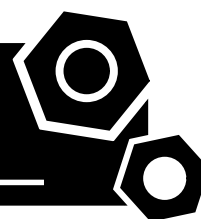


**Generator set**  
**Sound-proof type**  
**GMS450CS-AU**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (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°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- 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.

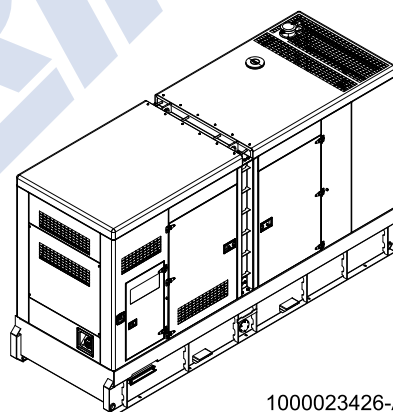
## 2 General Features

- Cummins engine KTA19-G3
- Close coupled to a Stamford alternator HCI544C
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 630A
- Rotate speed governor: Electrical governor FP801
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector

- 2x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 16 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data



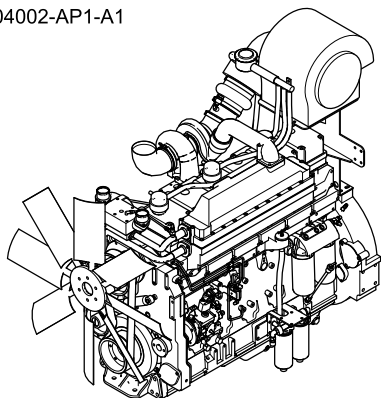
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Model..... GMS450CS-AU  
 Structure type ..... R  
 Tank capacity..... 1600L  
 Dry weight..... 5838kg  
 Sound pressure level @1m/ 7m ..... N/A  
 Sound power level acc. 2000/14/EC ..... N/A  
 Dimensions L×W×H..... 4512x1523x2566mm  
 Standby Power ..... 495kVA/396kW  
 Prime Power ..... 450kVA/360kW  
 Voltage/Current..... 415V/626A

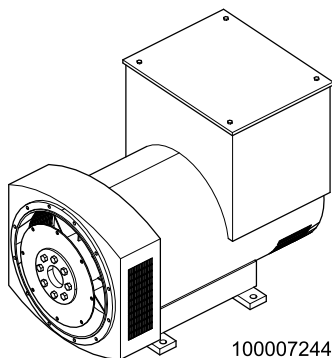
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	30	51	73	97	107

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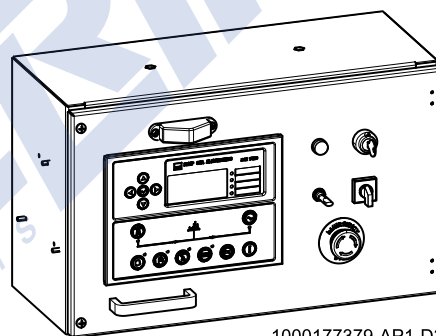
Engine Manufacturer/Brand	cummins
Engine Model	KTA19G3
Dimensions L×W×H	2141.9×879.8×1733.5mm
Dry Weigh (approx.)	2005kg
Number of Cylinders	6
Bore	159mm
Stroke	159mm
Displacement	18.9L
Compression Ratio	13.9
Type of Injection	Direct
Intake System	Turbocharged and Aftercooled
Intake Resistance	≤6.23kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel	NO.2 or ASTM D2
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	50L
Type of Coolant	Glycol mixture
Coolant Capacity	250L
Back Pressure	≤10kPa
Standby Power	448kW
Prime Power	403kW
Fuel Consumption(100%load)	204g/kW.h



1000072449-AP1-A1

Alternator Manufacturer/Brand	Stamford
Alternator Model	HCI544C
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-7420 Control System

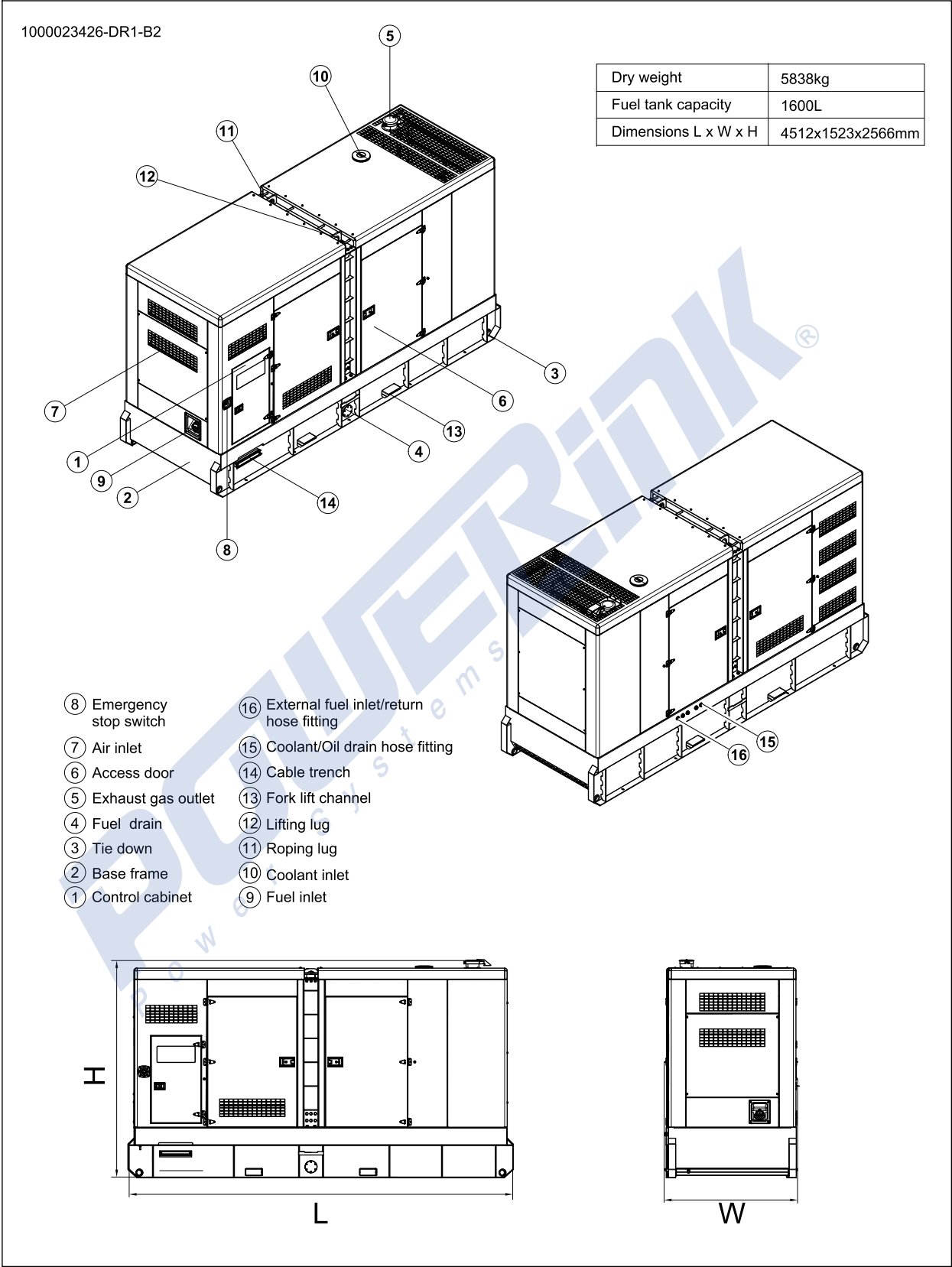


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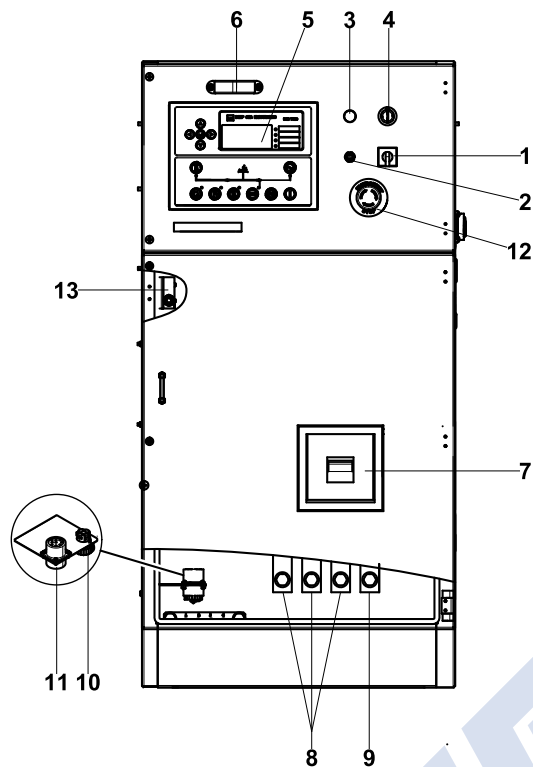
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

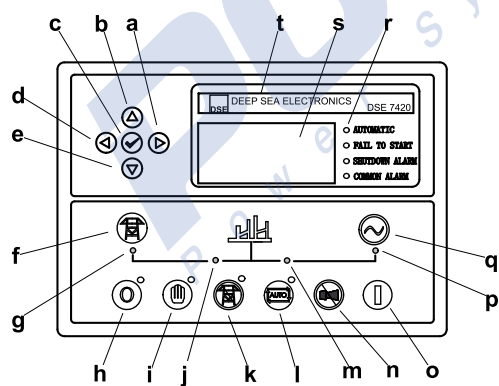
# 4 Overall Dimensions



## 5 Control System



Control & Field wiring cabinet



Control module

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

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

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*Specification may change without prior notice. For more info.,  
contact Power Link or your local distributors please.*