



**ESmart**<sup>®</sup>  
TECHNOLOGY INSIDE

# ENERGY WIZARD

**PV-On-Grid Inverter  
4 - 25 kW**

The energy wizard with  
Plug & Play for easy installation,  
commissioning and maintenance.

## THE ADVANTAGES OF THE ENERGY-WIZARD AT A GLANCE

- Efficiency of up to 98.6%
- Up to 32A PV input current and up to 3 MPP trackers
- 10% continuous extra power of the AC output
- More operating hours due to low starting voltage
- OLED display and app for configuration and data management
- Compact size and elegant appearance
- Combinable with M-TEC Energy Butler
- Low operating noise



## ENERGY-WIZARD: FACTS AND FIGURES

Model	4KW- 3P-3G	5KW- 3P-3G	6KW- 3P-3G	8KW- 3P-3G	10KW- 3P-3G	12KW- 3P-3G	15KW- 3P-3G	20KW- 3P-3G	25KW- 3P-3G
<b>PV Input</b>									
Start-up Voltage [V]	180								
Max. DC Input Voltage [V]	950								
Rated DC Input Voltage [V]	620								
MPPT Voltage Range [V]	160-950								
MPP Trackers	2	2	2	2	3	3	3	3	3
string connections per MPPT	1/1	1/1	1/1	1/1	1/1/1	1/1/1	1/1/1	1/1/2	1/1/2
Max. Input Current [A]	16/16	16/16	16/16	16/16	16/16/16	16/16/16	16/16/16	16/16/32	16/16/32
Max. Short-circuit Current [A]	20/20	20/20	20/20	20/20	20/20/20	20/20/20	20/20/20	20/20/40	20/20/40
<b>AC-Side</b>									
Rated Output Power [kW]	4.00	5.00	6.00	8.00	10.00	12.00	15.00	20.00	25.00
Max. Output Power [kW]	4.40	5.50	6.60	8.80	11.00	13.20	16.50 <sup>1)</sup>	22.00	27.50
Rated Output Apparent Power [kVA]	4.00	5.00	6.00	8.00	10.00	12.00	15.00	20.00	25.00
Max. Output Apparent Power [kVA]	4.40	5.50	6.60	8.80	11.00	13.20	16.50 <sup>1)</sup>	22.00	27.50
Rated Voltage	L/N/PE; 230/400V								
Rated Frequency [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated Output Current [A]	5.80	7.30	8.70	11.60	14.50	17.40	21.70	29.00	36.20
Max. Output Current [A]	6.40	8.00	9.60	12.80	15.90	19.10	23.90 <sup>2)</sup>	31.90	39.90
Power Factor	0.8 underexcited ...0.8 overexcited								
Max. Total Harmonic Distortion	<3% @Rated output power								
DCI	<0.5%In								
<b>Efficiency</b>									
Max. Efficiency	98.1%	98.1%	98.3%	98.3%	98.6%	98.6%	98.6%	98.6%	98.6%
European Efficiency	97.9%	97.9%	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%	98.2%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
<b>Protection</b>									
DC Reverse Polarity Protection	Integrated								
Insulation resistance/monitoring	Integrated								
Overheating protection	Integrated								
Residual Current Protection	Integrated								
AC Over-voltage Protection	Integrated								
Overload Protection	Integrated								
AC Short-circuit Protection	Integrated								
<b>General Data</b>									
Over Voltage Category	PV: II Main: III								
Dimensions [W×H×D mm]	465×335×200								
Weight	19				21			24	
Protection Degree	IP65								
Self-Consumption at Night [W]	<1								
Topology	Transformerless								
Operating Temperature Range [°C]	-30~60								
Relative Humidity [%]	0~100% (not condensing)								
Operating Altitude [m]	3000 (>3000m derating)								
Cooling	Natural Convection						Smart Fan		
Noise Level [dB]	<25						<40		
Display	OLED & LED								
Communication	RS485, WiFi/LAN/GPRS (Optional)								

1) AS 4777.2: 15.0kW; 2) AS 4777.2: 21.7A;



Typesetting and printing errors as well as technical changes reserved. 06/2023.