

# Single-Phase String Inverters 1 kW to 3 kW

> Residential, Solar Inverters



## Zevelution Series 1000S/1500S/2000S/3000S

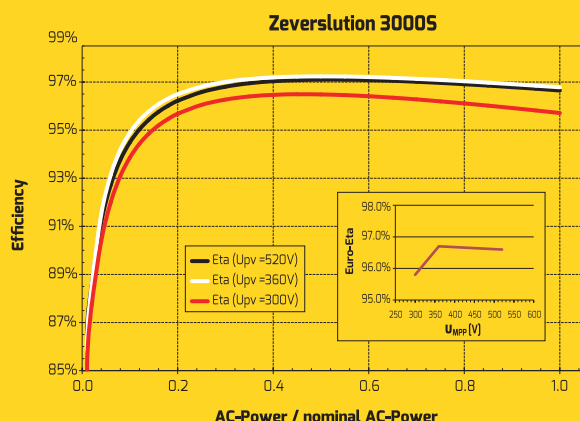
### Introduction

The Zevelution inverter generation combines all aspects of our beliefs into simple, reliable and affordable PV inverters. By introducing a patented inverter topology we used less power electronic components for further increased reliability. At the same time we have reduced the weight of the inverter by nearly 50%, making it even simpler to install and use. An increased efficiency of 97.5% makes the use of PV systems even more affordable. Furthermore you can retrofit Ethernet and WiFi communication, whenever you want, our Zevelution series.

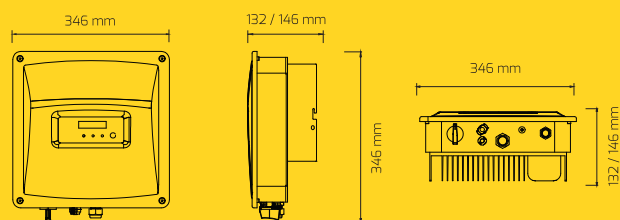
### Features

- Extremely lightweight with only 7.3 kg
- Compact design with IP65 casing for outdoor use
- Sunclix connectors for toolless DC wiring
- Higher power yield with efficiency of 97.5%
- Extremely quiet with only 15dB noise
- Higher operating altitude up to 3000m without degrading
- Optional and retrofitable integrated Ethernet and Wi-Fi communication
- Support remote firmware update

### Conversion efficiency



### Dimensions



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Technical data	Zevelution 1000S		Zevelution 1500S		Zevelution 2000S		Zevelution 3000S	
Input (DC)								
DC convertible power (@cosφ=1)	1150W		1750W		2350W		3150W	
Max. input voltage	500V		500V		500V		600V	
MPP voltage range / rated input voltage	70-450V / 360V		70-450V / 360V		70-450V / 360V		70-520V / 360V	
Min. start voltage	80V		80V		80V		80V	
Min. feed-in power	6W		6W		6W		6W	
Max. input current per MPPT	11A		11A		11A		11A	
Number of MPPTs	1		1		1		1	
Number of independent MPP inputs	1		1		1		1	
Output (AC)								
Rated active power	1000W		1500W		2000W		3000W	
Max. apparent AC power	1100VA		1650VA		2200VA		3000VA	
Nominal AC voltage / range	220V,230V,240V / 180V-280V		220V,230V,240V / 180V-280V		220V,230V,240V / 180V-280V		220V,230V,240V / 180V-280V	
AC power frequency / range	50,60 / +-5Hz		50,60 / +-5Hz		50,60 / +-5Hz		50,60 / +-5Hz	
Rated power frequency / rated grid voltage	50Hz / 230V		50Hz / 230V		50Hz / 230V		50Hz / 230V	
Max. output current	5.5A		7.5A		10A		15A	
Power factor (@rated power)	1		1		1		1	
Adjustable displacement power factor	0.8 inductive ... 0.8 capacitive		0.8 inductive ... 0.8 capacitive		0.8 inductive ... 0.8 capacitive		0.8 inductive ... 0.8 capacitive	
Feed-in phases / connection phases	1 / 1		1 / 1		1 / 1		1 / 1	
Harmonic distortion (THD) at rated output	< 3%		< 3%		< 3%		< 3%	
Efficiency								
Max. efficiency / European weighted efficiency	97% / 96.3%		97.2% / 96.5%		97.3% / 96.7%		97.5% / 97%	
MPPT efficiency	99.50%		99.50%		99.50%		99.50%	
Protective devices								
DC isolator	○		○		○		○	
PV iso / Grid monitoring	● / ●		● / ●		● / ●		● / ●	
DC reverse polarity protection / AC short-circuit current capability	● / ●		● / ●		● / ●		● / ●	
GFCI function	●		●		●		●	
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / II (DC), III (AC)		I / II (DC), III (AC)		I / II (DC), III (AC)		I / II (DC), III (AC)	
General data								
Interface <sup>1)</sup> : RS485 / Ethernet / WIFI	● / ○ / ○		● / ○ / ○		● / ○ / ○		● / ○ / ○	
Error alarm output interface	○ / 1		○ / 1		○ / 1		○ / 1	
Display	16 x 2 characters		16 x 2 characters		16 x 2 characters		16 x 2 characters	
Dimensions (W x H x D)	346 x 346 x 132mm		346 x 346 x 132mm		346 x 346 x 132mm		346 x 346 x 146mm	
Weight	7.3kg		7.3kg		7.3kg		8kg	
Cooling concept	convection		convection		convection		convection	
Noise emission (typical)	< 15 dB(A)@1m		< 15 dB(A)@1m		< 15 dB(A)@1m		< 15 dB(A)@1m	
Installation	indoor & outdoor		indoor & outdoor		indoor & outdoor		indoor & outdoor	
Mounting information	wall mounting bracket		wall mounting bracket		wall mounting bracket		wall mounting bracket	
DC connection technology	SUNCLIX		SUNCLIX		SUNCLIX		SUNCLIX	
AC connection technology	screw clamp terminal		screw clamp terminal		screw clamp terminal		screw clamp terminal	
Operating temperature range	-25°C...+60°C / -13°F...+140°F		-25°C...+60°C / -13°F...+140°F		-25°C...+60°C / -13°F...+140°F		-25°C...+60°C / -13°F...+140°F	
Relative humidity (non-condensing)	0% ... 100%		0% ... 100%		0% ... 100%		0% ... 100%	
Max. operating altitude	4000m (>3000m derating)		4000m (>3000m derating)		4000m (>3000m derating)		4000m (>3000m derating)	
Degree of protection (according to IEC 60529)	IP65		IP65		IP65		IP65	
Climatic category (according to IEC 60721-3-4)	4K4H		4K4H		4K4H		4K4H	
Topology	H5		H5		H5		H5	
Self-consumption (night)	< 1W		< 1W		< 1W		< 1W	
Standby power	< 6W		< 6W		< 6W		< 6W	
Certificates and approvals (more available on request)	CE, NEN50438, G83/2, VDE-AR-N4105		CE, NEN50438, G83/2, VDE-AR-N4105		CE, A54777, NEN50438, G83/2, VDE-AR-N4105, VDE0126-1-1		CE, A54777, NEN50438, G83/2, VDE-AR-N4105, VDE0126-1-1	

● standard ◦ optional – not available

As of July, 2015 / Technical data is subject to revisions.

1) Optional and retrofitable ComBox (ETH or ETH & WiFi configuration) will replace RS485 port functionality