

Fronius TAURO 50-3-D (3MPPT, DC/AC OVP 1+2)

Product code: F.Fronius.3F.wifi.00500-Tauro-3-D



Manufacturer	FRONIUS
Inverter type	On-grid
Inverter phases	3
Max. AC power	50000
Output power	50000
MPPT	3
WIFI	Nie
Ethernet	Yes
Compatible optimizers	Tigo
Warranty	7
CN code number	85044086
Quantity per pallet	4
Country of origin	Austria
Weight	111
Width	75
Height	110
Depth	35

Three-phase Fronius Tauro inverter with a power of 50 kW ensures unparalleled performance even in the most demanding operating conditions. Its advanced hardware concept not only minimizes Balance of System (BOS) costs but also opens up new possibilities for flexible system design. The Fronius Tauro 50-3-D inverter enables complex implementations both in centralized (P variant) and distributed (D variant) forms for advanced rooftop installations. Easy installation and rapid service guarantee the highest level of safety among available market solutions. *BOS costs (Balance of System) include all additional expenses, such as wiring, DC boxes, distribution boards, etc. The Fronius Tauro 50-3-D is designed to achieve excellent results.

Product variants

Index	Price
Fronius TAURO 50-3-D (3MPPT, DC/AC OVP 1+2) F.Fronius.3F.wifi.00500-Tauro-3-D	Product prices only visible after login. If you do not have an account, please register.

Product description

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The Fronius Tauro 50-3-D is designed to achieve excellent results.

Key features of the TAURO 50-3-D inverter:

Flexibility in installation design

Maximum performance even up to 50°C

Direct sunlight

Cost optimization

Active cooling with double walls

Exchangeable power modules

Made in Austria / EU

Technical data of the TAURO ECO 50-3-D inverter

INPUT DATA

Number of MPP trackers: 3

Max. input current (I_{dc max_inverter}): 134 A

Range of DC input voltages (U_{dc min} - U_{dc max}): 400 - 870 V

Start-up voltage (U_{dc start}): 200 V

Max. PV generator power (P_{dc max}): 75 kW_{peak}

Max. input current PV1 (I_{dc max, PV1}): 36 A

Max. input current PV2 (I_{dc max, PV2}): 36 A

Max. input current PV3 (I_{dc max, PV3}): 72 A

Max. short-circuit current PV1 (I_{sc max, PV1}): 72 A

Max. short-circuit current PV2 (I_{sc max, PV2}): 72 A

Max. short-circuit current PV3 (I_{sc max, PV3})*: 125 A

Max. PV installation power PV1 (P_{dc max, PV1}): 25 kW_{peak}

Max. PV installation power PV2 (P_{dc max, PV2}): 25 kW_{peak}

Max. PV installation power PV3 (P_{dc max, PV3}): 50 kW_{peak}

Max. inverter short-circuit current (I_{sc max, inverter}): 240 A

Max. string short-circuit current (I_{sc max, String}): 20 A

Max. string input current (I_{dc max, String}): 14.5 A

Number of DC connections PV1: 4

Number of DC connections PV2: 3

Number of DC connections PV3: 7

Max. string short-circuit current - version 30 A: 30 A

Max. string input current - version 30 A: 22 A

Number of DC connections PV1 - version 30 A: 4

Number of DC connections PV2 - version 30 A: 5

Number of DC connections PV3 - version 30 A: 5

OUTPUT DATA

AC nominal power (P_{ac, r}): 50 kW

Max. output power (P_{ac max}): 50 kVA

AC output current (I_{ac nom}): 75.8A at 220Vac, 72.5A at 230Vac

Grid connection (U_{ac, r}): 3~ NPE 380/220, 3~ NPE 400/230 V

AC voltage range (Umin - Umax): 180 - 270 V
Frequency (fr): 50/60 Hz
Frequency range (fmin - fmax): 45 - 65 Hz
Non-linear distortion factor <3% @Pnom (230/400VAC 50Hz)
Power factor (cos φac, r) 1 ind./cap.

GENERAL DATA

Dimensions Length 1109 mm
Dimensions / width: 755 mm
Dimensions (depth): 346.2 mm
Weight: 92 kg
Weight with packaging: 111 kg
Protection class: IP65
Protection class: 1
Surge category (DC/AC) 1): 2 / 3
Night energy consumption: 15 W
Installation: Installation inside and outside buildings 4)
Ambient temperature range: -40°C - +65°C (optional AC disconnect mounted inside the inverter: from -30
Permissible air humidity: 0-100 %
Maximum height above sea level 2): 4000 m
Inverter construction concept: Transformerless
Cooling: Active Cooling Technology and Double-Wall System
Noise emission: 68.4 dB(A)

PROTECTION

DC insulation measurement: Integrated
Behavior in case of overload: Shift of operating point, power limiter 5)
DC disconnect: Integrated
Integrated RCMU: Integrated
Surge protection: Type 1 + 2 integrated, type 2 optional 6)
Fuse protection: Integrated, 15 A or 20 A

AC CONNECTION TECHNOLOGY

Cable diameter: 35 - 240 mm²
Conductor material: Al; Cu
Connection terminals: Cable lug or V-type terminals
Single-core option (single-core cable): Cable gland: 5 × M40 (10 - 28 mm)
Multi-core option (multi-core cable): Cable gland: 1 × Multi Core Ø 16-61.4 mm + 1 × M32 (10 - 25 mm)
AC chain connection option (single-core wire): Cable gland: 10 × M32 (10 - 25 mm)

DC CONNECTION TECHNOLOGY

Cable diameter: 4 - 6 mm²
Conductor material: Cu
Connection terminals: Direct DC connection, Stäubli Multi Contact MC4

Fronius TAURO 50-3-D products come with a standard two-year warranty, which can be extended free of charge to 5 years by simple registration on the Fronius Solar.web portal.

Registering the inverter on Solar.web offers many benefits, including:

- Warranty protection for up to 5 years for registered products.
- Free monitoring of the photovoltaic system's performance on the Fronius Solar.web portal.
- Regular information about new features, accessories, compatible batteries, and solutions for home automation.