



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

MCS550-2(KTAA19-G5)

Generating set Technical Data Sheet



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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, 60Hz@1800RPM, 480/277V (Also Can Be Made According To Customers' Special Requirements)

Genset Model	Genset Specification					Engine Specification				Alternator Model
	KW		Cons. 100% (L/H)	dB(A) @7m	Tank (L)	Model	Cyl.	Gov.	Asp.	
	ESP	PRP								
MCS550-2	550	500	134	N/A	N/A	KTAA19-G5	6	E	TCA	HCI 544D
MCS550S-2	550	500	134	75	N/A	KTAA19-G5	6	E	TCA	HCI 544D
MCM550-2	550	500	134	N/A	N/A	KTAA19-G5	6	E	TCA	MPA 354C
MCM550S-2	550	500	134	75	N/A	KTAA19-G5	6	E	TCA	MPA 354C

- 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 water-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 5%
- 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)

3600×1300×2000

Weight: 4200kg



Silent Type

Overall size (L*W*H)

6060×2438×2595

Weight: 5000kg

ENGINE SPECIFICATION

Cummins Diesel Engine

Technical Data

Engine Model	KTAA19-G5
Number of Cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged air-air cooled
Bore×Stroke (mm×mm)	159 x 159
Displacement (Liter)	18.9
Compression Ratio	13.5:1
Prime Power/Speed (kW/rpm)	533/1800
Standby Power/Speed (kW/rpm)	605/1800
Speed Governor	Electrical
Cooling System	Water-cooled , 40℃ Radiator As Standard, 50℃ Is Optional.
Speed Stability (%)	≤5%
Total lubrication system capacity (L)	50
Coolant capacity (Engine Only) (L)	30
Fuel Consumption at 100% Load (g/kWh)	213.7 (at 1800RPM)
Starter Motor	DC24V,
Alternator	AC24V

Alternator SPECIFICATION

Stamford Alternator (Standard)

MPMC Alternator (Option)

Technical Data

Alternator Model	HCI 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

Control System

1. 标准: MP170HC 钥匙启动

标准功能如下:

(可根据客户特殊要求另外选配其它功能)

- * 启动/停止
- * 电流表
- * 电压表和转换开关
- * 频率表/ 水温表 /机油压力表/ 小时计/蓄电池直流电压表
- * 紧急停止开关
- * 报警系统: 超速、高水温、低油压、蓄电池充电失败。
- * 保护系统: 超速、高水温、低油压、紧急停止及其他预先设置的保护功能。

2. 可选: 众智 HGM6110 数显自启动

3. 可选: 众智 HGM6120 数显自启动 (可选配 ATS)

4. 可选: 深海 DSE5210 数显自启动

5. 可选: 深海 DSE5220 数显自启动 (可选配 ATS)

数显自动控制用于柴油发电机组自动化及监控系统, 实现发电机组的自动开机 / 停机、数据测量、报警保护功能, 配备 ATS 可用于与外部电网连接, 实现外部电网与发电机组负载之间的自动切换 (AMF)。

功能:

- * 自动开机/停机
- * 3次自动连续启动, 并在3次连续启动失败后停机
- * LCD参数显示 (电压/电流/频率/运行时间)
- * 发动机组运行监控和保护
- * 蓄电池自动充电并在发生失败后报警
- * 记录运行时间
- * 内部参数可通过面板上的按钮进行调整设置。

6. 可选: BGC-L

(主要应用于发电机组并联同步控制)



(1)



(2)



(3)



(4)



(5)



(6)