

MP45EP

Output Rating

Voltage	Frequency		Standby	Prime
400 V	50 Hz	KVA	50	45
		KW	40	36

Rating Definitions

Ratings are in accordance with ISO 8528, ISO 3046, BS 5514.

Prime Rating

Applicable for supplying continuous electrical power (no limitation to annual hours of operation), at variable load, in lieu of utility power network; 10% overload is permitted for 1 hour in every 12 hours.

Standby Rating

Applicable for supplying continuous electrical power, at variable load, in the event of a utility power failure; no overload is permitted on standby ratings.

Standard Reference Conditions

Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m (328 ft) A.S.L. 30% relative humidity.

General Data

Engine Make	Perkins
Engine Model	1103A-33TG1
Alternator Make	Stamford
Alternator Model	UCI224D/S1L2N
Control Unit	DSE 7x20
Engine Speed: RPM	1500
Fuel Tank Capacity (l)	125
Fuel Consumption Standby (l/hr)	11.7
Fuel Consumption Prime (l/hr)	10.8
Fuel Consumption 75% (l/hr)	8.2
Fuel Consumption 50% (l/hr)	5.8

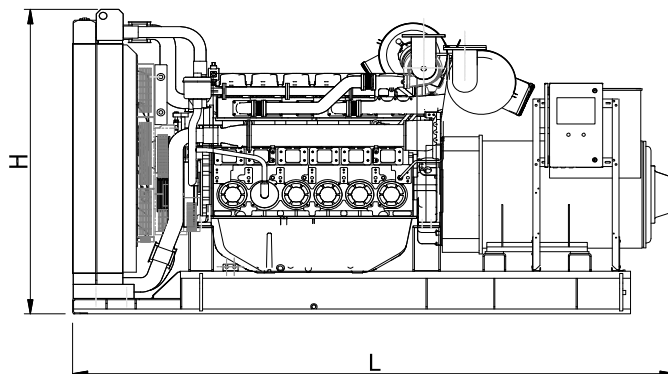
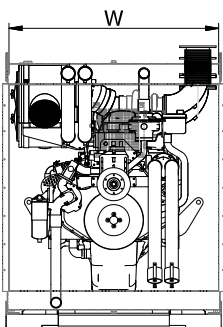
Optional Features and Customization

Optional Features and Customization include:

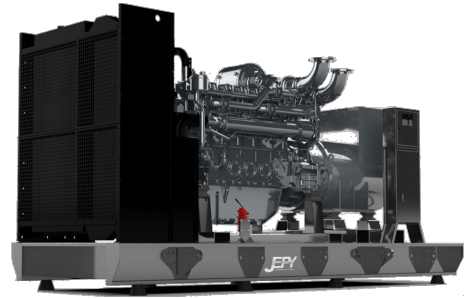
- Weather and sound proof enclosure
- Stand-alone control panel
- Synchronizing panel
- Load sharing
- Residential silencer
- CE certification
- LV Circuit Breaker

Dimensions and Weights

	Length (mm)	Width (mm)	Height (mm)	Weight (Kg)	
				Dry	Wet
Open Set	1700	700	1410	751	780
Canopied Set	2298	1104	1600	1111	1145



• Dimensions and weights are for guidance only. Certified drawings are available upon request. Specifications may change without notice.



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Engine Data

Engine Model		1103A-33TG1
No. of Cylinders		3
Alignment		Vertical in-line
Cycle		4 stroke
Bore	mm (in)	105 (4.1)
Stroke	mm (in)	127 (5)
Induction		Turbocharged
Cooling Method		Water
Governing Type		Mechanical
Governing Class		ISO 8528 G2
Compression Ratio		17.25 : 1
Displacement	L (cu.in)	3.3 (201)
Moment of Inertia	kg m ²	1.14
Voltage	VDC	12
Ground		Negative
Battery Charger Amps		65
Engine Weight Dry	Kg (lb)	420 (926)
Engine Weight Wet	Kg (lb)	N.A.

Engine Performance Data

Engine Speed	rpm	1500
Gross Engine Power Prime	kW (hp)	42.2 (56.6)
Gross Engine Power Standby	kW (hp)	46.5 (62.4)
BMEP Prime	kPa (psi)	1023.0 (148.4)
BMEP Standby	kPa (psi)	1127.0 (163.5)

Air System

Combustion Air Flow Prime	m ³ /min	2.9
Combustion Air Flow Standby	m ³ /min	3.1
Max. Combustion Air Intake Restri	kPa	8.0

Alternator Physical Data

No. of Bearings		1
Insulation Class		H
Winding Pitch		2/3
Winding Code		N.A.
Wires		12
Ingress Protection Rating		IP23
Excitation System		Shunt
AVR Model		AS540
Radio Interference Suppression		EN61000-6

Fuel System

Recommended Fuel		Class A2 Diesel
Fuel Consumption Prime (110%)	l/hr	11.7
Fuel Consumption Prime (100%)	l/hr	10.8
Fuel Consumption Prime (75%)	l/hr	8.2
Fuel Consumption Prime (50%)	l/hr	5.8
Fuel Consumption Standby (110%)	l/hr	N.A.
Fuel Consumption Standby (100%)	l/hr	11.7
Fuel Consumption Standby (75%)	l/hr	8.7
Fuel Consumption Standby (50%)	l/hr	6.0
Fuel Consumption Continuous	l/hr	N.A.

(Based on diesel fuel with a specific gravity of 0.86 and conforming to BS2869 classA2, EN590)

Cooling System

Cooling System Capacity	(l)	10.2
Heat Radiation to Room*: Prime	kW	11.5
Heat Radiation to Room*: Standby	kW	13.4
Radiator Fan Load	kW	0.5
External Restriction to Airflow	Pa	120

Lubrication System

Oil Filter Type		Replaceable elt.
Total Oil Capacity	(l)	8.3
Oil Pan Capacity:	(l)	7.9
Oil Type		SAE 15W40
Oil Cooling Method		Water

Exhaust System

Maximum Allowable Back Pressur	kPa	10.0
Exhaust Gas Flow: Prime	m ³ /min	7.0
Exhaust Gas Flow: Standby	m ³ /min	7.7
Exhaust Gas T°: Prime	°C	492
Exhaust Gas T°: Standby	°C	492

Alternator Operating Data

Overspeed	rpm	2250
Voltage Regulation: (Steady state)	%	±1
Total Harmonic content	%	<5
Short Circuit Capacity	%	>300
Reactance (Xd)	%	173
Reactance (X'd)	%	16
Reactance (X''d)	%	12

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