



**MINGPOWERS**

**M-C50 Technical Data sheet**



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

## DIESEL GENERATOR

Powered by **Cummins Engine** & **Leroy somer** Alternator

### STANDARD SPECIFICATION

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

#### General Features:

Composed of **Cummins** 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

8-hours operation base tank

Auto start

Optional soundproof and weatherproof canopy

Δ3 pole MCCB Delixi breaker/Optional ABB

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 Phrase 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, 400/230V

Gensets model	Power output(KVA)		Power output (KW)		Cummins Engine Model	Leroy somer Alternator
	PRP	ESP	PRP	ESP		
<b>M-C50</b>	<b>45</b>	<b>50</b>	<b>36</b>	<b>40</b>	<b>4BTA3.9-G2</b>	<b>LSA43.2S25</b>

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/12hours.

(3) Rating Definitions (Operation at Altitude 1000m, Ambient temperature 50 )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 50 ,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:	Cummins <b>4BTA3.9-G2</b>
Type	4 cylinder,4 cycle diesel
Aspiration	Turbocharged
Bore/Stroke	mm 102X120
Compress the ratio	16.5:1
Cooling system	Water-cooled
100% Load Fuel Consumption	L/H 11.28
Engine Speed/Frequency	RPM/Hz 1500/50HZ
Rated Output	kw/bHP 50/63
Exhaust air flow	(m3/min) 135.6
Coolant Capacity	L 28
Starting System	Electric 24 volt DC
Displacement	L 3.9
Lubricant system Capacity	L 11
Battery Volatge / Capacity	24VDC
Governing Type	Electrical (GAC governor)
Exhaust Gas Temperature	475
Exhaust Gas flow	m3/min 9.96
Noise level	dBa@7m 70dBa(canopy type)

### Genset Option 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,ISO14000,ISO3046  
ISO8528 BS4999  
BS5514,AS1359,ICE34  
CE Compliance

### Gensets Dimensions & Weight

Open type:L\*W\*H,mm  
1794×980×1350  
Enclosure type:L\*W\*H,mm  
2240×980×1680

## Alternator Technical data

**Leroy somer**

Bruxhless,self exciting  
class "H" insulation  
Standard degree of protection is IP23  
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 silicon 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
Voltage Regulator	AVR 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 whith AMF.

### 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



Control module Turkey Datakom 507

## 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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