

Solar inverters M50A / M70A / M100A Flex

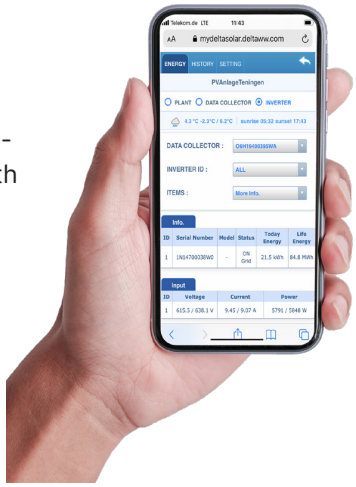
Performance combined with maximum flexibility with 6 and 8 MPP trackers — ideal for large commercial rooftop and open-air installations

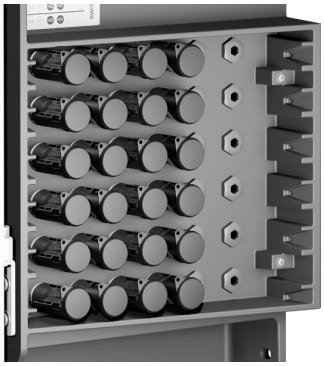
Highlights



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.





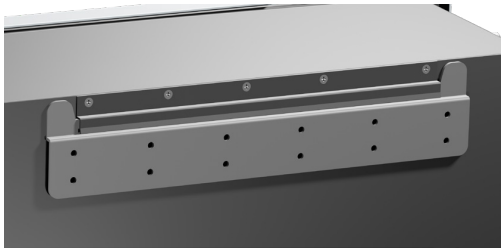
M50A: 6 MPP trackers for 2 module strings each



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 disconnectorses
- 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 [1]	1100 V_{DC}		
Operating voltage range	200 to 1000 V_{DC}		
MPP voltage range	200 to 1000 V_{DC}		
MPP voltage range with maximum power	390 to 900 V_{DC}	460 to 900 V_{DC}	520 to 800 V_{DC}
Nominal voltage	600 V_{DC}		600 V_{DC}
Maximum current (per MPP tracker / total)	26 A/132 A	26 A/156 A	30 A/240 A
Maximum short-circuit current I_{SC}	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 [2]	55 kVA	77 kVA	110 kVA
Maximum active power [2]	55 kW [3]	77 kW [4]	110 kW [5]
Nominal apparent power [2]	50 kVA	70 kVA	100 kVA
Voltage range [6]	230/400 V -20%/+30%, 3 phases + PE (△), 3 phases + N + PE (Y)		380/400/480 V -20%/+30%, 3 phases + PE (△), 3 phases + N + PE (Y)
Maximum current	80 A	112 A	168 A at 380/400 V; 133 A at 480 V
Frequency range [6]	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 [7]	< 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 ≤ 50°C. The active power can be limited.
4) At ambient temperatures ≤ 45°C. The active power can be limited.
5) At ambient temperatures ≤ 35°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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