Model:P660D5

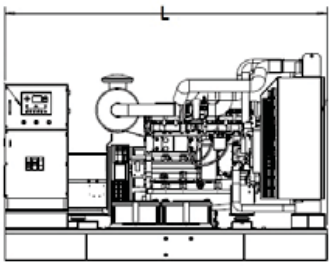
Powered by PERKINS

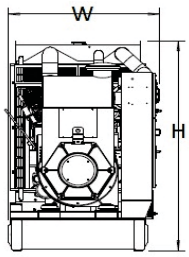
Output Rating

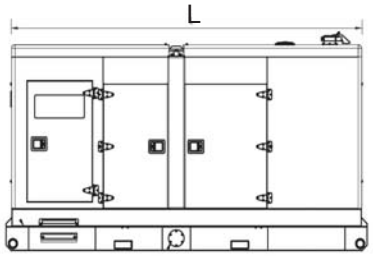
MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
P660D5	400V/50HZ	480KW	528KW	380/220V 400/230V 415/240V
	PF:0.8	600KVA	660KVA	

General Information

Model		P660D5
Engine		2806A-E18TAG1A
Speed control type		Electronic
Phase		3
Control System		Digital
System voltage		24V
Frequency		50HZ
Engine Speed(RPM)		1500
Fuel Consumption (L/H)	Standby power(2)	134
	Prime Power(1)	123
	75% prime power	90
	50% prime power	61







Dimension and Weight

Dimension	Open	Silent
Length (L)	3350mm	4950mm
Width (W)	1540mm	2020mm
Height (H)	1630mm	2502mm
Net Weight	4470KG	6510KG

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 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

Electrical system

Type ... ... Insulated return
Alternator output . ... 24 volts / 70 amps

Lubrication system

Lubricating oil capacity

Total system .. .. .62 litres
Sump maximum ... ... .53 litres
Sump minimum ... ... .45 litres

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.

Fuel system

Type of injection system ... ... MEUI
Fuel injector pressure ... ... 200 MPa

Cooling system

Duct Allowance kPa	Ambient Clearance °C	Min Airflow m³/min	Ambient Clearance °C	Min Airflow m³/min
	1500 rev/min		1800 rev/min	
0	49	702	54	852
0,13	46	660	52	804
0,19	42	630	52	792
0,25	37	606	51	762

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

General installation

Designation	Units	Type of operation and application			
		Prime	Standby	Prime	Standby
		50 Hz @ 1500 rev/min		60 Hz @ 1800 rev/min	
Gross engine power	kWb	539,7	592,7	567,7	623
Fan, battery and alternator power	kWm	9		15	
Restriction losses	kWm	9,1	9,9	9,5	10,3
Nett engine power	kWm	522	574	543	598
BMEP gross	kPa	2381	2615	2087	2290
Combustion air flow	m³/min	34	36	43	45
Exhaust gas temperature (after turbo)	°C	568	571	481	489
Exhaust gas flow	m³/min	96.0	104	109	118
Boost pressure ratio	-	2,81	3,07	2,97	3,18
Overall thermal efficiency (nett)	%	42,8	42,4	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	m³/min	702		852	
Typical gen set electrical output 0.8 pf	kWe	480	528	500	550
	kVa	600	660	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.
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