

**Diesel Generator Set** 

# **MPL125SC**

Powered By SDEC

50 Hz / 1500 RPM



## MULTIPHASE CORPORATION CO., LTD.

90 CW Tower, Room No.A2102, 21st Floor, Ratchadapisek Road, Kwaeng Huai Khwang, Khet Huai Khwang, Bangkok 10310 Tel: +66 02 168 3193-5 #109 Fax: +66 02 168 3192 Email: marketing@multiphase-corp.com Website: www.multiphase-power.com Facebook: www.facebook.com/MultiphasePower Line ID: @multiphasepower



## MPL125SC



MODEL	FREQUENCY / RPM	STANDBY POWER	PRIME POWER
MPL125SC		125 kVA	112.5 kVA
Powered by SDEC	50 Hz/1500 RPM	100 kW	90 kW

• Model : MPLxxCS - S Suffix for silent type

General Technical Data			
Model	MPL125SC		
Engine	SDEC SC4H160D2		
Standard Voltage	400/230V		
Phase	3 Phase		
Stamford Alternator	UCI274D		
Leroy Somer Alternator	TAL-A44-E		
Leega Alternator	LA274G90		
Speed Control Type	Electronic		
Controller Model	DSE7320		
Generator Set Fuel Consumption (L/hr)			
Load-Standby Power (110%)	27.7		
Load-Prime Power (100%)	25		
Load-Prime Power (75%)	16.7		
Load-Prime Power (50%)	12.8		

Multiphase Power Generators are in conformity with certification ISO 9001/ ISO14001/ISO18001 and our gensets are compliant with CE Standard. Best quality of electricity, high starting and loading capacity according to ISO8528-5. Ambient conditions of reference according to ISO 8528-1:2018 normative: 1000 mbar, 25°C, 30% relative humidity.

#### Prime Power (PRP):

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

#### Emergency Standby Power (ESP):

According to ISO 8528-1:2018, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP

#### Continuous Power (COP):

According to Standard ISO 8528-1:2018, this is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

Generator Set Ratings						
Velke de Dheese	Standby Rating			Prime Rating		
voltage	Voltage Phase	KVA	KW	AMPS	KVA	KW
415/240v	3	125	100	173.9	112.5	90
400/230v	3	125	100	180.4	112.5	90
380/220v	3	125	100	189.9	112.5	90

#### **Operating Environmental Requirement**

Abmient Temperature : -25°C - 50°C (Heater must be included when in low temperature)

• Himidity: Less than 80%

Altitude: Up to 1000meters (For higher altitude application, please consult with Our Team)

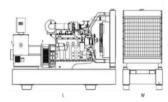
#### MULTIPHASE CORPORATION CO., LTD.





## DIMENSIONS

Weight And Dimensions	Open Type	Silent Type
Length (mm)	1980	2900
Width (mm)	980	1080
Height (mm)	1570	2050
Net Weight (kg)	1110	1750
Fuel Tank Capacity (L)	240	300
Running Hours - 100% Load	9.6	12.0







## **DIESEL ENGINE SPECIFICATION**

Manufacturer	SDEC	Engine Design	Standby Power	Prime Power
Engine Model	SC4H160D2	Gross Engine Output (KW)	116	105
Cylinders No./Arrangement	4 / In-Line	Intake System (kPa)	Initial 3 /	Final 6
Compression Ratio	16:1	Exhaust System (kPa)	Max	k 6
Injection Type	Direct	Water Flow (L/min)	15	5
Aspiration Type	Turbocharged & Air-to-Air Intercooled	Air Flow (m <sup>3</sup> /min)	7.3	39
Bore x Stoke	105x124 mm	Exhaust Gas Flow (m <sup>3</sup> /min)	16	.3
Displacement	4.3 L	Exhaust Gas Temp (°C)	60	0

## MULTIPHASE CORPORATION CO., LTD.





Diesel Engine Specifications		
Lubrication System	Lub. Method	Fully forced pressure feed type
	Oil Filter	Full Flow, Cartridge Type
	Oil pan capacity (High/Low) (L)	13/11
Fuel System	Injection pump	Longkou in-line "P" type
	Governor	Electric type
	Opening pressure(kg/cm2)	250
	Fuel filter	Full Flow, Cartridge Type
	Coolant Capacity - Engine Only (L)	6.8
	Max. Pressure System (kg/cm2)	0.5
Cooling System	Water Pump Capacity (L/min)	155
	Thermostat Range (°C)	82-95
	Cooling air flow (m <sup>3</sup> /s)	3.09
Electrical System	Charging Generator(V~A)	24x55
	Start Motor(V~kW)	24x4.5
	Battery voltage(V)	24

## **ALTERNATOR SPECIFICATION**

Poles	4
Insulation	Class H
Protection Rating	IP23
Exciter System	Self-Excited, Brushless
AVR Regulatorion Range	±1%
Number Of Bearing	Single Bearing
Coupling System	Flexible Disc
Winding Pitch	2/3
Overspeed Protection	2250 R.P.M.

#### ALTERNATOR STANDARD FEATURES

- All models are brushless, rotating-field alternators
- Alternator meet the main international standard of IEC 60034, NEMA MG 1.32-33, BS 5000 Part 99, VDE 0530, ISO 8528/3
- The AVR voltage regulator provides superior short circuit capability
- Self-ventilated and dip proof construction
- Superior voltage waveform

Note: See Alternator Data Sheets for application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves

## MULTIPHASE CORPORATION CO., LTD.





## **CONTROL SYSTEM DATA (DSE7320)**



### Main Feature

The DSE7320 will also monitor the mains (utility) supply. The modules include USB, RS232 and RS485 ports as well as dedicated DSENet® terminals for system expansion.

### **Key Function**

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- · Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Integral PLC editor

- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- · Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Power monitoring (kWh, kVAr, kVAh, kVArh)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Backed up real time clock
- Start & stop capability via SMS messaging
- USB connectivity
- Tier 4 CAN engine support





## OPTIONAL

Genset Optional Specifications		
Engine	Water Jacket Pre-Heater	
	Oil Pre-Heater	
	Fuel-Water Separator	
	Winding and Bearing Temperature Detector (RTD)	
Alternator	Anti-Condensation Heater (Space Heater)	
Alternator	PMG / AREP	
	Anti-Damp and Anti-Corrosion Treatment	
	ATS	
Electrical System	Remote Control and Monitoring	
Electrical System	Synchronizing System	
	3/5 Pin sockets with RCBO protection	
	Bunded Double Wall Base Fuel Tank	
	Extended To Larger Capacity Base Tank	
Fuel System	Free-stand Daily Fuel Tank	
	Automatic Fuel Feeding System	
	Fuel T-valves	
Capany	Trailer	
Canopy	Rental Type Design	

Optional Controller Model		
ComAp Controller for Single Genset Application	ComAp Nano MRS3	
	ComAp AMF20	
	ComAp AMF25	
ComAp Controller for Multi Genset Application	ComAp IG200	
	ComAp IG-NT	
	DSE4520 MKII	
Deepsea Controller for Single Genset Application	DSE6020 MKII	
	DSE7320 MKII /DSE7420MKII	
Deepsea Controller for Multi Genset Application	DSE8610 MKII	
	DSE8810 MKII	

