



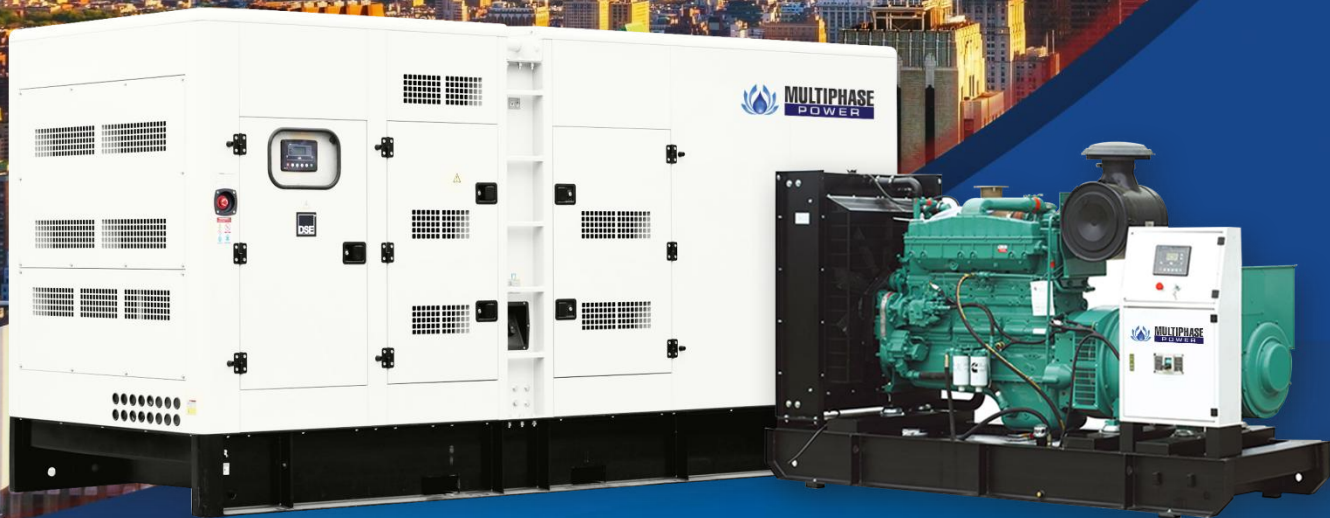
**MULTIPHASE  
POWER**

Diesel Generator Set

# MPY50SC

Powered By SDEC

50 Hz / 1500 RPM



**MULTIPHASE CORPORATION CO., LTD.**

90 CW Tower, Room No.A2102, 21st Floor, Ratchadapisek Road,  
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# MPY50SC



MODEL	FREQUENCY / RPM	STANDBY POWER	PRIME POWER
MPY50SC Powered by SDEC	50 Hz/1500 RPM	40 kW	36 kW
		50 kVA	45 kVA

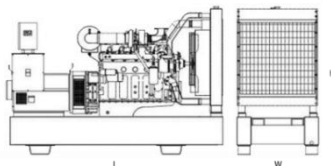
- Available for voltages 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V
- All datas based on ISO 3046, altitude 100m (328ft), barometric pressure 100kPa (29.53 inHg), air temperature 25 °C (77 °F), relative humidity 30%.
- Diesel generators comply with standards : ISO8528, ISO14000, ISO3046, GB755, BS5000, VDE0530, IEC34-1
- Model : MPYxxCS – S Suffer for silent type

## GENERAL CHARACTERISTICS

Model	MPY50SC
Engine	SDEC 4HTAA4.3-G31
Alternator	Leroy Somer TAL-A42-F
Voltage (V)	400/230
Current (A)	65
Connection	3 Phase, 4W/Y
Frequency	50 Hz
Engine Speed (RPM)	1500
Rated Power Factor	0.8
Controller Model	DSE7320

## DIMENSIONS

DIMENSIONS	OPEN TYPE	SILENT TYPE
Length (L)	1900 mm	2300 mm
Width (W)	900 mm	1100 mm
Height (H)	1200 mm	1240 mm
Net Weight (KG)	950 kg	1320 kg



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## STANDARD CONFIGURATION

Engine	SDEC, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.
Alternator	LEROY SOMER brushless AC alternator
Radiator	Silent Type 50 °C (Open Type 40 °C), fan protective shroud
Base Frame	≤ 550 KW : base mounted fuel tank, anti-vibration pads, battery holder > 550 KW : channel steel base frame, anti-vibration pads, battery holder
Circuit Breaker	With ABB main circuit breaker
Control System	DEEP SEA 7320
Start Battery	Dry charged battery, available for 6 times starts under standard condition; connection cables.
Installation Accessories	Bellow, Elbow and Flange, Exhaust Silencer, etc.
Documents	Electric drawing, Operation & Maintenance Manual, Certification etc.

## OPTIONAL CONFIGURATION

Engine Accessories	<ul style="list-style-type: none"> <li>• Heavy-Duty Air Filter</li> <li>• Coolant Heater</li> <li>• Lube Oil Heater</li> <li>• Fuel and Water Separator</li> </ul>
Alternator and Accessories	<ul style="list-style-type: none"> <li>• Stamford or Leroy Somer or Others</li> </ul>
Cooling System	<ul style="list-style-type: none"> <li>• High Voltage ___ kV</li> <li>• 50 °C Radiator</li> <li>• Heat Exchanger + Water Cooling Tower + External Water Circulation Pumping System</li> <li>• Remote Horizontal Water Tank System</li> </ul>
Control System	<ul style="list-style-type: none"> <li>• AMF</li> <li>• Parallel</li> <li>• Practical Type in Low Temperature Environment</li> <li>• Control Screen Heater</li> <li>• Other</li> </ul>
Circuit Breaker	<ul style="list-style-type: none"> <li>• ¾ Poles</li> <li>• Fixed/Handcart Type</li> <li>• Electric Mechanism</li> </ul>
Automatic Transfer Switch	<ul style="list-style-type: none"> <li>• ATS Cabinet</li> </ul>
Start Battery	<ul style="list-style-type: none"> <li>• Nickel-Cadmium Battery</li> <li>• Maintenance-Free Battery</li> <li>• Power Charger and Selector</li> <li>• Charging Current Meter</li> </ul>
External Fuel Tank	<ul style="list-style-type: none"> <li>• 500 L, 1000 L, 1500 L, 2000 L, 2500L, 3000L, 4000L, 5000L</li> </ul>

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## ENGINE DATA

Engine Model	SDEC 4HTAA4.3-G31
Engine Power	56 kW.
Aspiration	Water-cooled, Turbocharged with aftercooler
Displacement (L)	4.3
Type	In-Line
Bore x Stroke (mm)	105 x 124
No. of Cylinders	4
Compression Ratio	16 : 1
Governor Type	ECU
Rated Speed (RPM)	1500
Prime Power Fuel Consumption (L/h)	11.9
Standby Power Fuel Consumption (L/h)	13.2
Fuel	Sumer: GB 252-2000 top ASTM D975 No.2-D or BS2869 1998 Class A1, A2
Injection System	Japan Denso Electric Control Oil Pump
Lube Oil Capacity (L)	13
Lube	API CF-4 15W40
Lub. Method	Fully forced pressure feed type
Coolant Capacity (L)	32
Cooling fan	2
Std. Thermostat (Modulating) Range (°C)	82-95
Fan Drive Method	Belt Drive
Cooling Fan Air Flow (m <sup>3</sup> /min)	120
Combustion Air Flow (m <sup>3</sup> /min)	4.5
Maximum Air Intake Restriction (kPa)	3
Exhaust Gas Flow (m <sup>3</sup> /min)	10.2
Max. Back Pressure (kPa)	6
Exhaust Gas Temp (°C)	600
Exhaust Pipe Size (mm)	1 x $\phi$ 76.5
Start Mode	DC12V Electric Start
Battery	2 x 120 Ah

## ALTERNATOR DATA

Alternator Model	Leroy Somer TAL-A42-F	Rate Power	36/45 kW/kVA
PF.	0.8	Voltage	400/230 V
Phase	3	Frequency	50 Hz.
Connection	3P 4W/Y	Bearing	1
Winding Pitch	2/3	Protection Class	IP23
Insulation Class	H	Efficiency	88.2%
Tel. Influence	TIF < 50	Voltage Regulation	±1%
Harmonic Coefficient	THF < 2%	AVR	R120
Voltage Adjust Scope	≥±5%	Excitation System	SHUNT

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## 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
- DSENet ® expansion compatible etc.

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