

Single-Phase String Inverters 3 kW to 5 kW

> Residential, Solar Inverters



Zeverlution Series

3000 / 3680 / 4000 / 5000

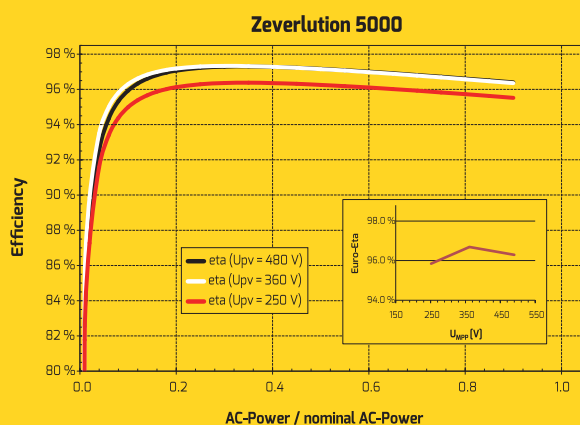
Introduction

The Zeverlution inverter generation combines all aspects of our beliefs into simple, reliable and affordable PV inverters. By introducing a patented inverter topology we use less power electronic components for further increased reliability. At the same time we have reduced the weight of the inverter by nearly 40 %, making it even simpler to install and use. With an even wider MPPT range you can benefit from maximum power more often. Furthermore, integrated monitoring via Ethernet or Wi-Fi communication is available whenever you want, our Zeverlution series.

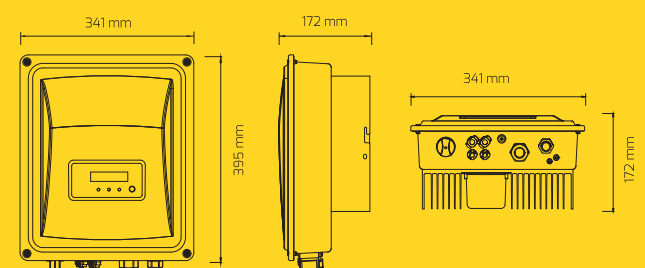
Features

- Dual MPPT for flexible installation
- Lightweight less than 12 kg
- Plug-in AC connector for easy electrical installation
- Compact design with IP65 casing for outdoor use
- SUNCLIX connectors for toolless DC wiring
- Quiet at less than 25 dB
- High operating altitudes up to 4000 m
- Optional and retrofitable integrated Ethernet and Wi-Fi communication
- Supports remote firmware update

Conversion efficiency



Dimensions



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Technical data	Zevelution 3000	Zevelution 3680	Zevelution 4000	Zevelution 5000
Input (DC)				
Max. PV array power	4780 Wp STC	4780 Wp STC	5720 Wp STC	6500 Wp STC
Max. input voltage	600 V			
MPP voltage range / rated input voltage	100 V to 520 V / 360 V			
Min. input voltage	80 V			
Initial feed-in voltage	150 V			
Max. operating input current per MPPT	11 A / 11 A			
Max. short circuit current per MPPT / per string input	16.5 A / 16.5 A			
Number of independent MPPT inputs / strings per MPPT input	2 / 1			
Output (AC)				
Rated power	3000 W	3680 W	4000 W	5000 W ¹⁾
Max. apparent AC power	3000 VA	3680 VA	4400 VA	5000 VA ¹⁾
AC nominal voltage	220 V / 230 V / 240 V			
AC voltage range	180 V to 280 V			
AC grid frequency / range	50 Hz / 45 Hz to 55 Hz 60 Hz / 55 Hz to 65 Hz			
Rated grid frequency / rated grid voltage	50 Hz / 230 V			
Max. output current	15 A	16 A	20 A	23 A ²⁾
Power factor at rated power	1			
Adjustable displacement power factor	0.8 overexcited to 0.8 underexcited			
Feed-in phases	1			
Harmonic distortion (THD) at rated output	< 3%			
Efficiency				
Max. efficiency / European efficiency	97.2 % / 96.5 %	97.2 % / 96.5 %	97.2 % / 96.5 %	97.2 % / 96.5 %
Protective devices				
Input-side disconnection device	•			
Ground fault monitoring / grid monitoring	• / •			
DC reverse polarity protection / AC short circuit current capability	• / •			
All-pole-sensitive residual-current monitoring unit	•			
Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1)	I / AC : III ; DC : II			
General data				
Dimensions (W / H / D)	341 / 395 / 172 mm			
Weight	11.8 kg			
Operating temperature range	-25 °C to +60 °C			
Noise emission (typical)	< 25 dB(A)			
Self-consumption (at night)	< 1 W			
Topology	Transformerless			
Cooling concept	Convection			
Degree of protection (according to IEC 60529)	IP65			
Climatic category (according to IEC 60721-3-4)	4K4H			
Max. permissible value for relative humidity (non-condensing)	100 %			
Max. operating altitude	4000 m (>3000 m derating)			
Features				
DC connection	SUNCLIX			
AC connection	Plug-in connector			
Mounting type	Wall mounting bracket			
Display	16 x 2 characters LCD			
LED Indicators (Status / Fault / Communication)	•			
Interface: RS485 / WLAN & Ethernet ^{3) & 4)}	○ / ○			
Certificates and approvals (more available on request)	CE, EN50438, VDE-0126, C10/C11, VFR 2014 & UTE C15, IEC62109	CE, EN50438, G83/2, VDE-0126, AS/NZS 4777, C10/C11, VFR 2014 & UTE C15, CNS15382, IEC62109	CE, EN50438, G59/3, VDE-0126, AS/NZS 4777, C10/C11, VFR 2014 & UTE C15, CNS15382, IEC62109	CE, EN50438, G59/3, VDE-0126, AS/NZS 4777, C10/C11, VFR 2014 & UTE C15, CNS15382, MEA2013 IEC62109
Type designation	Zevelution 3000	Zevelution 3680	Zevelution 4000	Zevelution 5000

• standard ○ optional - not available

As of December, 2018 / Technical data is subject to revisions.

1) Based on the VDE 4105 requirements active power and apparent power will be limited to 4600 W and 4600 VA

2) 21.7 A according to AS / NZS4777.2:2015

3) Zero export installations supported with 2-pin RS485 for connection to approved smart meters

4) DRED supported with analog RJ45 interface for Australia & New Zealand