

VD550-5

DIESEL GENERATOR SET / SILENT



550

kVA

STANDBY POWER

500

kVA

PRIME POWER

50

Hz

FREQUENCY

400/230

V

VOLTAGE

Hyundai DP158LD

3 phase · 0.8 PF · 1500 rpm

CONFIGURATION COMPARISON

Configuration	Dimensions (L × W × H)	Dry weight	Fuel tank
Open set	2840 × 1400 × 2095 mm	3310 kg	900 L

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

GENERAL CHARACTERISTICS

VD550-5 · 50 Hz · 3 Phase

RATED PERFORMANCE

Standby Power (kVA)	550
Standby Power (kW)	440
Prime Power (kVA)	500
Prime Power (kW)	400
Power Factor (Cos Phi)	0.8
Diesel Engine	DP158LD
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 (550 kVA)	Prime current (500 kVA)
380/220 V	835.6 A	759.7 A
400/230 V	793.9 A	721.7 A
415/240 V	765.2 A	695.6 A

ENGINE DATA

Hyundai DP158LD

GENERAL ENGINE DATA

Engine brand	Hyundai
Engine model	DP158LD
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged with Intercooled
Cylinders and arrangement	8-V

FUEL CONSUMPTION

100% load ESP	127.8 L/h
100% load PRP	115.1 L/h
75% load PRP	83.4 L/h
50% load PRP	55.1 L/h

AIR SYSTEM

Intake air flow	513.3 L/s
Cooling air flow	11666.7 L/s

GENERAL ENGINE DATA

Bore × stroke	128 × 142 mm
Displacement	14.6 L
Cooling system	Water-cooled
Lube oil consumption at full load	0.5%-1% of fuel consumption
Compression ratio	15:1
Air filter	Dry

EXHAUST SYSTEM

Maximum exhaust temperature	561 °C
Exhaust gas flow	1500 L/s
Maximum allowed back pressure	5.9 kPa

STARTING SYSTEM

Starting power	7 kW
Recommended battery	120 Ah
Number of batteries	2
Auxiliary voltage	24 VDC

OIL AND COOLING CAPACITIES

Engine oil capacity	22 L
Total coolant capacity	79 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.