

VM3863-6C

DIESEL GENERATOR SET / OPEN + SILENT



OPEN SET

SILENT SET

3863

kVA

STANDBY POWER

3513

kVA

PRIME POWER

60

Hz

FREQUENCY

440/254

V

VOLTAGE

MTU 20V4000G83L

3 phase · 0.8 PF · 1800 rpm

CONFIGURATION COMPARISON

Configuration	Dimensions (L × W × H)	Dry weight	Fuel tank
Open set	6500 × 2600 × 2560 mm	19900 kg	/
Container	12192 × 2438 × 2896 mm	27900 kg	/

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

GENERAL CHARACTERISTICS

VM3863-6C · 60 Hz · 3 Phase

RATED PERFORMANCE

Standby Power (kVA)	3863
Standby Power (kW)	3090
Prime Power (kVA)	3513
Prime Power (kW)	2810
Power Factor (Cos Phi)	0.8
Diesel Engine	20V4000G83L
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 (3863 kVA)	Prime current (3513 kVA)
220/127 V	10137.7 A	9219.2 A
440/254 V	5068.9 A	4609.6 A
480/277 V	4646.5 A	4225.5 A

ENGINE DATA

MTU 20V4000G83L

GENERAL ENGINE DATA

Engine brand	MTU
Engine model	20V4000G83L
Engine type	4-stroke diesel
Governor type	ECU
Injection type	Direct
Aspiration type	Turbocharger and intercooled
Cylinders and arrangement	20-V

FUEL CONSUMPTION

100% load ESP	749.1 L/h
100% load PRP	681 L/h
75% load PRP	481 L/h
50% load PRP	330.6 L/h

AIR SYSTEM

Intake air flow	4300 L/s
Cooling air flow	26.4 L/s

GENERAL ENGINE DATA

Bore × stroke	170 × 210 mm
Displacement	95.4 L
Cooling system	Water-cooled
Lube oil consumption at full load	0.5%-1% of fuel consumption
Compression ratio	16.4:1
Air filter	Dry

EXHAUST SYSTEM

Maximum exhaust temperature	510 °C
Exhaust gas flow	12100 L/s
Maximum allowed back pressure	8.5 kPa

STARTING SYSTEM

Starting power	2X9 kW
Recommended battery	200 Ah
Number of batteries	4
Auxiliary voltage	24 VDC

OIL AND COOLING CAPACITIES

Engine oil capacity	390 L
Total coolant capacity	255 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.