

# SOLAR INVERTER

## Sunways Solar Inverters

NT 2500, NT 3700, NT 4200 and NT 5000

AC output: 2.5 to 5.0 kW



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The tried and tested NT series has been completely re-engineered and impresses with further improved performance specifications and a greater functional range. Due to the HERIC® topology the NT series – with a maximum efficiency of 97,8% – occupies the top position for 5 kW string converters.

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### Top technologies combined in one device:

precise MPP control and patented HERIC® circuitry.

The new MPP tracking ensures an even faster and more precise control. There are also further benefits from the exclusive HERIC® circuitry which ensures top efficiency in each output range of the Solar Inverter.

### New features

With peak efficiencies of 97,8% and an input voltage range from 340 to 900 V, the new NT series offers the optimum yield for many interconnection options.

All inverters comply with the new German medium-voltage guideline and, due to Power Control, they are applicable in installations with an output of more than 100 kW.

The new NT series can be used throughout Europe: the country of installation can be set on site at the touch of a button.

### „All-in-One“ – comprehensive functional range

Sunways has already set new standards for the AT series with „All-in-One“:

CAN bus networking, active E-Mail alert, network connection and graphic display also come as a matter of course with the new NT series.

### Information and Sales

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Photovoltaic Technology

## Technical Data Sunways Solar Inverters NT

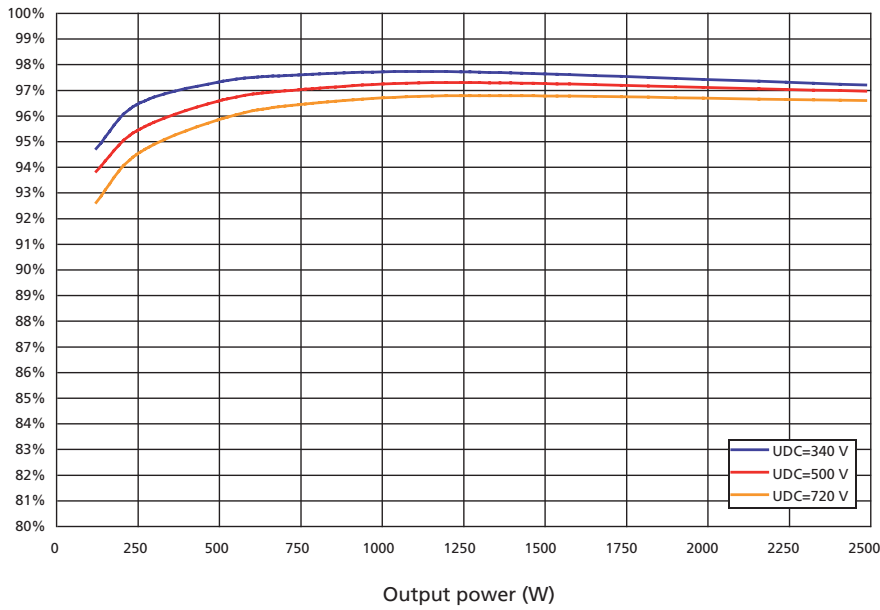
	NT 2500	NT 3700	NT 4200	NT 5000
<b>DC Input</b>				
Rated DC power	2625 W	3885 W	4410 W	5250 W
Maximum DC current	7.5 A	11.0 A	13.0 A	18.0 A
Nominal DC voltage	340 V			
MPP voltage range	340 V ... 750 V			
Maximum voltage DC	900 V			
Number of inputs per MPP tracker	2 x Tyco Solarlok			
Number of MPP trackers	1			
<b>AC output</b>				
Rated AC output power	2500 W	3680 W	4200 W	5000 W
Maximum AC power	2500 W	3700 W	4200 W	5000 W
Nominal AC current	10.9 A	16.0 A	18.3 A	21.7 A
Maximum AC current	12.0 A	17.8 A	20.2 A	24.0 A
Nominal frequency	50 Hz			
Frequency tolerance range	47.5 Hz ... 50.2 Hz (according to DIN VDE 0126-1-1)			
Grid voltage	230 V			
AC voltage range	-20% ... +15% (according to DIN VDE 0126-1-1)			
Distortion factor at Pn	< 2%			
Reactive power factor (cos phi)	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			
<b>Performance</b>				
Stand-by consumption	4.0 W			
Night-time consumption	< 0.1 W			
Maximum efficiency	97,8%	97,8%	97,8%	97,8%
European efficiency	97,4%	97,4%	97,3%	97,2%
MPP efficiency (static)	> 99%			
Switching concept	HERIC® topology, transformerless			
<b>Other</b>				
DC switch (according to IEC 60947-1/3)	integrated			
Grid-connection fuse layout	16 A	25 A	32 A	32 A
Data interfaces	Ethernet, CAN, RS485, voltageless alarm relay, 50 pulse output, modem			
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...60°C (at full load)	-25°C...55°C (at full load)	-25°C...50°C (at full load)	-25°C ... 45°C (at full load)
Overload behaviour	working point adjustment			
Dimensions (height x width x depth)	59 x 35 x 21 cm			
Weight	26 kg			
Type of installation	wall installation			
Noise development	< 35 dB (A)			
Standard warranty (option)	5 years (10 / 15 / 20 / 25 years)			
Certificates	CE, DIN VDE 0126-1-1			

Values based on 230 V mains voltage.

Subject to technical changes, as at 07/2010

## Efficiency curve for Sunways Solar Inverters NT

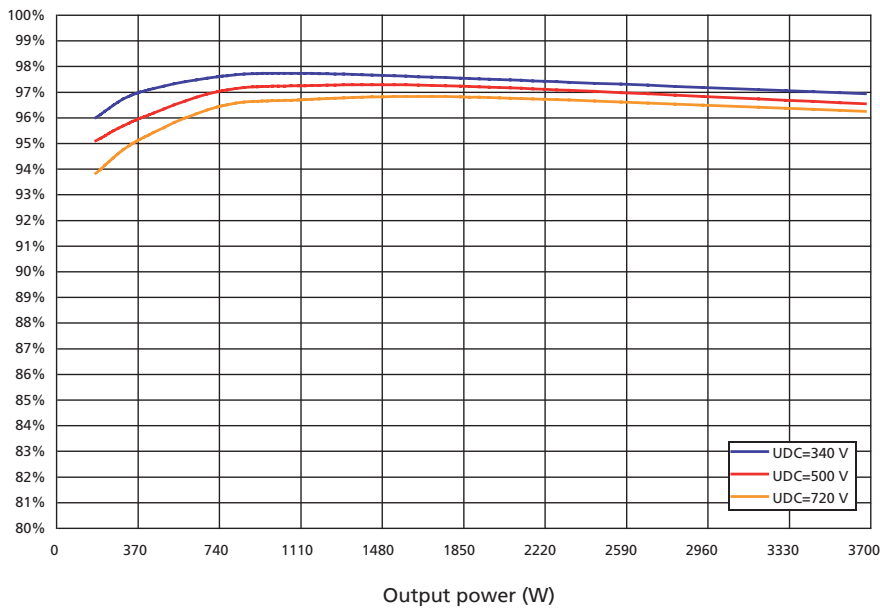
### Efficiency curve NT 2500



Output power (%)		5,0	10,0	20,0	30,0	50,0	100,0	Max	Euro
Efficiency	340 V	94,7	96,4	97,3	97,6	97,7	97,2	97,8	97,4
	500 V	93,8	95,4	96,6	97,0	97,3	96,9	97,3	96,9
	720 V	92,6	94,5	95,8	96,4	96,8	96,6	96,9	96,3

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

### Efficiency curve NT 3700

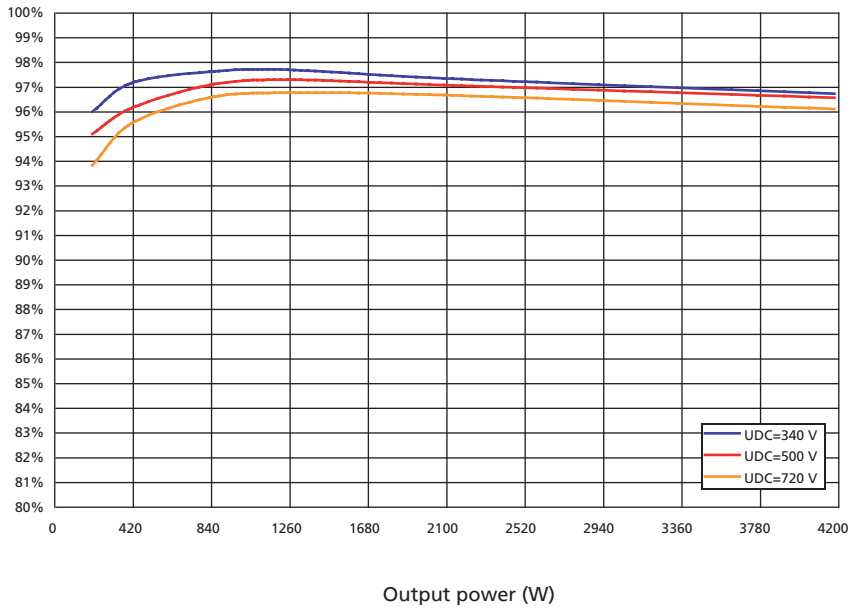


Output power (%)		5,0	10,0	20,0	30,0	50,0	100,0	Max	Euro
Efficiency	340 V	96,0	96,9	97,6	97,7	97,5	96,9	97,8	97,4
	500 V	95,1	95,9	97,0	97,2	97,2	96,5	97,3	96,9
	720 V	93,8	95,1	96,4	96,7	96,8	96,2	96,9	96,4

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

## Efficiency curve for Sunways Solar Inverters NT

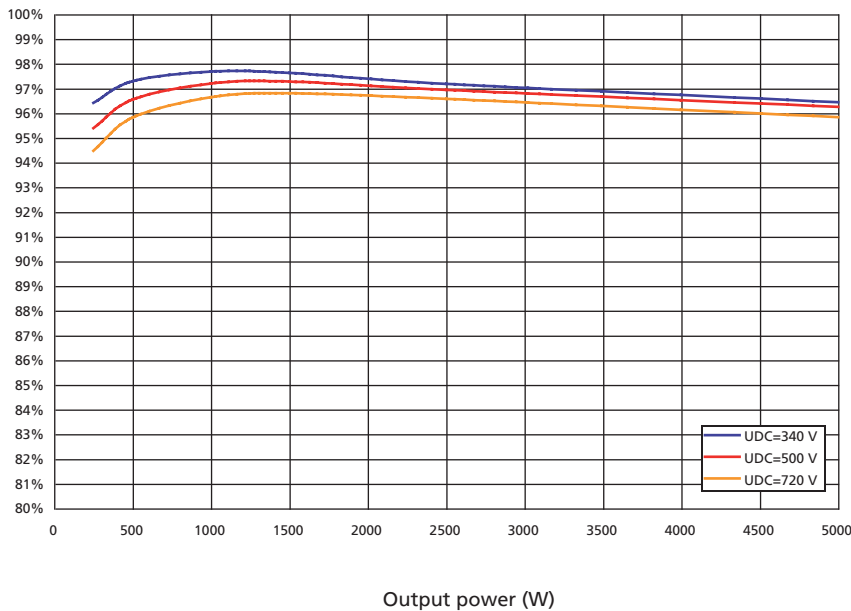
### Efficiency curve NT 4200



Output power (%)		5,0	10,0	20,0	30,0	50,0	100,0	Max	Euro
Efficiency	340 V	96,0	97,2	97,6	97,7	97,3	96,7	97,8	97,3
	500 V	95,1	96,1	97,1	97,3	97,1	96,6	97,3	96,9
	720 V	93,8	95,5	96,6	96,8	96,7	96,1	96,9	96,4

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

### Efficiency curve NT 5000



Output power (%)		5,0	10,0	20,0	30,0	50,0	100,0	Max	Euro
Efficiency	340 V	96,4	97,3	97,7	97,6	97,2	96,4	97,8	97,2
	500 V	95,4	96,6	97,2	97,3	96,9	96,3	97,3	96,8
	720 V	94,5	95,8	96,7	96,8	96,6	95,8	96,9	96,4

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