



Power Solution

PL45



OUTPUT RATINGS

Generating Set Model - PL45	Prime Power	Standby Power
380 - 415V, 50 Hz / 1500 RPM	45.0 KVA	49.6 KVA
operating Temp 40 C	36.0 Kw	39.7 Kw
480 - 220 , 60 Hz / 1800 RPM	53.1 KVA	58.7 KVA
Operating Temp 40 C	42.5 Kw	46.9 Kw

RATINGS DEFINITIONS

Prime Power : Variable load Unlimited hours usage with an average load factory of 80% of the published prime power over each 24 hour period. A 10% overload is available for 1 hour in every 12 hours of operation.

Standby power: Variable load. Limited to 500 hours annual usage up to 300 hours of which may be continuous running. No overload is permitted.

TECHNICAL DATA: ENGINE

Engine Model:	Perkins 1103A - 33TG1	
Number of Cylinders:	3 Vertical in-line	
Displacement:	3.3 liters	
Bore / Stroke: mm (in)	105 X 127 mm	
Compression ratio:	17.25:1	
Aspiration:	Turbo charger	
Cycle:	4 Stroke	
Combustion system	direct injection	
Total Coolant Capacity:	10.2 liters	
Total Lubrication System Capacity:	7.9 liters	
Rotation:	Anti Clockwise	
Cooling System:	Water - Cooled	
Engine Speed:	1500 RPM	1800 RPM
Gross Engine Power: Kw (hp)	42.2 (56.6)	50.5 (67.7)
Piston Speed: m/sec (ft/sec)	6.4 (20.8)	7.6 (25.0)
Fuel Tank Capacity: Liters (US Gal)	175 (46.2)	175 (46.2)
Fuel Consump, Prime PL45: 1/h (Usg / hr)	11.7 (2.8)	12.0 (3.2)
Fuel Consump, Standby PL49.6: 1/hr (Usg/hr)	12.9 (3.4)	14.3 (3.78)

TECHNICAL DATA: ALTERNATOR

Alternator Model:	LEROY SOMER LSA - 43.2 S25	
Insulation glass:	H	
Winding pitch:	2/3 - (bob 6)	
Terminals:	12	
Drip proof:	IP23	
altitude:	≤ 1000 m	
Overspeed:	2250 min ⁻¹	
Air flow:	0.27 m ³ /s (50 Hz) 0.32 (60 Hz)	
Excitation system	SHUNT	AREP or PMG
A.V.R. Model:	R230	R448
Voltage regulation (*):	± 0.5%	± 0.5%
Sustained short-circuit current:	-	300% (3 IN):10s
Total harmonic TGH / THG (**)	at no load < 2% - on load < 2%	
Waveform:NEMA = TIF	< 50	< 50
Wave from: I.E.C =THF	< 2%	< 2%

Note: Derating may be required for conditions outside these; consult Perkins Engines Company Limited Generator powers are typical and are based on an average alternator efficiency and a power factor (Cos. φ) of 0.8

Fuel specification: BS 2869; part 2 1998 Class A2 or DIN EN 590

Lubricating oil: 15w40 to API Cg4.

DIMENSIONS AND WEIGHTS

Length: mm (in)	Width: mm (in)	Height: mm (in)	Dry: Kg (lb)	Wet: Kg (lb)
2149 (84.6)	752 (29.6)	1366 (53.8)	890 (1962)	910 (2006)

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