

Output Ratings		
Generating Set Model	P45P1S	P50E1S
220 – 240V, 50 Hz	45 kVA	49.5 kVA
	45 kW	49.5 kW
240V, 60 Hz	50 kVA	55 kVA
	50 kW	55 kW

Ratings at unity pf

#### Ratings Definitions

##### Prime Power – Model P45P1S

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

##### Standby Power – Model P50E1S

These ratings are applicable for supplying continuous electrical power (at variable load) in event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

#### Technical Data

Engine Model:	Perkins 1004TG2	
Alternator Model:	LL2014J	
Number of Cylinders:	4 in line	
Cubic Capacity: Litres (cu.in)	4.0 (244)	
Bore/Stroke: mm (in)	100 (3.9)/127 (5.0)	
Compression ratio:	16.0:1	
Aspiration:	Turbocharged	
Frequency:	50 Hz	60 Hz
Engine Speed:	1500 RPM	1800 RPM
Gross Engine Power: kW (hp)	76.6 (103)	92.3 (124)
BMEP: kPA (psi)	1536 (223)	1542 (224)
Piston Speed: m/sec (ft/sec)	6.4 (20.8)	7.6 (25.0)
Fuel Tank Capacity: Litres (US Gal)	176 (46.5)	176 (46.5)
Fuel Consump, P45P1S:1/hr (USg/hr)	14.2 (3.8)	16.5 (4.4)
Fuel Consump, P50E1S:1/hr (USg/hr)	15.7 (4.1)	18.3 (4.8)
Heat Rejection to Exhaust System: kW (Btu/min)	28.1 (1598)	35.8 (2036)
Heat Rejection to Cooling System: kW (Btu/min)	34.0 (1934)	37.8 (2150)
Total Radiated Heat: kW (Btu/min)	17.3 (984)	20.5 (1166)
Exhaust Temperature: °C (°F)	638 (1181)	623 (1153)
Radiator Cooling Air Flow: m <sup>3</sup> /min (cfm)	130 (4591)	172 (6074)
Combustion Air Flow: m <sup>3</sup> /min (cfm)	2.2 (78.0)	3.0 (106)
Exhaust Gas Flow: m <sup>3</sup> /min (cfm)	8.0 (283)	9.8 (346)

Note: Standard reference conditions 27°C (80°F) Air Inlet Temp, 152.4m (500ft) A.S.L. 60% relative humidity. All engine performance data based on the above mentioned maximum continuous ratings. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

#### Dimensions and Weights

Length: mm (in)	Width: mm (in)	Height: mm (in)	Dry: kg (lb)	Wet: kg (lb)
2149 (85.0)	752 (29.6)	1342 (53.0)	920 (2028)	940 (2072)

Dry = With Lube Oil                      Wet = With Lube Oil and Coolant

Generating set pictured may include optional accessories



## P45P1S – P50E1S



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