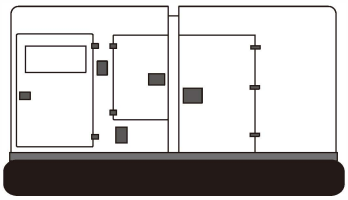
POWERINK
Power Systems



Generator set

Sound-proof type

GMS175CS-AU

SPECIFICATIONS

EC series
GMS175CS-AU
50 Hz @ 1500rpm,3-phase/5-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009
- AS 3000-1997
- AS 3010.1-1988

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 50℃. The coolant heater is needed when the temperature is below 5℃
- Humidity: Less than 90%.
- 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

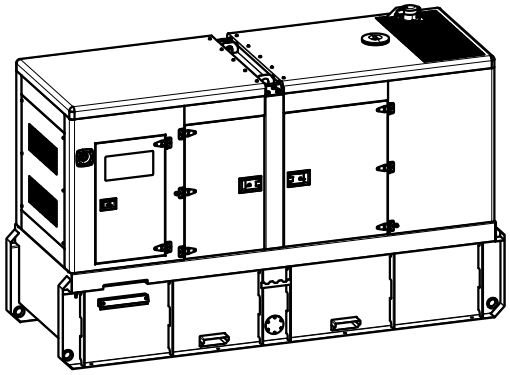
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Cummins engine 6CTA8.3G2
- Close coupled to a Stamford alternator UCI274G
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 250A
- Rotate speed governor: Electrical governor S6700E
- Excitation System: Self Excited SHUNT
- A.V.R.Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector
- 2x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50℃ radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 30 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

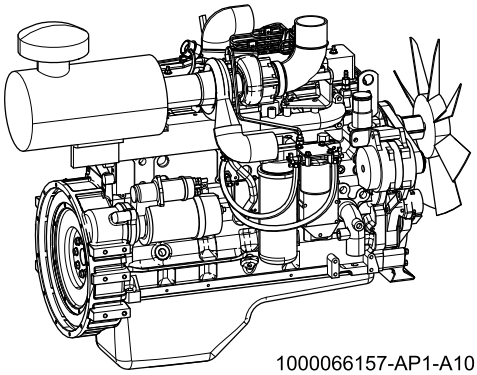


1000023419-AP1-C2

Model..... GMS175CS-AU
Structure type ..... R
Tank capacity.....1200L
Dry weight.....2841kg
Noise level @7m 72.3dBA
Dimensions L×W×H.....3500×1222×2149mm
Standby Power 193kVA/154kW
Prime Power 175kVA/140kW
Voltage/Ampere 415V/243A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	11	20	30	40	45

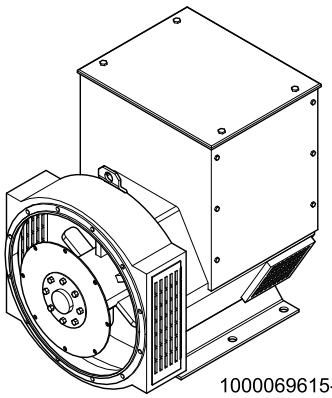
Diesel Engine



1000066157-AP1-A10

Engine Manufacturer/Brand.....Cummins
Engine Model.....6CTA8.3G2
Dimensions L×W×H..... 1128x740x1084mm
Dry Weigh (approx.) 629kg
Number of Cylinders.....6
Bore 114mm
Stroke 135mm
Displacement.....8.3L
Compression Ratio 16.5
Type of injection..... Direct injection
Intake System.....Turbocharged,water-to-air charge cooled
Intake Resistance .....≦6.28kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 12/24V
Type of Fuel.....0# or –10# light diesel
Type of Oil 15W40-CF4
Oil Capacity 24L
Type of Coolant .....Glycol mixture
Coolant Capacity 38L
Back Pressure .....≦10.1kPa
Standby Power 180kW
Prime Power 163kW
Fuel Consumption(100%load).....210g/kW.h

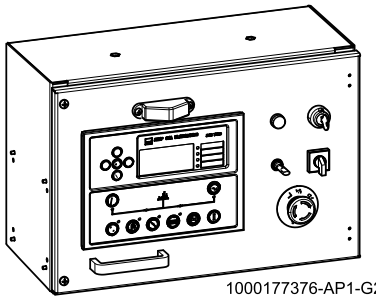
Alternator



1000069615-AP1-A1

Alternator Manufacturer/Brand ..... Stamford
Alternator Model UCI274G
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 2250rpm
Air Flow..... 0.514m³/s(50Hz),0.617m³/s(60Hz)
Voltage Regulation .....±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference..... THF<2%;TIF<50

PLC-7420 Control System



1000177376-AP1-G2

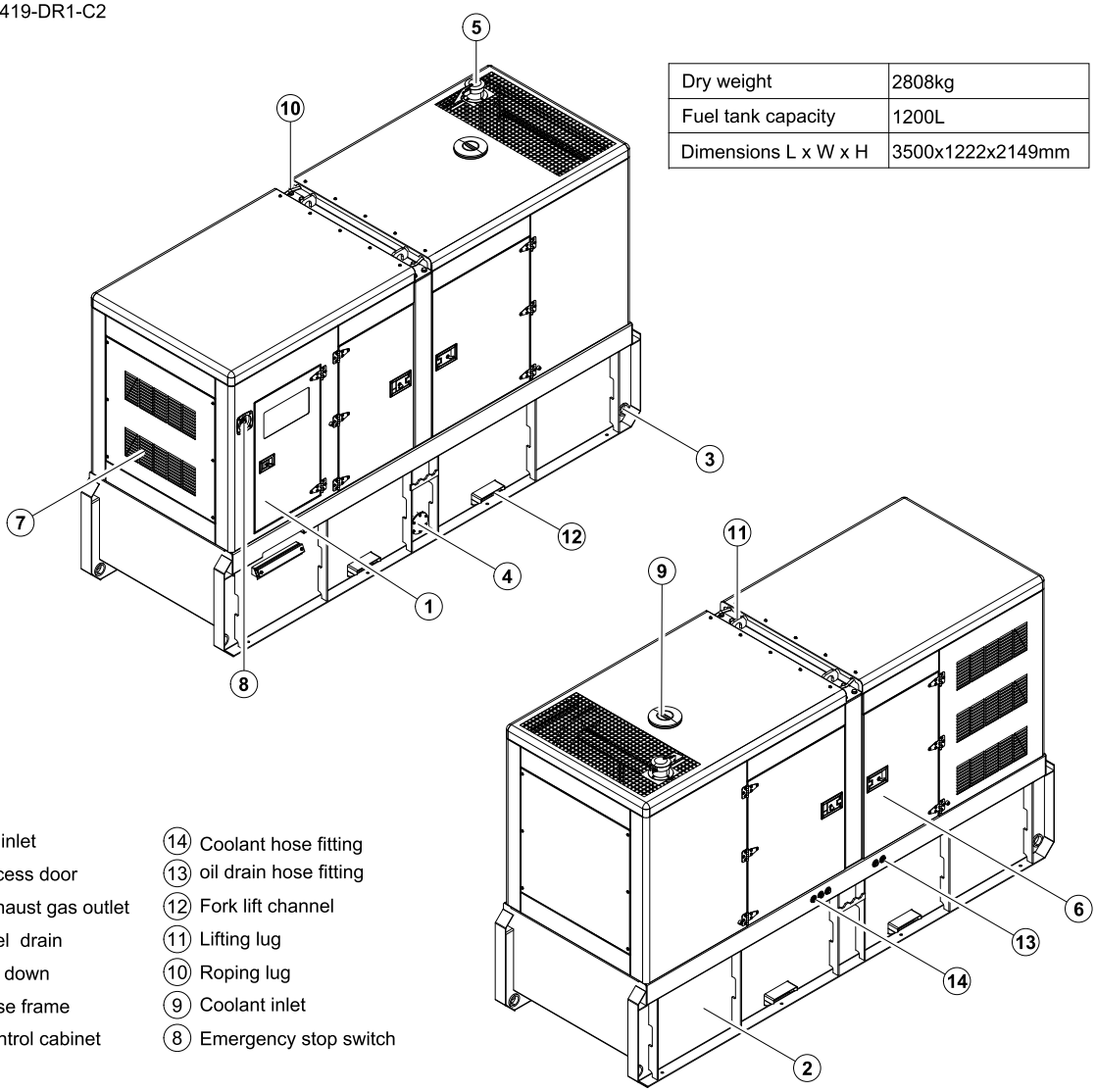
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and 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
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

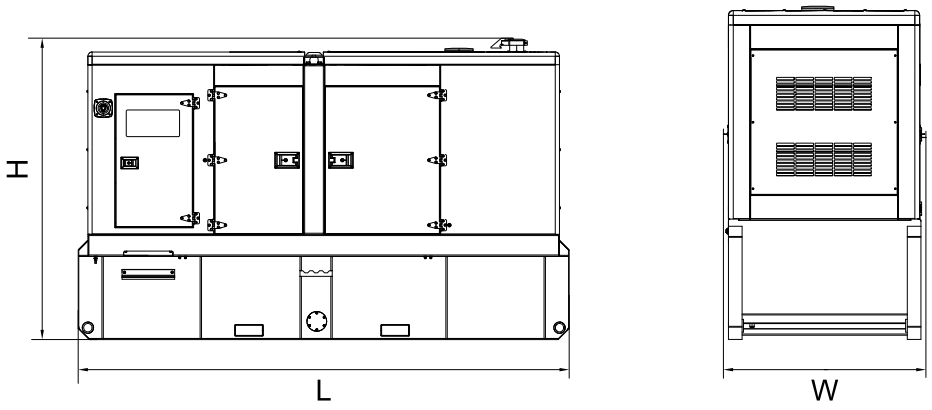
4 Overall Dimensions

1000023419-DR1-C2

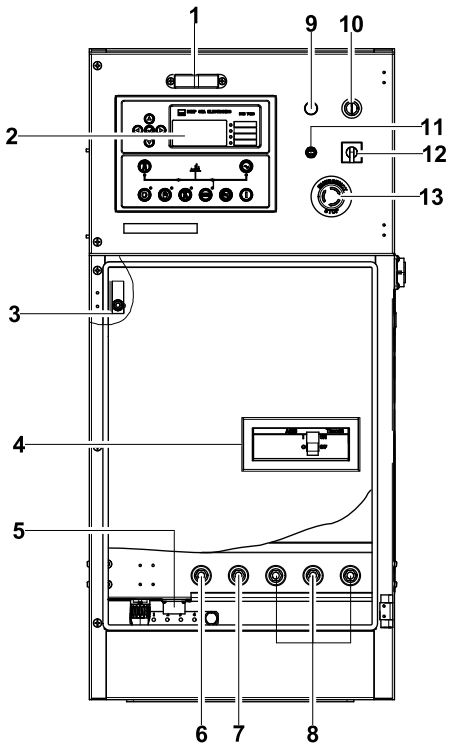
Dry weight	2808kg
Fuel tank capacity	1200L
Dimensions L x W x H	3500x1222x2149mm



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

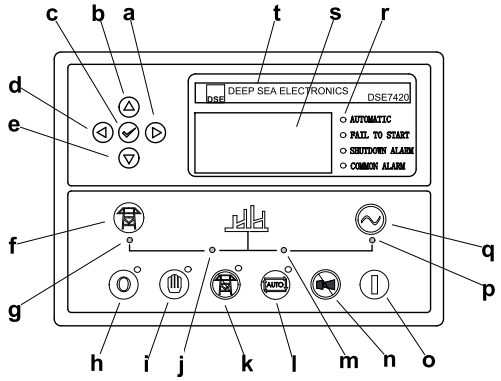


5 Control System



Control & field wiring cabinet

Ref.	Description
1	Control cabinet lamp
2	Control module
3	Limit switch
4	Main circuit breaker
5	Mains input/remote/AMF communication connector
6	Ground wire terminal
7	Neutral wire terminal
8	Live wire terminals
9	Charge indicator
10	Key switch
11	Control cabinet lamp switch
12	Mains input changeover switch
13	Emergency stop switch



Control module

a	Button (next page)
b	Button (increase value / previous item)
c	Button (accept)
d	Button (previous page)
e	Button (decrease value / next item)
f	Button (transfer the load to the mains supply, when in Manual mode only)
g	Mains supply available LED
h	Stop / Reset button
i	Manual button (Manual control mode)
j	Mains supply on load LED
k	Test button (Test mode)
l	Auto button (Auto mode)
m	Genset on load LED
n	Mute/Lamp test button
o	Start button (Manual)
p	Genset available LED
q	Button (transfer the load to the genset, when in Manual mode only)
r	Alarm LED (4 alarm items)
s	LCD display
t	Control module name

1000177376-IT1-G2

1000023419-F2–E
10.2020