



M20A Flex

High-efficiency three-phase solar inverters for residential and commercial PV systems.



Wide input voltage range
(200 to 1000 V)



Peak efficiency

- Low noise levels — perfect for use in PV systems on residential or commercial buildings
- Stable performance up to 50 °C ambient
- 2 MPP trackers for more flexibility when designing the PV system
- Commissioning and monitoring with smartphone app via integrated Wi-Fi

22 kVA solar inverters

| Input (DC) | M20A Flex |
|--|-----------------------------------|
| Max. input voltage ¹⁾ | 1000 V _{DC} |
| Operating voltage range | 200 to 1000 V _{DC} |
| MPP voltage range | 200 to 1000 V _{DC} |
| MPP voltage range with max. power | 460 to 900 V _{DC} |
| Nominal voltage | 600 V _{DC} |
| Max. current (per MPP tracker/total) | 26 A/48 A |
| Max. short-circuit current I _{SC} | 50 A per MPP tracker |
| Max. number of MPP trackers | 2 x 2 module strings |
| DC surge protection devices | Type 2 (EN 50539-11), replaceable |

| Output (AC) | M20A Flex |
|---|---|
| Max. apparent power ²⁾ | 22 kVA |
| Max. active power ²⁾ | 22 kW |
| Nominal apparent power ²⁾ | 20 kVA |
| Voltage range ³⁾ | 230/400 V _{AC} -20%/+30%; 3 ph. + PE or 3 ph. + N + PE |
| Max. output current | 32 A |
| Frequency range ³⁾ | 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 ⁴⁾ | < 2 W |
| AC surge protection devices | Type 2 (EN 61463-11), replaceable |

| General specifications | M20A Flex |
|--|---|
| Delta model name | M20A_220 |
| Delta part number | RPI203M220100 |
| Peak efficiency | 98.5% |
| Efficiency EU | 98.1% |
| 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 |
| Max. operating altitude | 4000 m (above sea level) |
| Topology | Without transformer |
| Standard warranty | 5 years (warranty extension available upon request) |

| Mechanical design | M20A Flex |
|-------------------------|---|
| Dimensions (H x W x D) | 651 × 520 × 220 mm |
| Weight | 40.5 kg |
| Cooling | Natural convection |
| Mounting options | Wall mounting ⁵⁾ |
| Disconnectors | 1 mechanical DC disconnectors |
| Connection type AC side | 1 AC plug ⁶⁾ |
| DC connection type | 4 pairs of DC plugs Amphenol H4 ⁶⁾ |

| Communication | M20A Flex |
|-----------------------------|---|
| Communication interfaces | 2 x RS485, 1 x dry contact, 1 x external power-off, 6 x digital inputs, Wi-Fi |
| Data visualization | DeltaSolar app, MyDeltaSolar Cloud |
| Display of operating status | 3 LEDs |

| Safety/Standards | M20A Flex |
|---|--|
| 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, C10/11, Netbeheer NL |
| 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 max. voltage withstand is 1000 VDC. The inverter starts working when the input voltage drops below 1000 VDC.
- 2) Cos Phi = 1 (VA = W)
- 3) AC voltage and frequency range are programmed based on the respective country regulations.
- 4) Night-time consumption with standby communication
- 5) Mounting plate included in scope of delivery
- 6) Included in scope of delivery



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