

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-1995
- GB/T2820-1997

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 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.

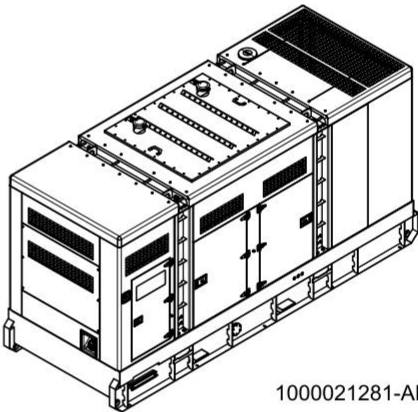
2 General Features

- Perkins engine 2806A-E18TAG2
- Close coupled to a Stamford alternator HCl544F
- Microprocessor control module PLC-7320
- DMA main circuit breaker: 3-Phase 1000A
- Rotate speed governor: Electronic fuel injection governor
- 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°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 8 hours running
- Drain points for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment Specification

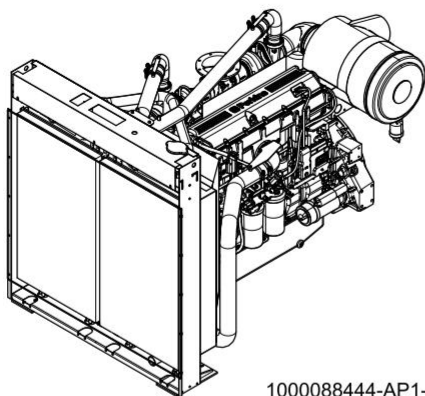
General technical data



Model.....	P650D5
Structure type	R
Tank capacity.....	945L
Dry weigh.....	6580.8kg
Noise level @7m	N/A
Dimensions L×W×H.....	4692×1700×2487.6mm
Standby Power	715kVA/572kW
Prime Power	650kVA/520kW

Voltage	380V	400V	415V	440V
Ampere	987.6A	938.2A	904.3	852.9A

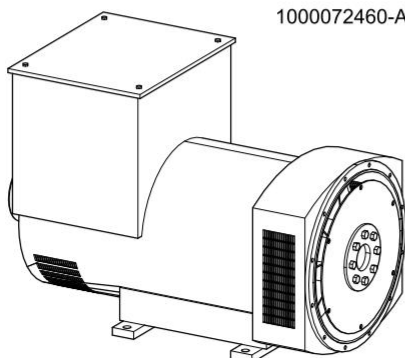
Diesel Engine



1000088444-AP1-A3

Engine Manufacturer/Brand.....	Perkins
Engine Model.....	2806A-E18TAG2
Dimensions L×W×H.....	2545×1536×1807.5mm
Dry Weigh (approx.)	2050kg
Number of Cylinders.....	6
Bore.....	145mm
Stroke	183mm
Displacement.....	18.13L
Compression Ratio.....	14.5
Type of Injection	MEUI
Intake System.....	Turbocharged, air-to-air charge cooled
Intake Resistance.....	≤6.4kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil	API CG4 or APEA E5
Oil Capacity	62L
Type of Coolant	Glycol Mixture
Coolant capacity.....	61L
Back Pressure	≤6.9kPa
Standby Power	628kW
Continuous Power	584kW
Fuel Consumption(100%load).....	132L/h

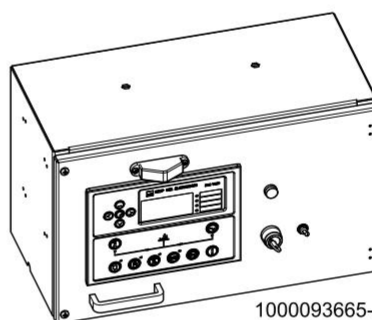
Alternator



1000072460-AP1-A1

Alternator Manufacturer/Brand	Stamford
Alternator Model	HCI544F
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-7320 Control System



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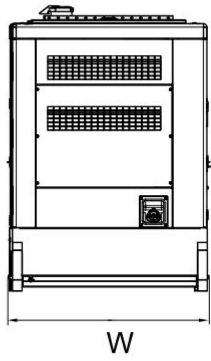
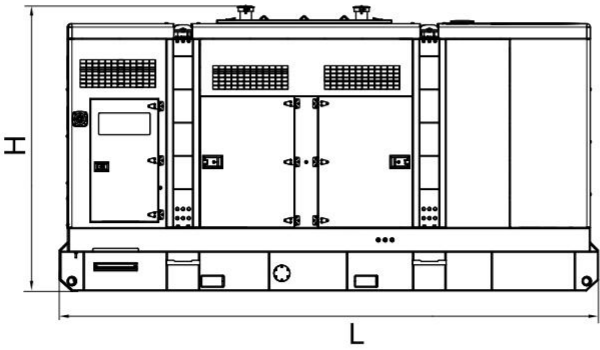
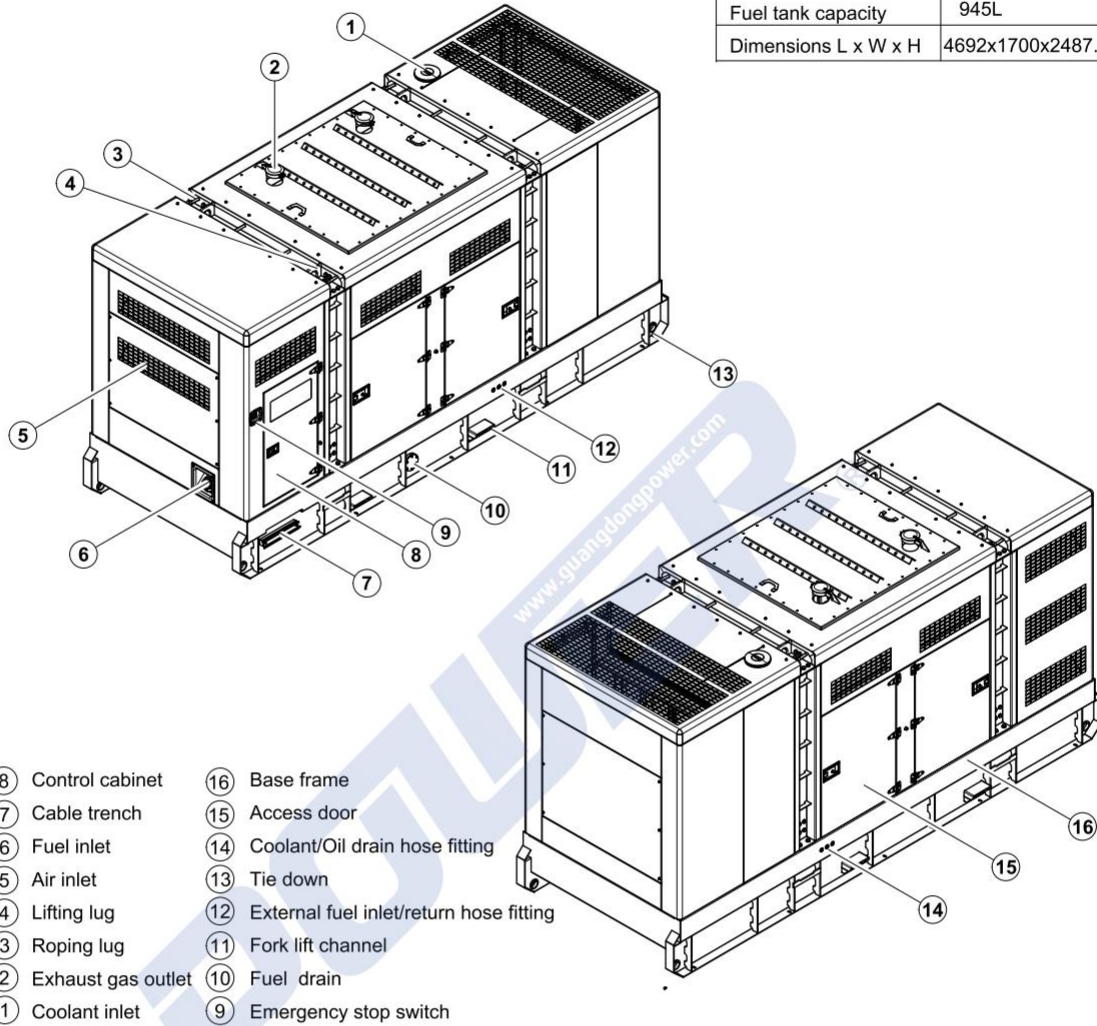
PLC-7320 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

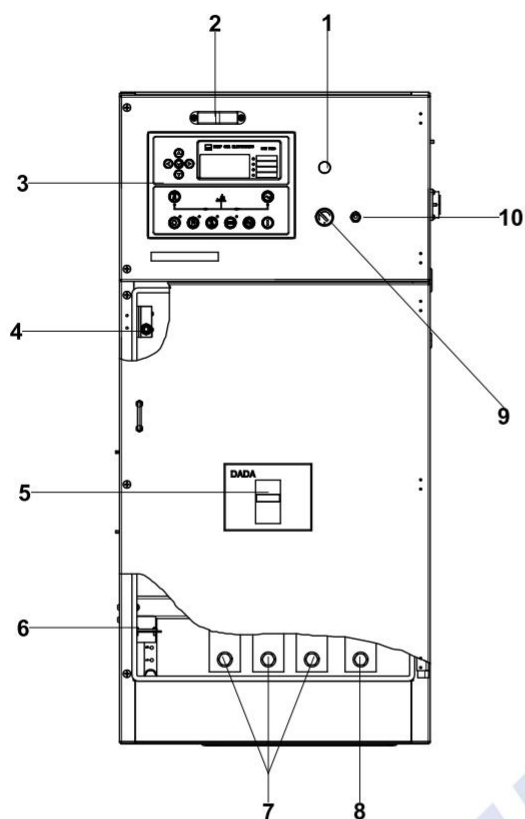
4 Overall Dimensions

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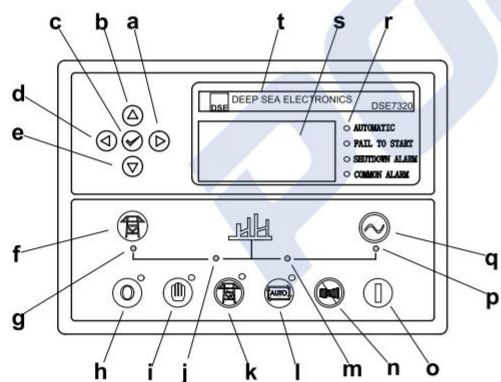
Dry weight	6580.8kg
Fuel tank capacity	945L
Dimensions L x W x H	4692x1700x2487.6mm



5 Control System



Control & Field wiring cabinet



Control Panel

1000093665-IT1-B2

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	PLC-7320 Control module
4	Limit switch
5	Main circuit breaker
6	ATS communication interface
7	Live wire terminals
8	Neutral wire terminal
9	Key switch
10	Control panel lamp 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