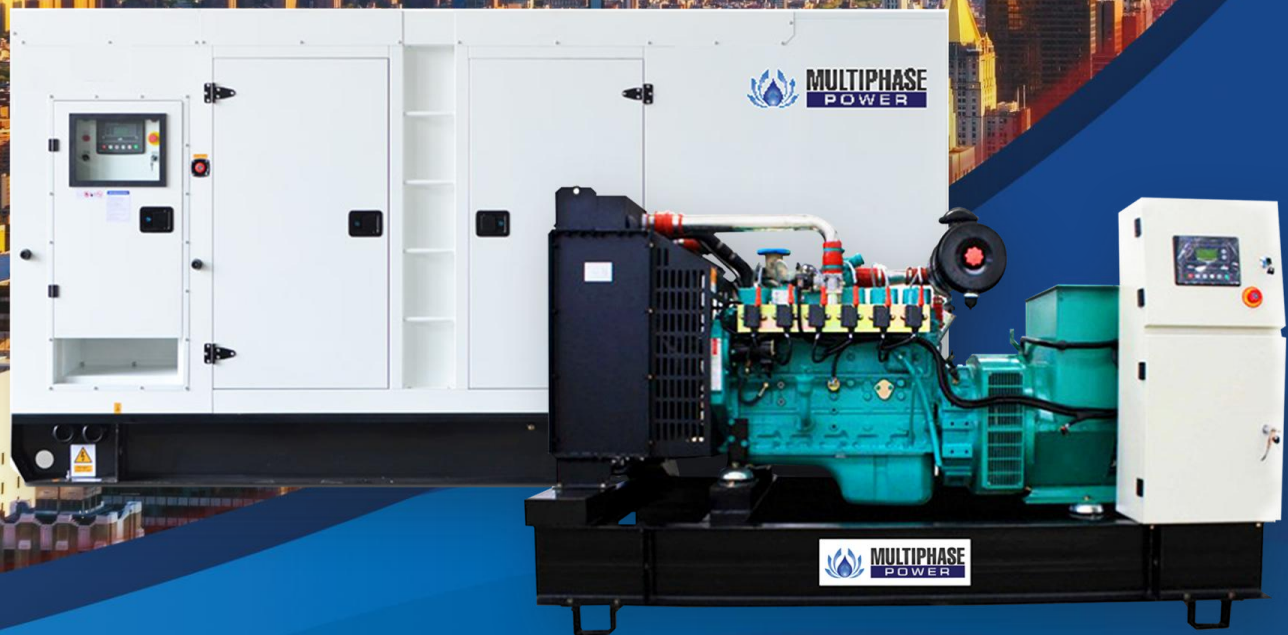


Diesel Generator Set

LG16.5SC

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



LG16.5SC

MODEL	FREQUENCY / RPM	STANDBY POWER	PRIME POWER
LG16.5SC Powered by SDEC	50 Hz/1500 RPM	16.5 kVA	15 kVA
		13.2 kW	12 kW

- Model : MPLxxCS – S Suffix for silent type

General Technical Data	
Model	LG16.5SC
Engine	SDEC 4Z2.3-G11
Standard Voltage	400/230V
Phase	3 Phase
Stamford Alternator	PI144D
Leroy Somer Alternator	TAL-A40-D
Other Alternator	Leega LA164G128
Speed Control Type	Mechanical
Controller Model	DSE6120
Generator Set Fuel Consumption (L/hr)	
Load-Standby Power (110%)	5.1
Load-Prime Power (100%)	4.68
Load-Prime Power (75%)	3.6
Load-Prime Power (50%)	2.6

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 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	
		KVA	KW	AMPS	KVA	KW
415/240v	3	16.5	13.2	23.0	15	12
400/230v	3	16.5	13.2	23.8	15	12
380/220v	3	16.5	13.2	25.1	15	12

Operating Environmental Requirement

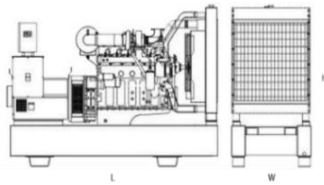
- Abmient Temperature : -25°C - 50°C (Heater must be included when in low temperature)
- Himidity: Less than 80%
- Altitude: Up to 1000meters (For higher altitude application, please consult with Our Team)

MULTIPHASE CORPORATION CO., LTD.

90 CW Tower, Room No.A2102, 21st Floor, Ratchadapisek Road,
Kwaeng Huai Khwang, Khet Huai Khwang, Bangkok 10310 Tel: +66 02 168 3193-5
Website: www.multiphase-power.com Line ID: @multiphasepower

DIMENSIONS

Weight And Dimensions	Open Type	Silent Type
Length (mm)	1600	1900
Width (mm)	730	900
Height (mm)	1310	1205
Net Weight (kg)	600	800
Fuel Tank Capacity (L)	140	80
Running Hours - 100% Load	29.9	17.1



DIESEL ENGINE SPECIFICATION

Manufacturer	SDEC	Engine Design	Standby Power	Prime Power
Engine Model	4Z2.3-G11	Gross Engine Output (KW)	18	16
Cylinders No./Arrangement	4 / In-Line	Intake System (kPa)	Initial 3 / Final 4	
Compression Ratio	18:1	Exhaust System (kPa)	Max 10	
Injection Type	Direct	Water Flow (L/min)	n/a	
Aspiration Type	Naturally Aspirated	Air Flow (m³/min)	1.7	
Bore x Stroke	85x100 mm	Exhaust Gas Flow (m³/min)	7.2	
Displacement	2.3 L	Exhaust Gas Temp (°C)	480	

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
Website: www.multiphase-power.com Line ID: @multiphasepower

Diesel Engine Specifications		
Lubrication System	Lub. Method	Fully forced pressure feed type
	Oil Filter	Full Flow, Cartridge Type
	Oil pan capacity (High/Low) (L)	10/8
Fuel System	Injection pump	Kangda
	Governor	Electric type
	Opening pressure(kg/cm ²)	24
	Fuel filter	Full Flow, Cartridge Type
Cooling System	Coolant Capacity - Engine Only (L)	2.7
	Lid Min. pressure (kPa)	70
	Water Pump Capacity (L/min)	25
	Thermostat Range (°C)	72-82
	Cooling air flow (m ³ /s)	n/a
Electrical System	Charging Generator (V~A)	12x70
	Start Motor (V~kW)	12x3.8
	Battery voltage (V)	12

ALTERNATOR SPECIFICATION

Poles	4
Insulation	Class H
Protection Rating	IP23
Exciter System	Self-Excited, Brushless
AVR Regulation 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.

90 CW Tower, Room No.A2102, 21st Floor, Ratchadapisek Road,
Kwaeng Huai Khwang, Khet Huai Khwang, Bangkok 10310 Tel: +66 02 168 3193-5
Website: www.multiphase-power.com Line ID: @multiphasepower

CONTROL SYSTEM DATA (DSE6120)



Main Feature

The DSE 6120 is an Auto Mains (Utility) Failure Control Module developed to provide a wide range of operating and monitoring features for single diesel and gas gen-sets.

Key Function

- Support for 0-10 V & 4-20mA oil pressure senders
- Heated display option
- 3-phase generator sensing
- 3-phase mains (utility) monitoring
- Generator/load current monitoring & protection
- Configurable analogue/digital inputs (9)
- Configurable DC, volt-free and staged loading outputs (6)
- CAN, MPU & alternator speed sensing (selectable depending on engine type)
- DSE Configuration Suite PC Software
- Fuel and start outputs (configurable on CAN)
- Start on low battery
- Provides true generator sensing
- Provides true generator and mains (utility) sensing
- Provides multiple installation options
- Provides full generator load control
- Provides convenience of monitoring and protection of the generator or monitoring of the load current
- Provides complete user-friendly configuration and easy-to-use high-level system control & monitoring
- Ensures the display continues to operate in extreme cold weather conditions
- Provides flexibility for use with multiple sensors and engine types
- Enhanced alarm functionality
- Low load alarm
- Provides complete user-friendly configuration and easy-to-use high-level system control & monitoring

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
Website: www.multiphase-power.com Line ID: @multiphasepower

OPTIONAL

Genset Optional Specifications	
Engine	Water Jacket Pre-Heater
	Oil Pre-Heater
	Fuel-Water Separator
Alternator	Winding and Bearing Temperature Detector (RTD)
	Anti-Condensation Heater (Space Heater)
	PMG / AREP
	Anti-Damp and Anti-Corrosion Treatment
Electrical System	ATS
	Remote Control and Monitoring
	Synchronizing System
	3/5 Pin sockets with RCBO protection
Fuel System	Bunded Double Wall Base Fuel Tank
	Extended To Larger Capacity Base Tank
	Free-stand Daily Fuel Tank
	Automatic Fuel Feeding System
	Fuel T-valves
Canopy	Trailer
	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
Deepsea Controller for Single Genset Application	DSE4520 MKII
	DSE6020 MKII
	DSE7320 MKII /DSE7420MKII
Deepsea Controller for Multi Genset Application	DSE8610 MKII
	DSE8810 MKII

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
Website: www.multiphase-power.com Line ID: @multiphasepower