

TECHNICAL DATA SHEET

Powered By:



Comply With Standards:

- Engine performance according to ISO 3046, BS 5514, DIN 6271.
- Alternator performance according to NEMA-MG1, BS 5000, DIN EN, relevant ISO, IEC60034.
- Breaker complies with IEC – 60947-2.

MPS22

PrimePower*	Standby Power	Voltage/Ph	Hz/rpm***	PF
20 kVA/16 kWe	22 kVA/17.6 kWe	400/3Ph	50/1500	0.8

Diesel Generator Set

Engine Make /Model	PERKINS 404A-22G1
Alternator Make /Model	Leroy Somer TAL-040-F
Control Panel	DSE 4520
Base Frame / Silent Canopy	Robust Structure/ Corrosion Resistant
Circuit Breaker Type	3 Pole MCCB (4P Available as optional)
Built in Base Fuel Tank Capacity	80L
Battery	Maintenance free Lead Acid

Genset Dimensions & Weight:

Dimensions	Length (mm)	Width (mm)	Height (mm)	Weight (KG)
Close Type	2172	922	1240	775
Open Type	1556	700	1220	509



Prime Power Rating (PRP)

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

Standby Power

Limited to 500 hours annual usage with an average load factor of 80% of the published Standby power rating over each 24-hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on Standby power. Available in 50Hz for all voltage ratings. ***

Silent / Closed Type
Image for illustration purposes only.

Standard Reference Conditions

Note: Standard reference conditions 40°C (104°F) Air Inlet Temp, 100m (328 ft) A.S.L., 30% relative humidity.

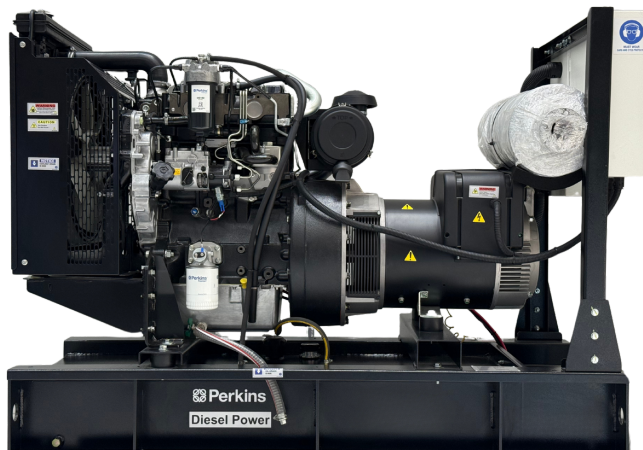
Engine Specifications	
Engine Make Model	PERKINS 404A-22G1
No. of Cylinders	3 vertical in-line
Cycle	4 Stroke
Aspiration	Naturally Aspirated
Cooling Method	Water cooled
Governing Type	Mechanical
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	23.3:1
Displacement	2.216 L
Bore/Stroke	84 x 100 mm
Dynamic Charging Alternator	15AMP, 12V

Cooling System	
Total Coolant Capacity (L)	7.0 L
Cooling Fan Air Flow	40.2 m3/ min
Radiator Fan Load	0.3 kW
Cooling System Design	50° C
Heat Radiation to Room (PRP)	3.3 kW

Lubrication System	
Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	10.6 L
Oil Type	API-CH-4 or ACEA E5

Air System	
Air Filter Type	Dry Element
Combustion Air Flow (PRP)	1.45 m /min
Combustion Air Flow (ESP)	1.45 m3/min
Max Air Filter Intake Restriction	6.4 kPa

Exhaust System	
Muffler Type	Residential Grade
Max. Back Pressure	10.2 kPa
Exhaust Gas Flow (PRP/ESP)	3.64/3.94 m3/ min
Exhaust Gas Temperature	445°C/ 505°C



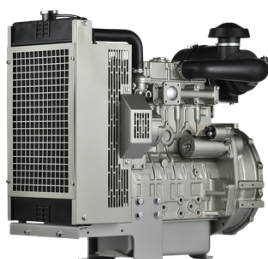
Open Type
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Engine Fuel System	
Recommended Fuel	Class A2 Diesel
Fuel Consumption 100% PRP	5.3 L/hr
Fuel Consumption 75% PRP	4.0 L/hr
Fuel Consumption 50% PRP	2.9 L/hr

Alternator Specifications	
Alternator Make /Model	Leroy Somer TAL-040-F
AVR Model	R120
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 C °
Ingress Protection Rating	IP 23
Excitation System	Self-Excited
Voltage Regulation	+/- 1%
Harmonic Coefficient THF	< 3.5%
Tel. influence TIF	< 50
Cooling air flow	0.06 m3 / Sec

Controller Make & Model	
Operation Mode	AMF
Display	Graphic Back-lit LCD (128x64) pixels
Ingress Protection Rating	IP65
Binary Inputs/Outputs	4 / 4
Analog Inputs	3
Measurement	Vac,A,HZ,kVA,kW,Vdc
Event Log	Alarms log; Hrs. log
Communication	USB

Please refer to Controller Data Sheet for more details.



PERKINS ENGINE
404A-22G1

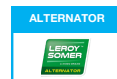


Leroy Somer
TAL-040-F



DSE4520 MKII
AUTO START &
AUTO MAINS
FAILURE CONTROL

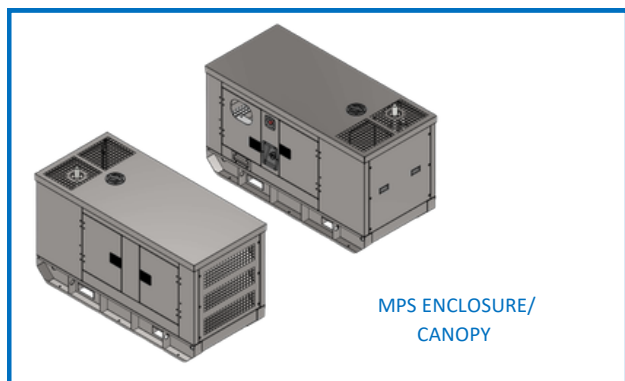
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Enclosure Type	Acoustic & Weather Proof
Drainage	Fuel and Water Drainage Provision
Transportation	Tested Single Point Lifting Facility & Forklift Pockets
Ingress Protection	IP 23
Lifting	ISO Standard Lifting
Canopy RAL Color	RAL 9010 - Powder coated
Base frame RAL Color	RAL 9011 - Powder coated



Optional Features:

Engine

- Heavy-Duty Air Filter
- Coolant Heater
- Lubricant Oil Heater
- Fuel and Water Separator
- Lube Oil Rotary Pump

Automatic Transfer Switch (ATS)

- Contractor or Breaker Type ATS
- Motorized Changeover Type ATS

Alternator

- Anti Condensation Heater
- PMG + AVR
- Double Bearing Alternator
- RTDs For Bearing and Winding

Start Battery

- Nickel-cadmium Battery
- Maintenance-free Battery
- Battery Charger and Selector Switch
- Charging Current Meter

Cooling System

- 55-degree Radiator
- Remote Radiator

Exhaust Muffler

- Residential Grade
- Critical Grade
- Hospital Grade

Control System

- AMF / Parallel
- Remote Annunciators
- 4 p manual/Motorized
- Circuit Breaker

Available for voltages

- 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V

Why M Energy Power Solution FZE Generator Technology (MPS)?

M Energy Power Solution FZE delivers cutting-edge generator technology, combining robust engineering, exceptional fuel efficiency, and smart digital monitoring to ensure uninterrupted global industrial power.

Our Brands:



Documentation:

- Operation and Maintenance Manual, GAD, Wiring Diagram & FAT Report are Accompanied with Genset.

Key Features & Benefits:

MPS Gen set is powered by Perkins Engine, the world leader having over 85 years of innovation and excellence, with customers support in 182 countries from 3500 outlets.

MPS Gen set is powered by Leroy Somer France Alternator, the Global number 1 in Alternators, with over 99 years of Experience, Having 120+ active patents, in over 40 countries and over 80 service centers.

MPS Gen set is equipped with DSE controller, one of the world's top manufacturers in UK, having over 40 years of excellence, the most advanced and user friendly controller.

Low fuel consumption, saving on fuel spend

Equipped with built-in fuel tank sufficient for 8 to 10 hours of operations.

Compact and rugged design, saving on transport and storage cost

Fully Engineering wide range of optional accessories available.

Designed to occupy less space considering critical applications and cities where space is at a premium.

Low noise and vibration, considering critical applications where noise level matters

Easy maintenance and long service intervals, saving on maintenance cost

Subject to rigorous tests including load acceptance, cooling, vibration and noise level prior shipment to customer.

Simple to operate and environment friendly in worst ambient conditions

Warranty Policy:

- M Energy Power Solution FZE Generator technology products have a warranty for all prime equipment, limited to 2000 running hours or 12 months warranty, & For Standby equipment, Limited to 500 running hours or 12 months warranty whichever occur first against manufacturing defect.
- Wearing parts (filters), incorrect manmade operation, Back up Genset maintenance failures are excluded from the warranty policy
- For more details, please refer to www.menergypowersolutions.com

Please Note: Due to continuous research & product development, we reserve the right to change specification without notice.

CONTACT US

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