

Generator set
Containerized type
GMS1500CS

SPECIFICATIONS





# 1 Standards & Conditions

#### **Design Standards**

The designs and the productions are in conformity with:

- ISO8528
- GB/T2820
- YD/502-2007
- JB/T20136-2006

#### **Environmental Operating Conditions**

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- · Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters above sea Level.

## **Factory Inspection**

- Inspection items.
- · Protection devices working test.
- · Starting ability in normal temperature.
- · 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

### **Painting Process**

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

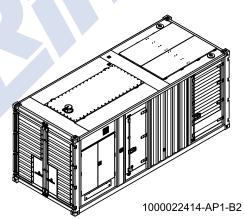
#### 2 General Features

- Cummins engine KTA50-GS8
- Close coupled to a Stamford alternator PI734C
- Microprocessor control module PLC-8610
- ABB main circuit breaker: 4-Phase 2500A
- Schneider RCQ 30mA-1000mA(adjustable recommended above 100mA)
- Rotate speed governor: Electrical governor FP801
- Excitation System: PMG
- A.V.R.Model: MX341
- · Key switch
- · Emergency stop switch
- Frequency/voltage change-over switch
- Voltage adjust knob
- 1xMains input/remote communication connector+ 2x paralleling communication connector

- · Fuel adding device
- 2x ventilation fan + 1x cooling fan
- · Variable speed AC drive: Vacon NXL
- 2x12V sealed for life maintenance free battery
- · Lockable battery isolator switch
- · Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- · Drain points for fuel tank
- · Double packing
- Operation Manual / Specifications

# 3 Equipment Specification

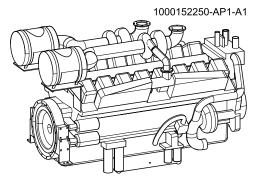
#### General technical data



Model	GMS1500CS
Structure type	C
Tank capacity	900L
Dry weigh	16468kg
Noise level @7m	N/A
Dimensions L×W×H	6058×2438×2801mm
Standby Power	1615kVA/1292kW
Prime Power	1500kVA/1200kW

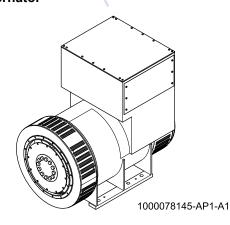
Genset Electrical Parameters								
Voltage	380V	400	400V		415V		440V	
Ampere	2279	216	2165		2087		1968	
Genset Fuel Consumption								
Frequency/Load	25%	50%	75	75%		6	110%	
50Hz (L/h)	88	167	23	38	309		345	

#### Diesel engine



Engine Manufacturer/Brand.	Cummins
Engine Model	KTA50-GS8
Dimensions L×W×H	2735x1421x1785mm
Dry Weigh (approx.)	5360kg
Number of Cylinders	16
Bore	159mm
Stroke	159mm
Displacement	50.3L
Compression Ratio	13.9
Type of injection	Direct injection
Intake System	.Turbocharged and aftercooled
Intake Resistance	6.23kPa
Cooling System	Water cooled
Fan	Push
Battery Voltage	24V
Type of Fuel	NO.2 or ASTMD975
Type of Oil	CF4/SG15W-40
Oil Capacity	178L
Type of Coolant	Glycol mixture
Coolant Capacity engine onl	y161L
Back Pressure	≦6.7kPa
Standby Power	1429kW
Prime Power	1287kW
Fuel Consumption(100%load	d)345L/h

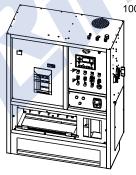
### Alternator



Alternator Manufacturer/Brand	Stamford
Alternator Model	PI734C
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	H
Winding Pitch	2/3
Terminals	6
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow 2.69m³/s	(50HZ),3.45m³/s(60HZ)
Voltage Regulation	±1.0 %
Total harmonic TGH / THCat no load	d < 1.5 % - on load < 5%
Telephone Interference	THF<2%;TIF<50

## **PLC-8610 Control System**

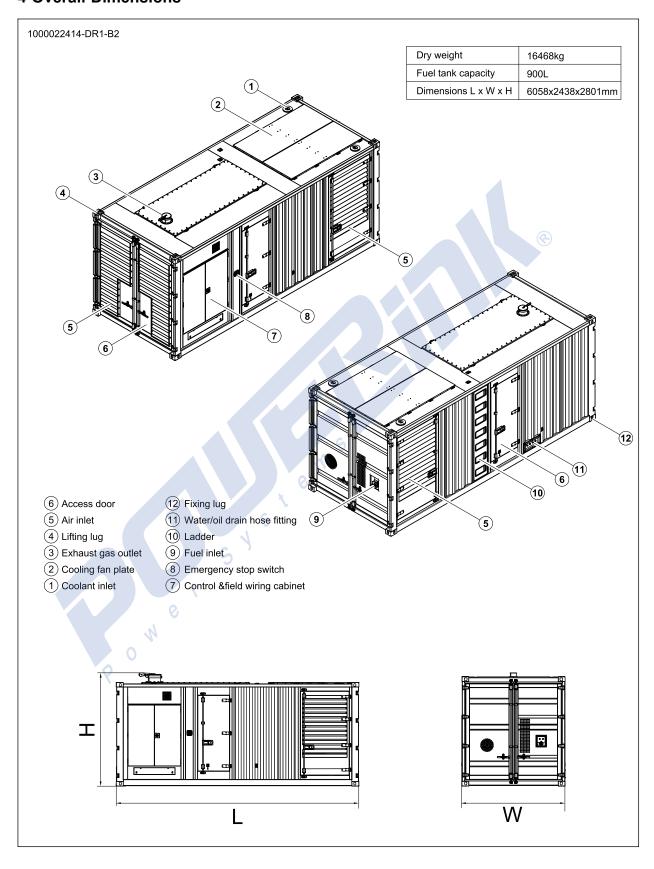




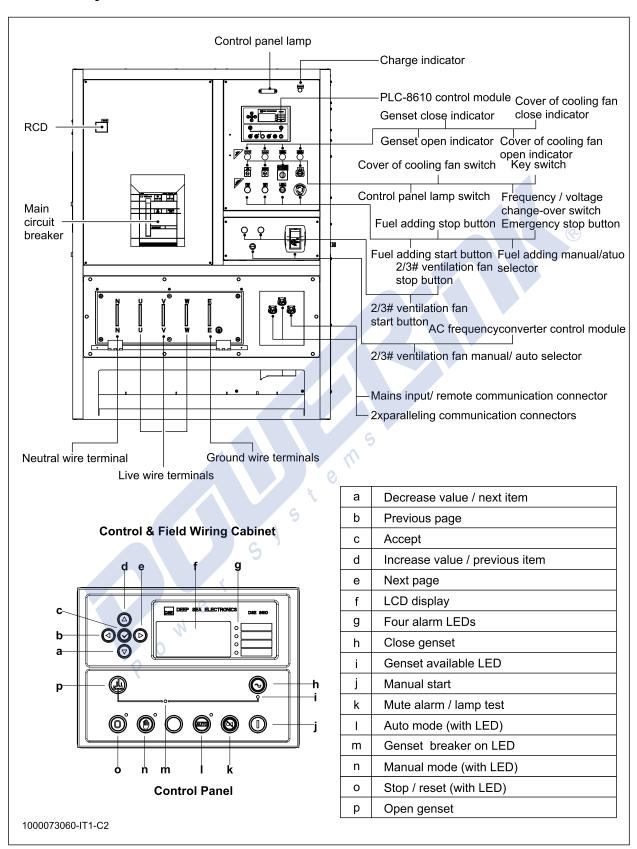
PLC-8610 is a microprocessor based control unit containing all necessary functions for protection of the genset and the breaker control. Furthermore, it contains all necessary three-phase measuring circuits and presents all values and alarms on the LCD display. The module has the function of load sharing which enables the module to share the active load (kW) equally when operating in parallel with other gensets. The load sharing is performed so each genset takes a portion of the load that is calculated in percent according to the nominal power.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- RS232 & RS485 can be used at the same time
- Real time clock for time and date display, overall runtime display, 250 log entries

# **4 Overall Dimensions**



# 5 Control System



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