



The Power Behind Competitiveness

Delta M88H

Transformerless Solar Inverter
Grid-Tied, 3-Phase



Product Features

- Transformerless Inverter
- Dual MPP Trackers
- Peak Efficiency up to 98.8%
- Connects up to 18 Strings
- Ergonomic Grip Design
- Ultra Compact Size
- Built-in Energy-logger
- IP65 Protection Level
- Built-in DC Switch
- Built-in PID offset function

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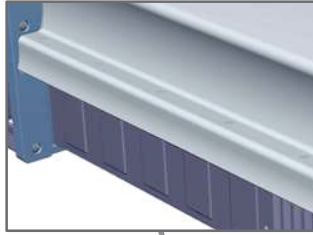
DELTA
Smarter. Greener. Together.

Delta M88H

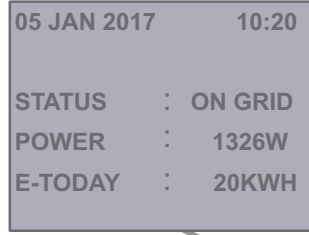
IP65



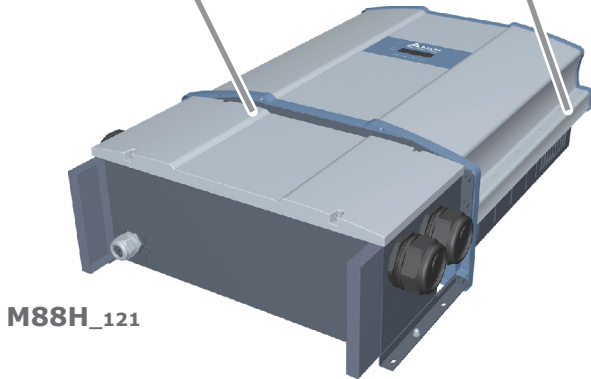
Ergonomic Grip Design



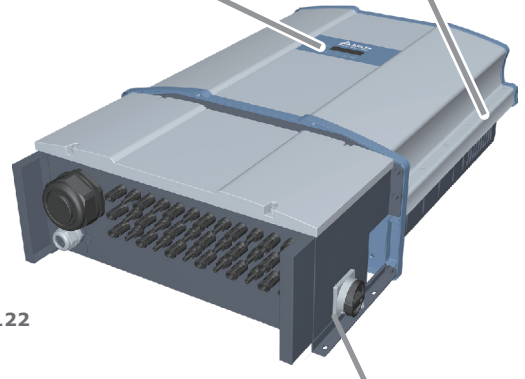
Digital Display



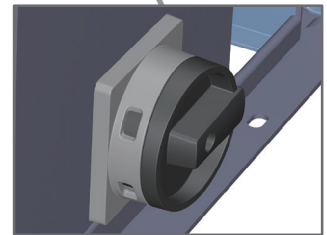
Swappable Fan Kit



M88H_121



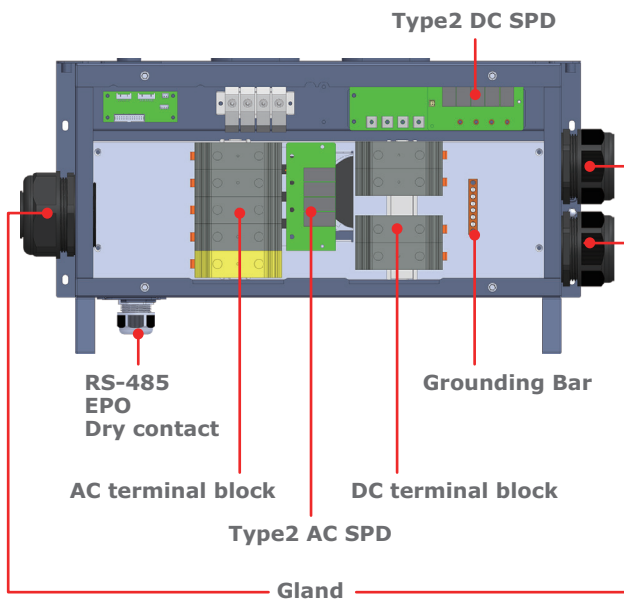
M88H_122



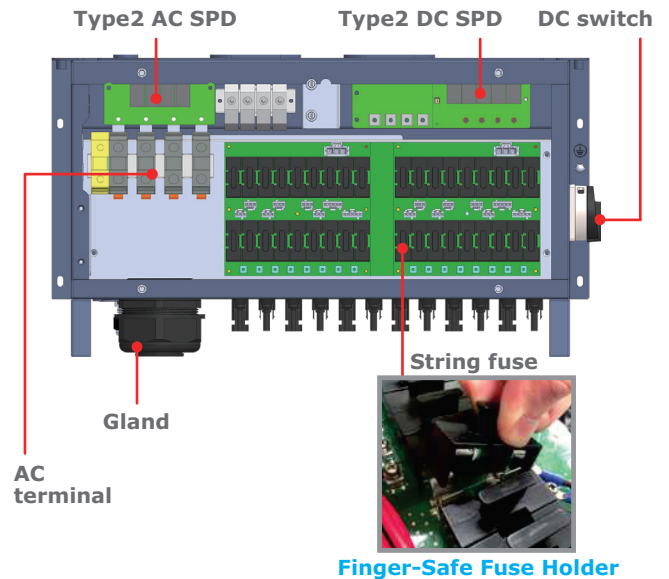
DC Switch

Wiring Box Configurations

● M88H_121 (Screw Terminal)



● M88H_122 (Connectors & Fuses)



Finger-Safe Fuse Holder

Outstanding Performance

M88H have Excellent Efficiency Performance, Peak 98.8% and Euro 98.5%.



Benefits with M88H

Multi - Application:

Design for commercial & utility applications.

All-in-One Design:

String fuses, surge protection devices, DC switches are integrated.

Saving on Space Cost:

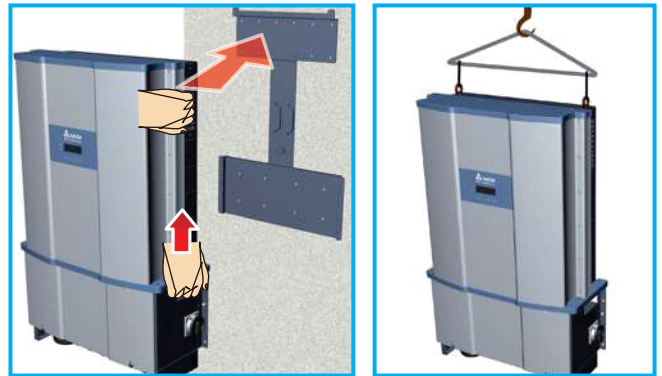
Can be mounted on the foothold of the PV panels, no house or container is required for inverter installation.

2 MPP Trackers:

2 MPP trackers provide more flexibility for PV arrays configuration and bumpy ground area to maximize yield.

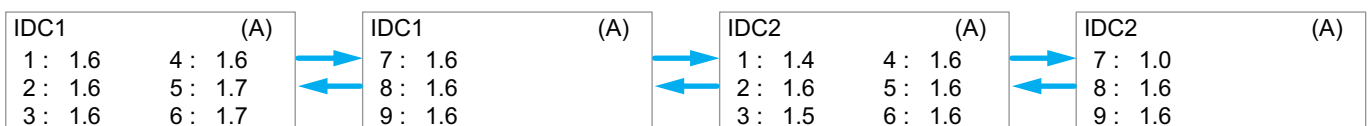
Easy Installation:

Ergonomic grip design provides easy installation or removal by the installer. For additional flexibility, eye bolts are provided to allow for lifting using crane.



String Monitoring Function:

The string monitoring function can precisely record real-time current value up to 18 strings via RS-485 interface.



Delta RPI - Commercial Series

Technical Data-M88H

MODEL*	M88H	
Topology	Transformerless	
AC Voltage	400 / 415 VAC	480 VAC
INPUT (DC)		
Recommended DC Power	95 kWp	110kWp
Max. Input Voltage	1100 V	
DC Voltage Range	200 - 1000 V	
Start-up Voltage	> 250 V	
Start-up Power	40W	
MPPT Voltage Range	200 - 1000 V	
MPPT Voltage Range, Full Power	500 - 800 V	600 - 800 V
Nominal DC Voltage	595V / 620V	710 V
Max. Input Current per MPPT	70 A	
Total Input Current	140 A	
Maximum Short Circuit Current	180A / 90A per MPPT (ST / CF)	
No. of Independent MPPT	2	
Unbalanced MPPT loading	40 / 60	
Input Connection Type*	18 Pairs MC4 / Screw Terminals	
DC Disconnection Switch	Yes (1 x Integrated Mechanical DC Switch) (Only for CF Model)	

OUTPUT (AC)		
Rated Output Power	69 kVA	80 kVA
Maximum Output Power ^{3/4}	76 kVA	88 kVA
Rated Output Current	96 A	
Max. Output Current	106 A	
Nominal AC Voltage	3 Ph, 400 / 415 V	3 Ph, 480 V
AC Voltage Range	400 / 415 V ± 20 %	480 V ± 20 %
Nominal Frequency	50 / 60 Hz	
Frequency Range	± 5 Hz	
Power Factor at Rated Power	Unity	
Reactive Power (Adjustable)	0.8 lagging ~ 0.8 leading	
Harmonics	<3% at Rated Power	
DC Injection	<0.5% at Rated Output Current	
No. of Conductors	4 (3P3W+PE) / 5 (3P4W+PE)	
Output Connection Type*	AC Wire Terminals	
AC Terminals	5 x AC wire Terminals, Bimetallic Wire Support (Copper or Aluminum)CF Model: 35-95 mm ² / ST Model: 50-120 mm ²	

EFFICIENCY	
Maximum Efficiency	98.8%
Euro Efficiency	98.5%

PROTECTION	
String Fuse Protection (String Fuses - 18 Nos. for Both +Ve & -Ve Strings)	Yes (Only for CF Model)
DC Disconnection Switch	Yes (Only for CF Model)
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	SPD, Type II
PID Offset Function Availability	Yes ¹

GENERAL DATA	
Dimension (H/W/D)	962 x 615 x 275 mm
Weight (kg)	84 kg
Operating Temperature Range	-25°C ~ 60°C (-25°C ~ 50°C @ full power (80 kW))
Relative Humidity	0~100%, non-condensing
Operating Elevation	<3000 m
Degree of Protection	IP65
Noise level (Typical)	70 dB @ 1 m
Self Consumption at Night	< 3 W

MODEL*	M88H_121	M88H_122
Variants	Screw Terminals (ST)	MC4 Connectors & Fuses (CF)
Model No.	M88H_121	M88H_122
DC Disconnecter Switch	Not Available	Available
DC Fuse (Both Positive & Negative)	Not Available	Available
DC SPD	Available	Available
AC SPD	Available	Available
DC Connection Type	Terminal Block	MC4
AC Connection Type	Terminal Block	Terminal Block
DC Cable Size	50-120 mm ²	4/6 mm ²
AC Cable Size	50-120 mm ²	35-95 mm ²
String Monitoring	Not Available	Available

CERTIFICATION	
Anti-islanding Protection / Grid Regulation	VDE-AR-N 4105; IEC 61727, IEC 62116
EMC	EN 61000; IEC 61000
Safety	IEC/EN 62109-2:2011
Efficiency	IEC 61683:1999 EN 50530 (As Per MNRE and SECI Requirement)
Environmental Testing	IEC 60068-2-1; IEC 60068-2-2; IEC 60068-2-14
	IEC 60068-2-30; IEC 60068-2-6; IEC 60068-2-21
	IEC 60068-2-27; IEC 60068-2-75; IEC 60068-2-78, EN 50530 (As Per MNRE and SECI Requirement)
Ingress Protection	IEC 60529 Edition 2.1 2001-02

COMMUNICATION	
Communication Port	RS 485
Display	20 x 4 LCD
Built-in Energy Data Logger	Yes
Emergency Power Off (EPO)	Yes, 1 No.
Dry Contact Relay	Yes, 2 Nos.
Digital Inputs	Yes, 6 Nos.

WARRANTY	
Standard Warranty Years	5

Note

- PV Module grounding (Positive / Negative) is not allowed
- Parallel Operation of Inverters is Possible For Large Power Plants.
- For Cos phi = 1 (VA=W); 76 kVA is Possible with: DC Input Voltage 620V; and AC voltage is 415V; Symmetrical Loading; Ambient Temperature <34°C
- For Cos phi = 1 (VA=W); 88 kVA is Possible with: DC Input Voltage 710V; and AC voltage is 480V; Symmetrical Loading; Ambient Temperature <34°C
- Refer to Delta's Standard Warranty Terms and Conditions for more details.

For Any Sales / Application Engineering Support, Please Contact:

DELTA POWER SOLUTIONS (INDIA) PVT. LTD.,

"A" Block, Third Floor, Ozone Manay Tech Park, Hongasandra Village, Hosur Road, Bangalore – 560068, INDIA

TEL +91 80 6716 47 / 77

Fax +91 80 6716 4784

www.deltaelectronicsindia.com | email: solarsales@deltaww.com

