



**Millennium Power Manufacturing Corp.**  
*<http://www.mpmc-china.com>*

# **MCS38/40-1B (4BT3.9-G2)**

## **Generating set Technical Data Sheet**



NO:CDT200906004-01

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**ISO9001:2000**  
MPMC GENERATING SETS



## STANDARD SPECIFICATION

### General features:

- Composed of Cummins diesel engine and Stamford or MPMC alternator
- 24V DC start motor and storage battery
- Brushless, Self-excited, IP23, insulation class H alternator
- 40°C radiator as standard, 50°C is optional
- Key start panel control system as standard, digital auto-start panel is optional
- 8-hour operation base tank
- Optional open type or silent type
- All generator sets are gone through rigorous testing before being released to the market place, including 50% load, 75% load, 100% load , 110% load and all protection function ( overspeed stop, high water temperature, low oil pressure, battery charging fail, emergency stop)



### Genset Main Technical Data

**3-PH, 50Hz@1500RPM, 400/230V** (Also Can Be Made According To Customers' Special Requirements)

Genset Model	Genset Specification					Engine Specification				Alternator Model
	kVA		Cons. 100% (L/H)	dB(A) @7m	Tank (L)	Model	Cyl.	Gov.	Asp.	
	ESP	PRP								
MCS38-1B	42	38	8.5	N/A	80	4BT3.9-G2	4	E	TC	BCI 184H
MCS38S-1B	42	38	8.5	68	100	4BT3.9-G2	4	E	TC	BCI 184H
MCS40-1B	44	40	8.9	N/A	80	4BT3.9-G2	4	E	TC	BCI 184J
MCS40S-1B	44	40	8.9	68	100	4BT3.9-G2	4	E	TC	BCI 184J
MCM38-1B	42	38	8.5	N/A	80	4BT3.9-G2	4	E	TC	MPA 184H
MCM38S-1B	42	38	8.5	68	100	4BT3.9-G2	4	E	TC	MPA 184H
MCM40-1B	44	40	8.9	N/A	80	4BT3.9-G2	4	E	TC	MPA 184J
MCM40S-1B	44	40	8.9	68	100	4BT3.9-G2	4	E	TC	MPA 184J

1) Available in various voltages

2) To show MPMC Generating Sets Model

For example: MCM38-1A, it is the open generation set.

MCM38S-1A, it is the silent generating set.

3) ESP=Standby power standby duty, operation under variable load, without overload

PRP=Prime power continuous duty operation, under variable load, 10% overload permissible 1/12hr

4) E=Electronic speed governor;  
M=Mechanical speed governor

5) Asp=Aspiration;  
NA=Naturally Asp;

TC=Turbocharged;  
TW=Turbocharged after cooled;

TCA= Turbocharged air-air cooled

6) Technical data is subject to work test conditions

## Reliable Performance

### Voltage regulation

Voltage regulation maintained within  $\pm 0.5\%$  as follow:

- Power factor Between 0.8~1.0 lag
- From no load to full load, any steady load
- Speed droop variation under 4.5%

### Frequency/Speed undulation

- Change load from 0-100%, Frequency/Speed Droop Ratio within 1.0% (electric speed governor), within 5% (mechanical speed governor)
- Load from 25-100%, any steady load Frequency/Speed undulation within 0.25%

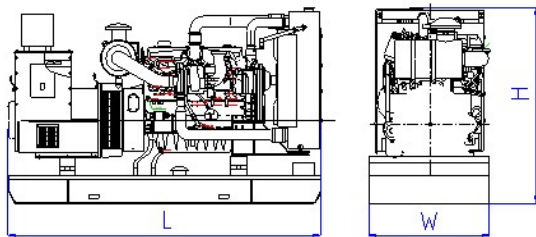
### Effect factor of telecom

- TIF( MA MG1-22) better than 50
- THF( BS EN60034) better than 2%

## Criterion

- ISO8528, GB/T2820
- EN12601:2001, EN60034-22:1997, EN60204-1:2006
- ISO9001:2000 Quality Control System

## Dimension and Weight

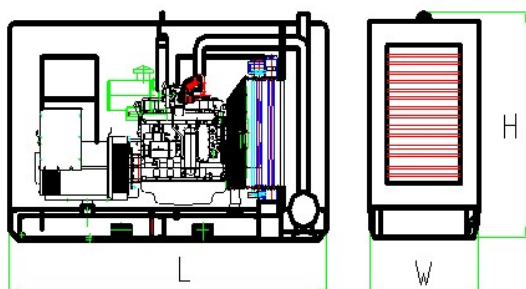


### Open Type

Overall size (L\*W\*H)

1800×750×1420

**Weight: 800kg**



### Silent Type

Overall size (L\*W\*H)

2500×1060×1650

**Weight: 1050kg**

## ENGINE SPECIFICATION

### Cummins Diesel Engine

#### Technical Data

Engine Model	4BT3.9-G2
Number of Cylinders	4
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged
Bore×Stroke (mm×mm)	102 x 120
Displacement (Liter)	3.9
Compression Ratio	16.5:1
Prime Power/Speed (kW/rpm)	36/1500
Standby Power/Speed (kW/rpm)	40/1500
Speed Governor	electrical
Cooling System	Water-cooled , 40℃ Radiator As Standard, 50℃ Is Optional.
Speed Stability (%)	≤5%
Total lubrication system capacity (L)	11
Coolant capacity (without radiator) (L)	7.2
Fuel Consumption at 100% Load (g/kWh)	214 (at 1500RPM)
Starter Motor	DC24V,
Alternator	AC24V

## Alternator SPECIFICATION

### Stamford Alternator (Standard)

### MPMC Alternator (Option)

#### Technical Data

Alternator Model	BCI XXXX (Stamford) MPA XXXX(MPMC) Please Refer To The “ Genset Main Technical Data”
Exciter type	Brushless, Self-excited
Power factor	0.8
Voltage Adjust range	≥5%
Voltage Regulation NL-FL	≤±0.5%
Insulation Grade	H
Protection Grade	IP23