

Bluetooth®



## Solar inverters M50A / M70A / M100A Flex

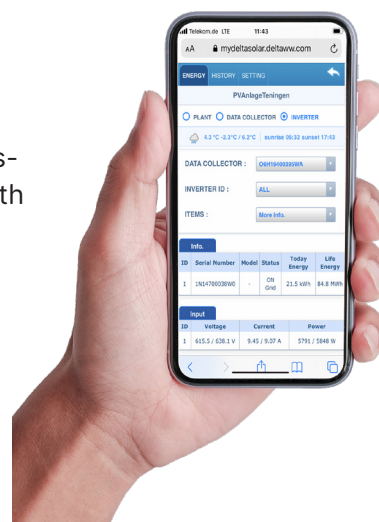
Performance combined with maximum flexibility with 6 and 8 MPP trackers — ideal for large commercial rooftop and open-air installations

# Highlights



Front door for easy access to internal components

Convenient commissioning using a smartphone via Bluetooth interface. System monitoring using a smartphone app or MyDeltaSolar Cloud.



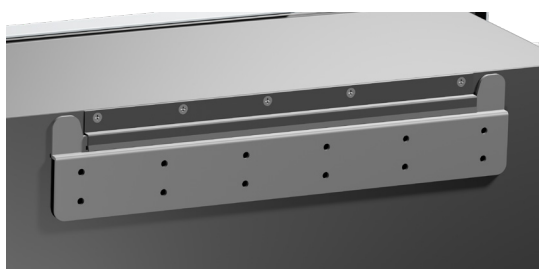
M50A: 6 MPP trackers for 2 module strings each



M70A: 6 MPP trackers for 3 module strings each



M100A: 8 MPP trackers for 2 module strings each



Mounting plate for wall mounting included in scope of delivery; optional ground mounting



- 6 or 8 MPP trackers for easy handling of shaded areas and different module orientations
- Lightweight with IP66 housing for harsh environmental conditions
- Integrated mechanical DC disconnectors
- AC and DC surge arresters
- Large front door for easy and safe access to internal components
- No string fuses required
- Reactive power compensation 24/7
- Data point collection for string monitoring and I-V curve generation
- Arc fault and reverse polarity protection, Anti-PID feature
- Flexible mounting on the wall or on the ground (optional)

# Technical Data

Input (DC)	M50A	M70A	M100A
Maximum input power (per MPP tracker / total)	11.7 kW/58.0 kW	15.7 kW/78.5 kW	12.7 kW/110 kW
Maximum input voltage <sup>1)</sup>	1100 V <sub>DC</sub>		
Operating voltage range	200 to 1000 V <sub>DC</sub>		
MPP voltage range	200 to 1000 V <sub>DC</sub>		
MPP voltage range with maximum power	390 to 900 V <sub>DC</sub>	460 to 900 V <sub>DC</sub>	520 to 800 V <sub>DC</sub>
Nominal voltage	600 V <sub>DC</sub>		600 V <sub>DC</sub>
Maximum current (per MPP tracker / total)	26 A/132 A	26 A/156 A	30 A/240 A
Maximum short-circuit current I <sub>SC</sub>	50 A per MPP tracker		
Maximum number of MPP trackers	6 x 2 DC strings	6 x 3 DC strings	8 x 2 DC strings
DC surge protection devices	Type 2 (EN 61463-11), replaceable, combined Type 1+2 retrofittable		

Output (AC)	M50A	M70A	M100A
Maximum apparent power <sup>2)</sup>	55 kVA	77 kVA	110 kVA
Maximum active power <sup>2)</sup>	55 kW <sup>3)</sup>	77 kW <sup>4)</sup>	110 kW <sup>5)</sup>
Nominal apparent power <sup>2)</sup>	50 kVA	70 kVA	100 kVA
Voltage range <sup>6)</sup>	230/400 V -20% / +30%, 3 phases + PE (Δ), 3 phases + N + PE (Y)		380/400/480 V -20% / +30%, 3 phases + PE (Δ), 3 phases + N + PE (Y)
Maximum current	80 A	112 A	168 A at 380/400 V; 133 A at 480 V
Frequency range <sup>6)</sup>	50/60 Hz ± 5 Hz		
Adjustment range of power factor	0.8 cap to 0.8 ind		
Total harmonic distortion (THD)	< 3% at nominal apparent power		
Consumption in night mode <sup>7)</sup>	< 3 W		< 3.5 W
AC surge protection devices	Type 2 (EN 61463-11), replaceable		

General Specifications	M50A	M70A	M100A
Delta model name	M50A_260	M70A_260	M100A_280
Peak efficiency	98.7%	98.8%	98.7%
Efficiency EU	98.3%	98.4%	98.4%
Operating temperature range	-25 to +60°C		
Temperature range without power derating	-25 to +50 °C		
Storage temperature range	-25 to +60°C		
Relative humidity	0 to 100%, non-condensing		
Maximum operating altitude	4000 m (above sea level)		
Topology	Without transformer		
Standard warranty	5 years (warranty extension available upon request)		

Mechanical design	M50A	M70A	M100A
Dimensions (H x W x D)	699 × 629 × 264 mm		
Weight	64 kg	69 kg	77 kg
Cooling	Replaceable fan module		
Mounting options	Wall mounting 6) (optional ground mounting)		
Disconnectors	1 mechanical DC disconnectors		
Connection type AC side	Screw terminals		
DC connector (included in scope of delivery)			
Type	Amphenol H4		
Quantity	12 pairs	18 pairs	16 pairs

# Technical Data

Communication	M50A	M70A	M100A
Communication interfaces	2 x RS485, 1 x dry contact, 1 x external power-off, 6 x digital inputs, Bluetooth®		
Data visualization	DeltaSolar app, MyDeltaSolar Cloud		
Display of operating status	3 LEDs		
Safety/ Standards	M50A	M70A	M100A
Protection class	IP66		
Safety class	I		
Configurable trip parameters	Yes		
Insulation monitoring	Yes		
Overload behavior	Current limitation, power limitation		
Anti-islanding protection/grid regulation	VFR 2019 (Enedis-PRO-RES_10E, Enedis-PRO-RES_64E), VDE-AR-N 4105, EN 50549-1		
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12		
Safety	IEC 62109-1/-2; CE compliance		

- 1) The maximum voltage withstand is 1100 VDC. The inverter starts working when the input voltage drops below 1000 VDC.
- 2)  $\cos \Phi = 1$  ( $VA = W$ )
- 3) At ambient temperatures  $\leq 50^{\circ}\text{C}$ . The active power can be limited.
- 4) At ambient temperatures  $\leq 45^{\circ}\text{C}$ . The active power can be limited.
- 5) At ambient temperatures  $\leq 35^{\circ}\text{C}$ . The active power can be limited.
- 6) AC voltage and frequency range are programmed based on the respective country regulations.
- 7) Night-time consumption with standby communication

## Contact



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