



## On-grid Single Phase Inverter

# ENV 3K-E/4K-E/5K-E/6K-E

### Benefits

#### Flexible and Efficient

- Optimized global MPPT algorithm, MPPT efficiency higher than 99.5%
- Asymmetric dual MPPT that are compatible with all types of solar arrays
- Max. efficiency of 97.6%, European efficiency of 97.2%
- Super wide input voltage range(80V-600V), supporting various solar panels and string designs
- With reduced derating under high temperature, the generating capacity is improved

#### Convenient Installation

- Transformerless, smaller and lighter
- AC output quick connector design, for faster installation
- Specialized mounting design, easy to install

#### Smart and Easy to Use

- One-button safety setting, easy configuration of all parameters
- Built-in independent RTC chip, supporting data storage of 25 years
- Integrated RS232 / Wi-Fi interfaces, for improved communication
- Free monitoring anytime anywhere
- Local and remote intelligent maintenance by PC, IOS and Android devices
- Responds to power grid dispatching, energy management of micro-grids
- Integrated with the function of reactive adjusting

#### Safe and Reliable

- IP65 protection for indoor and outdoor installation
- Aluminum case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Optional built-in high voltage DC switch for safer maintenance and application
- Natural convection for longer life

### Technical Data

## ENV 3K-E/4K-E/5K-E/6K-E

Type	ENV 3K-E	ENV 4K-E	ENV 5K-E	ENV 6K-E
<b>Input (DC)</b>				
Max. DC Power [W]	3630	4840	6050	6600
Max. DC Voltage [V]		600		
MPPT Voltage range [V]		90-550		
Nominal DC Voltage [V]		360		
Start Voltage [V]		100		
Min. DC Voltage [V]		80		
Max. DC Input Current PV1 / PV2 [A]		11/11		
Number of DC Connection Sets per MPPT		1/1		
Number of MPPT		2		
DC Switch		Optional		
<b>Output (AC)</b>				
Rated AC Power [VA] (@230V,50Hz)	3000	3680 <sup>1</sup> /4000	4600 <sup>2</sup> /5000	6000
Max. AC Power [W]	3300	3680/4400	4600/5500	6000
Rated AC Current [A]	13.0	16.0/17.4	20.0/21.7	26.1
Max. AC Current [A]	15.9	16.0/21.0	22.2/26.7	28.7
Nominal AC voltage/ range		220V, 230V, 240V/180V-280V		
Grid frequency/ range		50Hz, 60Hz/±5Hz		
Power factor [cos φ]	>0.99 [full load]	0.9 leading~0.9 lagging		
Total Harmonic Distortion [THDi]		< 3%		
Feed-in		1L+N+PE		
<b>Efficiency</b>				
Max. Efficiency	97.4%	97.5%	97.6%	97.9%
Euro Efficiency [at 360Vdc]	97.0%	97.1%	97.2%	97.5%
MPPT Accuracy		>99.5%		
<b>Protection</b>				
Internal Over-voltage Protection		Integrated		
DC Insulation Monitoring		Integrated		
DCI Monitoring		Integrated		
GFCI Monitoring		Integrated		
Grid Monitoring		Integrated		
AC Short Circuit Current Protection		Integrated		
Thermal Protection		Integrated		
Anti-island protection monitoring		AFD		
<b>Interface</b>				
AC Connection		Plug-in connector		
DC Connection		MC4/H4		
LCD / LED Display		LCD ( 16x2 Characters, Backlight ) / LED ( 3 Lights )		
Display Language		English		
Datalogger & Communication		RS232 ( Standard ) / Wi-Fi ( Optional )		
<b>General Data</b>				
Topology		Transformerless		
Consumption at Night [W]		<0.2		
Consumption at Standby [W]		6		
Operating Temperature Range		-25°C to +60°C ( 45°C to 60°C with derating )		
Cooling Method		Natural Convection		
Ambient Humidity		0% to 100% Non-condensing		
Altitude		Up to 2000m (without derating)		
Noise [dBA]		<25		
Ingress Protection		IP65 ( Indoor & Outdoor Installation )		
Mounting		Rear Panel		
Dimensions (H*W*D) [mm]		454*355*150		454*355*162
Net Weight [kg]		14.8		
Warranty [Year]		5 ( Standard ) / 10 / 15 / 20 / 25 ( Optional )		
Certificates		IEC62109-1/2, IEC61000-6-2/3, IEC61683, IEC60068-2, IEC62116, IEC61717, PEA/MEA, NRS 097-2-1, UTE-C-15-712-1, VDE0126-1-1/A1, VDE-AR-N 4105, AS4777.2, AS4777.3, C-TICK, CQC NB/T 32004, G83-2, NBR 16149, NBR 16150, TF 3.2.1, C10/11		

- Remarks: 1. Meet the grid standard that AC current per phase not exceeding 16A.  
2. Meet the VDE-ARN-N 4105 that biggest apparent power of single-phase is 4600 VA.