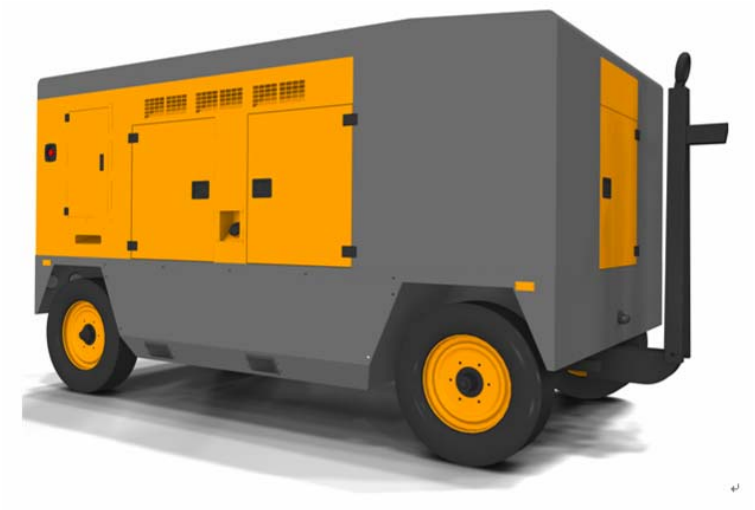
Millennium Power Manufacturing Corp.

http://www.mpmc-china.com

MTG400VS-2(TAD1242GE)

Trailer Generating set Technical Data Sheet



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ISO9001:2000

MPMC GENERATING SETS

STANDARD SPECIFICATION

General features:

- Composed of Volvo diesel engine and Stamford or MPMC alternator
- 24V 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 generating 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								
MTG400VS–2	400	364	94.8	80	N/A	TAD1242GE	6	E	TC	HCI 444FS
MTG400VM–2	400	364	94.8	80	N/A	TAD1242GE	6	E	TC	MPA 314E

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 water-cooled;
   TCA= Turbocharged air-air cooled
6) Technical data is subject to work test conditions

Reliable Performance

Voltage regulation

Voltage regulation maintained within ±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 5%

Frequency/Speed undulation

- Change load from 0-100%, Frequency/Speed Droop Ratio within 5.0%
- Load from 25-100%, any steady load Frequency/Speed undulation within 0.25%

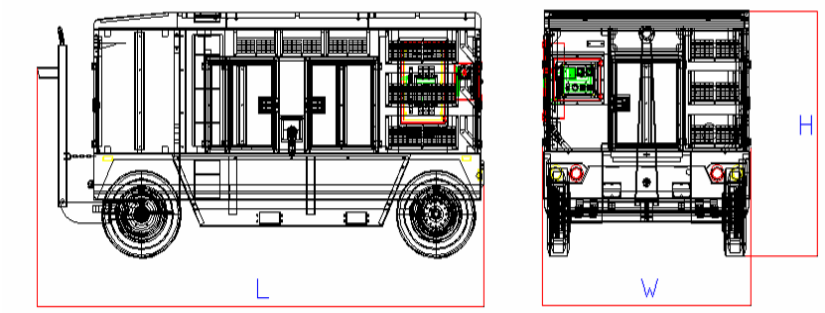
Effect factor of telecom

- 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)

5350×2210×2690

Weight: 6000kg

ENGINE SPECIFICATION

Volvo Diesel Engine

Technical Data

Engine Model	TAD1242GE
Exhaust emissions complies with	EU Stage 2
Number of Cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged
Bore×Stroke (mm×mm)	131 x 150
Displacement (Liter)	12.13
Compression Ratio	17.5:1
Prime Power/Speed (kW/rpm)	391/1800
Standby Power/Speed (kW/rpm)	430/1800
Speed Governor	Electrical
Cooling System	Water-cooled
Residual speed droop at load increase form 0 to 100%	≤5%
Total lubrication system capacity (L)	35
Coolant capacity (inc. radiator) （L）	44
Fuel Consumption at 100% Load (g/kWh)	206(at 1800RPM)
Starter Motor	24 V
Alternator	24 V

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. Standard: MP170HC Key Start

Providing the standard functions as follows:

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

* Start/Stop controller
* Ampere meter
* Voltmeter and selector switch
* 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: Smartgen HGM6110 Digital Auto Start

3. Option: Smartgen HGM6120 Digital Auto Start

(Option assembled with the ATS)

4. Option: Deep Sea DSE5210 Digital Auto Start

5. Option: Deep Sea DSE5220 Digital Auto Start

(Option assembled with the ATS)

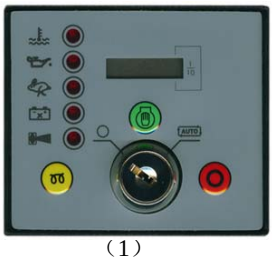
Digital Auto-start Generator controller integrating digital, intelligent and network techniques is used for automatic control system of diesel generator. It can carry out functions including automatic start/stop, data measure and alarming. Optionally assembled with the ATS, it can carry out auto-switching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

6. option: BGC-L

(Main used in Multiple gen-sets, load sharing)



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