

# POWER GENERATOR

## KMCS 11501 50HZ

Generating set Technical Data Sheet



ISO9001:2000  
K-Tech Power Generator



## STANDARD SPECIFICATION

### General features:

- Composed of Cummins diesel engine and Stamford alternator
- 24V DC start motor and storage battery
- Brushless, Self-excited, IP23, insulation class H alternator
- 40 radiator as standard, 50 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								
KMCS115-1	126	115	25.4	N/A	300	6BTA5.9-G2	6	E	TW	UCI 274D
KMCS115S-1	126	115	25.4	70	300	6BTA5.9-G2	6	E	TW	UCI 274D
KMCM115-1	126	115	25.4	N/A	300	6BTA5.9-G2	6	E	TW	MPA 274C
KMCM115S-1	126	115	25.4	70	300	6BTA5.9-G2	6	E	TW	MPA 274C

- 1) Available in various voltages
- 2) To show K-Tech Generating Set Model  
For example: KMCM38-1A, it is the open generation set.  
KMCM38S-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 after 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%

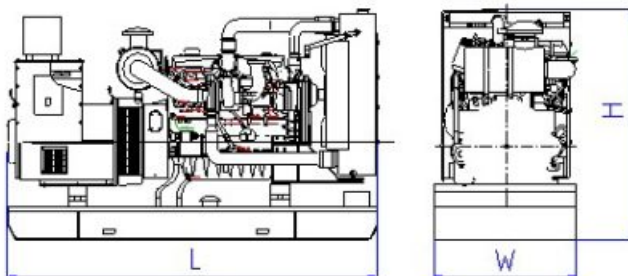
### Effect factor of telecom

- 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

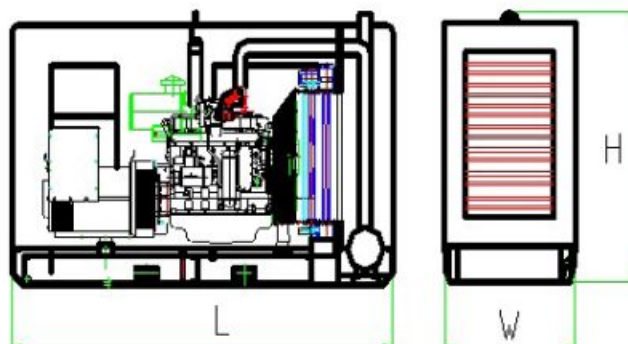
## DIMENSION AND WEIGHT



### Open Type

Overall size (L\*W\*H)  
2200x895x1490

Weight: 1150kg



### Silent Type

Overall size (L\*W\*H)  
3200x1100x1695

Weight: 1500kg

## ENGINE SPECIFICATION

### Cummins Diesel Engine Technical Data

Engine Model	6BTA5.9-G2
Number of Cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged after water-cooled
Bore x Stroke (mm x mm)	102 x 120
Displacement (Liter)	5.9
Compression Ratio	17.5:1
Prime Power / Speed (kW/rpm)	100/1500
Standby Power / Speed (kW/rpm)	110/1500
Speed Governor	electrical
Colling System	Water-cooled , 40 Radiator As Standard, 50 Is Optional.
Speed Stability (%)	5%
Total lubrication system capacity (L)	16.4
Coolant capacity (without radiator) ( L )	9.9
Fuel Consumption at 100% Load (g/kWh)	211 (at 1500RPM)
Starter Motor	DC24V,
Alternator	AC24V

## ALTERNATOR SPECIFICATION

### Stamford Alternator (Standard) Technical Data

Alternator Model	UCI XXXX (Stamford) 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: 170HC 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



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### 2. Option: Smartgen HM6110 Digital Auto Start

### 3. Option: Smartgen HM6120 Digital Auto Start (Option assembled with the ATS)

### 4. Option: Deep Sea DE5210 Digital Auto Start

### 5. Option: Deep Sea DE5220 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



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### 6. Option: BC-L

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

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