

Low Noise

Ideal for Private and
Commercial PV Plants

COMPATIBLE WITH



DeltaSolar
APP 2.0 & Cloud



M20A Flex

High-efficient, low-noise, three-phase solar inverters –
The perfect choice for private and commercial PV systems.

Features

- Low noise level (max. 31.6 dB(A)) - perfect for use in residential PV plants
- Superior thermal performance even in warm ambient temperatures
- 2 MPP trackers for more flexibility in PV system design
- Lightweight with IP66 housing for harsh environmental conditions
- Built-in mechanical DC disconnect, AC and DC SPD Type 2
- Large front door for easy and safe access to internal components
- Integrated Wi-Fi for connecting to a smartphone or an internet router
- Reactive power compensation 24/7
- Data point collection for string monitoring and I-V curve creation
- Arc fault and reverse polarity protection, Anti-PID feature

22 kVA solar inverters

Technical Data

INPUT (DC)	M20A Flex
Max. input voltage	1100 V _{DC} ¹⁾
Input voltage range	200 to 1000 V _{DC}
MPP operating voltage range (full power)	460 to 900 V _{DC}
Nominal voltage	600 V _{DC}
Max. current	48 A total, 26 A per MPP Tracker
Max. short-circuit current I _{sc}	50 A per MPP tracker
Night time consumption	< 2 W ²⁾
Max. number of MPP trackers	2
DC Surge Protection Devices	Type 2 (EN 50539-11), replaceable

OUTPUT (AC)	
Max. apparent power	22 kVA ³⁾
Max. active power	22 kW ³⁾⁴⁾
Nominal apparent power	20 kVA ³⁾
AC voltage range	230/400 V _{AC} -20% / +30% ⁵⁾ 3 Phases + PE (Δ) or 3 Phases + N + PE (Y)
Max. AC output current	32 A
Frequency range	50 / 60 Hz ± 5 Hz ⁵⁾
Power factor adjustable	0.8 cap to 0.8 ind
Total harmonic distortion (THD)	< 3% at nominal apparent power
AC Surge Protection Devices	Type 2 (EN 61463-11), replaceable

GENERAL SPECIFICATION

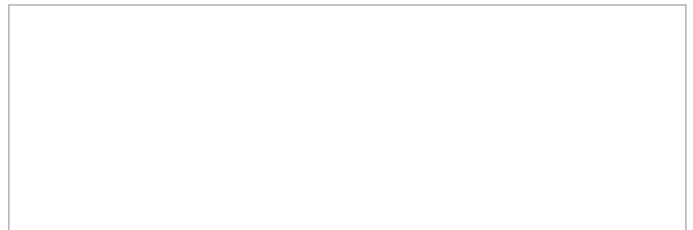
Delta model name	M20A_220
Peak efficiency	98.5%
EU efficiency	98.1%
Operating temperature	-25 to +60 °C
Nominal power without derating	-25 to +50 °C
Storage temperature	-25 to +60 °C
Relative humidity	0 to 100 %, non-condensing
Max. operating altitude	4000 m (above sea level)
Noise level	≤ 31.6 dB(A) ⁶⁾
Topology	Without transformer
Standard guarantee	5 years (guarantee extension is possible)

MECHANICAL DESIGN

Dimensions (W x H x D)	650 x 520 x 220 mm
Weight	40.5 kg
Cooling	Natural convection
AC connection type	AC plug (delivered with inverter) for 5 to 10 mm ²
DC connection type	4 pairs of Amphenol H4 PV connectors
Communication interfaces	2 x RS485, 2 x Dry contacts, 1 x EPO, 1 x 12 V _{DC} , 6 x Digital inputs
Communication	RS485, Wi-Fi, Sub-1G (optional)
Disconnectors	Mechanical
Status display	3 LED: On Grid, Communication, Alarm
Data visualization	Via Gateway
Mounting options	Wall mounting

SAFETY / STANDARDS	M20A Flex
Protection degree	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 V_{DC}. The inverter starts to work when the PV voltage drops below 1000 V_{DC}.
- 2) Night time consumption with standby communication
- 3) Cos Phi = 1 (VA = W)
- 4) At ambient temperatures ≤ 45 °C. The active power can be limited.
- 5) AC voltage and frequency range will be programmed according to the individual country requirements.
- 6) At 1 m distance and ambient temperature of 25 °C



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