

KVA POWERHOUSE RANGE

1845 KVA – 2250 KVA

50 Hz Three phase 380- 415 v

Model	Engine	Alternator	Manufacturing country of engine & alternator	PRP Output		ESP Output	
				Kva	Kw	Kva	Kw
PS1850 (380 v)	4016-61TRG1	PI734E	UK	1845	1476	1975	1580
PS1850 (400/415 v)	4016-61TRG1	PI734E	UK	1860	1488	2018	1614
PS2000# (380 v)	4016-61TRG2	PI734F	UK	2000	1600	2165	1732
PS2000# (400/415 v)	4016-61TRG2	PI734F	UK	2000	1600	2200	1760
PS2250 (380 v)	4016-61TRG3	PI734G	UK	2135	1708	2290	1832
PS2250 (400/415 v)	4016-61TRG3	PI734G	UK	2200	1760	2360	1888
PS2250#	4016-61TRG3	LVS1804R	UK	2250	1800	2475	1980

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

		4016-61TRG1	4016-61TRG2	4016-61TRG3
Performance class	ISO8528	G2	G2	G2
Average load factor	% of PRP	80	80	80
Load acceptance	% of PRP	63	58.5	52
Frequency regulation – constant load	%	+/- 0.25	+/- 0.25	+/- 0.25
Voltage regulation	%	+/- 1	+/-1	+/-1
Cooling clearance	Deg C	50	50	50
Fuel consumption	50%	212	222	245
Litres/hour	75%	311	319	349
	100%	391	416	469
	110%	428	458	524
				(Figures based on rating using PI734G)
Fuel consumption is based on fuel in accordance with BS2869 with a specific gravity of 0.845 and is subject to a +5% tolerance				

		16	16	16
Cylinders		V	V	V
Configuration				
Aspiration		Turbocharged Air/Water aftercooled	Turbocharged Air/Water aftercooled	Turbocharged Air/Water aftercooled
Compression ratio		13:1	13:1	13:1
Bore x stroke	mm	160 X 190	160 X 90	160 x 90
Displacement	Litres	61.1	61.1	61.1
Mean piston speed	m/sec	9.5	9.5	9.5
Thermal efficiency	%	41.5	43.8	40
BMEP (PRP)	kPa	2157	2322	2585
Cooling capacity	Litres	215	252	270
Lub. oil capacity	Litres	213	213	213
Airflow	M3/min	2160	2820	3320
Duct	Pa	125	125	125
Exhaust gas flow (ESP)	M3/min	400	475	525
Exhaust back pressure	kPa	4	4	4

		PI734E	PI734F	PI734G	LVS1804R
Avr model		MX341	MX341	MX341	DM110
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	6
Mechanical protection		IP23	IP23	IP23	IP23
THF		<2	<2	<2	<2
Inertia	Kgm2	45.49	49.34	52.25	

Scope of standard supply

Cooling system	Set mounted tropical radiator- original Perkins supply Engine driven cooling fan Engine driven charge air circuit water pump Fan and matrix protection guard
Induction system	Dry paper element air filter Pressure drop indicator
Governor type	ECU
Fuel system	Fuel filter Fuel lines
Lubrication system	Lub oil filter Sump drain pump
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
Controller	DSE 7320
Circuit breaker	Powder coated steel enclosure fitted to gen set 3 pole 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

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	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
DSE8610 controller	Enables synchronising
Remote monitoring and control	
4 pole ACB	
Motor operator	
Earth fault protection	
10 amp battery charger	
Battery temperature monitoring	
Automatic Transfer Switch panel	Using air circuit breakers
Bypass switch panel	
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
4016-61TRG1	569	218	252	13200
4016-61TRG2	577	218	330	13200
4016-61TRG3	580	218	386	13200

We can offer various radiator configurations to suit differing ambient temperatures, which will affect the dimensions given above.



Allam Marine Ltd
Wyke Way
Melton West Business Park
Melton
Hull
East Yorkshire
England
TEL +44(0)1482 636300
FAX +44(0)1482 636301
www.allam.com

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

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