Model:P1375D5

Powered by PERKINS

Output Rating

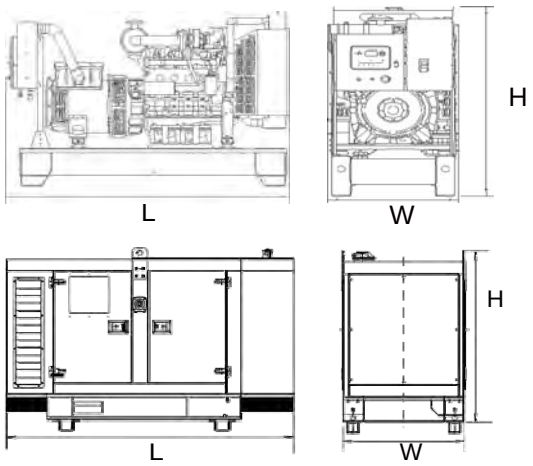
MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
P1375D5	400V/50HZ	1000KW	1100KW	380/220V 400/230V 415/240V
	PF:0.8	1250KVA	1375KVA	

General Information

Model		P1375D5
Engine		4012-46TWG2A
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)	287
	Prime Power(1)	258
	75% prime power	196
	50% prime power	141

Dimension and Weight

Dimension	Open	Silent
Length (L)	4760mm	12192mm
Width (W)	2020mm	2438mm
Height (H)	2481mm	2896mm
Net Weight	12539KG	20320KG



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 ... 12
Cylinder arrangement ... Vee 60°
Cycle ... 4 stroke, compression ignition
Induction system ... turbocharged
Combustion system ... direct injection
Compression ratio ... 13:1 nominal
Bore ... 160 mm
Stroke ... 190 mm
Cubic capacity ... 45·842 litres
Direction of rotation ... Anti clockwise viewed on flywheel
Firing order ... $1^{A},6^{B},5^{A},2^{B},3^{A},4^{B},6^{A},1^{B},2^{A},5^{B},4^{A},3^{B}$
Cylinder 1 ... furthest from flywheel
Note: Cylinders designated 'A' are on the right hand side of the engine when viewed from the flywheel end.

Overall dimensions of ElectropaK

Height ... 2255 mm
Length ... 3714 mm
Width
-temperate ... 1780 mm
-tropical ... 1978 mm

Moment of inertia (mk²)

Flywheel ... 9,57 kgm²
Engine ... 9,73 kgm²

Lubrication system

Recommended multigrade oil viscosity (15W40) which adequately meets the specifications of API CH4. For further details refer to the engine OMM.

Lubricating oil capacity

Total system ... 177 litres
Sump maximum ... 159 litres
Sump minimum ... 136 litres
Oil temperature at normal operating conditions ... 95 °C
Oil temperature (in rail) - maximum continuous operation ... 105 °C

Cooling system

Recommended coolant: 50% inhibited ethylene glycol or 50% inhibited propylene glycol and 50% clean fresh water. For CHP 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. The inhibitor is available in 1 litre bottles from all Perkins Distributors.
Maximum pressure in crankcase water jacket ... 170 kPa
Maximum top tank temperature (standby) ... 98 °C
Maximum static pressure on pump ... 70 kPa
Maximum pressure cap setting ... 70 kPa

Exhaust system

Outlet size (internal) ... 2 x 254 mm
Outlet flange size ... 10" table D
Back pressure for total system ... 5 kPa
For recommended pipe sizes, refer to the Installation Manual.

General installation - 4012-46TWG2A (Temperate) 50 Hz @ 1500 rev/min

Designation	Units	Type of operation and application		
		Base	Prime	Standby
Gross engine power	kWb	884	1106	1217
Fan and battery charging alternator power	kW		51	
Net engine power	kWm	833	1055	1166
Brake mean effective pressure (gross)	kPa	1543	1930	21,24
Combustion air flow at ISO conditions	m³/min	90	102	109
Exhaust gas temperature (max) after turbo	°C		422	
Exhaust gas flow (max) at atmospheric pressure	m³/min		230	
Boost pressure ratio	-	2,38	2,86	3,09
Mechanical efficiency	%	88.0	90.2	91.0
Overall thermal efficiency (nett)	%	39.46	39.81	39.66
Friction and pumping power losses	kWm		120	
Mean piston speed	m/s		9,5	
Engine coolant flow	l/min		948	
Typical GenSet electrical output (0.8pf)	kVA	989	1253	1385
	kWe	791	1002	1108
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