

**Diesel Generator Set** 

# **MPL200C1**

Powered By Cummins 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



# **MPL200C1**



MODEL	FREQUENCY / RPM	STANDBY POWER	PRIME POWER
MPL200C1	50 Hz/1500 RPM	200 kVA	180 kVA
Powered by Cummins		160 kW	144 kW

Model: MPLxxCS - S Suffix for silent type

General Technical Data		
Model	MPL200C1	
Engine	Cummins 6CTA8.3-G1	
Standard Voltage	400/230V	
Phase	3 Phase	
Stamford Alternator	UCI274G	
Leroy Somer Alternator	LSA44.3VL13 or TAL-A44-L	
Other Alternator	n/a	
Speed Control Type	Mechanical	
Controller Model	DSE7320	
Generator Set Fuel Consumption (L/hr)		

48.0

42.0

31.0

21.0

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						
Voltage Phase	Standby Rating			Prime Rating		
	Priase	KVA	KW	AMPS	KVA	KW
415/240v	3	200	160	278.2	180	144
400/230v	3	200	160	288.7	180	144
380/220v	3	200	160	303.9	180	144

## **Operating Environmental Requirement**

- Abmient Temperature : -25°C 50°C (Heater must be included when in low temperature)
- Himidity: Less than 80%

Load-Standby Power (110%)

Load-Prime Power (100%)

Load-Prime Power (75%)

Load-Prime Power (50%)

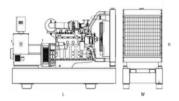
Altitude: Up to 1000meters (For higher altitude application, please consult with Our Team)





## **DIMENSIONS**

Weight And Dimensions	Open Type	Silent Type
Length (mm)	2360	3500
Width (mm)	960	1080
Height (mm)	1690	2120
Net Weight (kg)	1550	2430
Fuel Tank Capacity (L)	330	310
Running Hours - 100% Load	7.9	7.4







## **DIESEL ENGINE SPECIFICATION**

Manufacturer	Cummins	Engine Design	Standby Power	Prime Power
Engine Model	6CTA8.3-G1	Engine Idle Speed (rpm)	700-900	700-900
Cylinders No./Arrangement	6 / In-Line	Gross Engine Output (KW)	180	163
Compression Ratio	17.3:1	Piston Speed (m/s)	6.8	6.8
Injection Type	Direct	Engine Water Flow (L/s)	3.3	3.3
Aspiration Type	Turbocharged & Aftercooled	Intake Air Flow (L/s)	206	192
134	114x135 mm	Exhaust Gas Flow (L/s)	578	521
Displacement	8.3 L	Exhaust Gas Temp (°C)	563	536



	Diesel Engine Specifications				
	Max. Intake Air Restriction with Heavy Duty Air Cleaner				
Air Intake System	Dirty Element (kPa)	6			
	Clean Element (kPa)	4			
	Engine Oil Pressure for Engine Protection Devices	Engine Oil Pressure for Engine Protection Devices			
	Idle Speed (Minimum) (kPa)	103			
Lubrication System	Governed Speed (Maximum) (kPa)	276-414			
	Max. Oil Temperature (°C)	121			
	Min. Required Lube System Capacity - Sump plus Filters (L)	27.6			
	Type Injection System	BYC PB Direct Injection			
	Max. Restriction at Lift Pump (kPa)	27			
Fuel System	Max. Allowable Head on Injector Return Line (kPa)	33.7			
	Max. Fuel Inlet Temperature (°C)	71			
	Coolant Capacity - Engine Only (L)	12.3			
	Max. Coolant Friction Head External to Engine - 1500 rpm (kPa)	28			
Ocaling Contam	Max. Static Head of Coolant Above Engine Crank Centerline (m)	18.3			
Cooling System	Standard Thermostat (Modulating) Range (°C)	82-95			
	Minimum Pressure Cap	69			
	Maximum Top Tank Temperature for Standby / Prime Power (°C)	104/100			
Electrical System	Cranking Motor (V)	24			
	Battery Charging System (A)	40			
	Min. Recommended Battery Capacity — Cold Soak @-18 to 0-C (0°F CCA)	n/a			
Exhaust System	Max. Back Pressure (kPa)	10			

## **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

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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.





# **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	
Liectrical 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	
Canony	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	ComAp IG200		
Application	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		

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