Bureau Veritas
Consumer Products Services
Germany GmbH
Businesspark A96
86842 Türkheim
Germany
+ 49 (0) 40 740 41 – 0
cps-tuerkheim@de.bureauveritas.com

Certification body of BV CPS GmbH
Accredited according to EN 45011 -
ISO / IEC Guide 65

Certificate of compliance

Applicant: **Power-One Italy S.p.A.**
Via San Giorgio 642
52028 Terranuova Bracciolini, Arezzo
Italy

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

Model:
TRIO-20.0-TL-OUTD-400
TRIO-20.0-TL-OUTD-S2-400
TRIO-20.0-TL-OUTD-S2F-400
TRIO-20.0-TL-OUTD-S2X-400
TRIO-20.0-TL-OUTD-S1J-400
TRIO-20.0-TL-OUTD-S2J-400
TRIO-27.6-TL-OUTD-400
TRIO-27.6-TL-OUTD-S2-400
TRIO-27.6-TL-OUTD-S2F-400
TRIO-27.6-TL-OUTD-S2X-400
TRIO-27.6-TL-OUTD-S1J-400
TRIO-27.6-TL-OUTD-S2J-400

Use in accordance with regulations:

The inverter are tested according the IEC 61683:1999, EN 61683:2000, DIN EN 61683:2000 procedure for measuring efficiency.

Applied rules and standards:

IEC 61683:1999, EN 61683:2000, DIN EN 61683:2000
Photovoltaic systems – Power conditioners – Procedure for measuring efficiency

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: **14TH0151-IEC61683**
Certificate number: **U14-0286**
Date of issue: **2014-05-12**

Certification body

Dieter Zitzmann

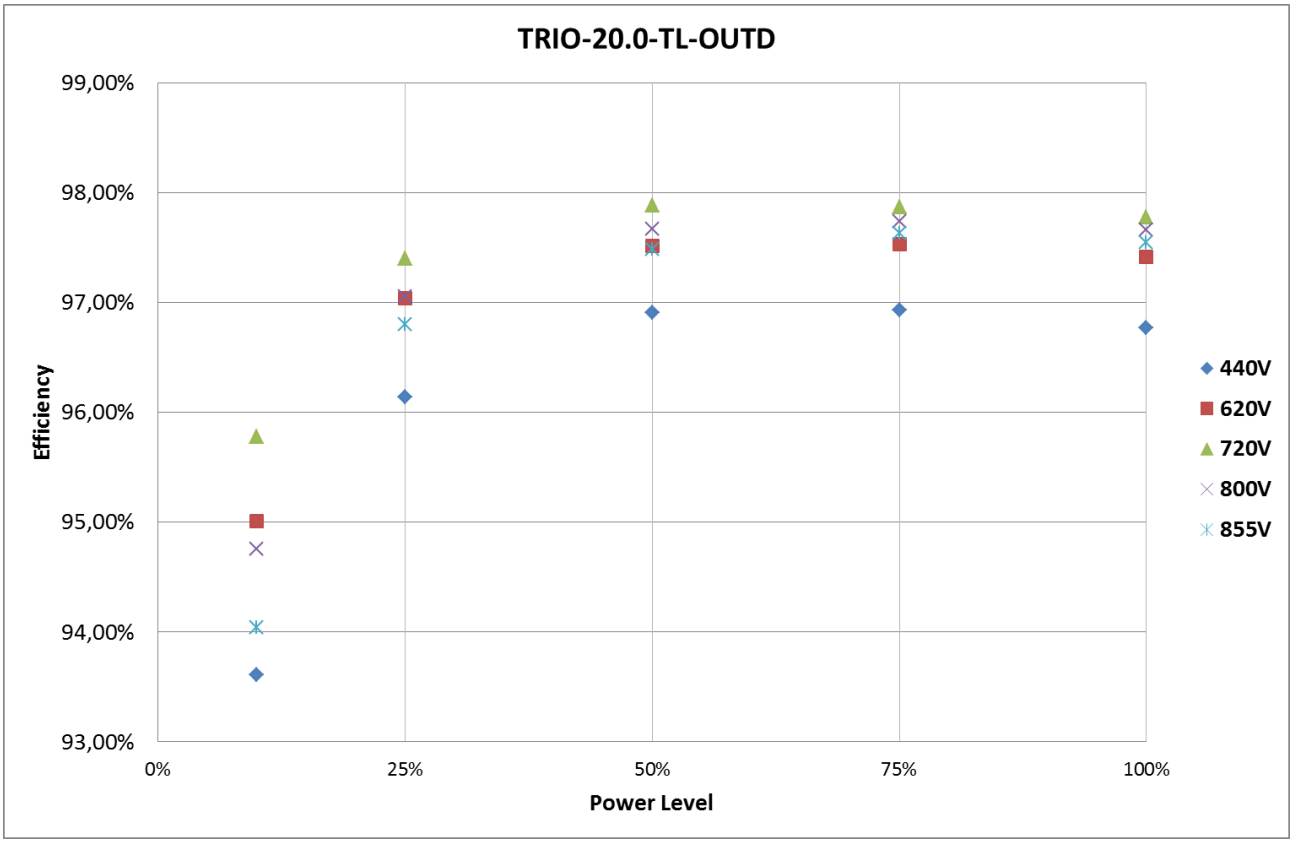
DAkkS Deutsche Akkreditierungsstelle D-ZE-12024-01-01

Measuring of efficiency

Extract from test report according the IEC 61683 **Nr. 14TH0151**

4. Efficiency measurement conditions test results

TRIO-20.0-TL-OUTD		Temperature 25°C				
Input voltage (Vdc)		Power Level				
		10%	25%	50%	75%	100%
		2000W	5000W	10000W	15000W	20000W
		η in [%]				
Vmin	440	93,61%	96,14%	96,91%	96,93%	96,77%
Vnominal	620	95,01%	97,04%	97,52%	97,53%	97,42%
Vmax (90% MPPT)	720	95,78%	97,40%	97,89%	97,87%	97,78%
Vmax (MPPT)	800	94,76%	97,06%	97,67%	97,74%	97,66%
Vmax (90%)	855	94,04%	96,80%	97,49%	97,63%	97,55%



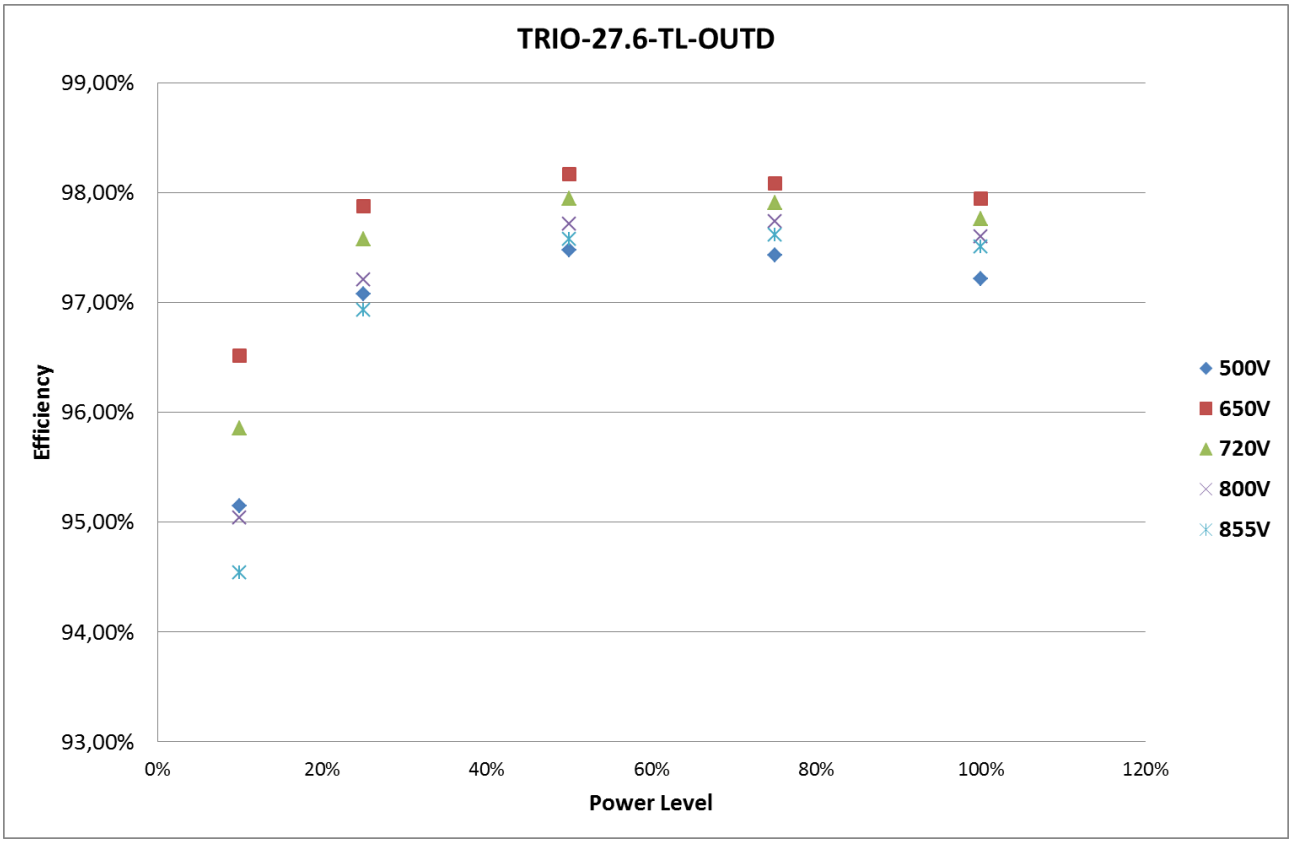
Internal power consumption via auxilary input in standby : 34,25 W (Input: 779V, 0,044A; Ouptut: 0V, 0mA)
Internal power consumption via auxilary input at maximum output power : 678W

Measuring of efficiency

Extract from test report according the IEC 61683 **Nr. 14TH0151**

4. Efficiency measurement conditions test results

TRIO-27.6-TL-OUTD		Temperature 25°C				
Input voltage (Vdc)		Power Level				
		10%	25%	50%	75%	100%
		2760W	6900W	13800W	20700W	27600W
		η in [%]				
Vmin	500	95,15%	97,08%	97,48%	97,43%	97,22%
Vnominal	650	96,52%	97,88%	98,17%	98,09%	97,95%
Vmax (90% MPPT)	720	95,86%	97,58%	97,95%	97,91%	97,76%
Vmax (MPPT)	800	95,04%	97,21%	97,72%	97,74%	97,60%
Vmax (90%)	855	94,54%	96,93%	97,58%	97,62%	97,51%



Internal power consumption via auxilary input in standby : 38,31W (Input: 815V, 0,047A; Ouptut: 0V, 0mA)

Internal power consumption via auxilary input at maximum output power : 790W