



# Madrid-SERIES

## DUALMPPT INVERTERS

SOLARBOX offer a range of single and dual-MPPT single phase inverters offering unparalleled efficiency and performance.

Our dual-MPPT Madrid Series range includes 3.0- 6.0 kW models. The Madrid Series is IP65 rated and battery ready for easy upgrade when paired with a Solarbox charge controller.



### High Performance

Low start-up voltage, wide voltage range, 97,4% maximum efficiency



### Upgradable\*

Fully optimised for upgrade to the SOLARBOX range of battery storage system.

\*Requires additional SOLARBOX equipment



### IP65 Rated

Engineered to last with maximum suitability for outdoor installation



### Remote Monitoring

Monitor your system remotely via smartphone app or web portal

## ANYTIME, ANYWHERE REMOTE MONITORING PLATFORM

Monitor system performance in real-time via smartphone app or web portal using our advanced monitoring platform.



## Madrid-SERIES



For more about the SOLARBOX range of single-phase inverters, visit:

[solarbox.es](http://solarbox.es)



Model	F3000	F3600	F4600	F5000	F5300*	F6000
<b>INPUT PV</b>						
Max. recommended DC power [w]	4500	5400	6900	7500	7950	9000
Max. DC voltage [V]	600	600	600	600	600	600
Nominal DC operating voltage [V]	360	360	360	360	360	360
Max. input current (input A/input B) [A]				12.5 /12.5		
Max. short circuit current (input A/input B) [A]				15/15		
MPPT voltage range [Vdc]	80/550	80/550	80/550	80/550	80/550	80/550
No. of MPP trackers	2	2	2	2	2	2
Strings per MPP tracker	1	1	1	1	1	1
Start-up voltage [V]	120	120	120	120	120	120
<b>OUTPUT AC</b>						
Nominal AC power [VA]	3000	3600	4600	5000	5300	6000
Max. apparent AC power [VA]	3300	3960	5060	5500	5830	6000
Rated grid voltage [Vac]				220/230/240		
Rated grid Frequency [Hz]				50/60, ± 5		
Nominal AC current [A]	13.0	15.7	20.0	21.7	23.0	26.1
Max. AC current [A]	14.3	17.2	22.0	23.9	25.3	26.1
Displacement power factor		1 (Adjustable from 0.8 leading to 0.8 lagging)				
Total harmonic distortion (THDi, Nominal output)	<3%	<3%	<3%	<3%	<3%	<3%
<b>EFFICIENCY</b>						
MPPT Efficiency	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
Euro-efficiency	96.80%	96.80%	96.80%	96.80%	96.80%	96.80%
Max. Efficiency	97.40%	97.40%	97.40%	97.40%	97.40%	97.40%
<b>PROTECTION</b>						
DC Reverse-polarity Protection				YES		
Anti-Islanding Protection				YES		
Insulation Monitoring				YES		
Residual Current Monitoring				YES		
AC Short Circuit Protection				YES		
AC Output Over Current Protection				YES		
AC Output Over Voltage Protection				YES		
Surge Protection				Type II (DC) / Type II (AC)		
Temperature Protection				YES		
Integrated DC Switch				Optional		
<b>STANDARD</b>						
Safety				IEC 62109-1/2		
EMC				IEC 6100-6-1/IEC 6100-6-2/IEC 6100-6-3		
Certification				AS4777.2-2015/G98-1/G9-1/EN50549-1/IEC 61727		
<b>GENERAL DATA</b>						
Dimensions (WxHxD) [mm]				402*476,5*148		
Net Weight [kg]				15.5		
Cooling Concept				Natural		
Ingress Protection (according to IEC60529)				IP65		
Topology				Transformerless		
Over Voltage Category				III (AC side), II (PV side)		
Noise Emission (typical) [dB]				<30		
Operating Temperature Range				-20.....+60 °C (derating at +45°C)		
Storage Temperature Range				-40...+70 °C		
Humidity				0-100% (no condensation)		
Self Consumption (night) [W]				<1W		
Monitoring Module (optional)				External WIFI/Lan/GPRS (optional)		
Communication				Meter, CT, DRM, USB update, RS485		
Display				LCD screen, Touch Key, App, Web site		

\*India market only.