Model:P1100D5

Powered by PERKINS

Output Rating

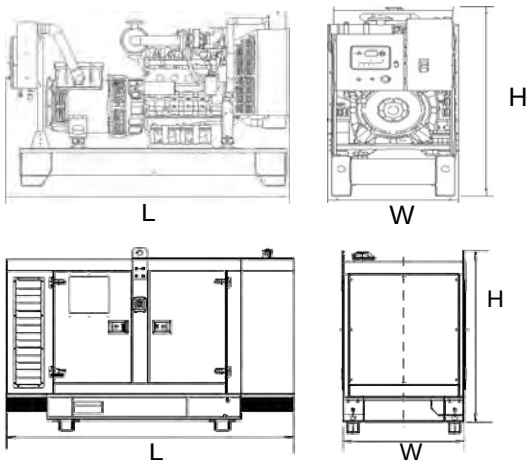
MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
P1100D5	400V/50HZ	800KW	880W	380/220V 400/230V 415/240V
	PF:0.8	1000KVA	1100KVA	

General Information

Model		P1100D5
Engine		4008TAG2A
Speed control type		Electronic
Phase		3
Control System		Digital
System voltage		12V/24V
Frequency		50HZ
Engine Speed(RPM)		1500
Fuel Consumption L/hr	Standby power(2)	248
	Prime Power(1)	220
	75% prime power	160
	50% prime power	108

Dimension and Weight

Dimension	Open	Silent
Length (L)	4680mm	6050mm
Width (W)	2070mm	2438mm
Height (H)	2450mm	2591mm
Net Weight	11539KG	12700KG



AGG POWER gensets are compliant with EC mark which include the following directives:

* 2006/42/EC Machinery safety.
* 2006/95/EC Low voltage
* EN 60204-1: 2006+A1:2009, EN ISO 12100:2010, EN ISO 13849-1: 2008, EN 12601: 2010

(1)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 operation conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24h of operation shall not exceed 70% of the PRP.

(2) Standby Power (ESP):

According to ISO 8528-1:2005, standby power is the maximum power available during a variable electrical power sequence, under the stated operation 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 200h of operation per year with the maintenance intervals and procedures being caried out as prescribed by the manufacturers. The permissible average power output over 24h of operation shall not exceed 70% of the ESP.

Engine Specification

Basic technical data

Number of cylinders 8
Cylinder arrangement ... ... In line
Cycle. ... ...4 stroke, compression ignition
Induction system... ... ...Turbocharged
Compression ratio. ... ...13.6:1 nominal
Bore .. .. 160 mm
Stroke .. .. 190 mm
Cubic capacity .. ..30,561 litres
Direction of rotation... ... ... Anti-clockwise viewed on flywheel
Firing order 1, 4, 7, 6, 8, 5, 2, 3
Cylinder 1.. ... ... furthest from flywheel

Cooling system

Recommended coolant: 50% inhibited ethylene glycol or 50% inhibited propylene glycol and 50% clean fresh water. For combined heat and power systems and where there is no likelihood of ambient temperature below 10 °C, then clean 'soft' water may be used, treated with 1% by volume of Perkins inhibitor in the cooling system.
Nominal jacket water pressure in crankcase. ... ... 170 kPa

The following is a guide based on ambient air conditions of 52 °C on a Perkins supplied radiator.
Total coolant capacity:
Engine only ... ... .48 litres
ElectropaK (engine/radiator):
-tropical . ...149 litres
-temperate. ... ...143 litres
Pressure cap setting . ... 69 kPa
Fan ... ... Incorporated in radiator

Lubrication system

Recommended lubricating oil to conform with the specification of API CG4 15W/40

Lubricating oil capacity

-sump maximum. ... ... 153 litres
-sump minimum.. ... ... 127 litres
Lubricating oil temperature maximum to bearings . ... .105 °C

Lubricating oil pressure

-at 80 °C temperature to bearing gallery (minimum) .. ... 0,34 MPa

Exhaust system

Maximum back pressure for total system

4008TAG1A. ... ...947 mm H_20
4008TAG2A. ... ...816 mm H_20
Exhaust outlet flange size ... ... 2 x 152 mm
For recommended pipe sizes, refer to the Installation Manual.

4008TAG2A

Oil consumption Prime power	Units	
After running-in (1)	g/kWhr	0,52
Oil flow rate from pump	l/s	3,70

4008TAG2A - Tropical

Designation	Units	Baseload power	Prime Power	Standby power
Gross engine power	kWb	719	899	985
Fan power	kWm		38	
Net engine power	kWm	681	861	947
BMEP gross	bar	18,5	23,2	25,4
Combustion air flow	m³/min	64	75	80,5
Exhaust gas temperature, after turbo	°C	405	438	465
Exhaust gas flow maximum, after turbo	m³/min		200	
Boost pressure ratio	-	3,18	3,70	4,0
Mechanical efficiency	%	90	92	92
Overall thermal efficiency	%	41,5	41	40
Friction power and pumping losses	kWm		80	
Mean piston speed	m/s		9,5	
Engine coolant flow (minimum)	l/s		10,0	
Typical Genset electrical output 0,8pf 25 °C (100 kPa)	kVA	809	1022	1125
	kWe	647	818	900
Assumed alternator efficiency	%		95	

Alternator

Alternator		
Poles	Num	4
Winding Connections (standard)		Star-serie
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		Brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)

Options

Engine	Alternator	Generator Sets	Fuel System	Canopy
●Water Jacket Preheater ●Oil Preheater	●Winding Temperature measuring Instrument ●Alternator Preheater ●PMG ●Anti-damp and anti-corrosion treatment ●Anti-condensation heater	●Tools with the machine	● Low fuel level alarm ●Automatic fuel feeding system ●Fuel T-valves	●Rental Type Canopy ●Trailer
Lubricating System	**Exhaust System**	**Cooling System**	**Control Panel**	**Voltages**
●Oil with the machine	●Protection board from hotness	● Front heat protection ● Coolant (-30°C)	●Remote control panel ● ATS ● Remote controller ● Synchronizing controller	● 415/240V ● 380/220V ● 220/127V ● 220/127V ● 200-115V

Control Panel

Product description

- Single gen-set controller for Stand-by and Prime-power applications
- Direct communication with EFI engines
- Total remote monitoring and control

Key features

- Easy to install, configure and use
- Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN and on board USB
  - internet access using Ethernet or GPRS
  - support for Modbus and SNMP protocols
- Cloud-based monitoring and control
- Active SMS and emails in different languages
- 2x 5 A binary outputs for cranking and fuel solenoid
- Option for up to 16 additional binary inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Automatic temperature based cooling/heating
- Comprehensive gen-set protections
- Multipurpose flexible timers
- True RMS measurement

Available extension modules

Product	Description	Order code
CM-Ethernet	Ethernet interface	CM2ETHERXBX
CM-GPRS	GSM modem / wireless internet	CM2GPRSXXBX
CM-RS232-485	Dual port interface	CM223248XBX
EM-BIO8-EFCP	8 additional binary inputs/outputs	EM2BIO8EXBX

Functions and protections

Description	ANSI code	Descritption	ANSI code
Over voltage	59	**Load shedding**	32P
Under voltage	27	**Overload**	32
Voltage asymmetry and Phase rotation**	47	**Power factor**	55
Over frequency	81H	**Temperature**	49T
Under frequency	81L	**Gas (fuel) level**	71
Over current*	50 + 51	**Earth fault current**	50N + 64
Current unbalance	46		

* Short current only

** Fixed setting