

The power behind competitiveness

# Delta M30A / M50A

Grid PV Inverter M30A\_121 / M50A\_12s



#### **Product Features**

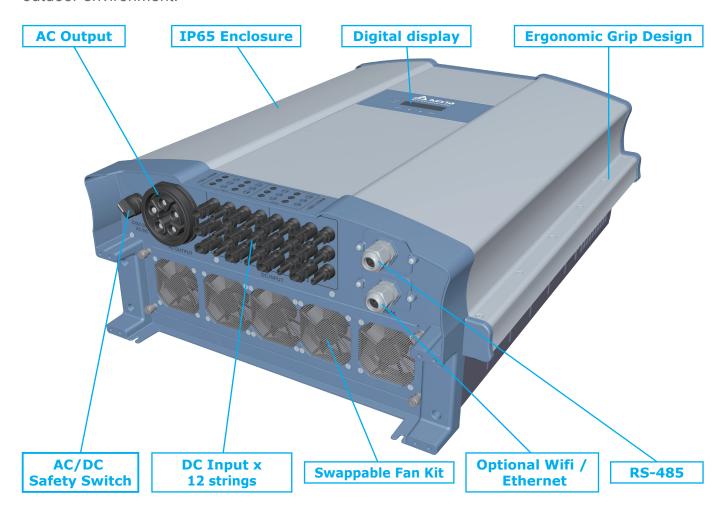
- Transformerless inverter
- Dual MPP Trackers
- Peak efficiency up to 98.6%
- Connect up to 12 strings PV arrays
- Easy & fast connection
- Ergonomics handle design
- Ultra compact size
- Built-in Energy-logger
- IP65 protection level
- Optional wifi / ethernet
- Built-in DC switch
- Built-in string fuses



# Delta M30A / M50A

### The smallest & lightest 30kW / 50kW inverter in the world

Delta's latest revolutionary design "M30A / M50A" transformerless PV inverter is the lightest, smallest, and first wall mount-able 30kW / 50kW inverter in the world. With such compact size and light weight, M30A / M50A has more flexibility for different large scale PV systems & applications. IP65 enclosure provides higher level of protection and enhances its durability in outdoor environment.



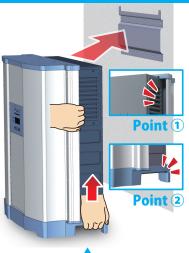
# **Design Features**

### Thoughtful grip design

Wall mountable & AC / DC fast connection designprovides great flexibility and convenience during installation.

Ergonomic grip design gives more convenience while moving the inverter during installation. With special handle protection design, M30A / M50A can be easily placed down on the flat ground vertically without damaging various connectors at the bottom.







## **Protection Features**



### AC / DC safety switch

Integrated safety switch could shut-down the inverter immediately, DC & AC relays directly shut down connections by CPU to ensure completed disconnection and easy recovering. Remote shut down feature is also available that allows site manager to activate / disconnect PV energy instantly.

### **Built-in SPD & String fuses**

Inside each individual string connetor integrated with internal string fuse that protects each of PV array string and is replaceable. Delta M50A has built-in & replaceable AC/DC SPD(Surge Protection Devices) to prevent thunder strikes & surge from your PV system.





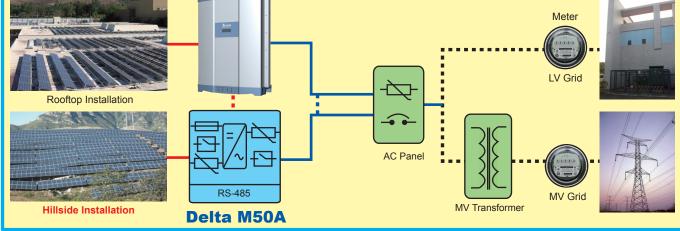


(Surge Protection Devices)

(String fuses)

# **Delta 50kW Application**





# Savings with M30A / M50A

### Saving on System Cost:

All-in-one design with integrated string box / fuses / surge protection devices / DC & AC switches.

#### Saving on Space Cost:

No Engine room is required for storing inverters AC conditioners and transformers. M30A / M50A can be mounted on the rack right behind the PV panels.

#### Saving on DC Cable Cost:

With built-in string box feature and up to max.12 strings connection, less DC cables will be used during field installaton.

#### Saving on Installation Cost:

Easy installation with convenient AC & DC plug connections providing quick and easy connection. Less installation time & less auxiliary units are required.

#### **Dual MPPTs:**

Sweep function can get real maximum power of PV array even when get shaded from the clouds or shadows. Contributing maximum yields with minimum efforts.



# **Outstanding performance**

Delta M30A&M50A is able to reach 98.5% & 98.6% peak efficiency, 98.2% & 98.4% Euro-efficiency over converting PV energy.

2 sets of MPP allows more flexiblity when PV arrays are facing different directions while minimizing energy losses and maximizing higher yields.



### **Technical Specifications**

Model		M30A_121	M50A_12s
DC Input	Max. input voltage	1100V	
	Operating voltage range	200~1000V	
	MPP voltage range (full power)	520~800V	
	Start voltage	>250V	
	Rated voltage	600V	
	Max. input current	Each MPPT: 30A	Each MPPT: 50A
		Total: 60A	Total: 100A
	MPP tracker	2	
	Connection type	6 pairs MC4	12 pairs MC4
	Protection	<del>-</del> 15	5A fuse per string + & -, Type2 SPI
AC Output	Rated output power	30kW / 30kVA	50kW / 50kVA
	Max. output power	33kW / 33kVA*	55kW / 55kVA*
	Max. output current	50A	80A
	Rated voltage	3Ph 230/400V Y or Δ	
	Operating voltage range	±20%	
	Operating frequency range	50/60Hz ±5Hz	
	Power factor (adjustable)	0.8 ind ~ 0.8 cap	
	Protection	_	Type 2 SPD
	THD	<3%	
	Night time consumption**	<3W	<2W
Efficiency	Peak efficiency	98.5%	98.6%
	Euro efficiency	98.2%	98.4%
Information	DC Switch	DC Relays	
	Communication port	RS-485	
	Display	20 x 4 LCD	
Certification		VDE-AR-N 4105	VDE 0126-1-1
		BDEW	NB/T 32004: 2013
		GB/T 19964: LVRT	IEC 62109-1/-2
		EN 61000-6-2	EN 61000-6-3
General Data	Operating temp. range	-25~60°C (Derating above 40°C)	
	Protection level	IP65	
	Operating elevation	<2000m	
	Cooling	Cooling fans	
	Dimension (W x H x D, mm)	612 x 625 x 278	612 x 740 x 278
	Weight	48kg	74kg
	Container loading	20ft 84pcs	20ft 72pcs
		40ft 168pcs	40ft 144pcs
			-

<sup>\*</sup> M30A: Max. output power at  $\leq$ 25°C, de-rating to 30kW / 30kVA at 40°C M50A: Max. output power at  $\leq$ 25°C, de-rating to 50kW / 50kVA at 40°C

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<sup>\*\*</sup>Night time consumption with standby communication & display

<sup>-</sup> All specifications are subject to change without prior notice.