



The power behind competitiveness

# Delta M30A & M50A

Grid PV Inverter  
M30A & M50A

## Product Features

- Transformerless inverter
- Dual MPP Trackers
- Peak efficiency up to 98.6%
- Connect up to 10 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

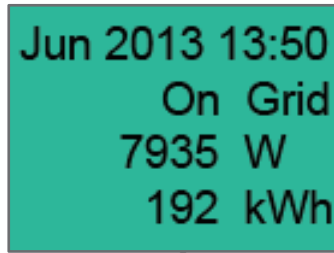
*The smallest & lightest 30kW&50kW inverter in the world*

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, RPI 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.

**AC Output**



**Digital display**



**IP65 Enclosure**



**Ergonomic Grip Design**



**AC/DC Safety Switch**



**DC Input x 10 strings(M50A)**



**Swappable Fan Kit**



**Optional Wifi / Ethernet**

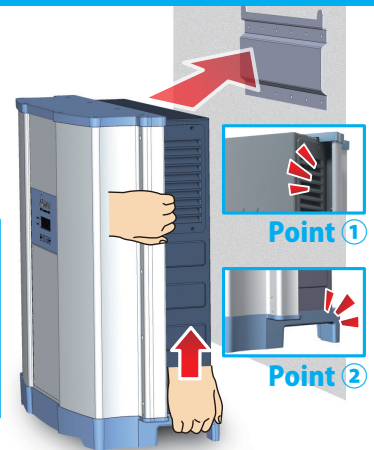


**RS485**

# Design Features

## Thoughtful grip design

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



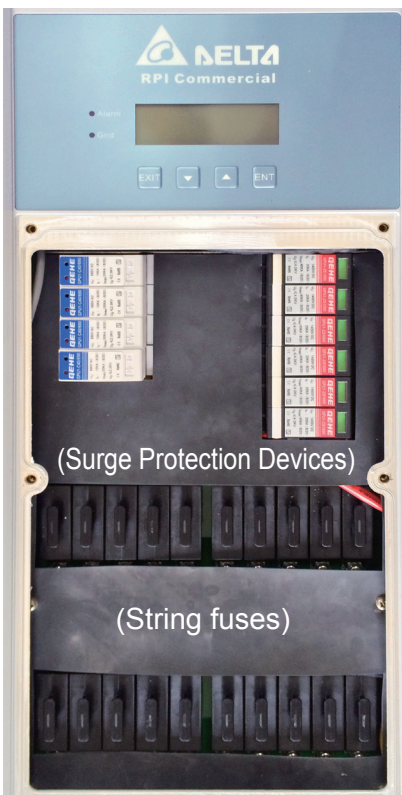
# Protection Features

## 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

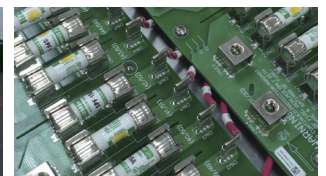
Inside each individual string connector integrated with internal string fuse that protects each of PV array string and is replaceable. Delta M50A has built-in & replaceable AC/DC SPD (Surge Protection Devices) to prevent thunder strikes & surge from your PV system.



(Surge Protection Devices)



(String fuses)



# 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 flexibility when PV arrays are facing different directions while minimizing energy losses and maximizing higher yields.

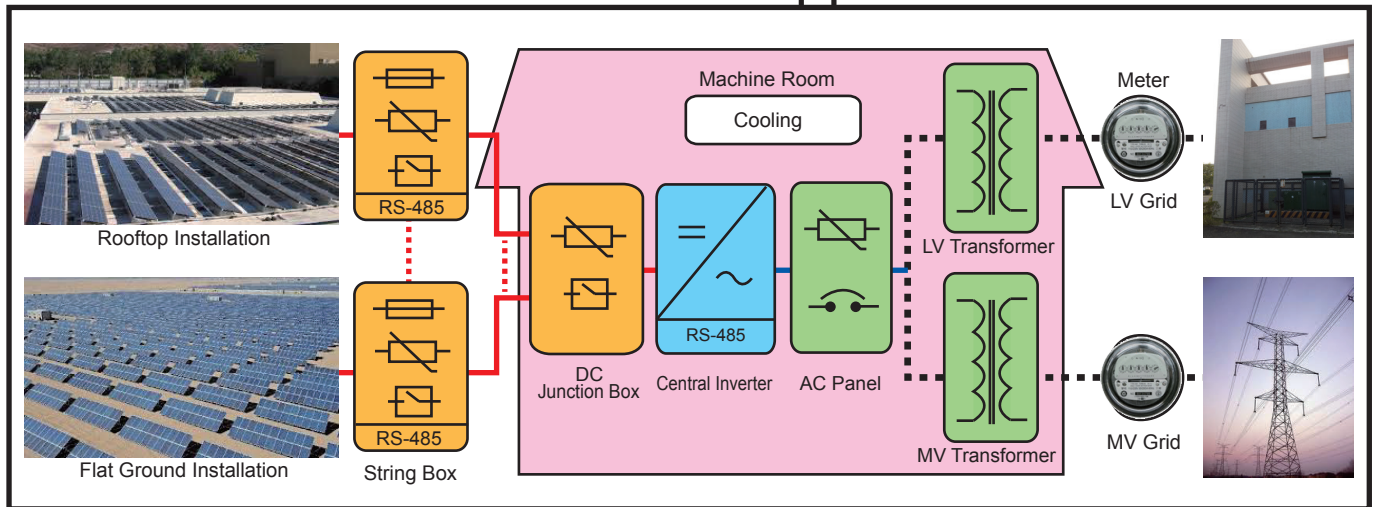




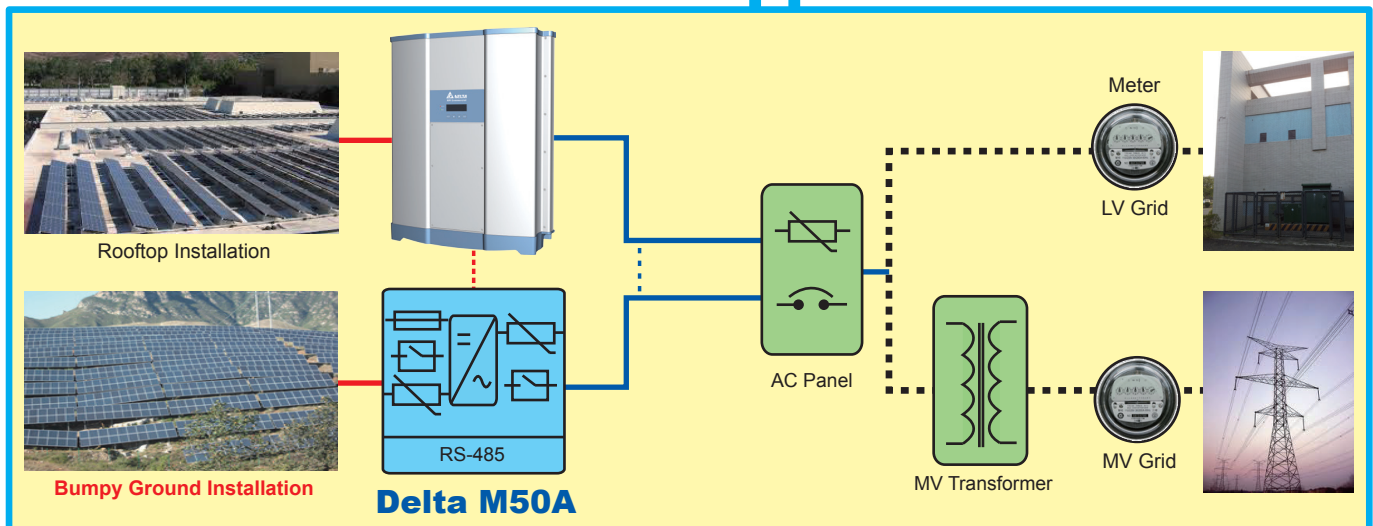
# PV System Comparison



## Central Inverter Application



## 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.10 strings connection, less DC cables will be used during field installation.

### **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.

# Delta Commercial Series

## RPI M30A / M50A

### Technical Specifications

Model		M30A_120	RPI M50A_120
DC Input	Max. DC input	35 kW	58 kW
	Max. input voltage	1000V	1000V
	Recommended PV Power	≤38kW	≤63kW
	Operating voltage range	200~1000V	200~1000V
	MPP voltage range, Full power	520~800V	520~800V
	Start voltage	>250V	>250V
	Rated voltage	600V	600V
	Max. input current	Each MPPT: 30A Total: 60A	Each MPPT: 50A Total: 100A
	MPP tracker	2	2
	Connection type	6 pairs MC4	10 pairs MC4
	Protection	15A fuse per string + & -, Type2 SPD	15A fuse per string + & -, Type2 SPD
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	3Ph 230/400V Y or Δ
	Operating voltage range	±20%	±20%
	Operating frequency range	50/60Hz ±5Hz	50/60Hz ±5Hz
	Power factor (adjustable)	0.8 ind ~ 0.8 cap	0.8 ind ~ 0.8 cap
	Protection	Type 2 SPD	Type 2 SPD
	THD	<3%	<3%
	Night time consumption**	<3W	<2W
Efficiency	Peak efficiency	98.5%	98.6%
	Euro efficiency	98.2%	98.4%
Information	DC Switch	DC Relays	DC Relays
	Communication port	RS485	RS485
	Display	20 x 4 LCD	20 x 4 LCD
Certification		VDE-AR-N 4105	VDE-AR-N 4105
		VDE 0126-1-1	VDE 0126-1-1
		BDEW	BDEW
		NB/T 32004: 2013	NB/T 32004: 2013
		GB/T 19964: LVRT	GB/T 19964: LVRT
		IEC 62109-1/-2	IEC 62109-1/-2
		EN 61000-6-2 EN 61000-6-3	EN 61000-6-2 EN 61000-6-3
General Data	Operating temp. range	-25~60°C (Derating above 45°C)	-25~60°C
	Protection level	IP65	IP65
	Operating elevation	<2000m	<2000m
	Cooling	Cooling fans	Cooling fans
	Dimension (W x H x D, mm)	612 x 625 x 278	612 x 740 x 278
	Weight	48.5kg	74kg
	Container loading	20ft 84pcs 40ft 168pcs	20ft 72pcs 40ft 144pcs

\* M30A : Max. output power at ≤25°C, de-rating to 30kW / 30kVA at 40°C

\* M50A : Max. output power at ≤25°C, de-rating to 50kW / 50kVA at 40°C

\*\*Night time consumption with standby communication & display

- All specifications are subject to change without prior notice.

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