



## On-grid Three Phase Inverter

# ENV 12K/15K/17K/20K

### Benefits

#### Flexible and Efficient

- Optimized global MPPT algorithm, MPPT efficiency higher than 99.5%
- Dual MPPT which are compatible to all kinds of solar roofs
- Max. efficiency of 98.5%, European efficiency of 98.2%
- Super wide input voltage range(180V-1000V), supporting various solar panels and string designs

#### Convenient Installation

- Aluminum case design, smaller and lighter
- Integrate DC combiner box, reduce system cost
- Separate area for maintenance, easy and quick for repair

#### 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 LCD graphical display, showing daily/monthly/yearly generation
- Integrated with the function of reactive power control & ZVRT, responds to power grid dispatching, energy management of grid
- Integrate string current monitoring, monitor string working status

#### Safe and Reliable

- IP65 protection for indoor and outdoor installation
- Optional DC&AC surge protection, guarantee system safety
- Optional Anti-PID module, protect panels from PID damage
- Aluminum case design to enhance heat dissipation and resist rust corrosion, prolong life time

### Technical Data

## ENV 12K/15K/17K/20K

Type	ENV 12K	ENV 15K	ENV 17K	ENV 20K
<b>Input (DC)</b>				
Max. DC Power [W]	14520	18150	20570	24200
Max. DC Voltage [V]			1000	
MPPT Voltage Range [V]			180-900	
Nominal DC Voltage [V]			600	
Start Voltage [V]			200	
Min. DC Voltage [V]			180	
Max. DC Input Current PV1 / PV2 [A]	22/11	22/22	22/22	22/22
Number of MPPT			2	
Number of DC Connection Sets per MPPT	2/1	2/2	2/2	2/2
DC Switch			Integrated	
<b>Output (AC)</b>				
Rated AC Power [W](@230V,50Hz)	12000	15000	17000	20000
Max. AC Power [W]	13200	16500	18700	22000
Rated AC Current [A]	18.2	22.7	25.8	30.3
Max. AC Current [A]	20.0	25.0	28.3	33.0
Nominal AC voltage/ range			3/N/PE, 220/380V, 230/400V, 240/415V; 180V-280V/312V-485V	
Grid frequency / range			50Hz, 60Hz / 44Hz-55Hz, 54-65Hz	
Power factor,adjustable[cos φ]			0.8 leading~0.8 lagging	
Total Harmonic Distortion (THDi)			< 3% ( at nominal power )	
Feed-in			3L+N+PE	
<b>Efficiency</b>				
Max. Efficiency	98.3%	98.4%	98.5%	98.5%
Euro Efficiency (@ 600Vdc)	98.0%	98.1%	98.2%	98.2%
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	
LVRT			Integrated	
Thermal Protection			Integrated	
AC Surge Protection			III (Integrated) , II ( Optional )	
String Current Monitoring			Integrated	
Anti-PID Module			Optional	
DC Surge Protection			II ( Optional )	
DC Fuse			Optional	
Anti-island protection monitoring			AFD	
<b>Interface</b>				
DC Connection			MC4/H4	
AC Connection			Terminal Block	
LCD & LED Display			3.5 inch Graphic LCD Display, Backlight	
Display Language			English	
Communication port			2*RS485+1*RS232	
Communication			Wi-Fi/GPRS/Ethernet ( Optional )	
<b>General Data</b>				
Topology			Transformerless	
Consumption at Night [W]			<0.6	
Consumption at Standby [W]			<10	
Operating Temperature Range			-25°C to +60°C ( 45°C to 60°C with derating )	
Cooling Method			Intelligent fan	
Ambient Humidity			0% to 100% Non-condensing	
Altitude			3000m ( > 2000m power derating )	
Noise [dBA]			<35	
Ingress Protection			IP65 ( Indoor & Outdoor Installation )	
Mounting			Rear Panel	
Dimensions (H*W*D) [mm]			640*450*232	
Weight [kg]		29		33
Standard 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,G59-3,NBR 16149,NBR 16150,TF 3.2.1	