

MLC1000

Specifications

Frequency	Voltage	Prime power	Continuous power
60Hz	AC 480V		1000kW
Speed	Noise(Open)	Noise(Silent)	
1800rpm	≤110dB (A) @7m	≤90dB (A) @7m	

Standard configuration

◆Electronic governor ECU	◆DC24V Charging generator	◆Water tank radiator, cooling fan
◆Ingress protection rating IP23	◆Insulation class H	◆SmartGen HGM9510 controller
◆Air filter	◆Silencers	◆Battery floating charger
◆Battery pack and connection cable	◆Circuit breaker	◆Forklift slot
◆Shock Absorber	◆Vibration damper	◆Generator set usage information
◆Package: PE film		

Engine parameters

Engine Brand	Cummins
Engine Model	K50N-G10
Engine Speed	1800 rpm
Prime power	N/A
Continuous power	1100kW
Bore×Stroke	159×159 mm
Displacement	50.3L
No. of cylinders	16-V type,4 Cycle
Governor type	ECU
Air Intake method	Turbocharged and Aftercooled
Compression Ratio	11.5:1
Start-up method	DC24V electrical start with charging generator

Gas System

Minimum Fuel Inlet Pressure @ Inlet of GMF Sensor Housing(kPa)	5			
Maximum Fuel Inlet Pressure @ Inlet of GMF Sensor Housing(kPa)	20			
Maximum Fuel Pressure Variation	+/-1			
Acceptable Fuel	Pipeline Quality Natural Gas			
Minimum Fuel Methane Number*—MN	80			
Minimum Fuel Energy Content*—BTU/scf(MJ/m ³)	800(30)			
Gas Consumption (m ³ /h)				
Continuous power	100% Load	75% Load	50% Load	25% Load
1100kW	275	214.9	155.5	90.9

Air Intake system

Maximum Allowable Intake Air Restriction	
with Clean Element (kPa)	3.7
with Dirty Element (kPa)	6.2

Cooling system

Coolant Capacity	
Engine Only(L)	140
After-cooler Only(L)	44
Thermostat (Modulating) Range (°C)	82-93
Maximum Coolant Temperature into the Aftercooler (°C)	54

Lubrication system

Oil Pressure	
@ Minimum Low Idle (kPa)	138
@ Governed Speed (kPa)	345-483
Maximum Allowable Oil Temperature (°C)	121
Total System Capacity (Including By-Pass Filter) (L)	234.7

Exhaust system

Max. exhaust back pressure (kPa)	10.0
Exhaust gas temperature@ COP100%load(°C)	449
Exhaust flow Volume@ COP100%load(L/s)/(CFM)	3151/6677

Alternator parameter

Alternator brand	GZSTF Power
Alternator model	STF1000-1-4
Rated output power @480 V (kW)	1000
No. of bearings	1
Insulation class	F
Voltage Regulation (steady state)	≤ ± 1%
Ingress protection rating	IP23
Coil pitch	2/3
Connection	Three-phase, four-wire
Excitation method	Brushless self-excitation
Power factor	0.8
Efficiency	0.95
TIF	<50
THF	<2%

Control function

Operation function	Parallel function,power switch, start, stop, emergency stop, closing/opening, etc.
Controller Model	SmartGen HGM9510
Display	480x272 pixel LCD with backlight
Communicaton	USB, RS485
Configurable Inputs/Outputs	7/8
Ingress Protection Rating	IP55
Display function	Phase voltage, line voltage, current, frequency, phase sequence, active power, reactive power, apparent power, power factor, accumulated power generation, engine speed, oil pressure, cooling water temperature, running time, accumulated start-up times, battery

voltage, etc.

Protective function Over-speed, under-speed, over-voltage, under-voltage, over-frequency, under-frequency, over-current, over-power, low oil pressure, high water temperature, low battery voltage, charging failure, etc.

Power Ratings definitions

Ratings Definitions	Operating condition
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Continuous power(COP)	1.Unlimited using time per year. 2.Continuous power is the maximum power available at a constant load factor. 3.No overload capability is allowed.
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Size&Weight

	Length/A	Width/B	Height/C	Weight
Open type	5500mm	2250mm	2550mm	11000kg
Silent type	12192mm	2438mm	2896mm	16000kg

