

SOLAR INVERTER

Sunways Solar Inverter AT 2700, AT 3000, AT 3600, AT 4500 and AT 5000

Thanks to HERIC® topology with innovative FP switching, the new AT Solar Inverters from Sunways achieve a constant yield at changing irradiation levels and temperatures. And that even across technological limits.

Flexible system planning – thin-film and silicon technology

Thanks to its expanded input voltage range from 150 to 680 V, solar inverters of the AT series offer the greatest possible flexibility for planning solar systems. Due to their innovative technology (without a transformer), AT Solar Inverters achieve a constant, consistently high efficiency even with fluctuating DC voltages and different power levels. Negative voltages, which are particularly undesirable with thin-film modules, are eliminated by the HERIC® topology with FP switching.

All-in-one – standard equipment

- Integrated DC load break cut-out
- Lighted graphic display and keypad
- Extensive internal 128 MB data logger
- Inverter networking via CAN bus
- Ethernet interface for integration in networks
- Active email alerting in case of system faults
- Voltageless alarm relay for the connection of external alarm devices
- 50 pulse output for controlling the Sunways display
- Integrated web server for display and configuration via a web browser



Simple, fast and safe installation with plug-in connectors and weatherproof connection box.

Information and Sales

Sunways AG · Photovoltaic Technology · Macairestraße 3-5
D-78467 Konstanz · Telephone +49 (0)7531 996 77-0
Fax +49 (0)7531 996 77-444 · E-Mail info@sunways.de
www.sunways.de

sunways
Photovoltaic Technology

Technical Data of Sunways Solar Inverter AT

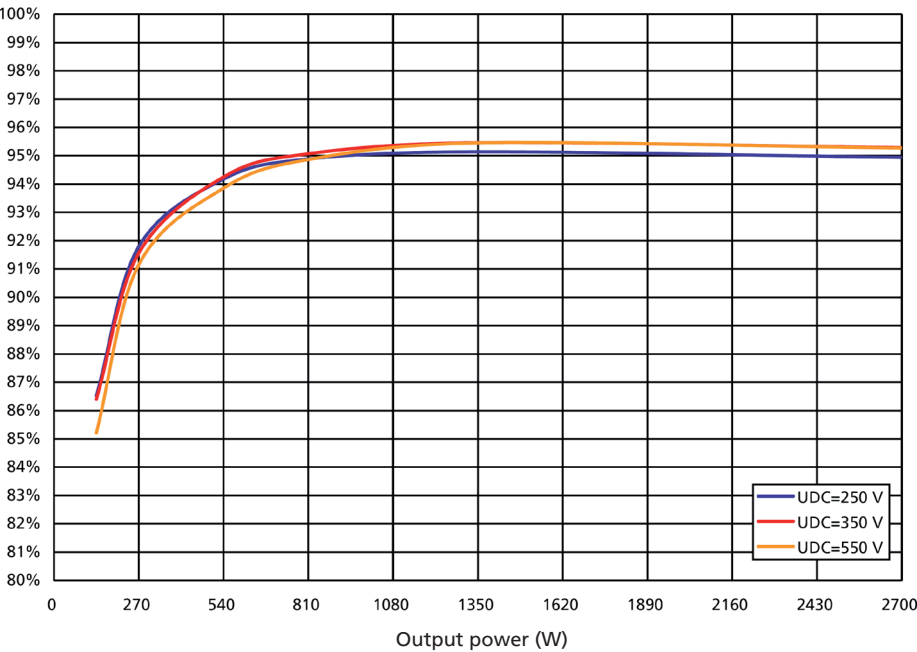
	AT 2700	AT 3000	AT 3600	AT 4500	AT 5000
DC Input					
Rated DC power	2850 W	3150 W	3800 W	4750 W	5250 W
Maximum DC current	15.5 A	15.5 A	15.5 A	22.0 A	22.0 A
Nominal DC voltage	350 V				
MPP voltage range	181 V...600 V	203 V...600 V	242 V...600 V	214 V...600 V	236 V...600 V
Maximum voltage DC	680 V				
Number of inputs per MPP tracker	2 x Tyco Solarlok				
Number of MPP trackers	1				
AC output					
Rated AC output power	2700 W	3000 W	3600 W	4500 W	4600 W
Maximum AC power	2700 W	3000 W	3600 W	4500 W	5000 W
Nominal AC current	11.7 A	13.0 A	15.7 A	19.6 A	20.0 A
Maximum AC current	12.5 A	14.0 A	17.0 A	21.0 A	23.0 A
Nominal frequency	50 Hz				
Frequency tolerance range	47.5 Hz ... 51.5 Hz (according to VDE-AR-N 4105:2011-08)				
Grid voltage	230 V				
AC voltage range	-20% ... +15% (according to DIN VDE 0126-1-1)				
Distortion factor at Pn	< 4%				
Reactive power factor (cos phi)	ca. 1 or adjustable from –0.9 to +0.9				
Grid voltage monitoring	single-phase (according to DIN VDE 0126-1-1)				
Earth fault protection	RCD (according to DIN VDE 0126-1-1)				
Insulation, frequency and DC current monitoring	integrated according to DIN VDE 0126-1-1				
Required phases, number of grid connections	1 (L, N, PE)				
Number of feed-in phases (230 V single-phase)	1				
Performance					
Stand-by consumption	6.5 W				
Night-time consumption	< 0.06 W				
Maximum efficiency	95,5%	95,5%	95,5%	95,5%	95,5%
European efficiency	94,7%	94,8%	94,9%	95,0%	95,0%
MPP efficiency (static)	> 99%	> 99%	> 99%	> 99%	> 99%
Switching concept	HERIC® / FP topology, transformerless				
Other					
DC switch	internal, mechanical				
Grid-connection fuse layout	16 A	16 A	25 A	25 A	25 A
Data interfaces	Ethernet, CAN, RS485, voltageless alarm relay, 50 pulse output				
Sensor interfaces	irradiation, temperature				
Display	LCD, backlit, 128 x 64 pixels				
Plant supervision	active alarm via e-mail, Sunways Browser, Sunways Portal				
IP degree of protection according to IEC 60529	IP 54				
Max. relative humidity	95%				
Cooling	free convection				
Ambient temperature	-25°C ... 40°C (at full load)				
Overload behaviour	working point adjustment				
Dimensions (height x width x depth)	59 x 35 x 21 cm				
Weight	29 kg				
Type of installation	wall installation				
Noise development	< 35 dB (A)				
Warranty					
Standard warranty	5 years				
Extension of warranty to 10 years (article no.)	SV101000A	SV101000A	SV101000A	SV101010A	SV101010A
Extension of warranty to 15 years (article no.)	SV101030A	SV101030A	SV101030A	SV101040A	SV101040A
Extension of warranty to 20 years (article no.)	SV101060A	SV101060A	SV101060A	SV101070A	SV101070A
Extension of warranty to 25 years (article no.)	SV101090A	SV101090A	SV101090A	SV101100A	SV101100A
Certificates	CE, DIN VDE 0126-1-1, VDE-AR-N 4105:2011-08, G59-2, G83-1 Further certificates under www.sunways.eu				

Values based on 230 V mains voltage

Subject to technical changes, as at 02/2012

Efficiency curve for Sunways Solar Inverter AT

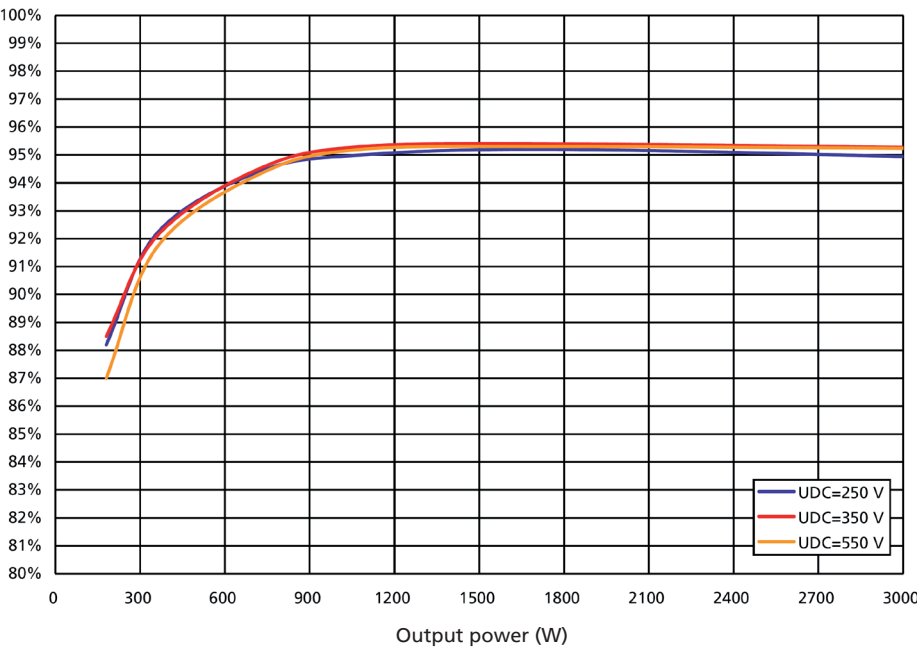
Efficiency curve AT 2700



Output power (%)		5.0	10.0	20.0	30.0	50.0	100.0	Max	Euro
Efficiency	250 V	86.5	91.8	94.2	94.9	95.1	94.9	95.3	94.5
	350 V	86.4	91.6	94.3	95.1	95.5	95.3	95.5	94.7
	550 V	85.2	91.2	93.9	94.9	95.5	95.3	95.5	94.6

Values based on 230 V mains voltage, cos phi = 1 and an ambient temperature of 25°C.

Efficiency curve AT 3000

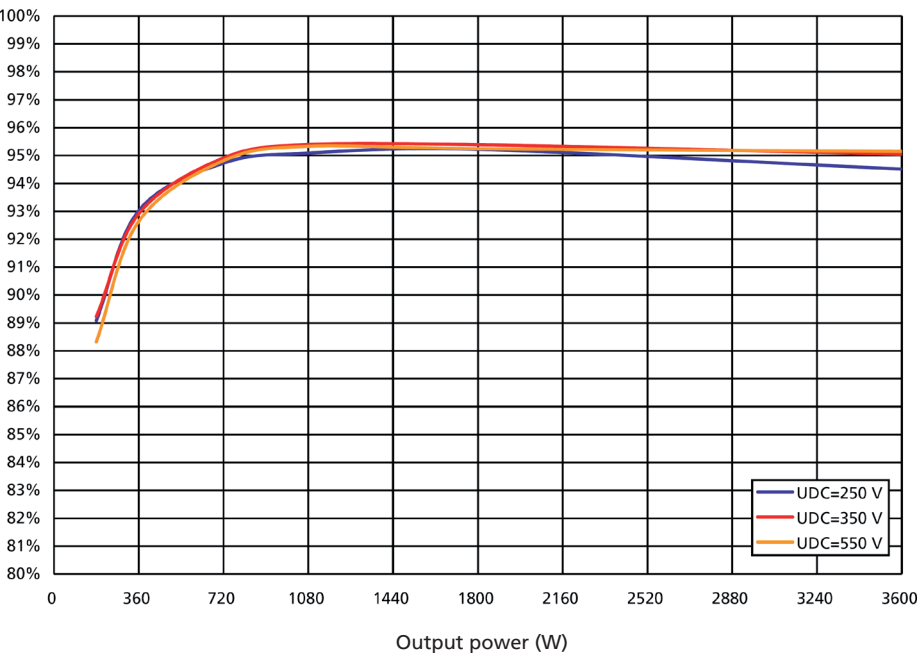


Ausgangsleistung (%)		5,0	10,0	20,0	30,0	50,0	100,0	Max	Euro
Wirkungsgrad	250 V	88.2	92.2	94.4	95.0	95.2	94.8	95.3	94.6
	350 V	88.5	92.1	94.5	95.3	95.4	95.2	95.5	94.8
	550 V	85.2	91.2	93.9	94.9	95.5	95.3	95.5	94.6

Values based on 230 V mains voltage, cos phi = 1 and an ambient temperature of 25°C.

Efficiency curve for Sunways Solar Inverter AT

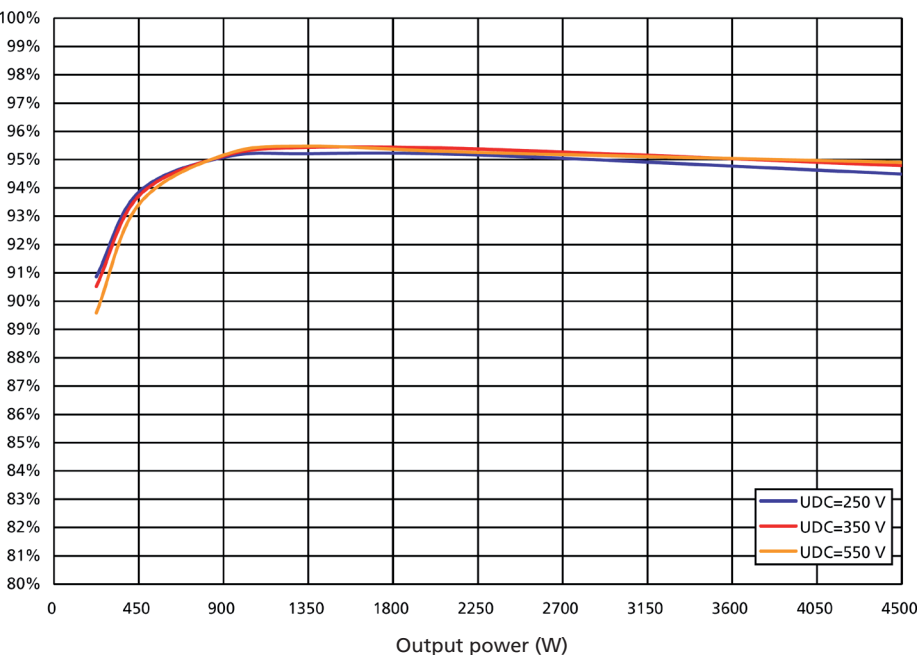
Efficiency curve AT 3600



Output power (%)		5.0	10.0	20.0	30.0	50.0	100.0	Max	Euro
Efficiency	250 V	89.1	93.0	94.7	95.1	95.2	94.5	95.3	94.7
	350 V	89.2	92.9	94.9	95.4	95.4	95.1	95.5	94.9
	550 V	88.3	92.6	94.8	95.3	95.2	95.1	95.5	94.8

Values based on 230 V mains voltage, cos phi = 1 and an ambient temperature of 25°C.

Efficiency curve AT 4500

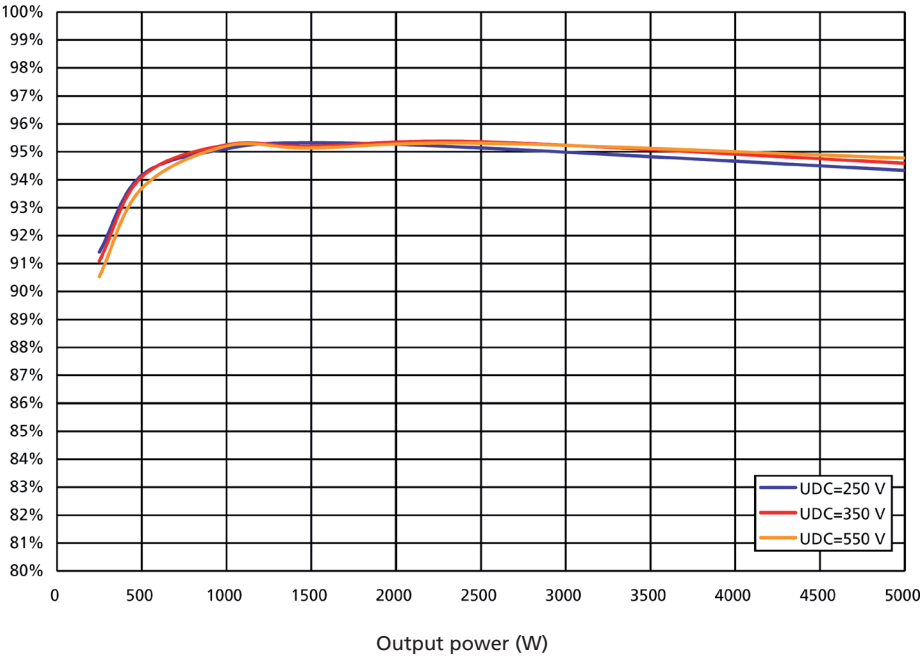


Output power (%)		5.0	10.0	20.0	30.0	50.0	100.0	Max	Euro
Efficiency	250 V	90.9	93.9	95.1	95.2	95.2	94.5	95.4	94.8
	350 V	90.5	93.7	95.1	95.4	95.4	94.8	95.5	95.0
	550 V	89.6	93.4	95.2	95.5	95.3	94.9	95.5	94.9

Values based on 230 V mains voltage, cos phi = 1 and an ambient temperature of 25°C.

Efficiency curve for Sunways Solar Inverter AT

Efficiency curve AT 5000



Output power (%)		5.0	10.0	20.0	30.0	50.0	100.0	Max	Euro
Efficiency	250 V	91.4	94.2	95.1	95.3	95.1	94.3	95.4	94.8
	350 V	91.1	94.1	95.3	95.2	95.4	94.6	95.5	95.0
	550 V	90.5	93.7	95.2	95.1	95.3	94.8	95.5	94.9

Values based on 230 V mains voltage, cos phi = 1 and an ambient temperature of 25°C.