



## Description

MG series single phase inverter is a new generation of PV string inverter which has been developed by INVT for residential users. MG series inverters have the advantages of compact size, light weight, easy installation and maintenance, and are above all cost efficient.

## Features

- The core technologies are from Germany.
- Software optimization for the power grid with much wider adaptability.
- Global integrated monitoring and management, supporting all kinds of portable mobile devices, HMI is optional.
- Minimum working voltage is 50V.
- Wider voltage range, lower starting voltage, higher conversion efficiency.
- Designed with latest thermal simulation technology for longer service life.

## HMI Features

- Small and exquisite appearance.
- LCD display and easy to operate keyboard with multiple functions.
- Plug & play.



ACT witness Lab certified by TÜV SÜD



**G83/G59 C10/11  
TF3.2.1 MEA PEA**



iMars PhoneExpert  
(for IOS)



iMars PhoneExpert  
(for Android)

# Specification

	MG750TL	MG1KTL	MG1K5TL	MG2KTL	MG3KTL	MG3KTL-2M
<b>Input (DC)</b>						
Max DC input power (W)	900	1200	1700	2200	3300	3300
Max DC Voltage (V)	400	450			500	600
Starting voltage /Min. Operation Voltage (V)	65/60	80/60	100/80	120/100		
Starting Power (W)	30					
MPPT Operating Voltage Range (V)	60-350	80-400	100-410	120-410	120-450	120-550
Number of MPPT/ String Per MPPT	1/1				1/2	2/1
MAX.DC Current (A) Per MPPT x Number of MPPT	10x1	10x1	10x1	13x1	15x1	10x2
DC Switch	Optional					
<b>Output (AC)</b>						
Max. Power (W)	800	1150	1650	2100	3100	3100
Max. AC Output Current (A)	3.6	4.5	6.5	9	13	16
AC Voltage Range	230/180~277Vac According to VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC					
Grid Frequency	50Hz (44~55Hz) / 60Hz (54~65Hz) According to VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC					
Power Factor	-0.8~+0.8 (Adjustable)					
THD	< 3% (At Rated Power)					
AC Connection	Single-phase (L, N, PE)					
<b>System</b>						
Cooling	Natural cooling					
Max. Efficiency	96.80%	96.90%	97.20%	97.20%	97.30%	97.90%
Euro-efficiency	95.95%	96.00%	96.10%	96.10%	96.50%	96.80%
MPPT Efficiency	99%					
Ingress Protection	IP65					
Consumption At Night	<1W					
Isolation Mode	Transformerless					
Operating Temperature	-25°C ~+60°C, (derate after 45°C)					
Relative Humidity	0~95%, no condensation					
Protection	Over voltage protect ; DC insulation monitoring; DC Over current Protection; Grounding fault monitoring; Grid protection; island protection; Overheating protection; Overvoltage and short circuit protection etc.					
<b>Display And Communication</b>						
Display	LED Display (standard) /LCD (Optional)					
System Language	English, Chinese, German, Dutch					
Communication Mode	RS485 (Standard), WiFi, Ethernet (Optional)					
<b>Mechanical Parameters</b>						
Diminsion (H x W x D mm)	280x300x138					460x360x160
Weight (kg)	9.5					17
Installation	Wall mounting					
<b>Others</b>						
DC Terminal	MC4					
Certifications	VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC, EN61000-6-1:4, EN61000-3-2:3, EN61000-11:12, IEC 62109-1:2010, LVRT					
Factory Warranty(Years)	5(standard) / 10, 15, 20 (optional)					



Sales E-mail: solar@invt.com.cn Service E-mail: solar-service@invt.com.cn Website: www.invt-solar.com



## Accessoires



WiFi 200  
Via RS485 interface



GPRS200  
Via RS485 interface



APPs  
for ISO and Android



Web monitoring  
With INVT Cloud server

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(for IOS)



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(for Android)

# Specification

	MG4KTL	MG4K6TL	MG5KTL	MG4KTL-2M	MG4K6TL-2M	MG5KTL-2M
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## Input (DC)

Rated DC input power (W)	4000	4600	5000	4000	4600	5000
Max DC input power (W)	4500	5000	5500	4500	5000	5500
Starting Power (W)	50					
Starting Voltage /Min. Operation Voltage (V)	120/100					
MPPT Range (V)	120-550					
Number Of MPPT / String Per MPPT	1/2			2/1		
MAX.DC Current (A) Per MPPT x Number of MPPT	19x1	21x1	23x1	12x2	13x2	15x2
DC Switch	Optional					

## Output (AC)

Rated Power (W)	3680	4200	4600	3680	4200	4600
Max Power (W)	4000	4600	5000	4000	4600	5000
Max. AC Output Current (A)	19	21	23	19	21	23
AC Voltage Range	230/180-277Vac According to VDE-AR-N4105, G83/2, G59/3, AS4777/3100, CQC					
Grid Frequency	50Hz (44-55Hz) / 60Hz (54-65Hz) According to VDE-AR-N4105, G83/2, G59/3, AS4777/3100, CQC					
Power Factor	-0.8~+0.8 (Adjustable)					
THD	< 3% (At Rated Power)					
AC Connection	Single-phase (L, N, PE)					

## System

Cooling	Natural cooling					
Max. Efficiency	97.70%	97.70%	97.80%	97.90%	98.00%	98.00%
Euro-efficiency	96.50%	96.70%	96.80%	96.80%	96.80%	96.80%
MPPT Efficiency	99%					
Ingress Protection	IP65					
Consumption At Night	<1W					
Isolation Mode	Transformerless					
Operating Temperature	-25°C ~ +60°C , (derate after 45°C)					
Relative Humidity	0-95%, no condensation					
Protection	Over voltage protect; DC insulation monitoring; DC over current protection; monitoring; Grounding fault monitoring; island protection; Overheating protection; Electronic protection; Overvoltage and short circuit protection etc.					

## Display And Communication

Display	LED Display (standard) / LCD (Optional)					
System Language	English, Chinese, German, Dutch					
Communication Mode	RS485 (Standard), WiFi, Ethernet (Optional)					

## Mechanical Parameters

Diminsion (H x W x D mm)	405x360x150			460x360x150		
Weight (kg)	15			17		
Installation	Wall mounting					

## Others

DC Terminal	BC03A, BC03B ( PV-CF-S2, 5-6 (+) ....; PV-CM-S2, 5-6 (-)...., Helios H4 2.5mm <sup>2</sup> )					
Certifications	VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100,CQCEN61000-6-1:4, EN61000-3-2:3, EN61000-11:12, IEC 62109-1:2010, LVRT					
Factory Warranty(Years)	5(standard) / 10, 15, 20 (optional)					



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