

GENERATOR



**GENERATING SETS**



WATER COOLED



THREE PHASES



50 HZ



DIESEL

**Service**

**Standby**

**Prime**

Power	kVA	50	45
Power	kW	40	36
Rated Speed	r.p.m	1500	
Standart Voltage	V	400 / 230	
Rated At Power Factor	Cos Phi	0,8	

POWERSAN Company with quality certification ISO 9001:2015, ISO 10002:2014, ISO 14001:2015, OHSAS 18001:2007, TS ISO IEC 25051:2015,

POWERSAN gensets are compliant with CE mark which includes the following directives:

- 2006/42/EC Machinery safety.
- 2014/30/EU Electromagnetic compatibility.
- 2014/35/EU Electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- EN 12100:2010, TS EN 60201-1, EN 55011, EN 61000-6-4, EN 61000-4-11, EN 61000-4-8, EN 610000-4-5, EN 610000-4-2, EN 610000-4-2, EN 12601, TS ISO 8528-1-12



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GENERATOR

**SPECIFICATIONS**



Engine



Alternator

Engine	Prime
Standby / Prime	kWm 40 / 36
Manufacturer	Ricardo
Model	ZH4100ZD
Engine Type	4 Stroke - Diesel
Injection Type	Direct Injection
Aspiration Type	Natural
Number of cylinders and arrangement	4 - In line
Bore and Stroke	mm 102X125
Displacement	L 4.12
Cooling System	Water Cooling
Electrical System	V 12
Fuel Consumption 100% PRP	l/h 8
Fuel Consumption 75% PRP	l/h 5,8
Fuel Consumption 50 % PRP	l/h 3,9
Fuel Consumption 25 % PRP	l/h 2
Lube oil consumption with full load	<0,5
Total oil capacity including tubes, filters	L 10
Total coolant capacity	L 16
Governor	Type Mechanical

Alternator	Specifications
Brand	Powersan
Model	224D
Output Voltage	V 230/400
Frequency	HZ 50
Automatic Voltage Regulation	±% 0,5
Alternator Stand By Power	kVA 55,56
Alternator Continuous Power	kVA 50
Power Factor	Cosq 0,8
Number of Wires	12
Winding	2/3
Protection Class	IP23 / H
Excitation System	Self-excited
AVR Model	SX460
Performance - PF 0,8 / %75 Load	% 88

**Prime Power (PRP):**

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

**Emergency Standby Power (ESP):**

According to ISO 8528-1:2005, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.

**Note:** All data based on operation to ISO 3046/1, BS 5514 and DIN 6271 standard reference conditions



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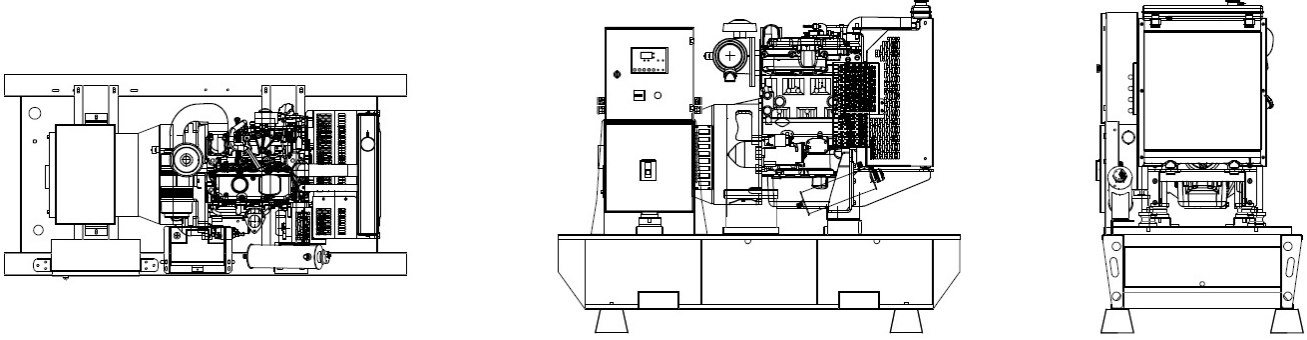
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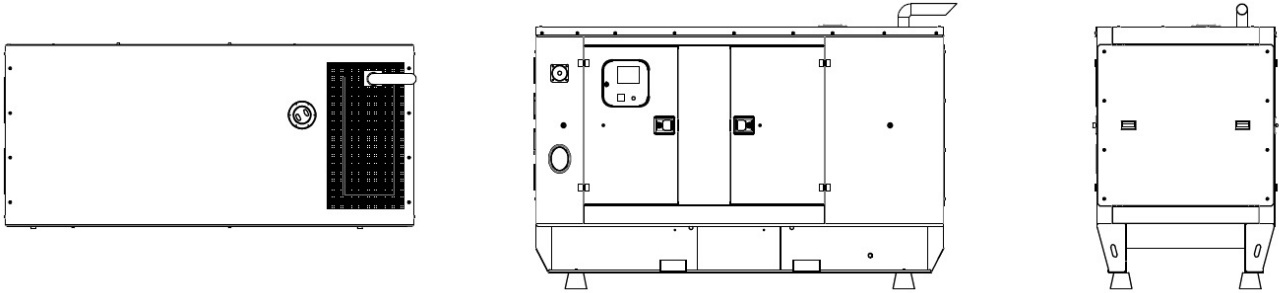
## GENERATOR

## DIMENSIONS



## OPEN SET

LxWxH	mm	1800x950x1200
Weight	kg	840
Fuel Tank	lt	102



## CANOPIED

LxWxH	mm	2300x1000x1300
Weight	kg	1020
Fuel Tank	lt	102

## Sound Proof Canopy

- Special design for minimizing acoustic level.
- Galvanized steel construction further protected by polyester powder coat paint.
- Black finish stainless steel locks and hinges.
- Control panel viewing window in a lockable access door.
- Emergency stop push button (red) mounted on enclosure exterior.
- Lifting, drag and jacking points on base frame.
- Radiator fill via removable, flush mounted rain cap fitted with compression seal.
- Acoustic insulation with moisture-repellent and non-flammable material

GENERATOR

CONTROL UNIT



Control Unit



ATS unit with uninterrupted transfer	Internet Central Monitoring
AMF unit with uninterrupted transfer	SMS / E-mail message sending
Remote / Manuel start controller	Flexible with plug-in modules
Engine controller	Free PC software: Rainbow Plus
GSM-GPRS-GPS-Ethernet Port	Modbus RTU
8 configurable digital inputs	

ATS PANEL

POWERSAN automatic transfer switches are reliable, rugged, versatile, and compact assemblies for transferring essential loads and electrical distribution systems from one power source to another. POWERSAN's contactor based transfer switch is rated 40-3600A and can be supplied in separate enclosures for standalone applications or can be supplied as an integral component. Contactors inside the ATS panels are well known and internationally recognized brands such as ABB, SIEMENS, SCHNEIDER, GE, LS, HYUNDAI, TELERGON, SOCOMEC and ANDELI.



OPTIONAL EQUIPMENTS

Some Optional Equipments that POWERSAN provides with Generator Sets;

- Medium voltage alternator,
- Remote radiator applications,
- Automatic fuel filling system,
- Fuel tank, oil pan, dashboard, alternator, coil heaters,
- Alternator with double AVR and PMG,
- Synchronization systems, The generator output breaker,
- Grid-generator transfer switches,
- Accordance with the specific volume of demand-insulated cabins,
- Seismic solutions,
- Trailer,
- Remote monitoring.
- SMPS 12/24V 10A

Control Panel

- DeepSea 7320
- Datakom D700/D300/D309/D200
- ComAp AMF9
- ComAp AMF25



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