



**MULTIPHASE
POWER**

Diesel Generator Set

MPY60C

Powered By Cummins

50 Hz / 1500 RPM



MULTIPHASE CORPORATION CO., LTD.

90 CW Tower, Room No.A2102, 21st Floor, Ratchadapisek Road,
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MPY60C



| MODEL | FREQUENCY / RPM | STANDBY POWER | PRIME POWER |
|------------------------------|-----------------|---------------|-------------|
| MPY60C Powered by Cummins | 50 Hz/1500 RPM | 48 kW | 44 kW |
| | | 60 kVA | 55 kVA |

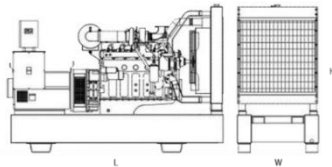
- Available for voltages 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V
- All datas based on ISO 3046, altitude 100m (328ft), barometric pressure 100kPa (29.53 inHg), air temperature 25 °C (77 °F), relative humidity 30%.
- Diesel generators comply with standards : ISO8528, ISO14000,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

GENERAL CHARACTERISTICS

| | |
|--------------------|-----------------------|
| Model | MPY60C |
| Engine | Cummins 4BTA3.9-G2 |
| Alternator | Leroy Somer TAL-A42-H |
| Voltage (V) | 400/230 |
| Current (A) | 79 |
| 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) | 1800 mm | 2600 mm |
| Width (W) | 850 mm | 1100 mm |
| Height (H) | 1330 mm | 1290 mm |
| Net Weight (KG) | 950 kg | 1320 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 | 50 °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 | ≤63A : Micro Circuit Breaker (MCB) >63A ≤1250A : Molded case circuit breaker (MCCB), >1250A : Air Circuit Breaker (ACB) |
| 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 4BTA3.9-G2 |
| Engine Power | 64 kW. |
| Aspiration | Turbocharged & Aftercooled |
| Displacement (L) | 3.9 |
| Type | In-Line |
| Bore x Stroke (mm) | 102 x 120 |
| No. of Cylinders | 4 |
| Compression Ratio | 17.3 : 1 |
| Governor Type | Electronic Governor |
| Rated Speed (RPM) | 1500 |
| Prime Power Fuel Consumption (L/h) | 12.9 |
| Standby Power Fuel Consumption (L/h) | 14.1 |
| Fuel | ASTM D975 No.2-D or BS2869 1998 Class A1, A2 |
| Injection System | BYC PB |
| Lube Oil Capacity (L) | 10.9 |
| Lube | API CF-4 15W40 |
| Max. Temperature (°C) | 121 |
| Coolant Capacity (L) | 21.9 |
| Max. Top Tank Temp. (°C) | 104 |
| Std. Thermostat (Modulating) Range (°C) | 82-95 |
| Fan Drive Method | Shaft Drive |
| Cooling Fan Air Flow (m ³ /min) | 210 |
| Combustion Air Flow (m ³ /min) | 3.3/3.54 |
| Maximum Air Intake Restriction (kPa) | 3.7 |
| Exhaust Gas Flow (m ³ /min) | 8.94/9.9 |
| Max. Back Pressure (kPa) | 10 |
| Exhaust Gas Temp (°C) | ≤ 560 |
| Exhaust Pipe Size (mm) | φ 76 |
| Start Mode | DC24V Electric Start |
| Battery | 2 x 120 Ah |

ALTERNATOR DATA

| | | | |
|----------------------|-----------------------|--------------------|----------------|
| Alternator Model | Leroy Somer TAL-A42-H | Rate Power | 50.4/63 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 | 88.6% |
| Tel. Influence | TIF < 50 | Voltage Regulation | ±1.0% |
| 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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