

FRONIUS TAURO

Hard shell, smart core.



PRELIMINARY DATA



System design flexibility



Max. performance up to 50°C



Direct sunlight



Optimizing costs



Active Double Wall Cooling



Power stage replacement

The three-phase Fronius Tauro in the 50 and 100 kW power classes promises maximum performance even under the harshest conditions.

With its smart hardware design, it offers not just BOS cost optimization but unprecedented flexibility in system design. Simple installation and the fastest service on the market ensure maximum yield.

TECHNICAL DATA FRONIUS TAURO

INPUT DATA	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
Number of MPP trackers		1
Max. input current ($I_{dc \max}$)	87.5 A	175 A
Max. array short circuit current		75 A
DC input voltage range ($U_{dc \min} - U_{dc \max}$)		580 - 1000 V
Feed-in start voltage ($U_{dc \text{ start}}$)		650 V
Usable MPP voltage range ($U_{mpp \min} - U_{mpp \max}$)		580 - 930 V
Number of DC connections (PV1 / PV2 / PV3)	7 / 7 / -	7 / 7 / 8
Max. PV generator power ($P_{dc \max}$)	75 kW _{peak}	150 kW _{peak}

OUTPUT DATA	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
AC nominal output ($P_{ac,n}$)	50,000 W	100,000 W
Max. output power	50,000 VA	100,000 VA
AC output current ($I_{ac \text{ nom}}$)	76 A	152 A
Grid connection ($U_{ac,n}$)	3~ NPE 400/230 V ; 3~ NPE 380/220 V	
Frequency (frequency range $f_{\min} - f_{\max}$)	50 Hz / 60 Hz (45 - 65 Hz)	
Power factor ($\cos \phi_{ac,n}$)	0 - 1 ind. / cap.	

GENERAL DATA	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
Dimensions (height x width x depth)	755 x 1109 x 346 mm (without wall mount)	
Weight	72 kg	101 kg
Degree of protection	IP 65	
Protection class	1	
Night-time consumption	< 16 W	
Cooling	Active cooling technology and double wall system	
Installation	Indoor and outdoor ¹	
Ambient temperature range	- 40 to + 65 °C ²	
DC connection technology	DC direct connection: Stäubli Multi contact MC4	

¹ Direct under the sun is possible

² Optional AC-disconnect mounted inside the inverter: from - 25 to + 65 °C

TECHNICAL DATA FRONIUS TAURO

AC CONNECTION TECHNOLOGY	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
Cable diameter	35 - 240mm ²	70 - 240mm ²
AC conductor material	Al and Cu	
Connection terminals	Cable lug or V clamps	
Single core option (single core cable)	Cable gland: 5 x M40	
Multi core option (multi core cable)	Cable gland: 1 x multi core connection Ø 16 - 61.4 mm + 1 x M32	
AC Daisy Chaining option (single core cable)	Cable gland: 10 x M32	

EFFICIENCY	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
Max. efficiency	98.5 %	98.6 %
European efficiency (η _{EU})	97.8 %	
MPP adaptation efficiency	< 99.9 %	

PROTECTION DEVICES	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
DC disconnect	integrated	
Overload behaviour	Operating point shift, power limitation	
Reverse polarity protection	integrated	
RCMU	integrated	
DC insulation measurement	integrated	
DC surge protection	Type 1 + 2 integrated, Type 2 optional	
DC string fusing	integrated, 15 A or 20 A	

INTERFACES	FRONIUS TAURO ECO 50-3-D	FRONIUS TAURO ECO 100-3-D
Wi-Fi	Fronius Solar.web, Modbus TCP Sunspec, Fronius Solar API (JSON)	
2x Ethernet LAN RJ45	10/100Mbit; max. 100m Fronius Solar.web, Modbus TCP Sunspec, Fronius Solar API (JSON)	
USB (type A socket)	1A @5V max. ³	
Wired Shutdown (WSD)	Emergency stop	
2x RS485	Modbus RTU SunSpec meter/battery connection	
6 digital inputs / 6 digital I/Os	Programmable interface for ripple control receiver, energy management, load control	
Datalogger and Webserver	Integrated	

³ for power supply only

/ Perfect Welding / Solar Energy / Perfect Charging

THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 4,760 employees worldwide and 1,253 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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