

# KVA Powerhouse Range

750 KVA – 1025 KVA

50 Hz Three phase 380- 415 v



Model	Engine	Alternator	Manufacturing country of engine & alternator	PRP Output		ESP Output	
				Kva	Kw	Kva	Kw
PS745	4006-23TAG2A	HCI634G	<b>UK</b>	745	596	815	652
PS800	4006-23TAG3A	HCI634G	<b>UK</b>	800	640	850	680
PS910	4008TAG1A	HCI634H	<b>UK</b>	910	728	1000	800
PS1000	4008TAG2A	HCI634J	<b>UK</b>	1000	800	1100	880
PS1025	4008TAG2A	HCI634K	<b>UK</b>	1025	820	1110	888

## Ratings definitions:

Ratings are in accordance with ISO8528 and are based on a 25 Deg C ambient/air inlet temperature, 100 M altitude and 30% relative humidity and are based on 0.8 lagging power factor.

### Prime Power (PRP)

Power available at variable load, with a load factor not exceeding the figure shown. An overload of 10% is permitted for 1 hour in any 12 hours operation.

### Standby Power (ESP)

Power available at variable load in the event of a main power network failure upto a maximum of 500 hours per year. No overload is permitted.

# Data

		4006-23TAG2A	4006-23TAG3A	4008TAG1A	4008TAG2A
Performance class	ISO8528	G2	G2	G2	G2
Average load factor	% of PRP	80	80	80	80
Load acceptance	% of PRP	67	66	64	57
Frequency regulation – constant load	%	+/- 0.25	+/- 0.25	+/- 0.25	+/- 0.25
Voltage regulation	%	0.5	0.5	0.5	0.5
Cooling clearance	Deg C	50	50	50	50
Fuel tank capacity	Open	1770	1770	Optional	Optional
Fuel consumption Litres/hour	50%	89	93	103	116
	75%	127	134	146	164
	100%	165	176	196	215
	110%	180	195	219	239
<b>Fuel consumption is based on fuel in accordance with BS2869 with a specific gravity of 0.845 and is subject to a +5% tolerance</b>					

		6	6	8	8
Cylinders		6	6	8	8
Configuration		Inline	Inline	Inline	Inline
Aspiration		Turbocharged Air/air charge cooled	Turbocharged Air/air charge cooled	Turbocharged Air/air charge cooled	Turbocharged Air/air charge cooled
Compression ratio		13.6:1	13.6:1	13.6:1	13.6:1
Bore x stroke	mm	160 x 190	160 x 190	160 x 190	160 x 190
Displacement	Litres	22.92	22.92	30.56	30.56
Mean piston speed	m/sec	9.5	9.5	9.5	9.5
Thermal efficiency	%	43.8	41	43	43.8
BMEP (PRP)	kPa	2295	2452	2070	2320
Cooling capacity	Litres	120	120	149	149
Lub. oil capacity	Litres	113.4	113.4	153	153
Airflow	M3/min	870	870	1248	1350
Duct	kPa	0.3	0.3	0.19	0.17
Exhaust gas flow (ESP)	M3/min	180	193	183	200
Exhaust back pressure	kPa	6	6	8	9

		HCI634G	HCI634H	HCI634J	HCI634K
Avr model		MX321	MX321	MX321	MX321
Bearings		1	1	1	1
Stator insulation class		H	H	H	H
Rotor insulation class		H	H	H	H
Temperature rise	PRP	125/40	125/40	125/40	125/40
	ESP	163/27	163/27	163/27	163/27
Winding pitch		2/3	2/3	2/3	2/3
Number of leads		12	12	12	12
Mechanical protection		IP23	IP23	IP23	IP23
THF		<2	<2	<2	<2
Inertia	Kgm2	18.34	20.04	22.92	26.52

## Scope of standard supply

Cooling system	Set mounted tropical radiator- original Perkins supply Engine driven cooling fan Fan and matrix protection guard
Induction system	Dry paper element air filter with pressure drop indicator
Governor type	Electronic
Fuel system	Fuel filter Fuel lines Fuel contents gauge (PS745 & PS800) Fuel tank drain (PS745 & PS800)
Lubrication system	Lub oil filter Sump drain pump (optional on open sets) Standard on all canopied sets
DC electrical system	24 v starter motor and 24 volt charge alternator 5 amp battery charger 4 x 125 amp/hour lead acid maintenance free batteries (PS745 & PS800) 6 x for PS910, PS1000 & PS1025
Baseframe	Steel baseframe with integral fuel tank PS745 & PS800 Steel baseframe without fuel tank PS910, PS1000 & PS1025
Control panel	Powder coated steel enclosure flexibly mounted above alternator terminal box
Controller	DSE 7220
Circuit breaker	Powder coated steel enclosure fitted to gen set 3 pole MCCB. Optional on PS910/PS1000 & PS1025
Monitoring	Oil pressure Engine temperature Engine speed Hours run Amps per phase Ac voltage Frequency Mains ac monitoring Maintenance scheduler
Exhaust	Industrial exhaust silencer(s) Flexible exhaust section (s)
Works Test	Full works test In accordance with ISO8528 covering Functions Load tests upto 110% Load acceptance capability Conducted at unity power factor
Paint colour	Black

# Canopy specifications

Our canopies for this range are individually custom built in the U.K. to meet the specific duty and share the following in common:

Acoustic & weatherproof

Welded construction

Zinc coated steel outer skin

High density mineral wool sound insulation

Perforated steel inner skin

End mounted inlet and outlet attenuators with fixed blade weather louvres, bird guard

Roof mounted mild steel exhaust silencer

Steel baseframe with integral fuel tank sized for 8 hours @ 75% load

Heavy duty door fittings

Gloss paint




Alternatively, we can supply the sets installed into an acoustic & weatherproof ISO container



# Options

Each set within the KVA powerhouse Range range can be supplied with a number of options to tailor the set to a specific duty.

Mains coolant heater	Assists starting and load acceptance capability at low ambient temperatures
Remote radiator	Horizontal or vertical options
Heat exchanger cooling	For operation with remote radiator or cooling tower
Alternator anti condensation heaters	Minimises damage to the windings caused by condensation build up
Alternator winding thermistors	Provides alarm/shutdown for high winding temperature
Alternator winding and bearing RTD's	Provides temperature readout of windings and bearing(s)
High specification fuel/water separator with alarm contact	Minimises damage to fuel systems and provides alarm indication
Single point exhaust temperature monitoring	Provides a temperature readout
DSE7320 controller DSE8610 controller	Enables remote communications Enables synchronising
	
Remote monitoring and control	Heat exchanger synchronised sets undergoing testing
4 pole mccb Motor operator Earth fault protection	
10 amp battery charger Battery temperature monitoring	
Automatic Transfer Switch panel Bypass switch panel	Using either Contactors or circuit breakers
Critical exhaust silencer systems	
Bunded base fuel tank	Required for EC countries
Ce compliance and certification	Required for EC countries

Further options are shown in our current price list

# Weights and dimensions

The following is given for guidance. For installation purposes we can supply as built drawings

## Open Sets

Model	Length	Width	Height	Dry weight
	Cm	Cm	Cm	kg
PS745	397	171	232	6350
PS800	397	171	232	6350
PS910	465	205	227	7500
PS1000/1025	465	205	227	7500

## Canopied Sets (85 dba @ 1m)

Model	Length	Width	Height	Dry weight
	Cm	Cm	Cm	kg
PS745	662	220	250	8200
PS800	662	220	250	8200
PS910	895	257	299	10000
PS1000/1025	895	257	299	10000

**We have a policy of continuous product development and reserve the right to alter specifications without notice**