

## Fronius Tauro ECO 50-3-D, (1MPPT)

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



Manufacturer	<b>FRONIUS</b>
Inverter type	<b>On-grid</b>
Inverter phases	<b>3</b>
Max. AC power	<b>50000</b>
Output power	<b>50000</b>
Circuit breaker value	<b>100</b>
MPPT	<b>1</b>
WIFI	<b>Tak</b>
Ethernet	<b>Yes</b>
Compatible optimizers	<b>Tigo</b>
Warranty	<b>7</b>
CN code number	<b>85044086</b>
Quantity per pallet	<b>4</b>
Country of origin	<b>Austria</b>
Weight	<b>111</b>
Width	<b>75</b>
Height	<b>110</b>
Depth	<b>35</b>

Fronius TAURO ECO 50-3-D, with a power class of 50.0 and 100.0 kW, is a three-phase inverter that ensures high performance even in challenging conditions. Thanks to intelligent hardware solutions, it enables the optimization of BOS (Balance of System) costs and offers remarkable flexibility in system design. Additionally, emphasis is placed on ease of installation and quick servicing, guaranteeing maximum safety. The whole is summed up with the slogan "Fronius Tauro. Designed to perform."

## Product variants

Index	Price
<b>Fronius Tauro ECO 50-3-D, (1MPPT)</b> F.Fronius.3F.wifi.00500-Tauro-ECO-3-D	Product prices only visible after login. If you do not have an account, please register.

## Product description

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performance even in challenging conditions. Thanks to intelligent hardware solutions, it enables the optimization of BOS (Balance of System) costs and offers remarkable flexibility in system design. Additionally, emphasis is placed on ease of installation and quick servicing, guaranteeing maximum safety. The whole is summed up with the slogan "Fronius Tauro. Designed to perform."

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

Flexibility in installation design  
Maximum performance even up to 50°C  
Direct solar radiation  
Cost optimization  
Active cooling with double walls  
Exchangeable power modules  
Manufactured in Austria / EU

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

#### INPUT DATA

Number of MPP trackers:1  
Max. input current (I<sub>dc max\_inverter</sub>):87.5 A  
DC input voltage range (U<sub>dc min</sub> - U<sub>dc max</sub>):580 - 1000 V  
Start-up voltage (U<sub>dc start</sub>):650 V  
MPP voltage range (U<sub>mpp min</sub> - U<sub>mpp max</sub>):580 - 930 V 9)  
Max. photovoltaic generator power (P<sub>dc max</sub>):75 kW<sub>peak</sub>  
Max. input current PV1 (I<sub>dc max, PV1</sub>):75 A  
Max. input current PV2 (I<sub>dc max, PV2</sub>):75 A  
Max. short-circuit current PV1 (I<sub>sc max, PV1</sub>):125 A  
Max. short-circuit current PV2 (I<sub>sc max, PV2</sub>):125 A  
Max. PV installation power PV1 (P<sub>dc max, PV1</sub>):60 kW<sub>peak</sub>  
Max. PV installation power PV2 (P<sub>dc max, PV2</sub>):60 kW<sub>peak</sub>  
Max. inverter short-circuit current (I<sub>sc max, inverter</sub>):178 A  
Max. string short-circuit current (I<sub>sc max, String</sub>):20 A  
Max. string input current (I<sub>dc max, String</sub>):14.5 A  
Number of DC connectors PV1:7  
Number of DC connectors PV2:7  
Max. string short-circuit current - version 30 A:30 A  
Max. string input current - version 30 A:22 A  
Number of DC connectors PV1 - version 30 A:4  
Number of DC connectors PV2 - version 30 A:5

#### OUTPUT DATA

AC nominal power (P<sub>ac,r</sub>):50 kW  
Max. output power (P<sub>ac max</sub>):50 kVA  
AC output current (I<sub>ac nom</sub>):75.8A at 220Vac , 72.5A at 230Vac  
Grid connection (U<sub>ac,r</sub>):3~ NPE 380/220 , 3~ NPE 400/230 V  
AC voltage range (U<sub>min</sub> - U<sub>max</sub>):180 - 270 V  
Frequency (fr):50 / 60 Hz  
Frequency range (f<sub>min</sub> - f<sub>max</sub>):45 - 65 Hz  
Nonlinear distortion factor <3% @P<sub>nom</sub> (230/400VAC 50Hz)  
Power factor (cos φ<sub>ac,r</sub>)0 - 1 inductive/capacitive,

#### GENERAL DATA

Dimensions / width:1109 mm  
Dimensions / height:755 mm

Dimensions / depth:346 mm  
Weight:74 kg  
Weight with packaging:92 kg  
Protection degree:IP65  
Protection class:1  
Surge category (DC/AC) 1)2 / 3  
Night-time energy consumption:15W  
Mounting:Mounting inside and outside buildings 4)  
Ambient temperature range:-40°C - +65°C (optional AC disconnect switch installed inside inverter: from -30 to +65 °C)  
Allowed air humidity:0 - 100 %  
Max. altitude above sea level:4000  
Certificates and standards met:VDE-AR-N 4105, VDE-AR-N 4110, IEC 62109-1/-2, IEC 62116, IEC 61727 R25, AS/NZS 4777, CEI 0-16, CEI 0-21, EN 50549-1/-2, VDE 0126-1-1 8)  
Inverter construction concept:Transformerless  
Cooling:Active Cooling Technology and double-wall construction  
Noise emission:68.5 dB(A)

#### PROTECTIONS

DC insulation measurement:Integrated  
Overload behavior: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 for strings:Integrated, 15 A or 20 A  
Arc Fault Detection — AFCI (Fronius Arc Guard):Integrated (only for 20 A option)

#### AC CONNECTION TECHNOLOGY

Cable diameter:35 - 240 mm<sup>2</sup>  
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 string connection option (single-core cable):Cable gland: 10 × M32 (10 - 25 mm)

#### DC CONNECTION TECHNOLOGY

Cable diameter:4 - 6 mm<sup>2</sup>  
Conductor material:Cu  
Connection terminals:Direct DC connection, Stäubli Multi Contact MC4

Fronius products come with a two-year factory warranty, which can be extended to 5 years free of charge by registering on the Fronius Solar.web portal.

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

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