



Solar inverter

PVM-75/100/125-TL

With three power sizes (75 kW, 100 kW and 125 kW) and up to 12 MPPT, which can be paralleled according to the project needs, this battery ready inverter is designed to offer an innovative and flexible solar solution for commercial & industrial applications.

From 75 to 125 kW

Technical data and types

Type code	PVM-75-TL	PVM-100-TL	PVM-125-TL
Input side			
Absolute maximum DC input voltage ($V_{max,dc}$)		1100 V	
Start-up DC input voltage (V_{start})		250...500V (default 430V)	
MPPT input DC voltage range ($V_{MPPTmin} \dots V_{MPPTmax}$) at full power		200-1000 V	
Rated DC input voltage (V_{dc})		460-850V	
Rated DC input power (P_{dc})		620 V	
Recommended maximum PV array power ($P_{PV,max}$)	76000 W	102000W	127000 W
Number of independent MPPT	116000 Wp	155000 Wp	193000 Wp
Parallelo configurabile degli MPPT	8	12	12
Maximum DC input current ($I_{dc,max}$) for each MPPT		Yes	
Maximum DC input power for each MPPT ($P_{MPPT,max}$)		32A	
Maximum input short circuit current for each string input		20kW	
Maximum input short circuit current for each MPPT		32 A	
Number of DC inputs pairs for each MPPT		40A	
DC connection type		2	
Input protection and fuctions			
Reverse polarity protection		Yes	
Input over voltage protection for each MPPT		SPD Type II / Type I+II (optional)	
Photovoltaic array isolation control		Yes, according local regulation	
Arc Fault detection (AFCI)		Yes	
Single string monitoring		yes	
Output side			
AC Grid connection type		Three-phase (3W+PE or 3W+N+PE)	
Earthing system		TN-S, TN-C, TN-CS, TT and IT	
Rated AC power ($P_{acr}@cos\phi=1$)	75000 W	100000 W	125000 W
Rated apparent power (S_r)	75000 VA	100000 VA	125000 VA
Maximum AC output power ($P_{ac,max}@cos\phi=1$)	75000 W	100000 W	125000 W
Maximum apparent power (S_{max})	75000 VA	100000 VA	125000 VA
Maximum reactive power (Q_{max})	45000 VAR	60000 VAR	75000 VAR
Nominal power factor and adjustable range		> 0.995; 0.8 ... 1 inductive / capacitive	
Rated AC grid voltage ($V_{ac,r}$)		380V, 400V ²⁾	
Maximum AC output current ($I_{ac,max}$)	114A	152A	190A
Rated output frequency (f _r)		50 Hz / 60 Hz	
Output frequency range (f _{min...fmax})		47...53 Hz / 57...63 Hz ³⁾	
Total current harmonic distortion		<3% (typical 0.25% on reference sinusoidal voltage)	
Maximum DC injection current (% di In)		<0.5% In	
Maximum AC cable		240 mm ² copper/aluminum	
AC connection type		Terminal block	
Output protection			
Anti-islanding protection		According to local standard	
Output overvoltage protection		SPD Type II with monitoring	
Operating performance			
Maximum efficiency (η_{max})		98.8%	
Euro efficiency		98.5%	
Communication			
Embedded communication interfaces		Dual Ethernet port, WLAN, RS-485	
Communication protocols		Modbus TCP Sunspec, Modbus RTU Sunspec	
User interface		LEDs, Web User Interface, Installer APP, Display (optional)	
Cloud services		Aurora Vision® Plant Management Platform, Rest API	
Advanced features		export limitation control ⁴⁾ , embedded data logger	
Environmental			
ambient temperature range		-25...+60°C (-13...140 °F) with derating above 45 °C (113 °F)	
Relative humidity		4...100 % with condensation	
Maximum operating altitude		4000 m (13123 ft) with derating above 2000 m (6562 ft)	
Physical			
Inverter typology		Grid connected, Double stage, Transformerless	
Environmental Protection Rating		IP66	
Environmental classification		4K26 (IEC 60721-3-4)	
Cooling		Forced Air	
Dimension (H x W x D)		715 x 965 x 380 mm	
Weight		95 Kg	
Mounting system		Mounting bracket (vertical or horizontal installation)	
Safety			
Marking		CE, RCM	
Safety, EMC and RED standard		IEC/EN 62109-1, IEC/EN 62109-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-11, EN 61000-3-12, EN 62311, EN 301 489-1, EN 301 489-17, EN 300 328	
Grid standard (check your sales channel for availability)		IEC 61683, EN 50530, IEC 62116, IEC 61727, AS/NZS 4777.2, VDE-AR-N 4105, VDE-AR-N 4110, VDE V 0124-100, DIN VDE V 0126-1-1, UTE C15-712-1, CEI 0-21, CEI 0-16, PEA, MEA, EN 50438, EN 50549-1/-2, DRRG (DUBAI), CLC/TS 50549-1/-2, G99, Synergrid C10/11, P.O. 12.3, NTS 631, UNE 206006 IN (ITC-BT-40), Denmark Type A/B, IRR-DCC-MV, NRS 097-2-1, ISO/IEC Guide 67, Netherlands Type A, Ireland.	
Available product versions			
Inverter equipped with PV quick fit connectors + SPD Type 2 on the DC and AC side	PVM-75-TL-SX	PVM-100-TL-SX	PVM-125-TL-SX
Inverter equipped with PV quick fit connectors + SPD Type 1+2 on the DC side and Type 2 on the AC side	PVM-75-TL-SY	PVM-100-TL-SY	PVM-125-TL-SY
Inverter equipped with PV quick fit connectors + SPD Type 2 on the DC and AC side + antiPID	PVM-75-TL-SX:APD	PVM-100-TL-SX:APD	PVM-125-TL-SX:APD
Optional available			
PVM-75/100/125 Grounding Kit		Allow to connect the negative input pole to ground ⁵⁾	

1) Please refer to the document "String inverters – Product manual appendix" available at www.fimer.com for information on the quick-fit connector brand and model used in the inverter

2) The AC voltage range may vary depending on country specific country grid standard

3) The Frequency range may vary depending on specific country grid standards

4) Please refer to the document "Meter supported by FIMER string inverters and the VSN700-05 data logger"

5) When grounding-kit is installed, Residual Current Monitoring does not fully operate. Inverter must be installed and operate in "restricted areas (access limited to qualified personnel)" according to IEC 62109-2

Remarks:

- Designed and manufactured in Italy
- Features not specifically listed in the present data sheet are not included in the product



For more information please contact your local FIMER representative or visit:

fimer.com

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