



Generator Set Data Sheet

MPG45KVA

PK@50Hz45KVA/36KW

Powered by  **Perkins** 

Main Features



DIESEL GENERATING SET



PERKINS
1103A-33TG1

V

400/230V,
380/220V

H

3 phase
50 Hz



1500rpm



3CYLINDERS



7.9 LITRE



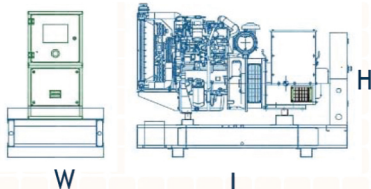
10.2 LITRE

Standby Power: 49.6 KVA - 39.7 KW

Prime Power: 45KVA - 36 KW

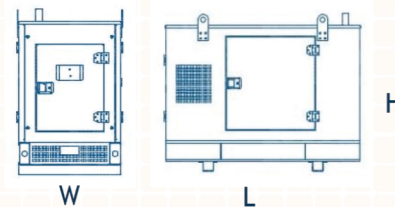
Open Skid

Length (L) 180 cm
Height (H) 130 cm
Width (W) 70 cm
Weight 810 kg
Daily Tank 110 L



Sound Proof

Length (L) 225 cm
Height (H) 132 cm
Width (W) 110 cm
Weight 1460 kg
Daily Tank 120 L



Acoustic pressure level @3m

75 dBA

ENGINE: PERKINS 1103A-33TG1

Engine power output 41 kWm-55 hp
Cooling System Water Cooled
Displacement / Capacity 3.3 Liter
No. of cylinders 3
Cylinder Arrangement Vertical In line
Induction System Turbocharged
Bore and Stroke 105 x 127 mm
Cycle 4 stroke
Combustion System Direct Injection
Compression Ratio 17.25:1 nominal
Rotation Anti-clockwise, viewed on flywheel
Frequency and Engine Speed 50Hz & 1500rpm

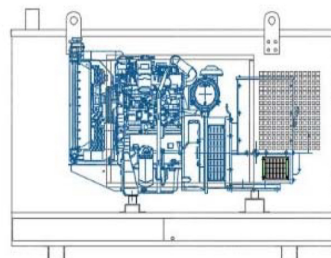
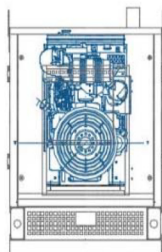
Starting voltage 12V
Governor Mechanical
Oil capacity 7.9 Liter
Coolant capacity 10.2 Liter
12 V D.C. starter and charge alternator
Replaceable fuel filter, oil filter and dry element air filter
Cooling radiator and fan
Starter battery (maintenance free)
Fuel consumption at 100% load 10.7 L/hr.
Fuel consumption at 75% load 8.2 L/hr.
Fuel consumption at 50% load 5.7 L/hr.

ALTERNATOR: LEROY SOMER

Rating	45KVA	Model	TAL042F
No. of bearing	1	Insulation class	H
		Wires	6
Total Harmonic Content	At no load<3.5% -no load<5%	Excitation System	SHUNT
Ingress Protection	IP23	AVR Model	R120
Winding Pitch	2/3(Wdg 3)		
Over-speed	2250 mn ⁻¹	Voltage Regulation	±1%
Circuit Breaker Capacity	MCB 63Amps		

STANDARD CANOPY

Sound Level	75 dBA @ 3 meters in free space
Design	Rigid canopy base manufactured by black steel metal sheets welded on canopy body with internal Re-enforcement and bolted on the body. 3 service doors with stainless steel door locks. Stainless steel heavy duty door hinges. Black steel canopy body - 2mm and 3mm treated with greasing phosphate and anticorrosion treatment with electro static power coating.
Connection	Flexible
Sound isolation	Rockwool with perforated sheets
Muffler	Muffler with rain cap



CONTROL (MONITORING) SYSTEM: DEEP SEA

Control panel model	DSE6010
	The DSE6010 is an Auto Start Control Module for single gen-set applications. It includes a backlit LCD display which clearly shows the status of the engine all the times. This module can either be programmed using the front panel or by using the DSE configuration suite PC software.
Metering and Alarm indications	<ul style="list-style-type: none"> • Generator frequency • Under-speed, Over-speed • Generators volts (L-L, L-N) • Generator current • Engine Oil pressure • Fail to start/ stop • Emergency stop • Failed to reach loading voltage / frequency • Engine coolant temperature • Fuel level (warning or shutdown) - Optional • Hours run counter • Battery volts • Charge fail • Low DC voltage • CAN diagnostics and CAN fail/ error

Gen-sets can be equipped with different control panels depending on usage, such as: DSE6020, DSE7310, DSE7320 or DSE8610 (Synchronization Panel)

OPTIONAL EQUIPMENTS

ATS (Automatic Transfer Switch)
Water Jacket Heater
Battery Charger
Fuel Water Separator
Electrical Fuel Transfer Pump
Battery Heater

Alternator Anti-condensation Heater
Load Bank
Electrical Fuel Level Sensor
Fuel Level Protection
Spare Parts
Oil Heater

STANDARD SPECIFICATIONS

Warranty All generating sets are covered under warranty policy for a period of 12 months in line with the manufacturers' warranty policy

Quality Standards The equipment meets the following standards: BS4999, BS5514, IEC 60034, VDE0530, NEMA MG 1.22 and ISO 8528

Engine Filtration System Air filter, Fuel filter, Oil filter. All filters have replaceable elements

Fuel System On generating sets up to 650KVA, the base frame design is incorporated with an integral fuel tank with a capacity of approx... 8 hours running at average load. The tank is supplied with fill cap breather, fuel feed and return pipes to the engine and drain plug

Cooling Radiator Radiator and cooling fan, complete with safety guards, designed to cool the engines at high ambient temperatures

Exhaust System Heavy duty industrial exhaust silencer
Silencer noise reduction level: 22 (dB)
Maximum allowable back pressure: 10 (kPa)

Documentation Operation & Maintenance manual, circuit wiring diagrams and commissioning / fault finding instruction leaflets are accompanied with the generator

Mounting Arrangement

Base Frame:

The complete generating set is mounted as a whole in a heavy duty fabricated steel base frame.

Coupling:

The engine and alternator are directly coupled by means of an SAE flange. The engine flywheel is flexibly coupled to the alternator rotor

Anti-Vibration Mounting Pads:

Anti-vibration pads are affixed between the engine/ alternator feet and the base frame thus ensuring complete vibration isolation of the rotating assembly

Safety Guards:

The fan & fan drive along with the battery charging alternator are safety guard protected for personnel protection

The generating set is load tested before dispatch.

All protective devices control functions and site load conditions are simulated. The generator and its systems are checked before dispatch

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability

Factory Tests:

Equipment Finishing: