

KVA POWERHOUSE RANGE

1250 KVA – 1700 KVA

50 Hz Three phase 380- 415 v



Model	Engine	Alternator	Manufacturing country of engine & alternator	PRP Output		ESP Output	
				Kva	Kw	Kva 380v/400-415v	Kw
PS1250 (380 v)	4012-46TWG2A	PI734B	UK	1250	1000	1375	1100
PS1250# (400/415 v)	4012-46TWG2A	PI734A	UK	1250	1000	1350	1080
PS1360	4012-46TWG3A	PI734B	UK	1360	1088	1455/1500	1164/1200
PS1360#	4012-46TAG1A	PI734B	UK	1360	1088	1455/1500	1164/1200
PS1500	4012-46TAG2A	PI734C	UK	1500	1200	1615/1650	1292/1320
PS1700	4012-46TAG3A	PI734E	UK	1700	1360	1870	1496

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

		4012-46TWG2A	4012-46TWG3A	4012-46TAG1A	4012-46TAG2A	4012-46 TAG3A
Performance class	ISO8528	G2	G2	G2	G2	G2
Average load factor	% of PRP	80	80	80	80	80
Load acceptance	% of PRP	72	65	73	71	63
Hz regulation – constant load	%	+/- 0.25	+/- 0.25	+/- 0.25	+/- 0.25	+/-0.25
Voltage regulation	%	+/- 1	+/- 1	+/- 1	+/- 1	+/- 1
Cooling clearance	Deg C	50	50	50	50	50
Fuel consumption	50%	162	169	154	167	185
Litres/hour	75%	218	232	213	240	275
	100%	280	302	281	313	366
	110%	308	339	312	345	406

Fuel consumption is based on fuel in accordance with BS2869 with a specific gravity of 0.845 and is subject to a +5% tolerance

Cylinders		12	12	12	12	12
Configuration		V	V	V	V	V
Aspiration		Turbocharged Air/Water charge cooled	Turbocharged Air/Water charge cooled	Turbocharged Air/Air charge cooled	Turbocharged Air/Air Charge cooled	Turbocharged Air/Air Chargecooled
Compression ratio		13:1	13:1	13:1	13:1	13:1
Bore x stroke	mm	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190
Displacement	Litres	45.8	45.8	45.8	45.8	45.8
Mean piston speed	m/sec	9.5	9.5	9.5	9.5	9.5
Thermal efficiency	%	39.8	39.7	44	43.8	41
BMEP (PRP)	kPa	1942	2106	2110	2317	2610
Cooling capacity	Litres	201	201	210	210	210
Lub. oil capacity	Litres	177	177	177	177	177
Airflow	M3/s	28	28	32.4	32.4	37
Duct	kPa	0.125	0.125	0.2	0.2	0.125
Exhaust gas flow (ESP)	M3/min	235	245	280	320	350
Exhaust back pressure	kPa	5	5	5	5	5

		PI734A	PI734B	PI734C	PI734E
Avr model		MX341	MX341	MX341	MX341
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	32.7	32.7	37.3	45.4

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 Pressure drop indicator
Governor type	Electronic
Fuel system	Fuel filter Fuel lines
Lubrication system	Lub oil filter Sump drain pump (optional on open sets) Standard on all canopied sets
DC electrical system	24V starter motor 24 volt charge alternator 5 amp battery charger 8 x 125 amp/hour lead acid maintenance free batteries
Baseframe	Steel channel baseframe
Control panel	Powder coated steel enclosure flexibly mounted above alternator terminal box
Controller	DSE 7320
Circuit breaker	3 pole floorstanding ACB optional
Monitoring	Oil pressure Engine temperature Engine speed Hours run Amps per phase Ac voltage Frequency Mains ac monitoring Maintenance scheduler Remote communications
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 the sets can be installed into an acoustic & weatherproof ISO container



Options

Each set within the KVA Powerhouse 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

Minimizes 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

minimizes damage to fuel systems and provides alarm indication

Single point exhaust temperature monitoring

Provides a temperature readout

DSE8610 controller

Enables synchronizing

Remote monitoring and control

4 pole ACB

Motor operator

Earth fault protection

10 amp battery charger

Battery temperature monitoring

Automatic Transfer Switch panel

Bypass switch panel

Using air circuit breakers

Synchronising

Available either between generators or between generator and mains

Custom built enclosures

Purposely designed tailor made canopies for specific installations such as water authorities

Critical exhaust silencer systems

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
PS1250	473	178	245	8900
PS1360	473	198	245	9000
PS1360#	499	219	251	9750
PS1500	499	219	251	10000
PS1700	510	216	281	10600

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