

## Motech PVMate 2500-AU / 3300MS-AU / 3800MS-AU / 4600MS-AU Specifications

Models	PVMate 2500-AU	PVMate 3300MS-AU	PVMate 3800MS-AU	PVMate 4600MS-AU
<b>Output Data (AC)</b>				
Grid voltage, nominal	230 V <sub>AC</sub>			
Grid frequency, nominal	50 Hz			
Nominal output power	2500 W	3300 W	3800 W	4600 W
Maximum output power	2800 W	3800 W	4400 W	5000 W
Nominal output current	10.87 A	14.34 A	16.52 A	20.0 A
Maximum output current	12.18 A	16.52 A	19.13 A	22.0 A
Maximum grid backfeed current	0 A			
Waveform	True sine			
Power factor	> 0.99 @ nominal power			
Total harmonic distortion	< 3%			
DC component	< 0.5%			
Phase	Single phase			
<b>Input Data (DC)</b>				
Maximum input power	2900 W	4500 W	5000 W	6000 W
MPP voltage range	100 V <sub>DC</sub> ~ 450 V <sub>DC</sub>			
Maximum input voltage	500 V <sub>DC</sub>			
PV start voltage (adjustable)	130 V <sub>DC</sub>			
Maximum input current	10 A per input port			
Number of input	1	2	2	3
Number of MPPT	1	1~2	1~2	1~3
<b>Efficiency</b>				
Maximum efficiency	96.3 % @ 350 V <sub>DC</sub>	96.3 % @ 350 V <sub>DC</sub>	96.3 % @ 350 V <sub>DC</sub>	96.2 % @ 350 V <sub>DC</sub>
European efficiency	94.7 % @ 350 V <sub>DC</sub>	95.1 % @ 350 V <sub>DC</sub>	95.1 % @ 350 V <sub>DC</sub>	95.4 % @ 350 V <sub>DC</sub>
Night consumption	< 0.5 W			
<b>Environment</b>				
Operating temperature range	-20 ~ 55°C			
Maximum full power operating temperature without derating	55°C			
Relative humidity	Maximum 95 %			
<b>Mechanical</b>				
Outdoor enclosure	IP65 (ref. DIN EN 60529)			
Cooling	Controlled forced ventilation			
DC connect	MC4			
Inverter weight	22 kg	22.5 kg	22.5 kg	23 kg
Dimensions (HxWxD)	580 x 422 x 182 mm			
<b>Features</b>				
Communications	RS232 and RS485			
Display	LED / LCD			
Warranty	5 years (10 years optional)			
<b>Certifications</b>				
Low Voltage Regulation (2006/95/EC)	EN 50178, Covered by IEC 62103			
Certifications	AS3100, AS4777.2, AS4777.3, EN55022 & C-Tick, AS/NZS 61000.3.3, AS/NZS 61000.3.5			

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PVMate 2500-AU / 3300MS-AU / 3800MS-AU / 4600MS-AU Transformerless Grid-Tied PV Inverters

# MOTECH

## YOUR BEST PARTNER FOR PV INVERTERS

<b>More Energy</b>	Motech <b>FLEX-MPPTs</b> PV inverter has three independent power point trackers (MPPT). This feature increases flexibility in system design as well as the energy yield through the reduction of mismatching and partial shading losses. Wide PV input MPPT tracking voltage range enables flexibility in module selection and sizing of PV system
<b>Ease of Installation &amp; Lower Cost</b>	At 23 kg, Motech inverters are among the lightest grid-connected transformerless inverters on the market.
<b>High non-derating temperature</b>	Motech inverters do not experience any derating at temperature up to 55°C.
<b>Versatility</b>	Suitable for residential and light commercial applications. Work with thin-film modules.
<b>Durable</b>	IP65 enclosure allows this inverter to be installed outdoor as well as indoor.
<b>Ease of Serviceability</b>	Important system performance parameters are shown on a User-friendly LCD display.
<b>Built-in Communication</b>	Built-in RS232 and RS485. No added-on card is required.
<b>Reliable and Dependable</b>	Motech has been in business for over 29 years, and it is one of leading solar cells manufacturers in the world.
<b>Certified</b>	Certified for VDE0126-1-1, RD 1663, RD661, DK5940, and AS 4777.
<b>Warranty</b>	5 years standard warranty
<b>Free Software</b>	Free PC software for system troubleshooting and remote monitoring.

**More Choices & Options**  
Three independent MPP trackers allow strings of PV modules with different operating characteristics to be used together in the same system without losses in power production.

**Greater Flexibility**  
The MPP tracking voltage for Motech inverters is from 100V to 450V, 350V range. A wide voltage range enables greater flexibility in module selection and sizing of PV systems.

**Reliable and Dependable**  
First Established in 1981, Motech Industries Inc. is one of the world's leading manufacturers of Solar cells. With more than 29 years of experience, Motech is a business that you can trust and rely on.

**Standard 5-year Warranty**  
At Motech, we have been designing and manufacturing high quality power electronics equipment for over 28 years. The production facilities are ISO 9001 and ISO 14001 certified.

**Light Weight**  
At 23 kg, Motech inverters are among the lightest grid-connected transformerless inverters on the market.



**Certified for various European regulations**  
Motech PVMate 3300MS ~ 4600MS are certified for VDE0126-1-1, RD1663, DK 5940, AS 4777 and AS 3100

**Easy System Monitoring**  
Every inverter from Motech comes standard with 16x2 LCD display and a monitoring software.

**High Non-Derating Temperature**  
Motech inverters do not experience any thermal derating of performance until 55 degrees centigrade ambient temperature.

**User Friendly Placement of Heat Sink**  
The heat sink could get hot when operated at full rated power. Hence, the heat sink is located on the back of the inverter in order to prevent accidental injuries of skin such as burns and cuts from the contact with the heat sink.



**Durable**  
IP65 enclosure allows this inverter to be installed outdoor as well as indoor.

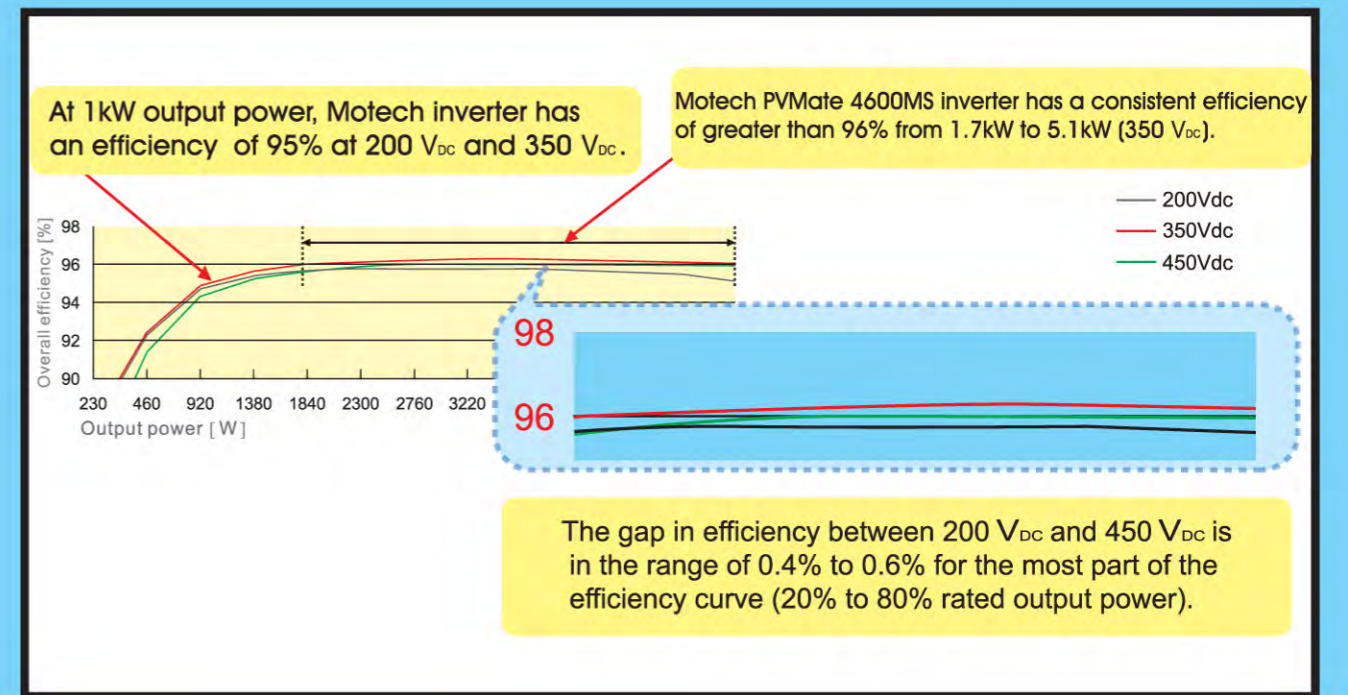
**Trouble Free Replacement of Cooling Fans**  
The built in cooling fans can be easily replaced if needed.

**No Hassle – Built-in Communication**  
PVMate inverter comes with two RJ45 communication ports. One port for the PC connection, and one port for parallel connection to another PVMate inverter.

**Weather resistance**  
Water proof plugs for cable connection.

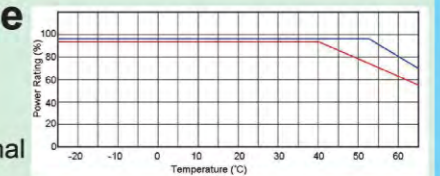
**Safe**  
Active anti-islanding protection and ground fault current protection.

## Consistent performance across different input voltage and insolation



## Better performance at high temperature

Operating at up to 55 degrees centigrade before de-rating, Motech inverters are designed for hotter climates such as Southern Europe. Due to their superior design, Motech inverters can maintain safe internal component temperatures and operate at full rated power without derating in extremely hot climates.



— Motech PVMate 3300MS ~ 4600MS  
— Other brands of inverters

## Master / slave mode

is a proprietary Motech technology that allows PVMate inverters to operate at a higher efficiency when the insolation is low. For a PVMate 4600MS, a total of three strings are supported in Master / slave mode. Two or three strings can be operated in parallel by altering the internal jumper setting.

Not all strings attached to the inverter have the same insolation during daylight. In this situation, the PVMate inverter will compensate and distribute the current across the strings that are connected in parallel in order to achieve the best efficiency for these strings.

