



**MULTIPHASE
POWER**

Diesel Generator Set

MPY1600C

Powered By Cummins

50 Hz / 1500 RPM



MULTIPHASE CORPORATION CO., LTD.

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MPY1600C



MODEL	FREQUENCY / RPM	STANDBY POWER	PRIME POWER
MPY1600C Powered by Cummins	50 Hz/1500 RPM	1280 kW	1100 kW
		1600 kVA	1375 kVA

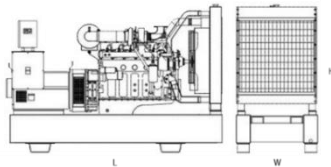
- Available for voltages 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V
- All datas based on ISO 3046, altitude 100m (328ft), barometric pressure 100kPa (29.53 inHg), air temperature 25 °C (77 °F), relative humidity 30%.
- Diesel generators comply with standards : ISO8528, ISO14000,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

GENERAL CHARACTERISTICS

Model	MPY1600C
Engine	Cummins KTA50-G12A
Alternator	Leroy Somer LSA50.2L8
Voltage (V)	400/230
Current (A)	1985
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)	5400 mm	6058 mm
Width (W)	2100 mm	2438 mm
Height (H)	2310 mm	2896 mm
Net Weight (KG)	10600 kg	14860 kg



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STANDARD CONFIGURATION

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

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ENGINE DATA

Engine Model	Cummins KTA50-G12A
Engine Power	1412 kW.
Aspiration	Turbocharged & Low Temperature Aftercooled
Displacement (L)	50
Type	60° Vee
Bore x Stroke (mm)	159 x 159
No. of Cylinders	16
Compression Ratio	13.9 : 1
Governor Type	Electronic Governor
Rated Speed (RPM)	1500
Prime Power Fuel Consumption (L/h)	280
Standby Power Fuel Consumption (L/h)	329
Fuel	ASTM D975 No.2-D or BS2869 1998 Class A1, A2
Injection System	PT
Lube Oil Capacity (L)	176.8
Lube	API CF-4 15W40
Max. Temperature (°C)	121
Coolant Capacity (L)	140
Max. Top Tank Temp. (°C)	104
Std. Thermostat (Modulating) Range (°C)	82-93
Fan Drive Method	Shaft Drive
Cooling Fan Air Flow (m ³ /min)	1800
Combustion Air Flow (m ³ /min)	89.52/102.0
Maximum Air Intake Restriction (kPa)	3.73
Exhaust Gas Flow (m ³ /min)	222.9/254.0
Max. Back Pressure (kPa)	6.8
Exhaust Gas Temp (°C)	≤ 510
Exhaust Pipe Size (mm)	φ 152
Start Mode	DC24V Electric Start
Battery	4 x 200 Ah

ALTERNATOR DATA

Alternator Model	Leroy LSA50.2L8	Rate Power	1200/1500 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	95.4%
Tel. Influence	TIF < 50	Voltage Regulation	±0.5%
Harmonic Coefficient	THF < 2%	AVR	D350
Voltage Adjust Scope	≥±5%	Excitation System	PMG

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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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