



**BUREAU  
VERITAS**

# Certificate of compliance

**Applicant:** **Fronius International GmbH**  
Günter Fronius Strasse 1  
4600 Wels-Thalheim  
**Austria**

**Product:** **Grid-tied photovoltaic (PV) inverter**

**Model:** Tauro ECO 100-3-P  
Tauro ECO 100-3-D  
Tauro ECO 99-3-P  
Tauro ECO 99-3-D  
Tauro ECO 50-3-P  
Tauro ECO 50-3-D

**Use in accordance with regulations:**

The inverters are tested according the EN 50530:2010, DIN EN 50530 (VDE 0126-12):2011, DIN IEC 62891:2015; EN 50530:2013, DIN IEC 62891:2020 procedure for measuring efficiency.

**Applied rules and standards:**

**EN 50530:2010, DIN EN 50530 (VDE 0126-12):2011, DIN IEC 62891:2015; EN 50530:2013, DIN IEC 62891:2020**  
Overall efficiency of grid connected photovoltaic inverters

At the time of issue of this certificate the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

**Report number:** 20TH0258-EN50530\_1  
**Certificate number:** U20-0840

**Certification program:** NSOP-0032-DEU-ZE-V01  
**Date of issue:** 2020-10-26



Certification body of Bureau Veritas Consumer Products Services Germany GmbH accredited according to DIN EN ISO/IEC 17065

A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH

**Measuring of efficiency**

Extract from test report according the EN 50530

Nr. 20TH0258-EN50530\_1

Static Power Conversion Efficiency measurement conditions test results											
TAURO ECO 100-3-P - Internal AUX Supply											
MPP voltage of the simulated I-U characteristics of the PV-generator		Temperature 25°C									
		Simulated I-U characteristics of photovoltaic module: cSi technology									
		P <sub>AC</sub> / P <sub>DC,r</sub> [p.u.]								EU/CEC-weighted efficiency	
		0,05	0,10	0,20	0,25	0,30	0,50	0,75	1,00	EU	CEC
		[%]									
V <sub>MPP,min</sub> [V]	580	95,4	96,1	98,4	98,5	98,6	98,7	98,6	98,4	98,34	98,50
V <sub>MPP,nominal</sub> [V]	755	91,0	92,9	97,7	97,8	98,0	98,4	98,4	98,3	97,70	98,09
V <sub>MPP,max</sub> [V]	930	89,5	91,1	96,8	97,0	97,5	98,1	98,2	98,1	97,19	97,74
<b>Note:</b>											

Static Power Conversion Efficiency measurement conditions test results											
TAURO ECO 50-3-P - Internal AUX Supply											
MPP voltage of the simulated I-U characteristics of the PV-generator		Temperature 25°C									
		Simulated I-U characteristics of photovoltaic module: cSi technology									
		P <sub>AC</sub> / P <sub>DC,r</sub> [p.u.]								EU/CEC-weighted efficiency	
		0,05	0,10	0,20	0,25	0,30	0,50	0,75	1,00	EU	CEC
		[%]									
V <sub>MPP,min</sub> [V]	580	95,4	96,4	97,8	98,1	98,3	98,6	98,7	98,7	98,26	98,44
V <sub>MPP,nominal</sub> [V]	755	91,6	93,6	96,7	97,2	97,6	98,0	98,3	98,4	97,42	97,89
V <sub>MPP,max</sub> [V]	930	89,4	91,5	93,2	96,0	96,6	97,4	98,0	98,1	96,32	97,21
<b>Note:</b>											

**Measuring of efficiency**

Extract from test report according the EN 50530

Nr. 20TH0258-EN50530\_1

Dynamic MPPT Efficiency measurement conditions test results		
<b>TAURO ECO 100-3-P</b>		
<b>Dynamic MPPT-Test 10%-50%</b>		
Slope (W/m <sup>2</sup> )	Ramp (s)	Efficiency (%)
0,5	800	98,67
1	400	98,68
2	200	98,66
3	133	98,66
5	80	98,65
7	57	98,65
10	40	98,93
14	29	98,64
20	20	98,67
30	13	98,57
50	8	98,74
<b>Overall efficiency:</b>		<b>98,68</b>
<b>Dynamic MPPT-Test 30%-100%</b>		
Slope (W/m <sup>2</sup> )	Ramp (s)	Efficiency (%)
10	70	98,56
14	50	99,04
20	35	98,58
30	23	98,60
50	14	98,66
100	7	98,59
<b>Overall efficiency:</b>		<b>98,67</b>

**Measuring of efficiency**

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**Dynamic MPPT Efficiency measurement conditions test results**

**TAURO ECO 50-3-P**

**Dynamic MPPT-Test 10%-50%**

Slope (W/m <sup>2</sup> )	Ramp (s)	Efficiency (%)
0,5	800	98,20
1	400	98,13
2	200	97,96
3	133	97,74
5	80	97,82
7	57	97,78
10	40	97,75
14	29	97,67
20	20	97,59
30	13	97,45
50	8	98,27
<b>Overall efficiency:</b>		<b>97,85</b>

**Dynamic MPPT-Test 30%-100%**

Slope (W/m <sup>2</sup> )	Ramp (s)	Efficiency (%)
10	70	98,77
14	50	98,78
20	35	98,79
30	23	98,81
50	14	98,83
100	7	99,29
<b>Overall efficiency:</b>		<b>98,88</b>