntelliConfig	06	USB-C for configuration/firmware update; CAN supports J1939 communication
03	3-phase generator and mains voltage measurement, plus 3-phase generator current measurement	07	User setpoints, protections and dedicated emergency-stop functionality
04	6 binary outputs, 4 + 1 binary inputs and 3 analog inputs for flexible I/O integration	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.