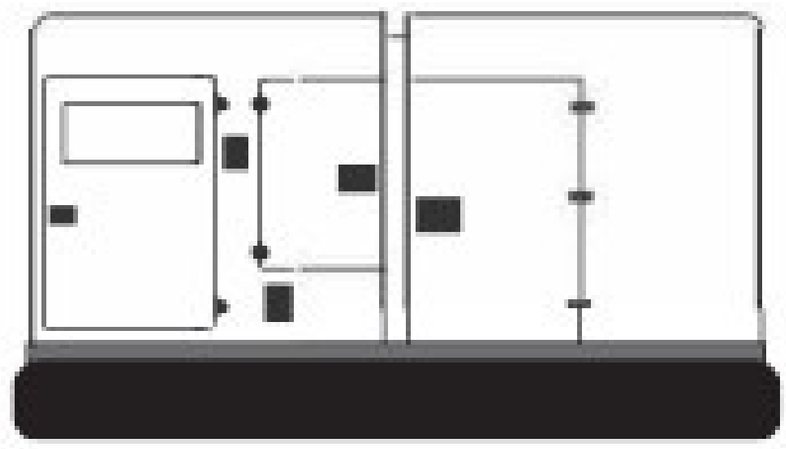
ZENITH

THE PINNACLE OF POWER

ZPDG22S

SPECIFICATIONS



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ZPDG22S

50 Hz @ 1500rpm, 3-phase/5-wiring

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

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated)
- Ambient temperature: -25 degrees C TO 45 degrees C. The coolant heater is needed when the temperature is below 5 degrees C
- Humidity: Less than 80%
- Altitude: Below one thousand (1000) metres.

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 colours are based on the manufacturer’s standard.
- The customer could also choose the colour which the manufacturer offers.

General Features

- Perkins engine 404D-22G
- Close coupled to a Leroy Somer alternator LSA40M5
- Microprocessor control module DSE4520
- Main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation System: SHUNT
- A.V.R.Model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1 x 12V/70AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50 degrees C, 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 19 hours running
- Drain points for fuel tank
- Operation Manual/Specifications

Equipment Specifications

General technical data

Model : ZPDG22S

Tank capacity: 100L

Dry weight: 969kg

Noise level @7m: 67 dBA

Dimensions LxWxH: 2142*830*1369mm

Standby Power: 22kVA/18kW

Prime Power: 20kVA/16kW

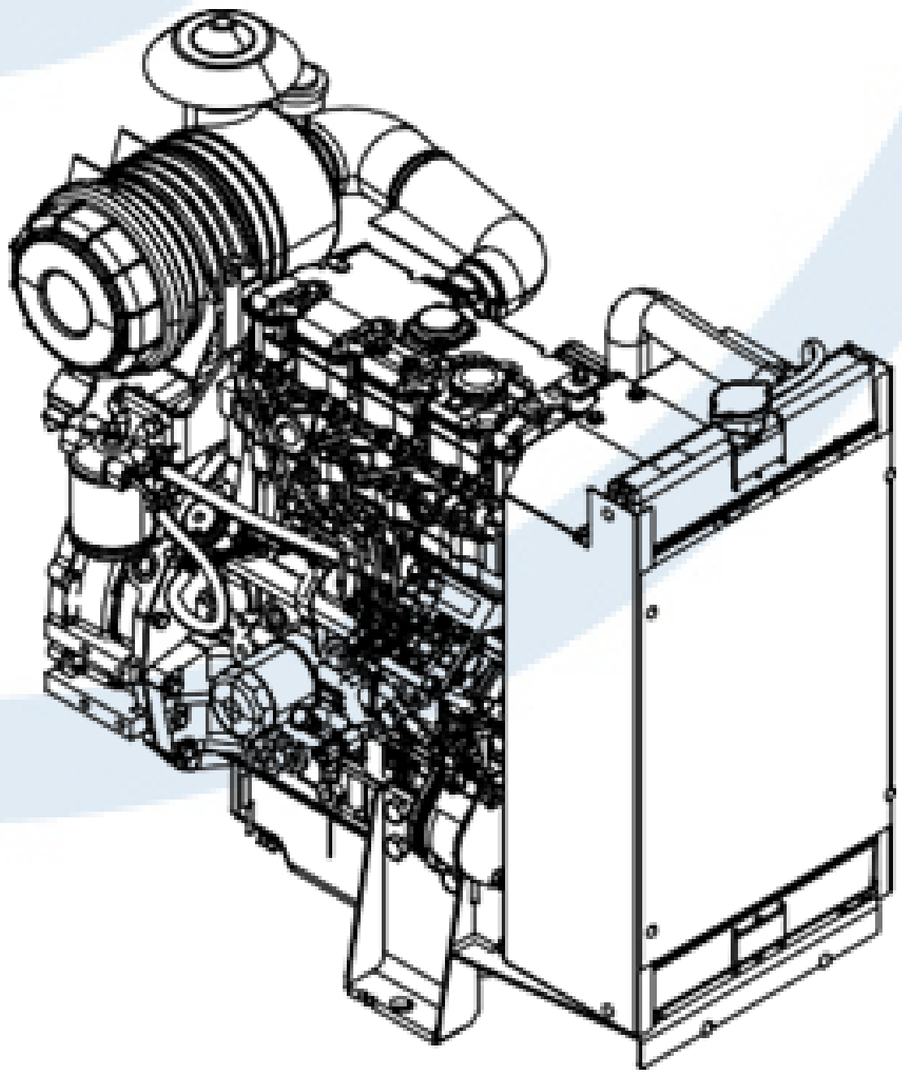
Voltage	380V	400V	415V	440V
Ampere	30.4A	28.9A	27.8A	26.2A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.9	4.0	5.3	6.1

Power System

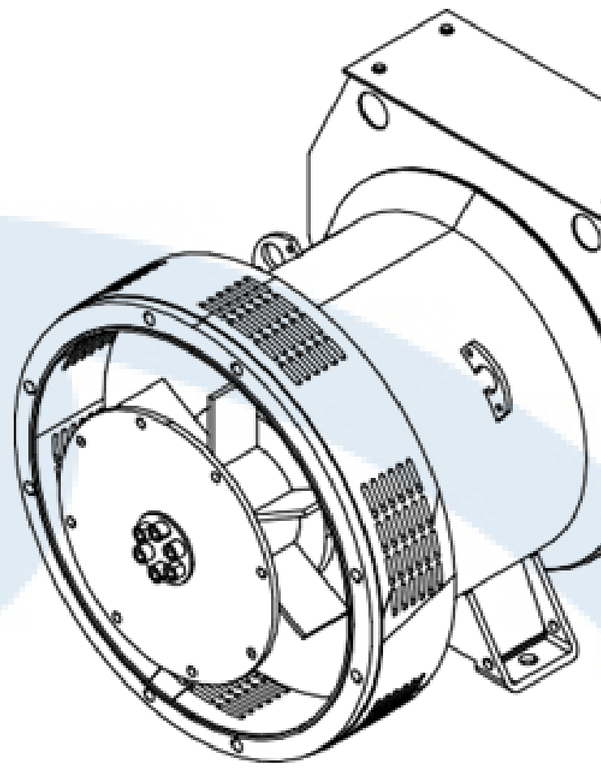
Engine

Engine Manufacturer/Brand: Perkins
Engine Model: 404D-22G
Dimensions: L×W×H: 948×498×841mm
Dry Weigh (approx.) : 242kg
Number of Cylinders: 4 Bore:84mm
Stroke: 100mm Displacement: 2.216L
Compression Ratio: 23.3
Type of injection: Indirect injection
Intake System: Natural aspirated
Intake Resistance: 6.4kPa
Cooling System: Water cooled
Fan: Pusher
Battery Voltage: 12V
Type of Fuel: EPA2D 89.330-96/CEC RF-06-99
Type of Oil: API-CH-4/ ACEA E5
Oil Capacity: 10.6L
Type of Coolant: Glycol mixture
Coolant Capacity: 7.0L
Back Pressure: 10.2kPa
Standby Power: 20.6kW
Prime Power: 18.7kW
Fuel Consumption(100%load): 5.3L/h



Alternator

Alternator Manufacturer/Brand: Leroy Somer
Alternator Model : TAL-A40-F
Exciter: Brushless
Cooling Fan: Cast alloy aluminium
Windings: 100% copper
Insulation Class: H
Winding Pitch: 2/3
Terminals: 12
Drip Proof: IP23
Altitude: ≤1000m
Overspeed: 2250rpm
Air Flow: 5.3m³/min(50Hz),5.8m³/min(60Hz)
Voltage Regulation: ±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference: THF<2%;TIF<45

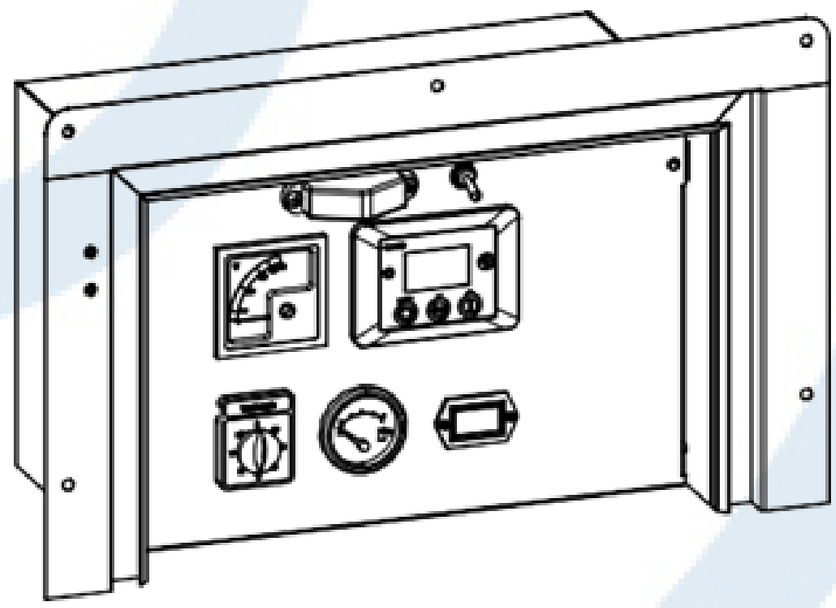


PLC-920 Control System

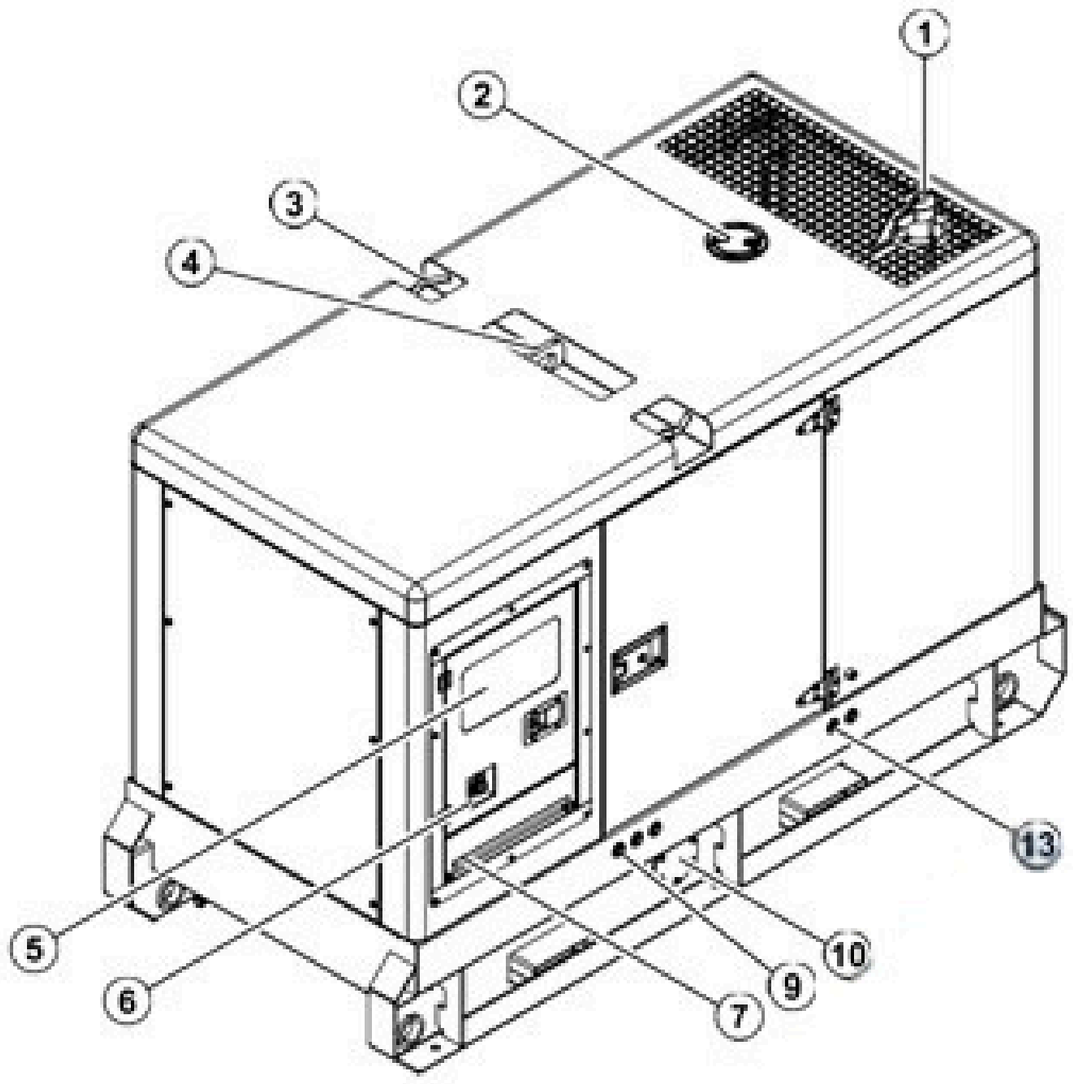
PLC920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

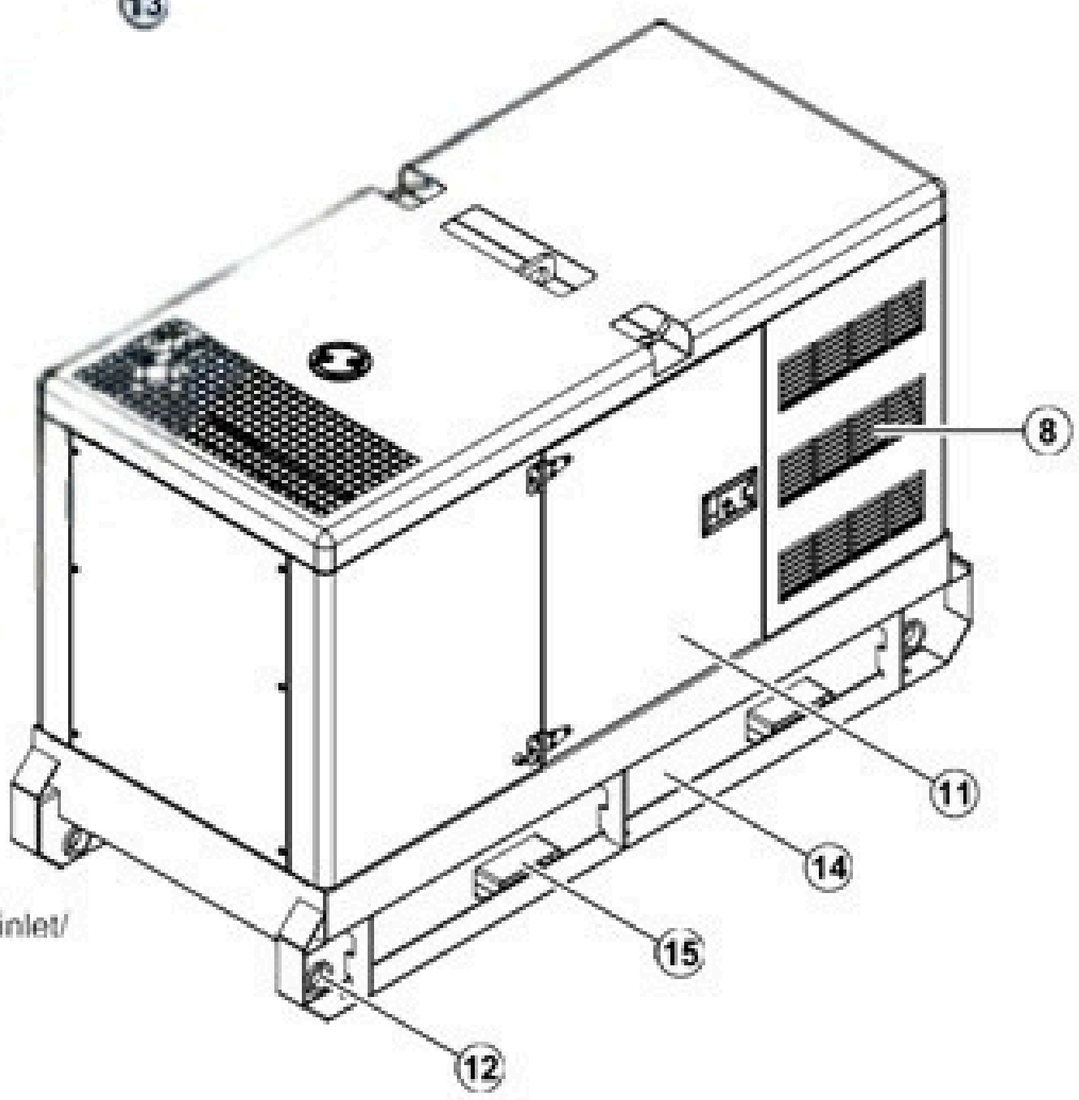
Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

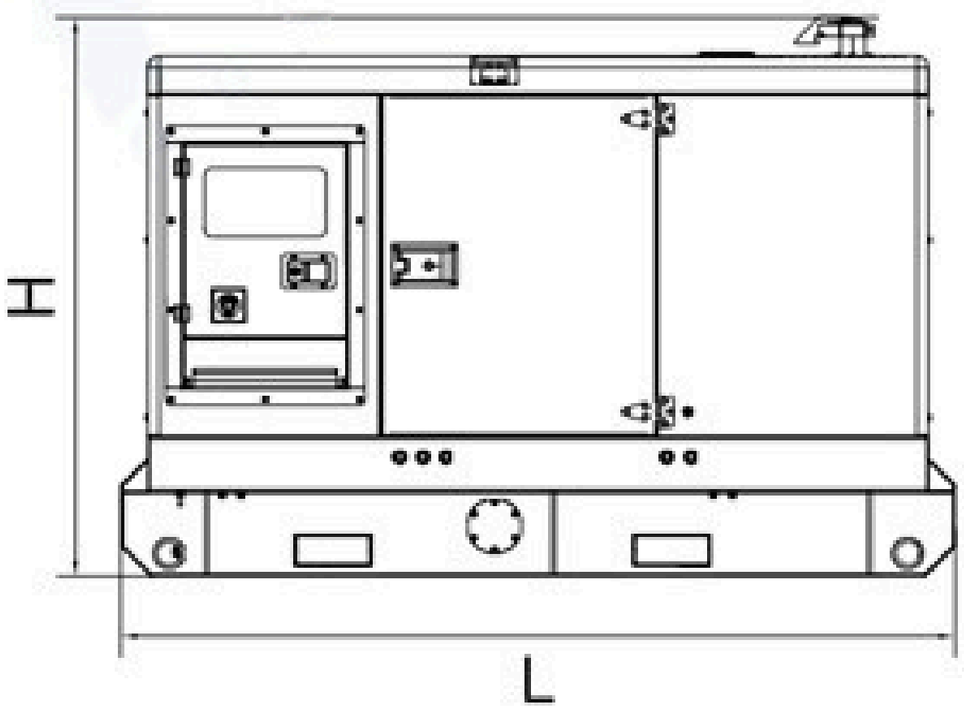


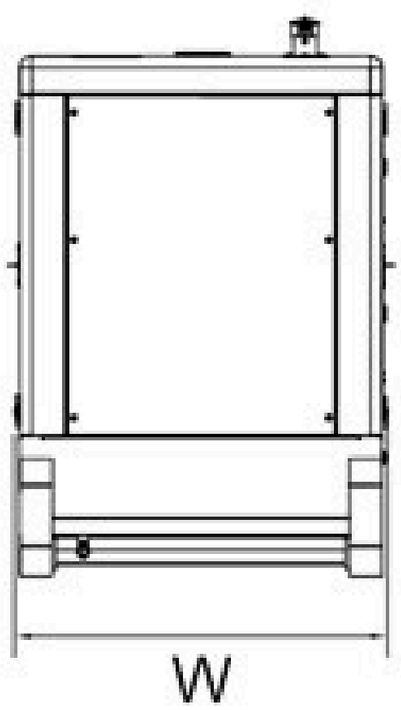
Overall Dimensions



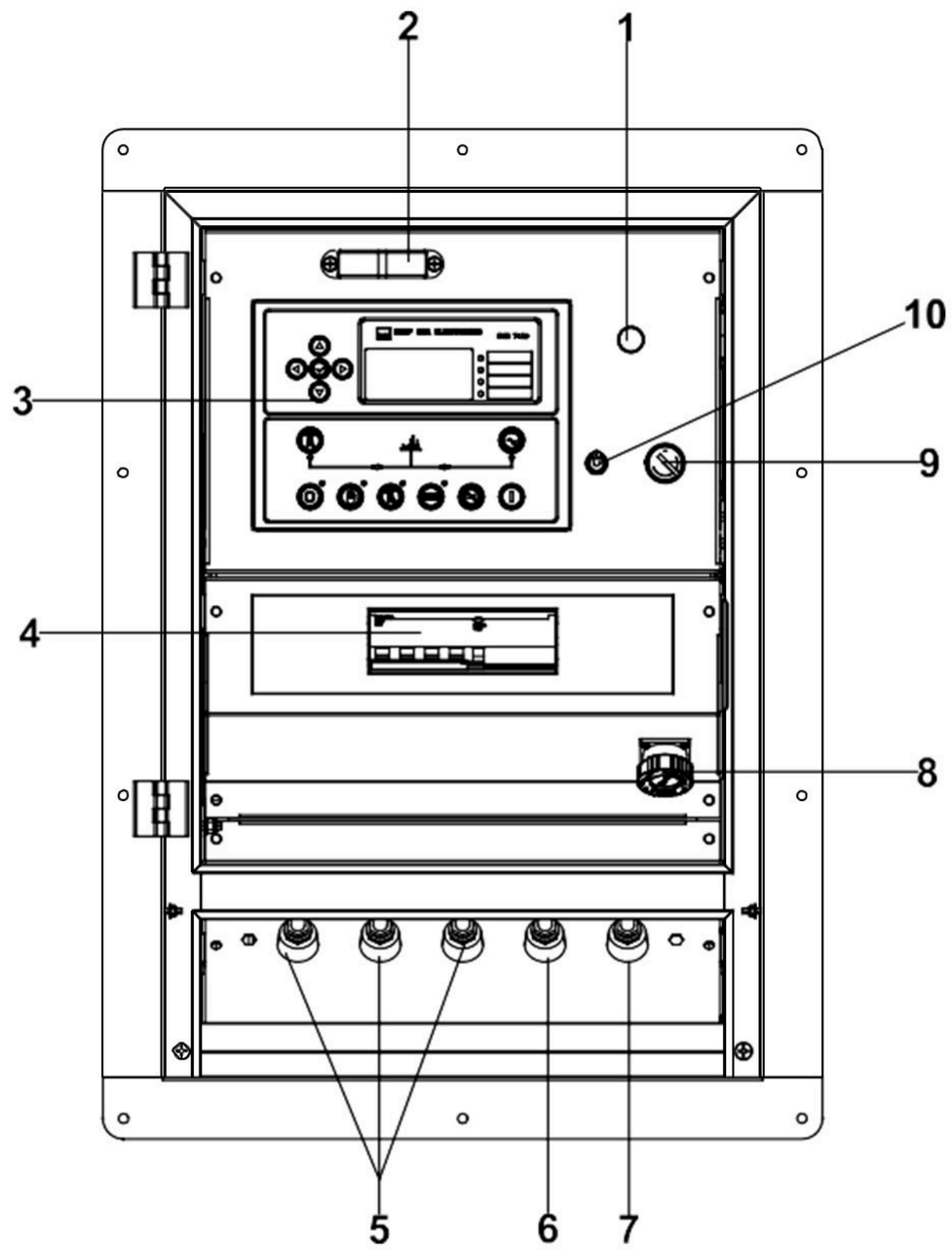


⑧ Air inlet
⑦ Cable trench
⑥ Emergency stop switch
⑤ Control cabinet
④ Lifting lug
③ Roping lug
② Coolant inlet
① Exhaust gas outlet
⑮ Fork lift channel
⑭ Base frame
⑬ Coolant drain hose fitting
⑫ Tie down
⑪ Access door
⑩ Fuel drain
⑨ Oil drain hose fitting/external fuel inlet/ return hose fitting

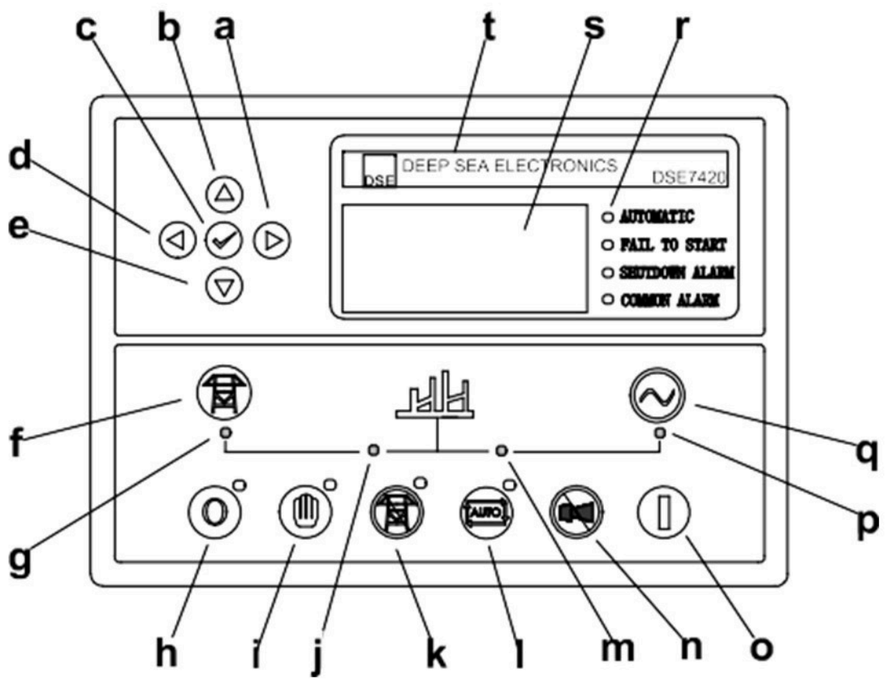




Control System



Control & field wiring cabinet



Control module

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