

The Power Behind Competitiveness

# Delta M6A

Grid-Tied Solar Inverter M6A



### **Product Features**

- Transformerless Inverter
- Dual MPP Trackers
- Peak Efficiency up to 98.3%
- Wide Voltage Range (200~1000Vdc)
- Reactive Power Control
- Ergonomic Grip Design
- Ultra Compact Size
- Built-in Energy-logger
- IP65 Protection Level
- Built-in AC/DC Switch



## Delta M6A

With Delta's cutting-edge technology, the commercial series Solar Inverters are with efficiencies as high as 98.3%. These inverters are compact in size with durable quality to ensure smooth PV system operation. IP65 enclosure provides higher level of protection and enhances its durability in a harsh outdoor environment.



Note: Product image shown above is indicative only. The inverter has only two pairs of MC4 connector input.



### **Delta Commercial Series**

### Technical data M6A

INPUT (DC)	M6A
Maximum Recommended PV power <sup>1</sup>	7.5 kWp
Max. Input Voltage	1000 V
DC Input Voltage Range	200 ~ 1000 V
Start-up Voltage	>250 V
Start-up Power	40 W
MPPT Voltage Range	200 ~ 1000 V
MPP Voltage Range, Full Power <sup>1</sup>	315 ~ 800 V
Nominal DC Voltage	600 V
Maximum input current;Total (MPPT 1 / MPPT 2)	20 A (10 A / 10 A)
Maximum Short Circuit Current;Total (MPPT 1 / MPPT 2)	26 A (13 A / 13 A)
No. of Independent MPP Trackers	2
Number of DC inputs; Total (MPPT 1 / MPPT 2)	2 (1 / 1)
Maximum Asymmetry	60 / 40 %
Input Connection Type	Multi-Contact MC4
DC Disconnect Switch	Yes (Inbuilt)

#### OUTPUT (AC)

Rated Output Power	6 KVA
Maximum Output Power <sup>2</sup>	6.3 kVA
Nominal Output Current	8.7 A
Max. Output Current	9.7 A
Nominal AC Voltage	3 Ph, 400 V
AC Voltage Range	400 V ± 20 % (320 V ~ 480 V)
Nominal Frequency	50 Hz
Frequency Range	45 Hz - 55 Hz
Power Factor at Rated Power	Unity
Reactive Power (Adjustable)	0.8 Lagging ~ 0.8 Leading
Total Harmonic Distortion	<3% at Rated Power
DC Injection	<0.5% at Rated Current
No. of Conductors (user settable)	4/5 Wire (L1, L2, L3, N, PE)
Output Connection Type	Amphenol Connector

#### EFFICIENCY

Maximum Efficiency	98.30%
Euro Efficiency	97.60%

#### PROTECTION

Input-side Disconnection Device	Yes
Ground Fault Monitoring / Grid Monitoring	Yes
DC Reverse Polarity Protection	Yes
DC Over Voltage / Current Limitation Protection	Yes
AC Short Circuit Protection	Yes
AC Over Voltage / Current Limitation Protection	Yes
DC / AC Side Surge Protection - Inbuilt	Yes, MOV

GENERAL DATA	M6A
Dimension (H/W/D)	445 x 510 x 177 mm
Weight	25 kg
Operating Temperature Range	-25°C to +60°C (Power Derating > 50°C)
Relative Humidity	0 ~ 100 %, Non-condensing
Maximum Operating Altitude	< 2000 m above sea level
Degree of Protection	IP 65
Noise Level (Typical)	<50 dB (1m Front Panel)
Self Consumption at Night	<2 W
Cooling	Natural Convection
STANDARDS	
Anti-islanding Protection / Grid Regulation	VDE-AR-N 4105; DIN VDE V 0124-100; DIN VDE V 0126-1-1; IEC/EN/DIN 61727 & IEC/EN/DIN 62116
EMC	IEC/EN 61000
Safety	IEC/EN 62109-1 & IEC/EN 62109-2
Efficiency	IEC/EN/DIN 61683;
Environmental Testing	IEC 60068-2 (1,2,14,30) & (52)

#### COMMUNICATION

Ingress Protection CE Confirmity

Communication Interface	MODBUS RS 485, Wi-Fi + APP
Digital Inputs	Yes, 6 Nos.
Dry Contacts	Yes, 1 Nos.
Emergency Power Off (EPO)	Yes, 1 Nos.
Display	20 x 4 Digital LCD
Built-in Energy Data Logger	Yes

IEC 60529

Yes

#### WARRANTY

Standard Warranty<sup>3</sup>

#### Notes

1. When Operated with Symmetrical DC Inputs (50/50 %)

2. For cos phi = 1 (VA = W)

3. Refer to Delta's Standard Warranty Terms and Conditions for more details.

5 Years

- 4. If PV Module is grounded (Negative / Positive Grounding), separate Isolation Transformer is required at the output side of each Inverter.
- 5. External String Fuses & DC/AC SPDs are recommended.

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