



MINGPOWERS

M-P450 Technical Data sheet



**Professional Genset Manufacture On Your Side
Fujian Minghui Mech & Elec Co., Ltd.**

DIESEL GENERATOR

Powered by Perkins Engine

STANDARD SPECIFICATION

Three phase four wire, output voltage 400V/230V, 50HZ, between 0.8 lagging, protection capability according to the standard of NAME1 and IP23.

General Features:

- Composed of **Perkins** diesel engine and **Leroy somer** alternator
- Oil and fuel filter fitted, water separator
- Lube-oil drain valve fitted
- Electric Starter Charge motor 24 V.D.C
- Water-cooled
- baseskid fuel tank
- Auto start
- Optional soundproof and weatherproof canopy
- 3 pole MCCB-Delixi breaker, optional ABB set mounted starting battery
- Operation & Maintenance manual
- Special Integrated Steel Base tank and sprayed overall in gloss enamel paint

Voltage Regulation

- Voltage regulation maintained within $\pm 0.5\%$
- Between 0.8 and 1.0 lagging and unity
- From no load to full load
- At speed droop variation upto 4.5%

Frequency Adjustable Ratio

- Change load from 0-100%, within 1.0% (electric speed regulator), within 4.5% (mechanical speed regulator)

Frequency Undulation

- load from 0-100%, frequency undulation within 0.25%
- No load wire volts max undulation ration\ within 1.8%
- Three Phase balanced load in the order of 5%

Effect factor of Telecom

- TIF better than 50
- THF to IEC60034 Part 40 better than 2%

50HZ, 1500RPM, 3-PHASE, 400V/230V



| Gensets model | Power output(KVA) | | Power output (KW) | | Perkins Engine Model | Leroy somer Alternator |
|---------------|-------------------|------------|-------------------|------------|----------------------|------------------------|
| | PRP | ESP | PRP | ESP | | |
| M-P450 | 400 | 450 | 320 | 360 | 2306C-E14TAG3 | LSA47.2S4 |

Note:

(1) Available in the following voltages: 220V-240V AND 380V-415V(440V)-50HZ

(2) PRP: Prime Power-Continuous duty operation, under variable load 24/24-h-10% overload permissible 1 hour/12hou

(3) Rating Definitions (Operation at Altitude 1000m, Ambient temperature 40)Continuous Power. These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power.

Engine & Alternator

ENGINE--Industrial 4 stroke cooled diesel engine complete with air,fuel and oil filters,electric starting and charging equipment,engine protection against low water level.

ALTERNATOR--Brushless,self exciting,self regulation,sreen protected,drip proof rated in accordance with IEC60034.Voltage regulation maintainted within $\pm 0.5\%$ from no load to full load.between 0.8 lagging and unity.All standard voltages available.

COOLING--Radiator and colling fan complete with protection guards,designed to cool engine at specified output in air temperatures upto 45 ,radiators suitable for higher temperatures are available.Low water level protection fitted as standard.

ELECTRICAL SYSTEM--24V upto.Axial type starter motor,battery charging alternator,high capacity lead acid battery,and battery tray mounted on the generator base frame,and heavy duty interconnecting cable with terminations.

EXHAUST SYSTEM--Heavy duty industrial exhaust silencer with flexible piping.

Technical Data Sheet

Generating sets model:

400V,50Hz,1500 rpm

| | |
|--------------------------------|---------------------------|
| Engine Model: | PERKINS 2500C-F14TAG3 |
| Type | 6 cylinder,4 cycle diesel |
| Aspiration | Turbocharged |
| Bore/Stroke mm | 137X165 |
| Compress the ratio | 17.5/1 |
| Cooling system | Water-cooled |
| 100% Load Fuel Consumption L/H | 81.1 |
| Engine Speed/Frequency RPM/Hz | 1500/50HZ |
| Rated Output kwb/HP | 320/435 |
| Exhaust air flow (m3/min) | 438 |
| Coolant Capacity L | 47 |
| Starting System | Electric 24 volt DC |
| Displacement L | 14.6 |
| Lubricant system Capacity L | 68 |
| Battery Volatge | 24VDC |
| Governing Type | Electronic Spray |
| Exhaust Gas Temperature | 474 |
| Exhaust Gas flow m3/min | 86.6 |
| Noise level dBA@7m | 70dBA(canopy type) |

Genset Optional Features

Low fuel level alarm shutdown
Automatic Fuel Filling System
Engine oil feeding and drain pump
Auto Transfer Switch(ATS)
Parallel control panels
Circuit Breaker MCCB & ACB
Remote Control Panel
weatherproof/soundproof Canopy
Trailer type Gensets

QUALITY STANDARDS

ISO9001:2000,ISO3046
ISO8528 BS4999
BS5514,AS1359,ICE34
CE Compliance

Gensets Dimensions & Weight

Open type:L*W*H,mm
3280×1130×1950
Enclosure type:L*W*H,mm
4570×1420×2160

Alternator Technical data

Leroy somer

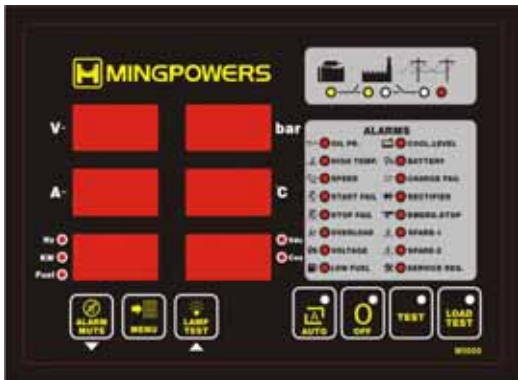
Brushless,self excited
class "H" insulation
Standard degree of protection is self regulating
With fan cooling
Resist Humid grease
AC excitation,roating rectification tube
Stator grease insulation covered
Rotator and exciation high polymer,Resist the corruption of oil and acid
Rotator ballance is in accordance with BS5625 standard 12.5
High-quality lubrication sealed long-time bearing
Rotator sillicon steel close tight

| | |
|---------------------------|------------------------|
| Exciter | Brushless |
| Cooling Fan | Cast alloy aluminum |
| Bearing | Single,double shielded |
| Windings | 100% copper |
| Connection Type | Reconnectable |
| Insulation Type | Class H |
| Pitch | 2/3 |
| Amortisseur Winding | Full |
| A.V.R model | R250 |
| Voltage Regulator NL-FL | $\pm 0.5\%$ |
| Underspeed Protection | Standard |
| Overexcitation Protection | IP23 |
| TIF (1960 Weightings) | <50 |
| Exciation System | SHUNT |

Control Panel- Datakom

The base mounted control panel in a vibration isolated sheet steel enclosure. The control panel is equipped as follows:

- Instruments: Analogue Voltmeter, Hours Run Meter, Water pressure Meter.
- Controls: Emergency Stop Pushbutton, Voltmeter Phase Selector Switch.
- Control module: Standard collocation is Turkey Datakom 507 Auto start with AMF.



Control module Turkey Datakom 507

Main Features:

- Δ Automatic mains failure
- Δ Engine control, Generator protection
- Δ Built in alarms and warnings
- Δ Remote Start operation available
- Δ Daily / weekly / monthly exerciser
- Δ Weekly operation schedule programs
- Δ Fuel pump control
- Δ ECU control and monitoring via J1940 CANBUS
- Δ Mains simulation
- Δ Block heater control
- Δ Field adjustable parameters

- Δ Free MS-Windows Remote monitoring
- Δ LED displays
- Δ Configurable analogue inputs
- Δ I/O expansion capability

Sound Attenuated Enclosure/Option

Robust Corrosion Resistant Construction

Black finish stainless steel lock and hinges
body made from steel components treated with polyester powder coating

Excellent Access for Maintenance

two large doors on each side
radiator fill access plate
lube oil and cooling water drains pipes to exterior of the enclosure

Security and Safety

control panel viewing window in a lockable access door
emergency stop push button (red) mounted on enclosure interior
cooling fan and battery charging alternator fully guarded
exhaust silencing system totally enclosed for operator safety



MINGPOWER reserves the right to modify the characteristics of its product at any time in order to incorporate the latest technological developments. The information contained in this document may therefore be changed without notice. For more technical data

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