



**Millennium Power Manufacturing Corp.**

<http://www.mpmc-china.com>

## **MTG45PLS-1(1103A-33TG1)**

### **Trailer Generating set Technical Data Sheet**



NO:MPT201103-03

© 2011 Millennium Power Manufacturing Corp.



**ISO9001:2008**  
**MPMC GENERATING SETS**



## STANDARD SPECIFICATION

### General features:

- Composed of Perkins diesel engine and Leroy Somer or Lisite alternator
- 12V DC start motor and storage battery
- Brushless, Self-excited, IP23, insulation class H alternator
- Engine cooling system: water-cooled
- Key start panel control system as standard, digital auto-start panel is optional
- 8-hour operation base tank
- 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 Specification										
Genset Model	kVA		Cons. 100% (L/H)	dB(A) @7m	Tank (L)	Engine Specification				Alternator Model
	ESP	PRP				Model	Cyl.	Gov.	Asp.	
MTG45PLS-1	50	45	10.1	65	160	1103A-33TG1	3	M	TC	LSA 43.2 S25
MTG45PL-1	50	45	10.1	65	160	1103A-33TG1	3	M	TC	LYG 224C

- 1) Available in various voltages
- 2) 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.
- 3) E=Electronic speed governor;  
M=Mechanical speed governor
- 4) Asp=Aspiration;  
NA=Naturally Asp;  
TC=Turbocharged;  
TW=Turbocharged after cooled;  
TCA= Turbocharged air-air after cooled
- 5) 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%

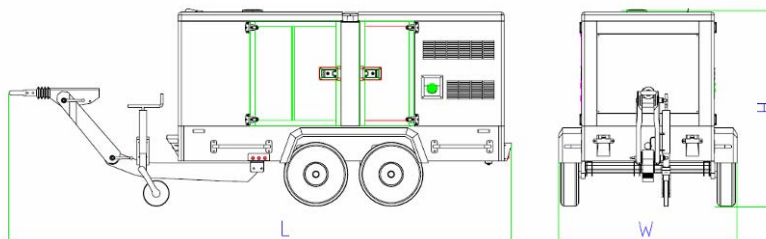
### Effect factor of telecom

- 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



Overall size (L\*W\*H)

3700\*1650\*2150

**Weight: 1550kg**

## ENGINE SPECIFICATION

### Perkins Diesel Engine

#### Technical Data

Engine Model	1103A-33TG1
Emissions statement	--
Number of Cylinders	3
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged
Bore×Stroke (mm×mm)	105 x 127
Displacement (Liter)	3.3
Compression Ratio	17.25:1
Prime Power/Speed (kW/rpm)	41.3/1500
Standby Power/Speed (kW/rpm)	45.6/1500
Speed Governor	Mechanical
Cooling System	Water-cooled
Speed Stability (%)	≤5%
Total lubrication system capacity (L)	7.9
Coolant capacity (inc. radiator) (L)	10.2
Fuel Consumption at 100% Load (g/kWh)	215(at 1500RPM)
Starter Motor	3kW 12 V
Alternator	65 amps, 12 V

## Alternator SPECIFICATION

### Leroy Somer Alternator (Standard)

### Lisite Alternator (Option)

#### Technical Data

Alternator Model	LSA 43.2 S25 (Leroy Somer) LYG 224C (Lisite)
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. Standard: Deep Sea DSE3110 Digital Auto Start

Providing the standard functions as follows:

(Also can be made according to the customers' special requirements)

- \* Start/Stop controller
- \* Ampere meter and selector switch
- \* Voltmeter
- \* Frequency meter/ Water temperature gauge/ Oil pressure gauge/ Hour counter/ Battery voltage meter
- \* Emergency stop pushbutton
- \* Alarm System: Over speed、High Engine Temperature Low Oil Pressure、Charge Fail
- \* Protection System: Over speed、High Engine Temperature、Low Oil Pressure、Emergency Stop. And the other protection function pre-setting

### 2. Option: MP170HC Key Start

### 3. Option: Smartgen HGM6120 Digital Auto Start (Option assembled with the ATS)

### 4. Option: Deep Sea DSE7210 Digital Auto Start

### 5. Option: Deep Sea DSE7220 Digital Auto Start (Option assembled with the ATS)

Digital Auto-start Generator controller integrating digital, intelligent and network techniques is used for automatic control system of diesel generator. It can carry out functions including automatic start/stop, data measure and alarming. Optionally assembled with the ATS, it can carry out auto-switching between the outer power and generating set power. (AMF)

#### Functions:

- \* Automatic Start/Stop
- \* 3 start attempts failure and Automatic Crank Disconnect
- \* Parameters display (V/A/Hz/Hour)
- \* Engine monitoring and protection
- \* Charge alternator exciting and Charge alternator fail alarm
- \* Running hour counting
- \* Settings can be adjustable via key buttons on front panel



(1)



(2)



(3)



(4)



(5)