



SHIFTING THE LIMITS

# FRONIUS SERIES

**FRONIUS ECO 25 TO 27 KW**  
**GET READY FOR 24 HOURS OF SUN**



## Product Features

- Manufacture & Design in Europe.
- Reduce utility bills.
- The ideal compact 3 Phase, Light weight & Wall mounted inverter for commercial applications.
- Super flex, dual MPPT and integrated Wi-Fi.
- Free online monitoring.
- Solar web App Live & Pro version.
- Efficient, reliable & The indispensable heart of ever PV System.



/ SnapInverter Technology



/ Integrated data communication



/ Smart Grid Ready



/ Dynamic Peak Manager



/ Zero feed-in

## TECHNICAL DATA FRONIUS ECO 25.0-3-S & 27.0-3-S

INPUT DATA	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
Max. input current (I <sub>dc max</sub> )	44.2 A	47.7 A
Max. array short circuit current		71.6 A
Min. input voltage (U <sub>dc min</sub> )		580 V
Feed-in start voltage (U <sub>dc start</sub> )		650 V
Nominal input voltage (U <sub>dc,r</sub> )		580 V
Max. input voltage (U <sub>dc max</sub> )		1,000 V
MPP voltage range (U <sub>mpp min</sub> - U <sub>mpp max</sub> )		580 - 850 V
Number of MPP trackers		1
Number of DC connections		6
Max. PV generator output (P <sub>dc max</sub> )		37.8 kW <sub>peak</sub>
OUTPUT DATA	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
AC nominal output (P <sub>ac,r</sub> )	25,000 W	27,000 W
Max. output power	25,000 VA	27,000 VA
AC output current (I <sub>ac nom</sub> )	37.9 A / 36.2 A	40.9 A / 39.1 A
Grid connection (voltage range)		3~NPE 380 V / 220 V or 3~NPE 400 V / 230 V (+20 % / - 30 %)
Frequency (frequency range)		50 Hz / 60 Hz (45 - 65 Hz)
Total harmonic distortion		< 2.0 %
Power factor (cos φ <sub>ac,r</sub> )		0 - 1 ind. / cap.
GENERAL DATA	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
Dimensions (height x width x depth)		725 x 510 x 225 mm
Weight		35.7 kg
Degree of protection		IP 66
Protection class		1
Overvoltage category (DC / AC) <sup>2)</sup>		1 + 2 / 3
Night-time consumption		< 1 W
Inverter concept		Transformerless
Cooling		Regulated air cooling
Installation		Indoor and outdoor installation
Ambient temperature range		-25 - +60 °C
Permitted humidity		0 to 100 %
Max. altitude		2,000 m
DC connection technology		6x DC+ and 6x DC- screw terminals 2.5 - 16 mm <sup>2</sup>
AC connection technology		5-pole AC screw terminals 2.5 - 16 mm <sup>2</sup>

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EFFICIENCY	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
Max. efficiency	98.2 %	98.3 %
European efficiency (η <sub>EU</sub> )	98.0 %	98.0 %
η at 5 % P <sub>ac,r</sub> <sup>1)</sup>	95.1 / 91.5 %	95.9 / 93.1 %
η at 10 % P <sub>ac,r</sub> <sup>1)</sup>	97.0 / 95.2 %	96.8 / 95.7 %
η at 20 % P <sub>ac,r</sub> <sup>1)</sup>	97.8 / 96.9 %	97.7 / 97.1 %
η at 25 % P <sub>ac,r</sub> <sup>1)</sup>	98.0 / 97.0 %	98.1 / 97.3 %
η at 30 % P <sub>ac,r</sub> <sup>1)</sup>	98.1 / 97.2 %	98.1 / 97.4 %
η at 50 % P <sub>ac,r</sub> <sup>1)</sup>	98.2 / 97.5 %	98.3 / 97.5 %
η at 75 % P <sub>ac,r</sub> <sup>1)</sup>	98.2 / 97.5 %	98.2 / 97.6 %
η at 100 % P <sub>ac,r</sub> <sup>1)</sup>	98.2 / 97.5 %	98.1 / 97.5 %
MPP adaptation efficiency		> 99.9 %
PROTECTION DEVICES	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
DC insulation measurement		Yes
Overload behavior		Operating point shift, power limitation
DC disconnect		Yes
Integrated string fuse holders <sup>2)</sup>		Yes
Reverse polarity protection		Yes
INTERFACES	FRONIUS ECO 25.0-3-S	FRONIUS ECO 27.0-3-S
WLAN / Ethernet LAN		Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON)
6 inputs and 4 digital inputs/outputs		Interface to ripple control receiver
USB (A socket) <sup>3)</sup>		Datalogging, inverter update via USB flash drive
2x RS422 (RJ45 socket) <sup>3)</sup>		Fronius Solar Net
Signalling output <sup>3)</sup>		Energy management (floating relay output)
Datalogger and Webserver		Included
External input <sup>3)</sup>		S0 meter connection / Evaluation of overvoltage protection
RS485		Modbus RTU SunSpec or meter connection

<sup>1)</sup> And at U<sub>mpp min</sub> = U<sub>dc,r</sub> / U<sub>mpp max</sub>.

<sup>2)</sup> Optionally fitted with 6 fuses 15 A / 1,000 V on the plus side.

<sup>3)</sup> Also available in the light version.