

Model: P975D6

Powered by PERKINS



Generator Specification

Service	PRP ⁽¹⁾	ESP ⁽²⁾
Power (kVA)	884	975
Power (kW)	707.2	780
Rated speed (r.p.m)	1800	
Standard voltage (V)	440/254V	
Rated at power factor(cos phi)	0.8	



AGG Power gensets are compliant with ISO 9001 and CE standard, 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) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):

According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

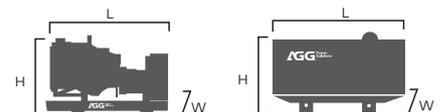
Powers Voltage (V)	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
480/277	975	780	884	707.2	1172.8
440/254	975	780	884	707.2	1279.4
380/220	975	780	884	707.2	1481.4
220/127	975	780	884	707.2	2558.8
208/120	975	780	884	707.2	2706.4

Performance Data

Model	P975D6	
Engine brand	Perkins	
Engine model	4008TAG1	
Speed control type	Electronic	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	60HZ	
Engine speed (RPM)	1800	
Fuel Consumption (L/H)	100% standby power	219
	100% prime power	199
	75% prime power	147
	50% prime power	99

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 , Class A2



Dimension and Weight

Dimension	Open	Silent
Length (L)	4680mm	6058mm
Width (W)	2046mm	2438mm
Height (H)	2208mm	2591mm
Net Weight	-	-
Fuel Tank (L)	-	-

Note: This parameters allows for some acceptable deviations.

■ Engine Specification: 4008TAG1

Basic technical data	
No. of cylinders	8
Cylinder arrangement	In-line
Cycle	4 stroke, compression ignition
Induction system	Turbocharged
Compression ratio	13.6:1
Bore	160mm
Stroke	190mm
Displacement	30.6L
All ratings certified to within	TBD
Speed variation at constant load	±0.25%

Cooling system	
Total coolant capacity	
Engine only	48 litres
Pressure cap setting	69 kPa
Fan	Incorporated in radiator
Thermostat operation range	71-85°C
Diameter	
tropical	1400 mm (pusher)
temperate	1214 mm (pusher)
Fan diameter	TBD
Drive ratio	TBD
Number of blades	TBD

Fuel system	
Type of injection system	Direct injection
Fuel injection pump	Combined unit injector
Fuel injector	Combined unit injector
Fuel injector opening pressure	234 bar
Heat retained in fuel to tank	4,5 kW
Fuel lift pump	Tuthill TCH 1-054
Fuel lift pump pressure	300 kPa
Maximum suction head:	
-1500 rev/min	2.5 m

Induction system	
Clean filter	1.27kpa
Dirty filter	3.80kpa
Air filter type	5001-00-00 MF&T

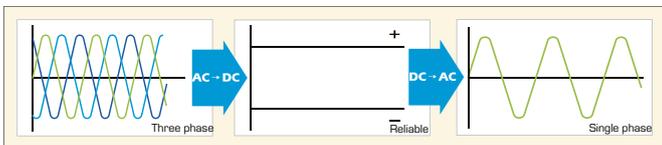
Lubrication system	
Total lub capacity	TBD
Sump minimum	127L
Sump maximum	153L
Maximum engine operating angles	
-front up, front down, right side	TBD
or left side	
Lubricating oil pressure	
-at 80 °C temperature to	
bearing gallery (minimum)	0,34 MPa
Oil consumption at full load	
as a % of fuel consumption	TBD

Electrical system	
Type	Insulated return
Alternator voltage	24 volts
Alternator output	40 amps
Starter motor voltage	24 volts
Starter motor power	8.2 kW

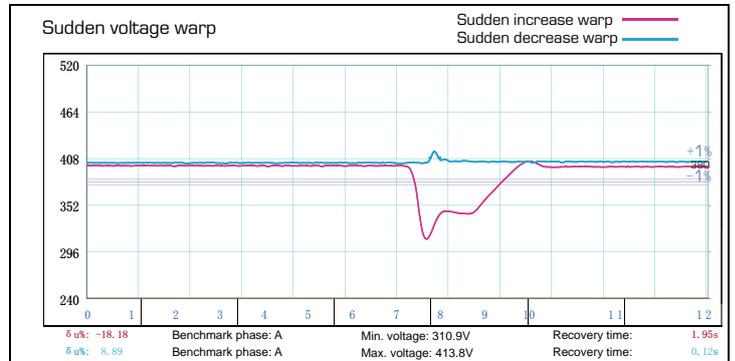
General installation	Prime power
Combustion air flow	66 m ³ /min
Exhaust gas temp	460°C
Exhaust gas flow, wet	172.9 m ³ /min
Engine coolant flow	12 l/min
Cooling fan air flow	TBD

■ Alternator Specification

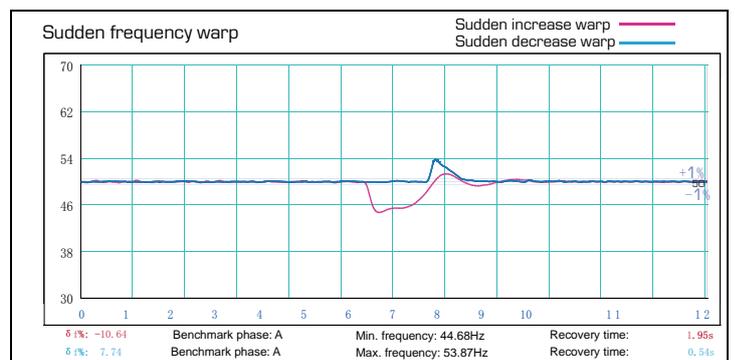
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



■ Options

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> Water Jacket Pre-heater Fuel heater 	<ul style="list-style-type: none"> Winding Temp measuring Instrument Alternator Pre-heater PMG Anti-damp and anti-corrosion treatment Anti-condensation heater Winding and bearing RTD 	<ul style="list-style-type: none"> Tools with the machine Extended range fuel tank Bunded fuel tank 	<ul style="list-style-type: none"> Low fuel level alarm Automatic fuel feeding system Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> Rental type Canopy Trailer 	<ul style="list-style-type: none"> Oil Pre-heater Oil temp sensor 	<ul style="list-style-type: none"> Front heat protection 	<ul style="list-style-type: none"> Remote control panel ATS Synchronizing controller Adjustable earth leakage relay

Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/60HZ)
- Generator measurements (50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Over current/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz, ± 1.6 mm
5-100Hz, a=4g
- Shocks: a= 500m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs