



**BUREAU
VERITAS**

Certificate of compliance

Applicant: SMA Solar Technology AG
Sonnenallee 1
34266 Niestetal
Germany

Product: Photovoltaic (PV) inverter

Model: SB3.0-1AV-41
SB3.6-1AV-41
SB4.0-1AV-41
SB5.0-1AV-41
SB6.0-1AV-41

Use in accordance with regulations:

The inverter(s) is/are tested according to the IEC 61683:1999, EN 61683:2000, DIN EN 61683:2000 procedure for measuring efficiency.

Calculation of the static conversion efficiency

SB3.0-1AV-41	97,09%
SB3.6-1AV-41	97,26%
SB4.0-1AV-41	97,31%
SB5.0-1AV-41	97,26%
SB6.0-1AV-41	97,24%

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 representative product listed above corresponds to the stated rules and standards.

Report number: 16TH0348-IEC61683_0

Certification program: NSOP-0032-DEU-ZE-V01

Certificate number: U22-0137

Date of issue: 2022-03-08

Certification body



Thomas Lammel

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

Testing laboratory accredited according to DIN EN ISO/IEC 17025

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





Appendix

Extract from test report according the IEC 61683

Nr. 16TH0348-IEC61683_0

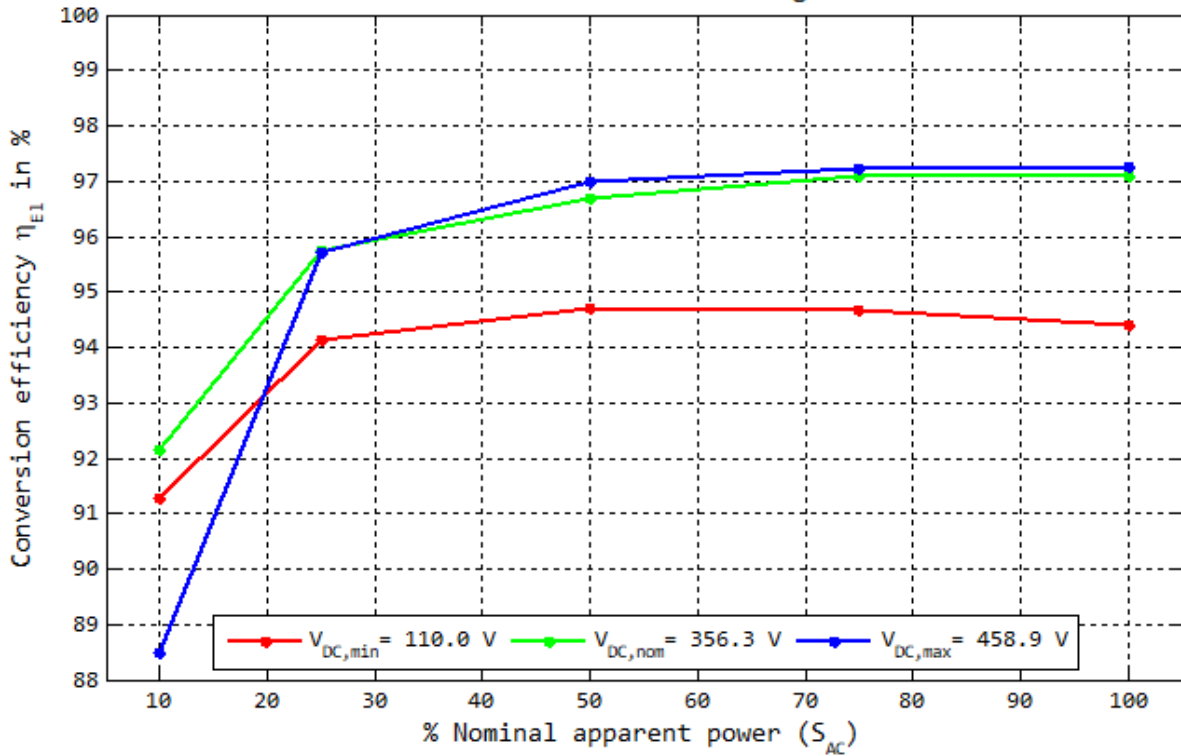
Efficiency measurement conditions test results

SB3.0-1AV-41

Power in [W] (nom. 3000W)

Input voltage [Vdc]		Power in [W] (nom. 3000W)				
		10%	25%	50%	75%	100%
		300	750	1500	2250	3000
		η in [%]				
V _{min}	110,0	91,27	94,14	94,70	94,68	94,40
V _{nominal}	356,3	92,14	95,75	96,69	97,08	97,09
V _{max (90% MPPT)}	458,9	88,48	95,70	96,98	97,24	97,26

Conversion efficiencies according to EN61683





Appendix

Extract from test report according the IEC 61683

Nr. 16TH0348-IEC61683_0

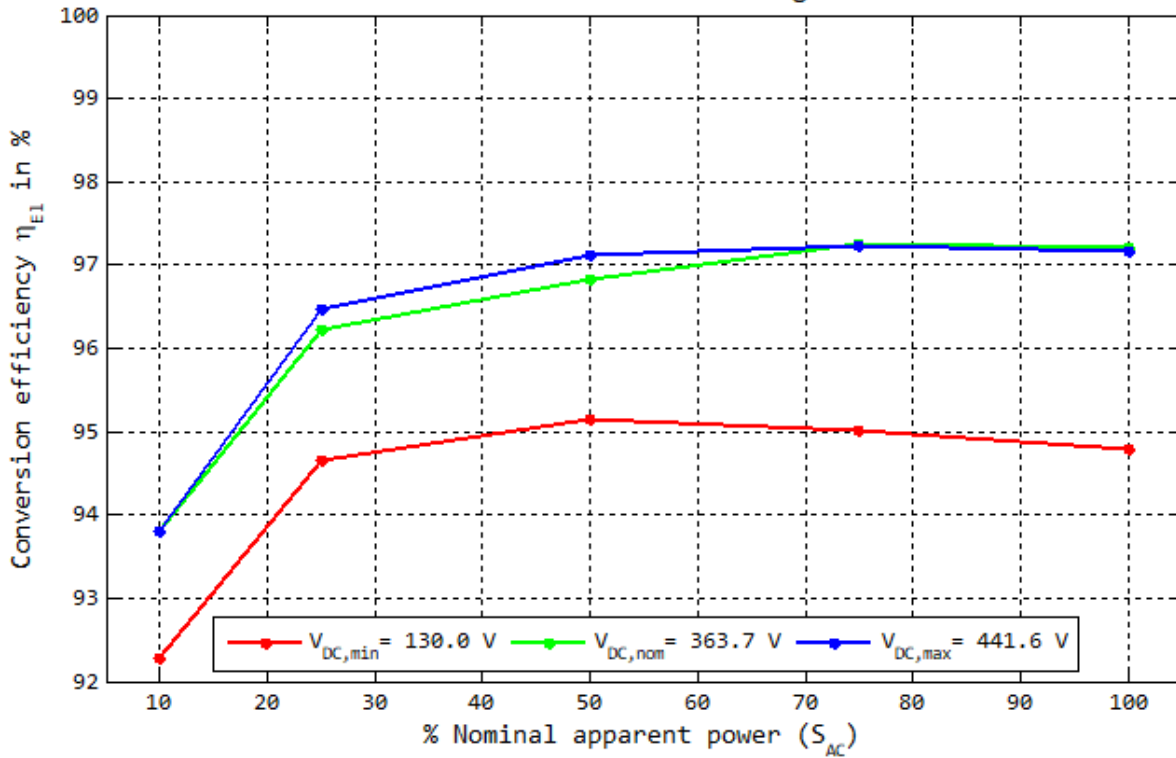
Efficiency measurement conditions test results

SB3.6-1AV-41

Power in [W] (nom. 3680W)

Input voltage [Vdc]		Power in [W] (nom. 3680W)				
		10%	25%	50%	75%	100%
		368	920	1840	2760	3680
		η in [%]				
V _{min}	130,0	92,29	94,66	95,14	95,02	94,79
V _{nominal}	363,7	93,80	94,23	96,83	97,26	97,22
V _{max (90% MPPT)}	441,6	93,79	69,47	97,12	97,22	97,17

Conversion efficiencies according to EN61683





Appendix

Extract from test report according the IEC 61683

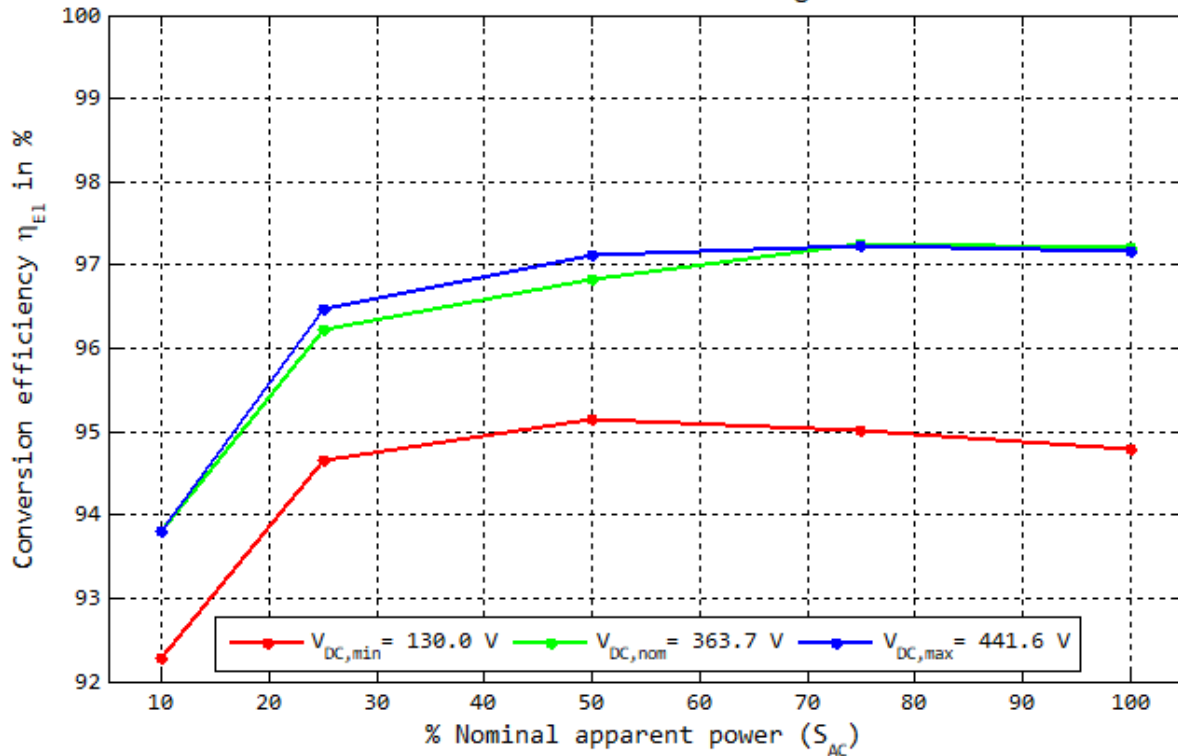
Nr. 16TH0348-IEC61683_0

Efficiency measurement conditions test results

SB4.0-1AV-41

Input voltage [Vdc]		Power in [W] (nom. 4000W)				
		10%	25%	50%	75%	100%
V_{min}	140,0	92,88	94,99	95,34	95,24	94,97
$V_{nominal}$	367,4	94,94	96,83	97,31	97,30	97,23
V_{max} (90% MPPT)	443,2	94,42	96,61	97,18	97,26	97,19

Conversion efficiencies according to EN61683





Appendix

Extract from test report according the IEC 61683

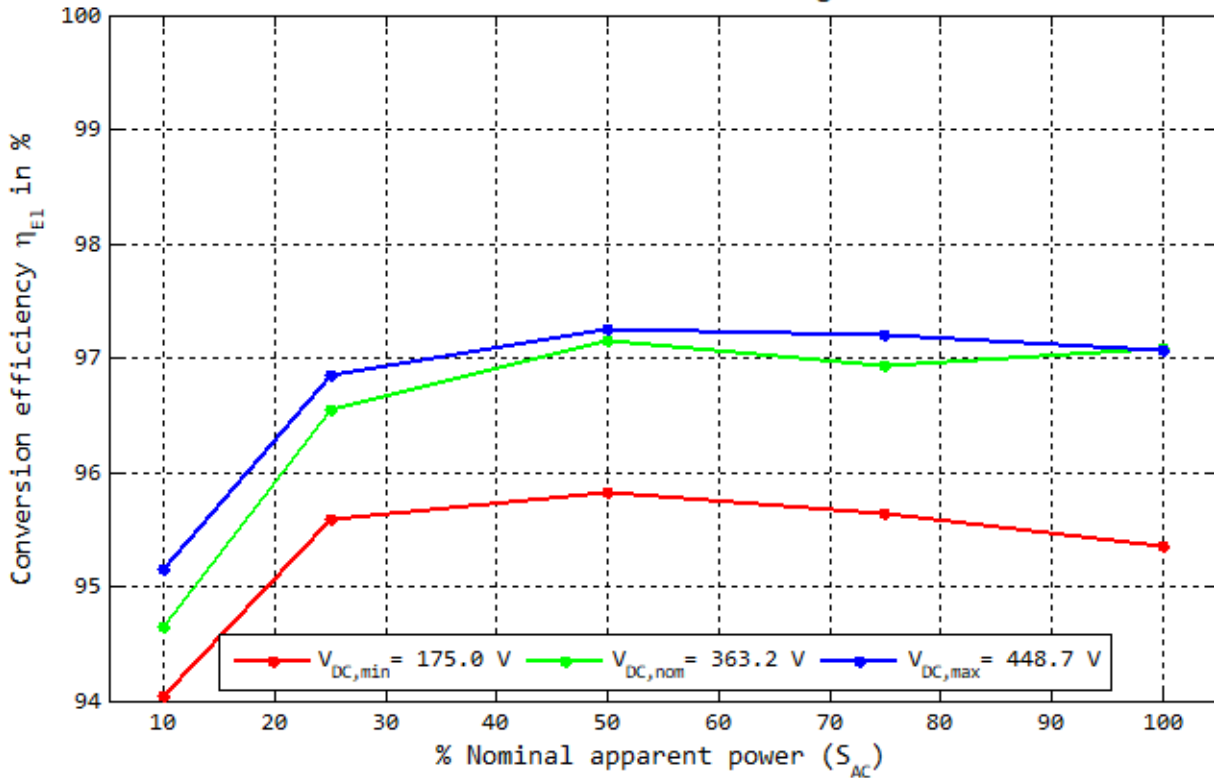
Nr. 16TH0348-IEC61683_0

Efficiency measurement conditions test results

SB5.0-1AV-41

Input voltage [Vdc]		Power in [W] (nom. 5000W)				
		10%	25%	50%	75%	100%
		500	1250	2500	3750	5000
		η in [%]				
V_{min}	175,0	94,05	95,59	95,82	95,64	95,35
$V_{nominal}$	363,2	94,65	96,55	97,16	96,94	97,09
V_{max} (90% MPPT)	448,7	95,15	96,85	97,26	97,20	97,06

Conversion efficiencies according to EN61683





Appendix

Extract from test report according the IEC 61683

Nr. 16TH0348-IEC61683_0

Efficiency measurement conditions test results

SB6.0-1AV-41

Power in [W] (nom. 6000W)

Input voltage [Vdc]		Power in [W] (nom. 6000W)				
		10%	25%	50%	75%	100%
		600	1500	3000	4500	6000
		η in [%]				
V _{min}	210,0	94,78	96,03	96,11	95,84	95,55
V _{nominal}	362,6	96,07	97,15	97,12	96,78	96,84
V _{max (90% MPPT)}	454,2	95,02	96,88	97,24	97,09	96,90

Conversion efficiencies according to EN61683

