POWERLiNK
Power Systems

Generator set

Sound-proof type

GMS650CS

SPECIFICATIONS

POWERlink
Power Systems

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-1995
- GB/T2820-1997

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 45℃. The coolant heater is needed when the temperature is below 5℃
- 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 QSK19-G4
- Close coupled to a Stamford alternator S5L1D-F4
- Microprocessor control module DSE8610
- Main circuit breaker: 3-Phase 1000A
- Rotate speed governor: Electronic fuel injection gover-nor
- Excitation System: Self excited
- A.V.R.Model: AS440
- Key switch

- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50℃ radiator
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 7 hours running
- Drain points for fuel tank
- Operation Manual/ Specifications

3 Equipment Specification

General technical data

Model	GMS650CS
Structure type	R
Tank capacity	1020L
Dry weigh	7228kg
Noise level @7m	N/A
Dimensions L×W×H	4842×2010×2686mm
Standby Power	710kVA/568kW
Prime Power	650kVA/520kW

Voltage	380V	400V	415V	440V
Ampere	988A	938A	904A	853A

Diesel engine
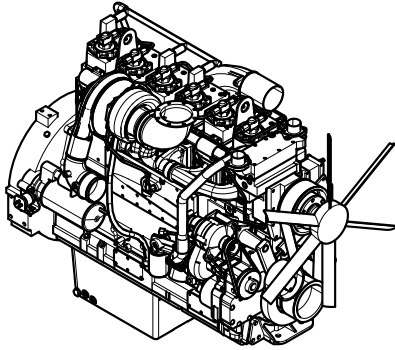
Engine Manufacturer/Brand..................................Cummins

Engine Model..QSK19-G4

Dimensions L×W×H..............................1695×985×1723mm

Dry Weigh (approx.) 1900kg

Number of Cylinders..6

Bore..159mm

Stroke 159mm

Displacement..19L

Compression Ratio..15

Type of injection..Cummins MCRS

Intake System........ Turbocharged,air-to-air charged cooled

Intake Resistance ....≤6.22KPa

Cooling System ....Water cooled

Fan ....Pusher

Battery Voltage 24V

Type of Fuel.. No.2 or ASTM D975

Type of Oil .... API CD/SE or CCMCD4

Oil Capacity 84.4L

Type of Coolant ....Glycol mixture

Coolant Capacity ....41.6L(only engine)

Back Pressure ....≤7.8KPa

Standby Power 634kW

Prime Power..574kW

Fuel Consumption(100%load)..................................147L/h

Alternator
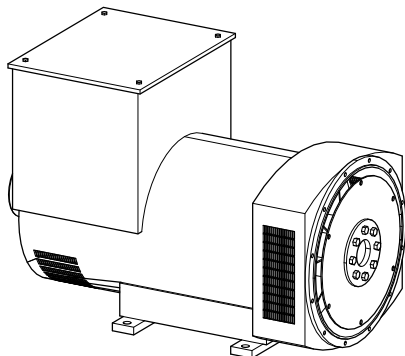
Alternator Manufacturer/Brand .... Stamford

Alternator Model S5L1D-F4

Exciter.. Brushless

Cooling Fan .... Cast alloy aluminum

Windings...100% copper

Insulation Class .... H

Winding Pitch...2/3

Terminals 12

Drip Proof IP23

Altitude...≤1000m

Overspeed ....2250 rpm

Air Flow......................... 1.035m³/s(50HZ),1.312m³/s(60HZ)

Voltage Regulation ....±1.0%

Total harmonic TGH / THCat no load < 1.5 % - on load < 5%

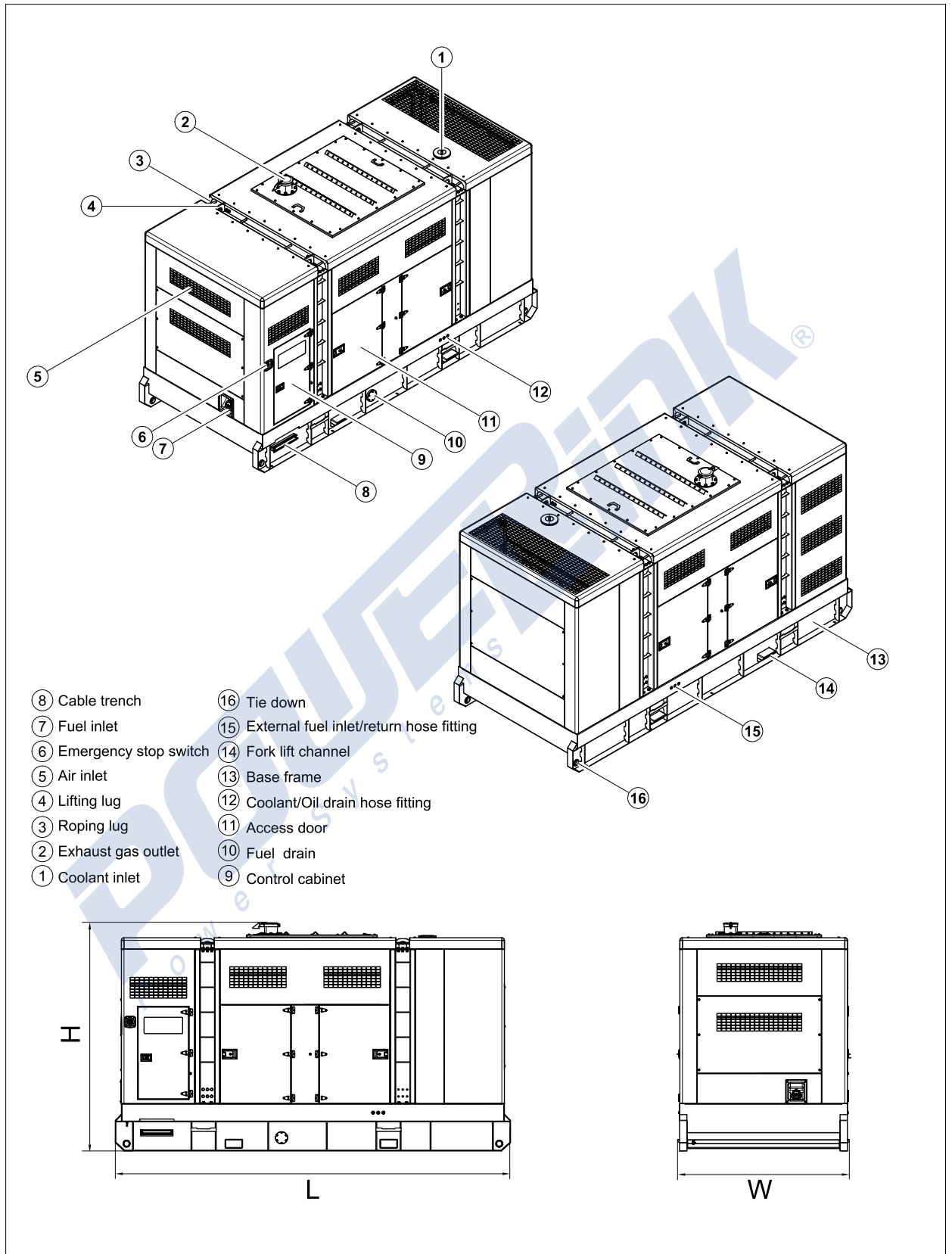Telephone Interference.............................. THF<2%;TIF<50

PLC-8610 Control System
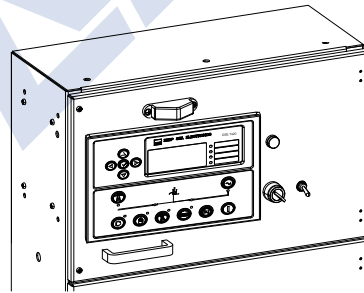
PLC-8610 is a microprocessor based control unit containing all necessary functions for protection of the genset and the breaker control. Furthermore, it contains all necessary three-phase measuring circuits and presents all values and alarms on the LCD display. The module has the function of load sharing which enables the module to share the ac-tive 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

8 Cable trench	16 Tie down
7 Fuel inlet	15 External fuel inlet/return hose fitting
6 Emergency stop switch	14 Fork lift channel
5 Air inlet	13 Base frame
4 Lifting lug	12 Coolant/Oil drain hose fitting
3 Roping lug	11 Access door
2 Exhaust gas outlet	10 Fuel drain
1 Coolant inlet	9 Control cabinet

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