

C E R T I F I C A T E
of Conformity



Registration No.: AK 60121785 0001

Report No.: 28110272 026

Holder: Power - One Italy S.p.A.
Via San Giorgio 642
52028 Terranuova Bracciolini AR
Italia

Product: Electrical Equipment
Solar Grid Tied Inverter

Identification: Trademark: ABB
Model: UNO-DM-X.X-TL-PLUS-XYK-JVN
X.X = 1.2; 2.0; 3.3; 4.0; 4.6; 5.0
XYK = X:or blank or "S" (DC Switch)
Y:or blank or "B" (WLAN comm.)
or "E" (WLAN comm./Ethernet board) and "K": blank
JVN = J:or blank or "X" (with UNO-DM-COM KIT)
V:or blank or "G" (with cable gland) and "N": blank

Tested acc. to: IEC 61683:1999
EN 61683:2000
CEI EN 61683:2010

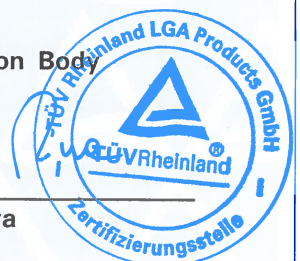
The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Date 14.07.2017

Certification Body

A handwritten signature in blue ink, appearing to read 'Marco Piva'.

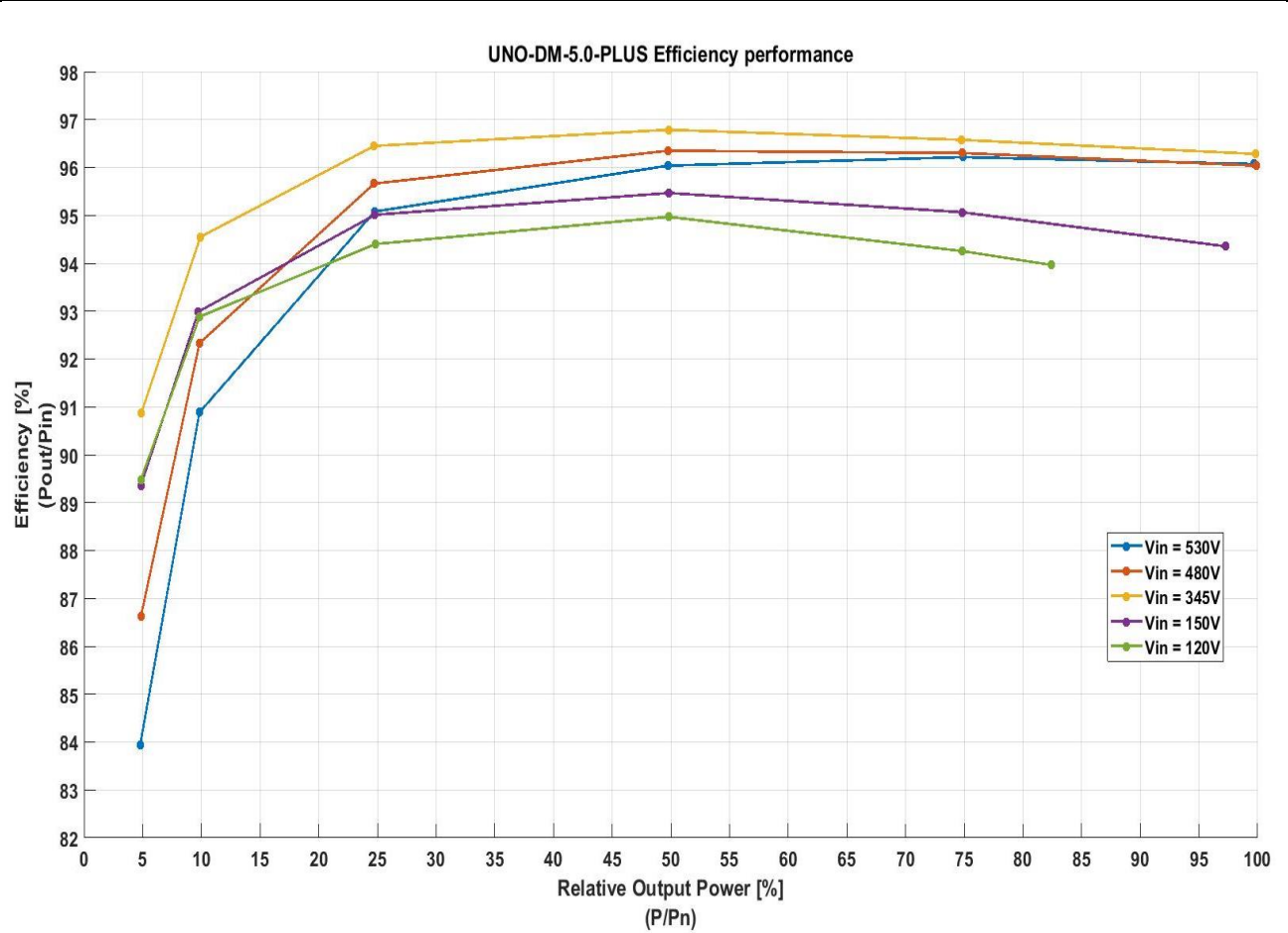
Marco Piva



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

TABLE 4.a Efficiency measurement conditions test results

MODEL:		UNO-DM-5.0-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		250	500	1250	2500	3750	5000	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	89.49	92.88	94.40	95.00	94.25	-	--
Vmin (Full Power)	150	89.35	93.00	95.01	95.47	95.06	-	--
Vnominal	345	90.87	94.55	96.45	96.79	96.58	96.28	--
Vmax (Full Power)	480	86.63	92.33	95.66	96.35	96.30	96.03	--
Vmax	530	83.95	90.88	95.08	96.04	96.22	96.07	--

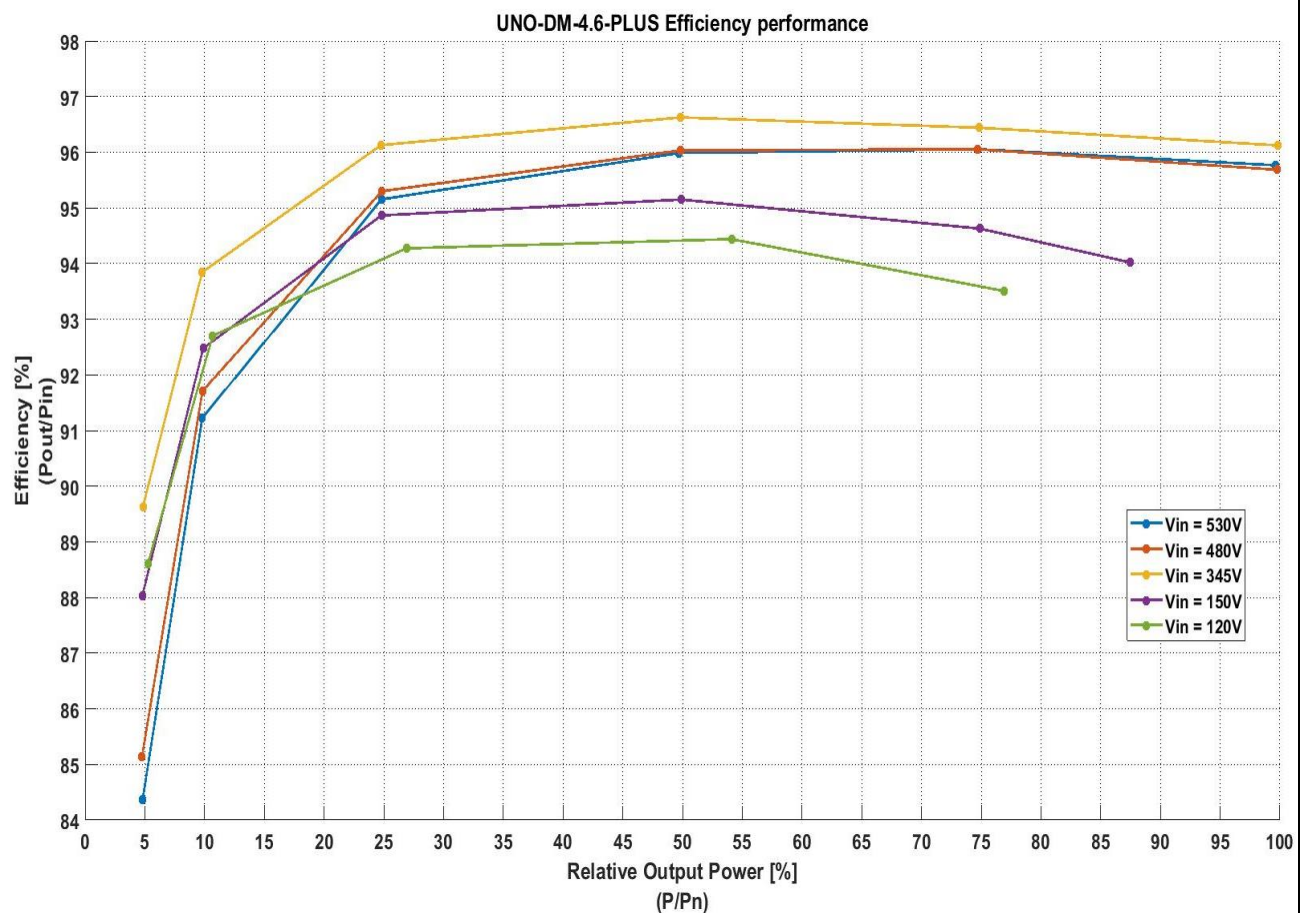


No-Load Loss
 Inverter connected to the AC main, supplied with nominal input voltage
 W1= 1.3W (AC relays opened)
 W1= 23W (AC relays closed)

Standby Loss
 Inverter connected to the AC main (AC relays opened) with no input source
 W2= 1.3mW

TABLE 4.b Efficiency measurement conditions test results

MODEL:		UNO-DM-4.6-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		230	460	1150	2300	3450	4600	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	88.61	92.70	94.27	94.44	93.51	-	--
Vmin (Full Power)	150	88.04	92.48	94.86	95.15	94.63	94.02	--
Vnominal	345	89.63	93.84	96.13	96.63	96.44	96.12	--
Vmax (Full Power)	480	85.13	91.71	95.30	96.03	96.05	95.69	--
Vmax	530	84.37	91.23	95.15	95.99	96.06	95.77	--

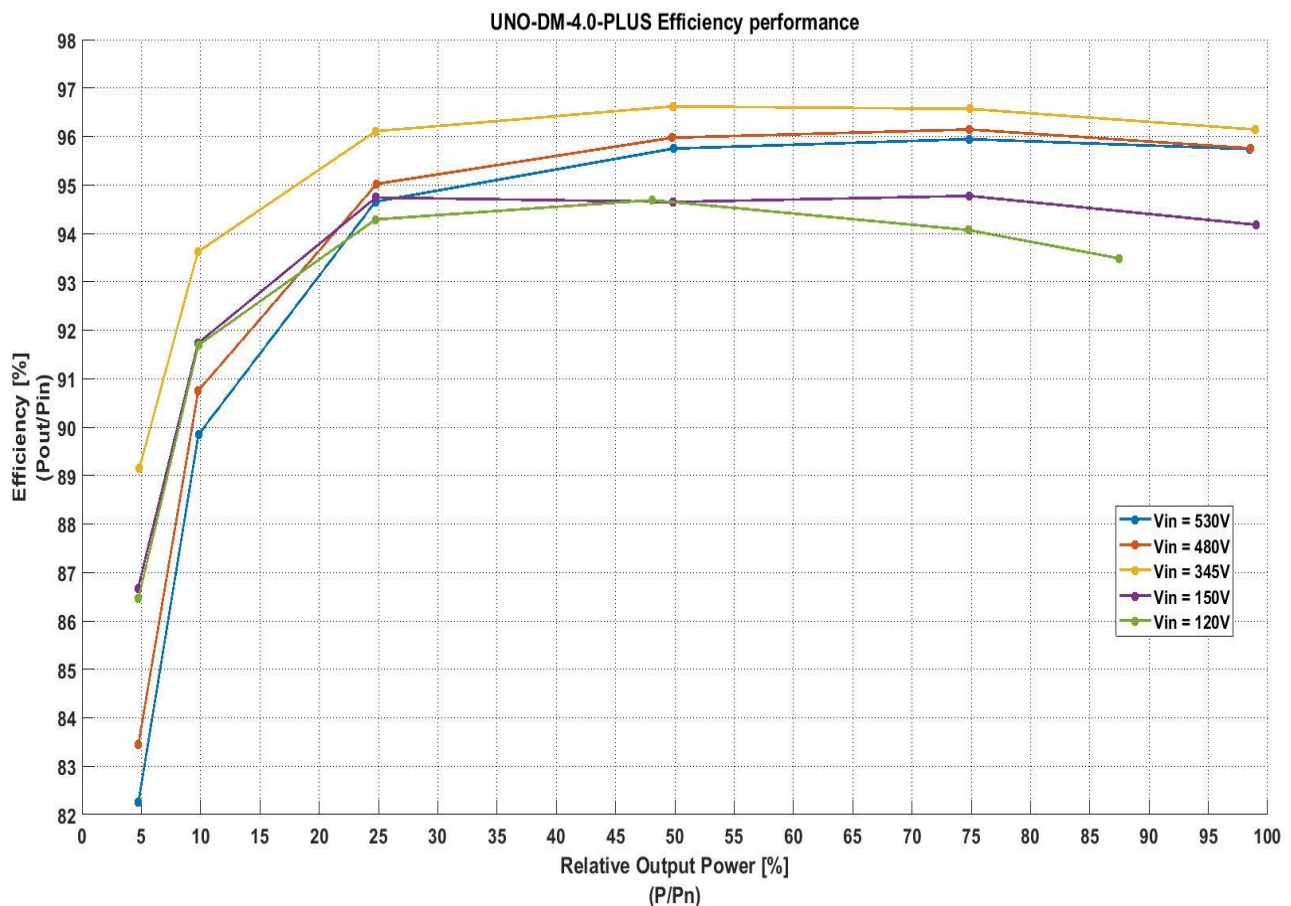


No-Load Loss
 Inverter connected to the AC main, supplied with nominal input voltage
 W1= 1.3W (AC realis opened)
 W1= 23W (AC realis closed)

Standby Loss
 Inverter connected to the AC main (AC realis opened) with no input source. W2= 1.3mW

TABLE 4.c Efficiency measurement conditions test results

MODEL:		UNO-DM-4.0-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		200	400	1000	2000	3000	4000	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	86.46	91.69	94.29	94.68	94.07	93.48	--
Vmin (Full Power)	150	86.67	91.73	94.74	94.65	94.77	94.18	--
Vnominal	345	89.14	93.62	96.11	96.62	96.57	96.14	--
Vmax (Full Power)	480	83.46	90.75	95.02	95.97	96.14	95.76	--
Vmax	530	82.26	89.84	94.66	95.75	95.95	95.74	--

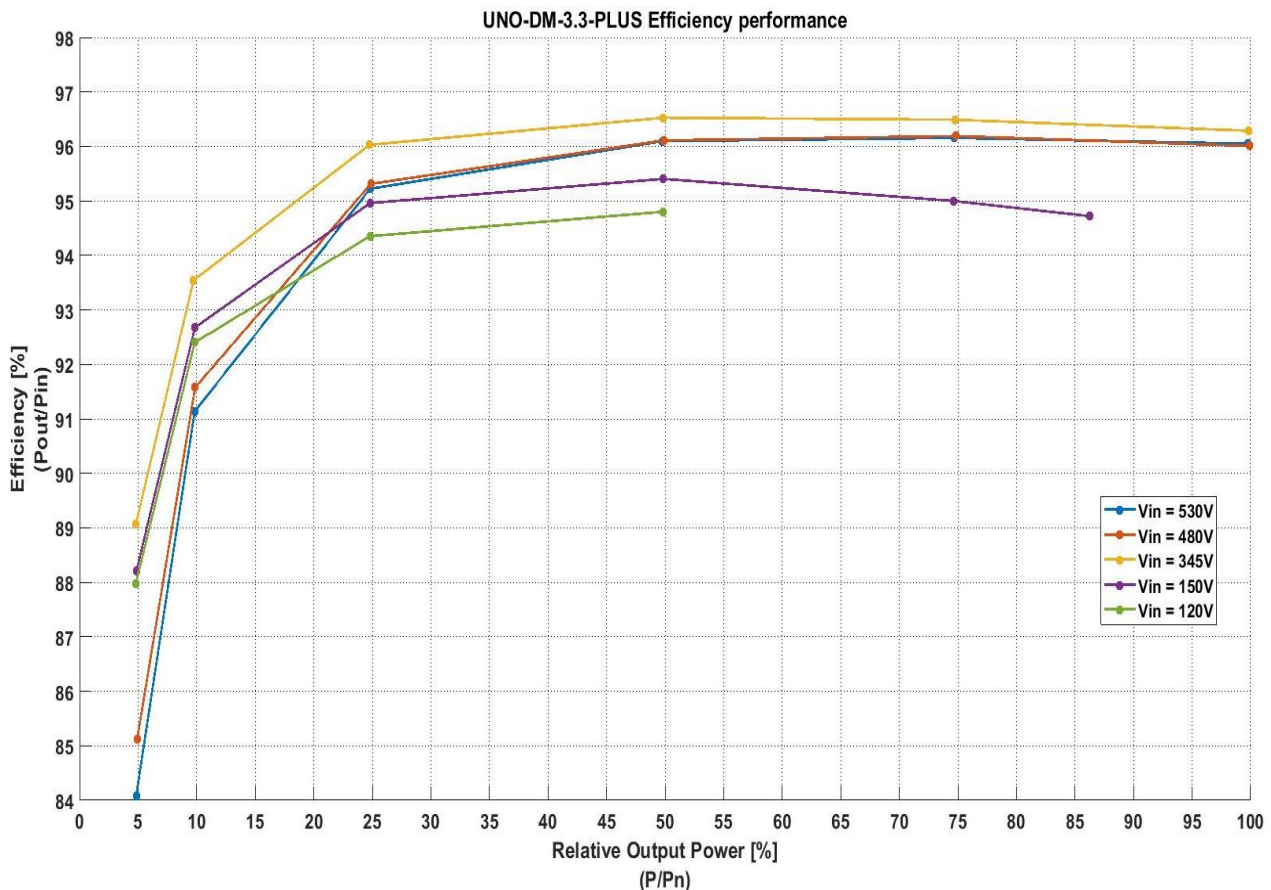


No-Load Loss
 Inverter connected to the AC main, supplied with nominal input voltage
 W1= 1.3W (AC realis opened)
 W1= 23W (AC realis closed)

Standby Loss
 Inverter connected to the AC main (AC realis opened) with no input source. W2= 1.3mW

TABLE 4.d Efficiency measurement conditions test results

MODEL:		UNO-DM-3.3-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		165	330	825	1650	2475	3300	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	87.97	92.40	94.35	94.80	-	-	--
Vmin (Full Power)	150	88.21	92.68	94.96	95.40	95.00	-	--
Vnominal	345	89.07	93.54	96.03	96.53	96.49	96.29	--
Vmax (Full Power)	480	85.12	91.58	95.31	96.11	96.19	96.01	--
Vmax	530	84.09	91.14	95.22	96.10	96.16	96.05	--

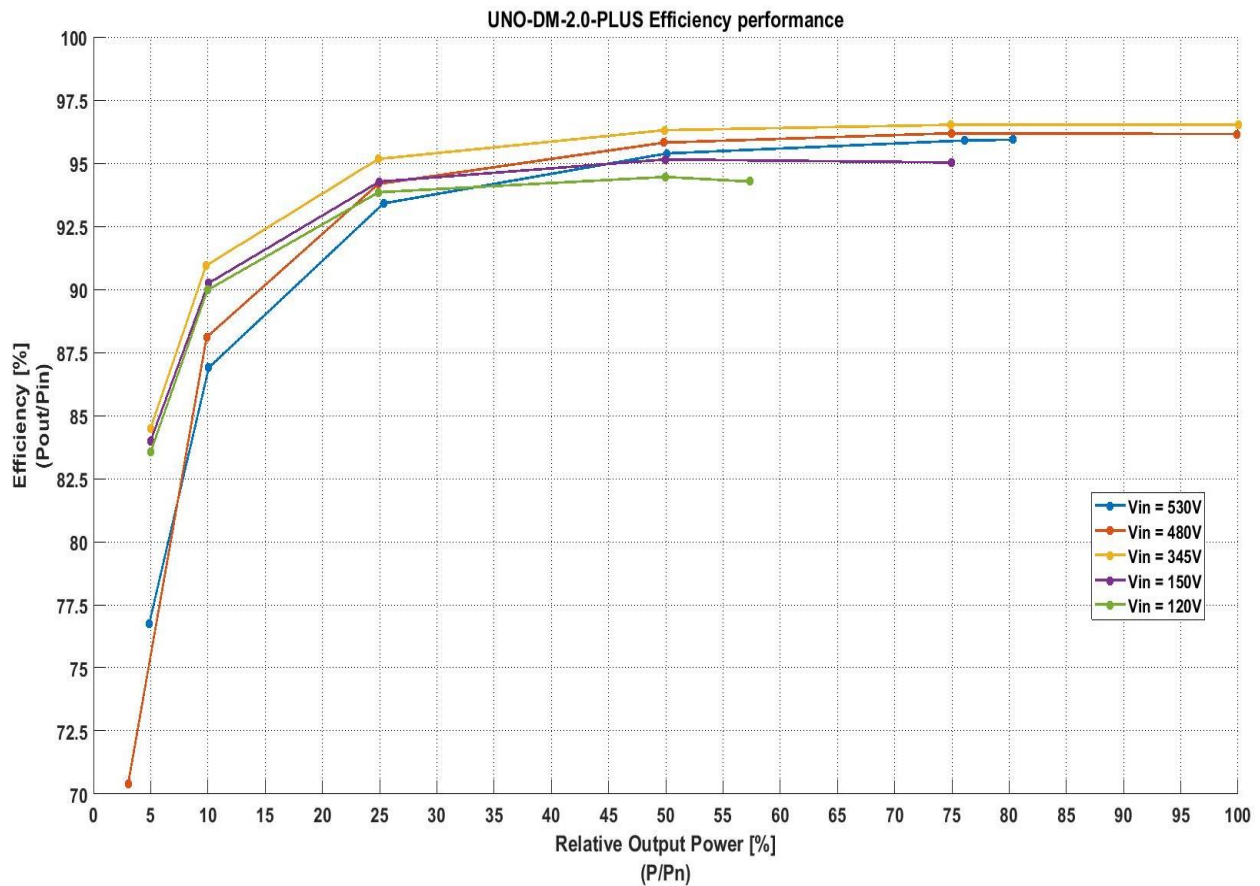


No-Load Loss
 Inverter connected to the AC main, supplied with nominal input voltage
 W1= 1.3W (AC realis opened)
 W1= 23W (AC realis closed)

Standby Loss
 Inverter connected to the AC main (AC realis opened) with no input source
 W2= 1.3mW

TABLE 4.e Efficiency measurement conditions test results

MODEL:		UNO-DM-2.0-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		100	200	500	1000	1500	2000	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	83.57	89.97	93.84	94.45	-	-	--
Vmin (Full Power)	150	83.97	90.23	94.26	95.14	95.02	-	--
Vnominal	345	84.49	90.93	95.16	96.30	96.52	96.51	--
Vmax (Full Power)	480	70.42	88.10	94.17	95.81	96.18	96.15	--
Vmax	530	76.75	86.90	93.40	95.38	95.90	95.93	--

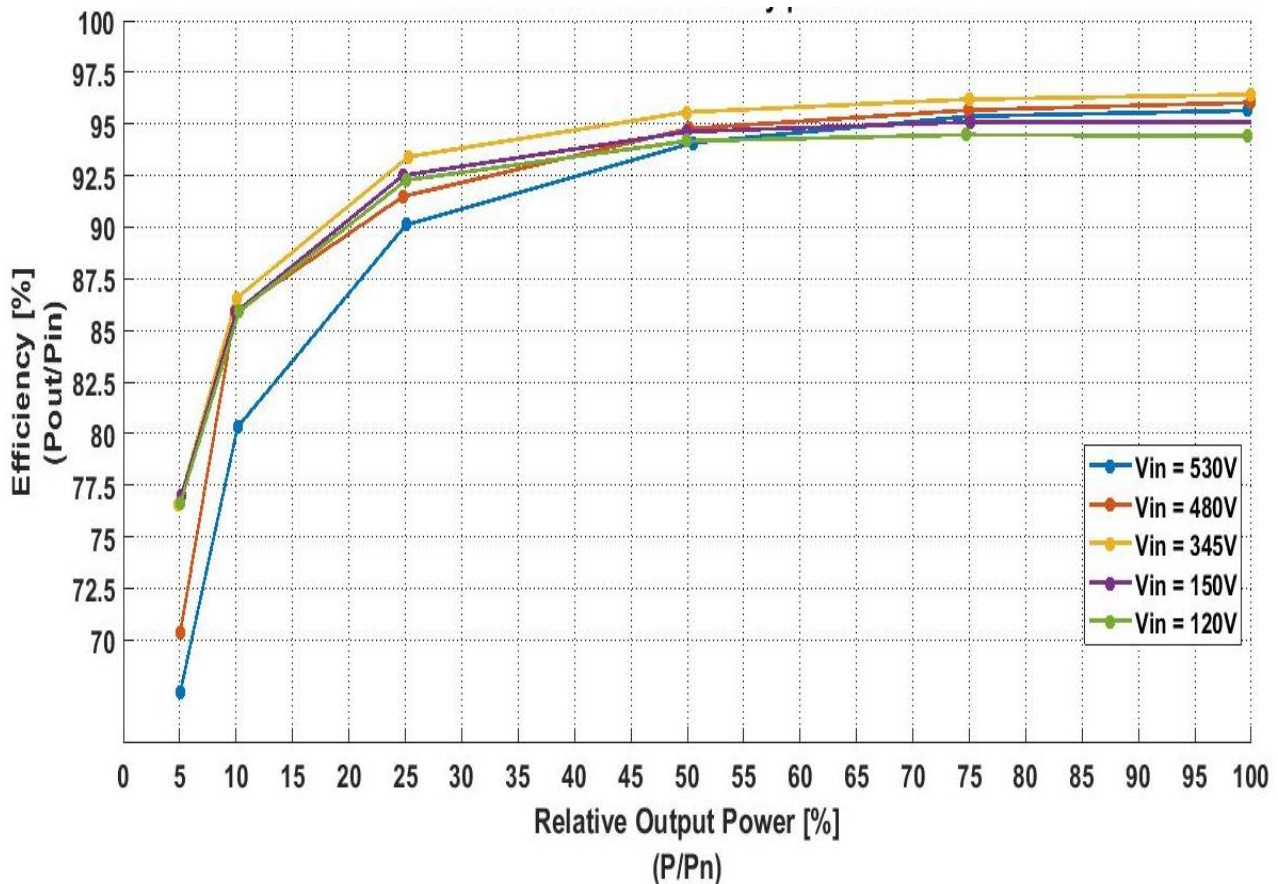


No-Load Loss
 Inverter connected to the AC main, supplied with nominal input voltage
 W1= 1.3W (AC realis opened)
 W1= 23W (AC realis closed)

Standby Loss
 Inverter connected to the AC main (AC realis opened) with no input source.
 W2= 1.3mW

TABLE 4.f Efficiency measurement conditions test results

MODEL:		UNO-DM-1.2-TL-PLUS						
Test conditions:		Temperature 25°C OUTPUT Voltage: 230Vac, 50Hz						
Input voltage (Vdc)		Power Level						
		5%	10%	25%	50%	75%	100%	120%
		60	120	300	600	900	1200	--
		η in [%]						
		Rated Power Efficiency and Partial Output Efficiency						
Vmin	120	76.61	85.90	92.27	94.17	94.48	94.41	--
Vmin (Full Power)	150	76.97	85.88	92.50	94.62	95.10	95.10	--
Vnominal	345	76.56	86.56	93.42	95.57	96.19	96.42	--
Vmax (Full Power)	480	70.35	85.90	91.48	94.77	95.67	96.04	--
Vmax	530	67.48	80.32	90.11	94.04	95.37	95.65	--



No-Load Loss Inverter connected to the AC main, supplied with nominal input voltage W1= 1.3W (AC realis opened) W1= 23W (AC realis closed)	Standby Loss Inverter connected to the AC main (AC realis opened) with no input source W2= 1.3mW
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