

Model: P715D5

Powered by PERKINS

Output Rating

MODEL		Power rating		Voltage available		
		PRIME(1)	STANDBY(2)			
P715D5	400V/60HZ	520KW	572KW	380/220V	400/230V	415/240V
	PF:0.8	650KVA	715KVA			

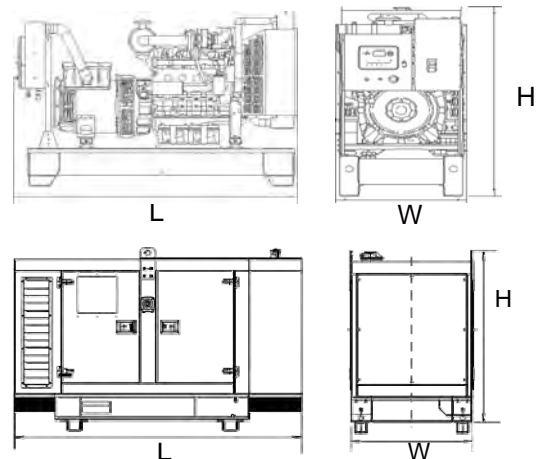
General Information

Model	P715D5	
Engine	2806A-E18TAG2	
Speed control type	Electronic	
Phase	3	
Control System	Digital	
System voltage	12V/24V	
Frequency	60HZ	
Engine Speed(RPM)	1800	
Fuel Consumption L/hr	Standby power(2)	143
	Prime Power(1)	132
	75% prime power	97
	50% prime power	66



Dimension and Weight

Dimension	Open	Silent
Length (L)	4320mm	6050mm
Width (W)	1730mm	2438mm
Height (H)	2180mm	2591mm
Net Weight	4453KG	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 carried 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... 6
 Cylinder arrangement... Vertical, in line
 Cycle... 4 stroke, compression ignition
 Induction system... Turbocharged, air to air charge cooling
 Compression ratio... 14-5:1 Nominal
 Bore... 145 mm
 Stroke... 183 mm
 Cubic capacity... 18,13 litres
 Direction of rotation... Anti-clockwise viewed on flywheel
 Firing order... 1, 5, 3, 6, 2, 4
 Cylinder 1... furthest from flywheel

Overall dimensions

-height... 1807,5 mm
 -length... 2545 mm
 -width... 1536 mm

Moment of inertia (mk²)

-flywheel @ 1500 rev/min... 4,74 kgm²
 -engine @ 1500 rev/min... 2,31 kgm²
 -flywheel @ 1800 rev/min... 4,74 kgm²
 -engine @ 1800 rev/min... 2,70 kgm²

Cooling system

Recommended coolant: 50% clean water with 50% Perkins ELC. Where there is no likelihood of ambient temperature below 10 °C, clean 'soft' water may be used, treated with 1% by volume of Perkins inhibitor in the cooling system. The inhibitor is available from Perkins.
 Nominal jacket water pressure in crankcase... 280 kPa
 Maximum top tank temperature (standby)... 103 °C
 Thermostat operating range... 88 - 98 °C
 Ambient cooling clearance maximum duct allowance and resultant minimum airflow (standby power). Based on air temperature at fan 10 °C above ambient

Radiator

-face area... 1,75 m²
 Rows and material... 2 Aluminium
 Fins per inch... 15

Width and height of matrix

-height... 1260 mm
 -width... 1390 mm
 Total coolant capacity (radiator and engine)... 61 litres
 Pressure cap setting... 70 kPa

Charge cooler, integral with radiator

Face area... 1,623 m²
 Rows and material... 1 Aluminium
 Fins per inch... 14

Width and height of matrix

-height... 1390 mm
 -width... 1180 mm

Coolant pump

Speed... 18 x e rev/min
 Method of drive... Gear

Fan

Type... Pusher
 Drive ratio... 0,8 : 1
 Diameter... 965 mm
 Number of blades... 9
 Material... Plastic

Exhaust system

Exhaust outlet size (internal)... 202 mm
 Maximum exhaust back pressure for total system... 6,9 kPa
 For recommended pipe sizes, see installation manual.

2806A-E18TAG2

Designation	Units	Type of operation and application			
		Standby		Prime	
		50 Hz @ 1500 rev/min		60 Hz @ 1800 rev/min	
Gross engine power	kWb	584	628	567,7	623
Fan, battery and alternator power	kWm	9		15	
Restriction losses	kWm	9,8	10,4	9,5	10,3
Nett engine power	kWm	565	609	543	598
BMEP gross	kPa	2576	2770	2087	2290
Combustion air flow	m ³ /min	37	40	43	45
Exhaust gas temperature (after turbo)	°C	555	553	481	489
Exhaust gas flow	m ³ /min	106	114	109	118
Boost pressure ratio	-	3,04	3,22	2,97	3,18
Overall thermal efficiency (nett)	%	42,6	42,0	43,1	42,7
Friction power and pumping losses	kWm	20		34	
Mean piston speed	m/s	9		11	
Engine coolant flow	l/s	6,1		7,2	
Cooling fan airflow	m ³ /min	702		852	
Typical gen set electrical output 0.8 pf	kWe	520	560	500	550
	kVa	650	700	625	687
Assumed alternator efficiency	%	92		92	



▪ 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
<ul style="list-style-type: none"> •Water Jacket Preheater •Oil Preheater 	<ul style="list-style-type: none"> •Winding Temperature measuring Instrument •Alternator Preheater •PMG •Anti-damp and anti-corrosion treatment •Anti-condensation heater 	<ul style="list-style-type: none"> •Tools with the machine 	<ul style="list-style-type: none"> • Low fuel level alarm •Automatic fuel feeding system •Fuel T-valves 	<ul style="list-style-type: none"> •Rental Type Canopy •Trailer
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> •Oil with the machine 	<ul style="list-style-type: none"> •Protection board from hotness 	<ul style="list-style-type: none"> • Front heat protection • Coolant (-30°C) 	<ul style="list-style-type: none"> •Remote control panel • ATS • Remote controller • Synchronizing controller 	<ul style="list-style-type: none"> • 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	Description	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

