

3 PHASE OUTPUTS			
GENERATOR SET MODEL	RATING	50HZ	
		380-415 V, 1500 rpm	
		KVA	KW
PM-09	PRIME	09	7.2
	STAND-BY	10	8



POWERED BY:



\*Ratings at 0.8 pf - Generator designed to operate in ambient temperatures up to 55 °C

\*Generating Set photo is for reference only.

### ALTERNATOR DATA

Make	Leroy Somer
Model	TAL 040B
No. of bearings	1
Insulation Class	H
Total Harmonic Content	at no load <3.5 % -on load <5%
Wires	12
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3 (wdg 6)
AVR Model	R120
Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation	± 1%

### CONTROL PANEL

Make	Deepsea
This an Auto Start Control Module for single genset 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"> <li>• Generator frequency</li> <li>• Underspeed, Overspeed</li> <li>• Generator volts (L-L, L-N)</li> <li>• Generator current</li> <li>• Engine oil pressure</li> <li>• Engine coolant temperature</li> <li>• Hours run counter</li> <li>• Battery volts</li> <li>• Fail to start/stop</li> <li>• Emergency stop</li> <li>• Failed to reach loading voltage/frequency</li> <li>• Charge fail</li> <li>• Low DC voltage</li> </ul>	

### ENGINE / TECHNICAL DATA

Engine Make	Perkins	
Engine Model	403A-11G1	
Governing Type	Mechanical	
Cylinder Arrangement	Vertical in line	
Number of Cylinders	3	
Bore and Stroke	77 x 81	
Displacement/Cubic Capacity liters	1.131	
Induction System	Naturally Aspirated	
Cycle	4 stroke	
Combustion System	Indirect Injection	
Compression Ratio	23:1	
Rotation	Anti-clockwise (viewed from flywheel)	
Cooling System	Water-cooled	
Frequency and Engine Speed	50Hz & 1500rpm	
	Prime	Standby
Gross Engine Power kW (hp)	8.6 (11.5)	9.5 (12.7)
FUEL CONSUMPTION (L/hr)		
50%	1.5	-
75%	2.0	-
100%	2.6	2.9
Total Lubrication System Capacity [liters]	4.9	4.9
Total Coolant Capacity (inc. radiator) [ltrs]	5.2	5.2
Exhaust Temperature °C	368	420
Radiator Cooling Air Flow (Min): m <sup>3</sup> /sec	0.44	0.44
Combustion Air Flow: m <sup>3</sup> /min	0.7	0.7
Exhaust Gas Flow: m <sup>3</sup> /min	1.66	1.8
Fuel Tank Capacity	58	58

### Dimension and Weight

DIMENSION	OPEN	SILENT
Length (L)	1600 mm	2000 mm
Width (W)	600 mm	920 mm
Height (H)	1300 mm	1500 mm
Net Weight	300 kg	742 kg

## Generating Sets

### RATING DEFINITIONS:

**Prime Power** - These ratings are applicable for supplying continuous 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** - These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these rating. When used at standby Rating the alternator will be peak continuous rated (according to ISO3046)

### STANDARD SPECIFICATIONS

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| <p><b>1. ENGINE</b><br/>Perkins heavy duty diesel engine.</p> <p><b>1.1 GOVERNOR</b><br/>Mechanical, compliance with ISO8528, Class G2.</p> <p><b>2. COOLING RADIATOR</b><br/>Radiator and cooling fan complete with protection guards, designed to cool the engine at high ambient temperatures. The radiator is mounted on the base frame to avoid vibrations coming from the engine.</p> <p><b>3. FILTRATION SYSTEM</b><br/>Cartridge type air filter with security element. Cartridge fuel filter and full lube oil filter. All filters have replaceable elements.</p> <p><b>4. EXHAUST SYSTEM</b><br/>Heavy-duty industrial exhaust silencer.</p> <p><b>5. ELECTRICAL SYSTEM</b><br/>12 Volt system with battery charging alternator, Starter motor, High capacity maintenance free lead acid battery, battery rack mounted on the generating set base frame, and heavy-duty interconnecting cables with terminations.</p> <p><b>6. ALTERNATOR</b><br/>Screen protected and drip-proof, self-exciting, self-regulating brush-less alternator. Four poles, STAR winding connection, suitable for tropical, humid and saline climates. H class insulation.</p> <p><b>7. AUTOMATIC VOLTAGE REGULATOR (AVR)</b><br/>The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at <math>\pm 0.5\%</math>. Nominal adjustment by means of a trim pot incorporated on the AVR.</p> <p><b>8. MOTOR STARTING</b><br/>An overload capacity equivalent to between 160% to 300% (depending on alternator frame size) of full load impedance at zero power factor can be sustained for 10 seconds.</p> | <p><b>9. MOUNTING ARRANGEMENT</b></p> <p><b>9.1 BASE FRAME</b><br/>The complete generating set is mounted on heavy duty steel fabricated base frame which is anti rust coated.</p> <p><b>9.2 COUPLING</b><br/>Engine and alternator are directly coupled by means of SAE flange. The engine fly wheel is flexibly coupled to the alternator rotor.</p> <p><b>9.3 ANTI VIBRATION MOUNTING PADS</b><br/>Anti vibration pads are fitted between engine-alternator base frame ensuring complete vibration isolation of rotating assemblies.</p> <p><b>10. FUEL SYSTEM</b><br/>On Generating Sets up to 700 KVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.</p> <p><b>11. DOCUMENTATION</b><br/>A full set of operation and maintenance manual are provided.</p> <p><b>12. FACTORY TESTS</b><br/>Generating set is subject to a strict load test before delivery. A test certificate can be provided as optional.</p> <p><b>13. QUALITY STANDARDS</b><br/>Generating set meets the following standards ISO 8528, IEC 34.1, CEI 2.3, VDE 0530, BS 4999-5000, NF51-100. Perkins is fully accredited ISO 9001 company.</p> <p><b>14. WARRANTY</b><br/>Generating set is guaranteed for a period of 12 months from date of commissioning or 18 months from date of shipment which ever occurs earlier. (check warranty statement for more details, as it may vary for different countries)</p> |
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In line with our policy of continuous product development, we reserve right to change specification without notice

### AVAILABLE OPTIONS & ACCESSORIES

We offer a range of optional features and accessories to tailor our generating sets to meet your needs.

#### OPTIONS

- Generator Set control and synchronizing panels
- Additional Protection alarms and shutdowns
- Water fuel separator
- Water jacket heater
- Battery charger

#### ACCESSORIES

- Genuine spare parts
- Fuel Tanks
- Manual and Automatic Transfer Switches

Distributed and Serviced by:



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