



The power behind competitiveness

Delta M50A

Grid PV Inverter

M50A_12s



Product Features

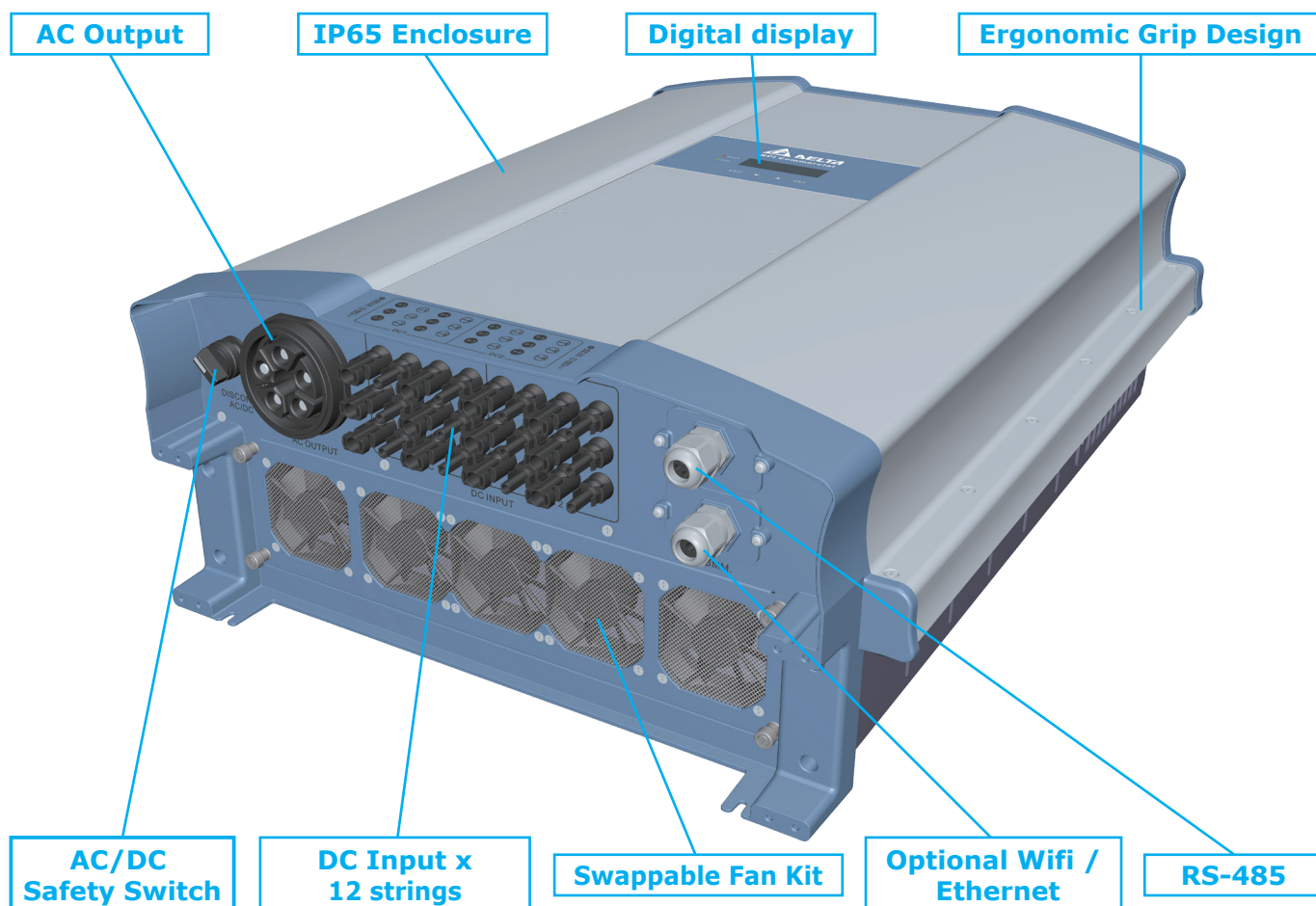
- Transformerless inverter
- Dual MPP Trackers
- Peak efficiency up to 98.6%
- Connect up to 12 strings PV arrays
- Easy & fast connection
- Ergonomics handle design
- Ultra compact size
- Built-in Energy-logger
- IP65 protection level
- Optional wifi / ethernet
- Built-in DC switch
- Built-in string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



Delta M50A

The smallest & lightest 50kW inverter in the world

Delta's latest revolutionary design "M50A" transformerless PV inverter is the lightest, smallest, and first wall mount-able 50kW inverter in the world. With such compact size and light weight, 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.

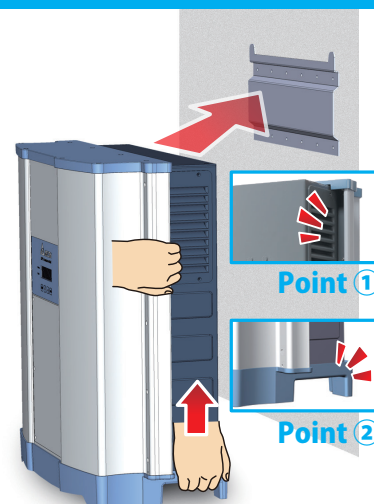


Design Features

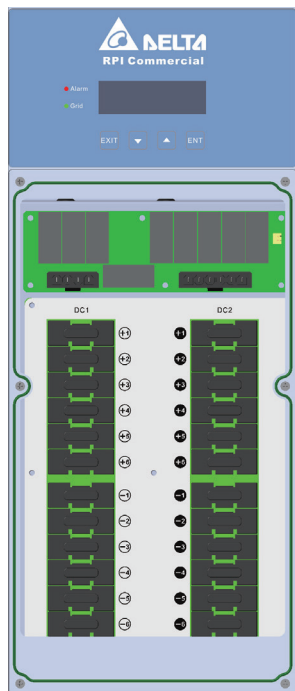
Thoughtful grip design

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

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



Protection Features

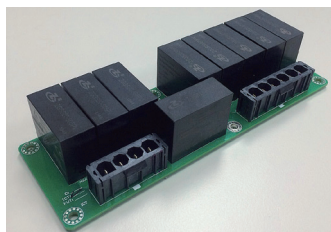


AC / DC safety switch

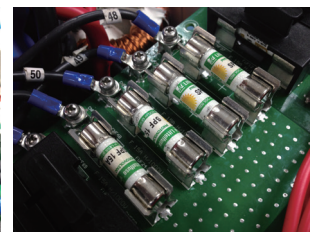
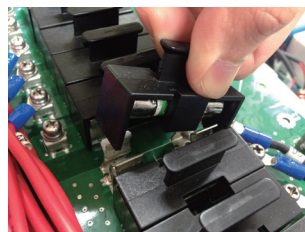
Integrated safety switch could shut-down the inverter immediately, DC & AC relays directly shut down connections by CPU to ensure completed disconnection and easy recovering. Remote shut down feature is also available that allows site manager to activate / disconnect PV energy instantly.

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.

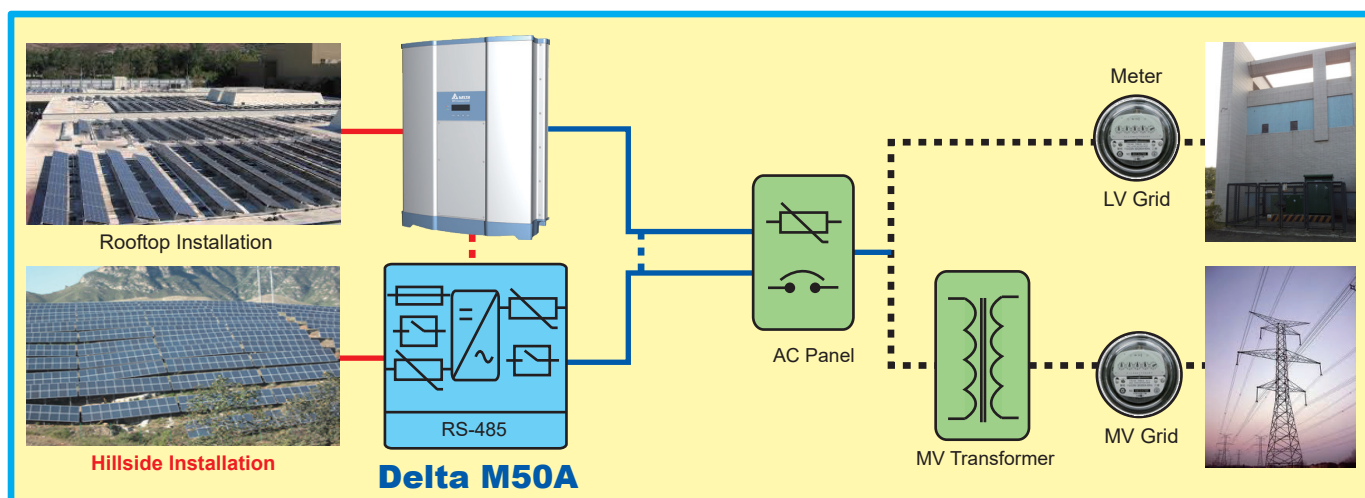


(Surge Protection Devices)



(String fuses)

Delta 50kW Application



Savings with 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. 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 M50A is able to reach 98.6% peak efficiency, 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.



M50A

Technical Specifications

Model		M50A_12s	
DC Input	Max. input voltage	1100V	
	Operating voltage range	200~1000V	
	MPP voltage range	520~800V	
	Start voltage	>250V	
	Rated voltage	600V	
	Max. input current	Each MPPT: 50A Total: 100A	
	MPP tracker	2	
	Connection type	12 pairs MC4	
	Protection	15A fuse per string + & -, Type2 SPD	
AC Output	Rated output power	50kW / 50kVA	
	Max. output power	55kW / 55kVA*	
	Max. output current	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**	<2W	
Efficiency	Peak efficiency	98.6%	
	Euro efficiency	98.4%	
Information	DC Switch	DC Relays	
	Communication port	RS485	
	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
		MEA/PEA	
General Data	Operating temp. range	-25~60°C (Derating above 40°C)	
	Protection level	IP65	
	Operating elevation	<2000m	
	Cooling	Cooling fans	
	Noise	68.5 dBA @1m, Amb25°C	
	Dimension (W x H x D, mm)	612 x 740 x 278	
	Weight	74kg	

* 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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