

PV INVERTER Three-Phase / M30A_230

Features

- Natural cooling design
- Toggle latch design and fast installation design
- Wireless (SUB_1G / Wi-Fi) communication and APP quick commission
- Fuseless design
- 3 MPP Trackers
- IV curve scanning, night time reactive power and anti-PID function

C NELTA

- IP66 and lightweight
- Built in DC switch, SPD and string monitoring function

www.deltaww.com

Product Overview

Delta M30A_230 is able to reach 98.6% peak efficiency, 98.2% Euro-efficiency over converting PV energy. 3 sets of MPP allows more flexibility when PV arrays are facing different directions while minimizing energy losses and maximizing higher yields.



Form Factor



Dimensions



Installation Guide



APP & Cloud

Only need one Wi-fi router to enjoy Delta cloud service.









MyDeltaSolar Cloud



Fast Installation

Delta M30A_230 with the H4 fast connects which allows easy plug in during installation. The toggle latch design saves considerable time for maintenance and minimizes the risk of water intrusion.



Specifications

Definition Into V Max input Voltage Range 200 · 1000 V MPP Voltage Range (Full Power) ¹¹ 480 - 900 V Start Voltage 250 V Mominal DC Voltage 600 V Max input Current Each MPPT 30 A, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Built-in Stare Protection Type II SPD AC Output Connection Type AC Output S04 A Output Rower 38 WA Max Output Current 50 A Output Rower 39 W/Q 40°C : 38 W/Q 35°C Nominal AC Voltage 39th 230 / 4000 Y or A Operating Voltage Range 60% to 130% of Nominal AC Voltage Operating Voltage Range 60% to 130% of Nominal AC Voltage Operating Voltage Range 80 K% do 120 Se to 120	Model Number	M30A_230
Operating Voltage Range 200 - 1000 V MPP Voltage Range (Full Power) ¹¹ 480 - 900 V Nominal DC Voltage 600 V Nominal DC Voltage 600 V Max Input Current Each MPPT: 30, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Bull-in Surge Protection Type II SPD AC Output Contput Max. Output Power 33 kVA Max. Output Power 30 kW@ 40°C; 33 kW@ 35°C Nominal AC Voltage Range 50 A Output Power 30 kW@ 40°C; 33 kW@ 35°C Nominal AC Voltage Range 50 A Output Power 30 kW@ 40°C; 33 kW@ 35°C Nominal AC Voltage Range 50 A Output Power 30 kW@ 40°C; 33 kW@ 35°C Nominal AC Voltage Range 50 A (60 Hz ± 5 Hz Power Factor (Adjustable) 0.8 lead - 0.8 lag Surge Protection Type II SPD TH-D < 3%	DC Input	
MPP Voltage Range (Full Power) ¹⁰ 480 - 900 V Start Voltage > 250 V Max Input Current Each MPPT: 30 A, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Built- Surge Protection Type II SPD AC Output 50 A Max. Output Power 30 k/W @ 40°C; 33 k/W @ 35°C Nominal AC Voltage 30 k/W @ 40°C; 33 k/W @ 35°C Operating Voltage Range 50 / 60 H2 ± 5 H2 Power Factor (Adjustable) 68 lead - 0.6 lag Surge Protection Type II SPD T.H.D <3%	Max Input Voltage	1100 V
MPP Voltage Range (Full Power) ¹⁰ 480 - 900 V Start Voltage > 250 V Max Input Current Each MPPT: 30 A, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Built- Surge Protection Type II SPD AC Output 50 A Max. Output Power 30 k/W @ 40°C; 33 k/W @ 35°C Nominal AC Voltage 30 k/W @ 40°C; 33 k/W @ 35°C Operating Voltage Range 50 / 60 H2 ± 5 H2 Power Factor (Adjustable) 68 lead - 0.6 lag Surge Protection Type II SPD T.H.D <3%	Operating Voltage Range	200 - 1000 V
Start Voltage > 250 V Nominal DC Voltage 600 V Max Input Current Each MPPT: 30 A, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Builtin Surge Protection Type II SPD AC Output		480 - 900 V
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Max Input Current Each MPPT: 30 A, Total: 72 A MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Built-In Surge Protection Type II SPD AC Output	Nominal DC Voltage	600 V
MPP Tracker 3 Connection Type 2 pairs / MPPT, Amphenol H4 DC Connector DC Switch Built-in Surge Protection Type II SPD AC Output SA Max. Output Power 30 kW @ 40°C : 33 kW @ 35°C Output Power 30 kW @ 40°C : 33 kW @ 35°C Nominal AC Voltage 3Ph 230 / 400 V or A Operating Trequency Range 50 / 60 Hz ± 5 Hz Power Factor (Adjustable) 0.8 lead - 0.8 lag Surge Protection Type II SPD T.H.D < 3%	Max Input Current	Each MPPT: 30 A, Total: 72 A
DC Switch Built-In Surge Protection Type II SPD AC Output Max. Output Power 33 kVA Max. Output Power 33 kVA Max. Output Power 30 kW @ 40°C; 33 kW @ 35°C Output Power 30 kW @ 40°C; 33 kW @ 35°C Mominal AC Voltage Stressee Operating Voltage Range 80% to 130% of Nominal AC Voltage Mominal AC Voltage Mominal AC Voltage Operating Voltage Range 60 / 60 Hz ± 5 Hz Power Factor (Adjustable) 0.8 lead - 0.8 lag Surge Protection Type II SPD T THD <3%	MPP Tracker	3
DC Switch Built-In Surge Protection Type II SPD AC Output Max. Output Power 33 kVA Max. Output Power 33 kVA Max. Output Power 30 kW @ 40°C; 33 kW @ 35°C Output Power 30 kW @ 40°C; 33 kW @ 35°C Mominal AC Voltage Stressee Operating Voltage Range 80% to 130% of Nominal AC Voltage Mominal AC Voltage Mominal AC Voltage Operating Voltage Range 60 / 60 Hz ± 5 Hz Power Factor (Adjustable) 0.8 lead - 0.8 lag Surge Protection Type II SPD T THD <3%	Connection Type	2 pairs / MPPT, Amphenol H4 DC Connector
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AC OutputMax. Output Power33 kVAMax. Output Current50 AOutput Power30 kW @ 40°C ; 33 kW @ 35°CNominal AC Voltage3Ph 230 / 400V Y or Δ Operating Voltage Range80% to 130% of Nominal AC VoltageOperating Voltage Range60 / 60 Hz ± 5 HzPower Factor (Adjustable)0.8 lead - 0.8 lagSurge ProtectionType II SPDT.H.D< 3%	Surge Protection	Type II SPD
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Nominal AC Voltage $3Ph 230 / 400V Y \text{ or } \Delta$ Operating Voltage Range 80% to 130% of Nominal AC VoltageOperating Frequency Range $50 / 60 Hz \pm 5 Hz$ Power Factor (Adjustable) $0.8 lead - 0.8 lag$ Surge ProtectionType II SPDT.H. D 3% AC Connection TypePlug Type, Cable Size 16 - 25 mm²Night Time Consumption 2^{2} $< 2 W$ EfficiencyPeak Efficiency 98.6% Euro Efficiency 98.2% Information $Communication Port$ Communication PortRS-485 / Wi-FI (optional: SUB_1G)DispatyLED (Grid, Alarm, Comm.)Certification $Efficiency$ ProtectionAc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detectionForeating FrequencyNight time Anti-PID, String current monitoring, IV curve scanning, Night time reactive powerOperating Effevation $< 250 + 60^{\circ}C$ (derating $> 40^{\circ}C$)Protection LevelIP66Operating Elevation $< 4000 m$ CoolingNatural CoolingNoise $45.9 dBA @ 1m, Amb25^{\circ}C$ Dimension (W x H x D) $651 \times 520 \times 220 mm$		30 kW @ 40°C ; 33 kW @ 35°C
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Power Factor (Adjustable)0.8 lead - 0.8 lagSurge ProtectionType II SPDT.H.D< 3%		50 / 60 Hz ± 5 Hz
Surge ProtectionType II SPDT.H.D< 3%		0.8 lead - 0.8 lag
T.H.D < 3%		Type II SPD
Night Time Consumption ²⁾ < 2 W		
Night Time Consumption ²⁾ < 2 W	AC Connection Type	Plug Type, Cable Size 16 - 25 mm ²
Peak Efficiency 98.6% Euro Efficiency 98.2% Information Communication Port RS-485 / Wi-Fi (optional: SUB_1G) Dispaly LED (Grid, Alarm, Comm.) Certification Ele C 62109-1/-2 CNS 15382 VDE-AR-N 4105 EN/IEC 61000-6-1/-2 IEC 62920 CNS 15426-1/-2 VDE-AR-N 4110 EN/IEC 61000-6-3/-4 General Data Protection Arc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detection Features Night time Anti-PID, String current monitoring, IV curve scanning, Night time reactive power Operating Temp. Range -25 to +60°C (derating > 40°C) Protection Level IP66 Operating Elevation < 4000 m	Night Time Consumption ²⁾	
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Euro Efficiency 98.2% Information RS-485 / Wi-Fi (optional: SUB_1G) Dispaly LED (Grid, Alarm, comm.) Certification IEC 62109-1/-2 CNS 15382 VDE-AR-N 4105 EN/IEC 61000-6-1/-2 IEC 62920 CNS 15426-1/-2 VDE-AR-N 4110 EN/IEC 61000-6-3/-4 General Data IEC 62109-1/-2 CNS 15382 VDE-AR-N 4105 EN/IEC 61000-6-3/-4 Protection Arc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detection Features Night time Anti-PID, String current monitoring, IV curve scanning, Night time reactive power Operating Temp. Range -25 to +60°C (derating > 40°C) Protection Level IP66 Operating Elevation Natural Cooling Noise 45.9 dBA @1m, Amb25°C Dimension (W x H x D) 651 x 520 x 220 mm	Peak Efficiency	98.6%
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IEC 62920 CNS 15426-1/-2 VDE-AR-N 4110 EN/IEC 61000-6-3/-4 General Data Arc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detection Protection Arc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detection Features Night time Anti-PID, String current monitoring, IV curve scanning, Night time reactive power Operating Temp. Range -25 to +60°C (derating > 40°C) Protection Level IP66 Operating Elevation < 4000 m Cooling Natural Cooling Noise 45.9 dBA@1m, Amb25°C Dimension (W x H x D) 651 x 520 x 220 mm	Certification	
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Operating Temp. Range -25 to +60°C (derating > 40°C) Protection Level IP66 Operating Elevation < 4000 m	Protection	Arc fault detection, DC reverse polarity detection, Leakage current protection, Insulation resistance detection
Protection Level IP66 Operating Elevation < 4000 m	Features	Night time Anti-PID, String current monitoring, IV curve scanning, Night time reactive power
Operating Elevation < 4000 m	Operating Temp. Range	-25 to +60°C (derating > 40°C)
Cooling Natural Cooling Noise 45.9 dBA @1m, Amb25°C Dimension (W x H x D) 651 x 520 x 220 mm	Protection Level	IP66
Noise 45.9 dBA @1m, Amb25°C Dimension (W x H x D) 651 x 520 x 220 mm	Operating Elevation	< 4000 m
Dimension (W x H x D) 651 x 520 x 220 mm	Cooling	Natural Cooling
	Noise	45.9 dBA @1m, Amb25°C
Weight 42 kg	Dimension (W x H x D)	651 x 520 x 220 mm
	Weight	42 kg

1) 30 kW

2) Night time consumption with standby communication

*All specifications are subject to change without prior notice



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