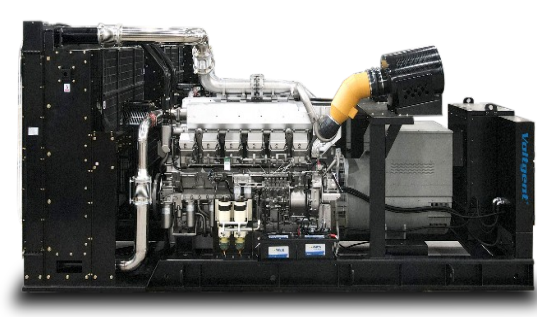


VMS1650-5

DIESEL GENERATOR SET / OPEN + SILENT



OPEN SET



SILENT SET

1650

kVA

STANDBY POWER

1500

kVA

PRIME POWER

50

Hz

FREQUENCY

400/230

V

VOLTAGE

Mitsubishi S12R-PTAA2-C

3 phase · 0.8 PF · 1500 rpm

CONFIGURATION COMPARISON

Configuration	Dimensions (L × W × H)	Dry weight	Fuel tank
Open set	5000 × 2200 × 2520 mm	11200 kg	/
Container	6058 × 2438 × 2896 mm	15700 kg	/

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

GENERAL CHARACTERISTICS

VMS1650-5 · 50 Hz · 3 Phase

RATED PERFORMANCE

Standby Power (kVA)	1650
Standby Power (kW)	1320
Prime Power (kVA)	1500
Prime Power (kW)	1200
Power Factor (Cos Phi)	0.8
Diesel Engine	S12R-PTAA2-C
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 (1650 kVA)	Prime current (1500 kVA)
380/220 V	2506.9 A	2279.0 A
400/230 V	2381.6 A	2165.1 A
415/240 V	2295.5 A	2086.8 A

ENGINE DATA

Mitsubishi S12R-PTAA2-C

GENERAL ENGINE DATA

Engine brand	Mitsubishi
Engine model	S12R-PTAA2-C
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and air to air cooler
Cylinders and arrangement	12-V

FUEL CONSUMPTION

100% load ESP	/
100% load PRP	317 L/h
75% load PRP	/
50% load PRP	/

AIR SYSTEM

Intake air flow	1466.7 L/s
Cooling air flow	30000 L/s

GENERAL ENGINE DATA

Bore × stroke	170 × 180 mm
Displacement	49 L
Cooling system	Water-cooled
Lube oil consumption at full load	0.5%-1% of fuel consumption
Compression ratio	13.5:1
Air filter	Dry

EXHAUST SYSTEM

Maximum exhaust temperature	520 °C
Exhaust gas flow	5200 L/s
Maximum allowed back pressure	5.9 kPa

STARTING SYSTEM

Starting power	7.5×2 kW
Recommended battery	120 Ah
Number of batteries	4
Auxiliary voltage	24 VDC

OIL AND COOLING CAPACITIES

Engine oil capacity	180 L
Total coolant capacity	125 (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

Deep Sea DSE6120

SINGLE GEN-SET CONTROL

AMF CONTROL

Automatic mains failure controller for one gen-set, with three-phase mains and generator monitoring, flexible I/O and electronic or non-electronic engine versions.



CORE FUNCTIONS

01	Automatic transfer between mains and generator power	05	Event log for 10 events plus engine-hours counter
02	3-phase mains and generator voltage monitoring	06	6 digital inputs and 3 analog sender inputs
03	Generator current monitoring and protection	07	Six outputs; configuration depends on the engine version
04	CAN-engine or magnetic-pick-up/alternator-sensing versions	08	PC/front-panel configuration; optional IP65 front gasket

CONNECTIVITY

DSE6120 · Interfaces, sensing and I/O

USB CAN / MPU 6 INPUTS 6 OUTPUTS

COMMUNICATION AND MONITORING FEATURES

- | | | | |
|----|--|----|---|
| 01 | USB connects to DSE Configuration Suite for controller setup | 05 | Six digital inputs and three analog senders support field signals |
| 02 | Choose CAN-engine or magnetic-pick-up/alternator-sensing version | 06 | Four outputs are configurable on MPU/alternator version; six on CAN |
| 03 | DSE6120 includes dedicated 3-phase mains sensing | 07 | Remote-start input, test mode and configurable timers are included |
| 04 | 3-phase generator voltage and current monitoring is built in | | |

ORDERING OPTIONS

CAN ENGINE VERSION · MPU / ALTERNATOR VERSION

Engine sensing and output configuration depend on the selected controller variant.