Container PVmaster-Station with Ampt Mode^{TM 1)}

PVMI-85-2000 to PVMI-85-3000

- Container inverter station for direct connection to the medium voltage transformer
- MPP voltage range 850 V to 920 V
- Applicable with all common module types
- Maximum efficiency 98.6 %



Technical data

Designation	PVMI-85-		
	2000	2500	3000
Generator connection (DC)			
Recommended PV generator output ²⁾	2200 kWp	2750 kWp	3300 kWp
Min./max. input voltage (V _{dc min} / V _{dc max})	850 V / 1000 V	850 V / 1000 V	850 V / 1000 V
MPP voltage range ($V_{mpp min}$ to $V_{mpp max}$)	850 V to 920 V	850 V to 920 V	850 V to 920 V
Max. input current (I _{dc max})	4 x 600 A	5 x 600 A	6 x 600 A
Rated input voltage (V _{dc.r})	850 V	850 V	850 V
Start voltage supply (V _{dc start}) 3)	850 V	850 V	850 V
Number of MPP trackers	1	1	1
Termination technique (L+, L-)	M12 per terminal		
Mains power connection (AC)			
Max. output power (S _{ac.r}) at V _{ac.r}	2000 kVA	2500 kVA	3000 kVA
Rated power ($P_{ac,r}$) at $\cos \varphi = 1$	2000 kW	2500 kW	3000 kW
Rated voltage (V _{acr}) ⁴⁾	570 V		
Rated frequency (f _r)	50 Hz / 60 Hz		
Power factor cos φ	Adjustable 0.8 ind. to 0.8 cap.		
Distortion factor (THD) at Pace	<2.5 %		
Termination technique flat terminal (L1, L2, L3)	120 mm ² to 300 mm ²		
Efficiency			
Max. efficiency 5)	98.6 %	98.6 %	98.6 %
European efficiency 5)	98.2 %	98.2 %	98.2 %
CEC efficiency 5)	98.3 %	98.3 %	98.3 %
Dimensions			
Height	2591 mm / 102 in		
Width	6058 mm / 238 in		
Depth	2438 mm / 96 in		
Weight (approx.)	9,000 kg	9,500 kg	10,000 kg
General data			
Immediate vicinity	Outdoor installation		
Ambient temperature	-20 °C to +50 °C		
Relative humidity	15 % to 85 %, condensation not permitted		
Cooling method	Regulated air/water cooling (self-contained system)		
Pollution severity (EN 60664-1)	2		
Power consumption			
Intrinsic consumption in active mode	<1 % rated power (P _{ac,r})		
Standby power consumption ⁶⁾ / night	<400 W / 6 W	<500 W / 7.5 W	<600 W / 9 W
External auxiliary voltage supply	1 x terminal, three-phase, 400 V, 50/60 Hz		

- Inverters are optimized to operate in Ampt ModeTM
 in conjunction with module-level converter technology from Ampt.
 This provides a two-thirds increase in output power from the standard inverter platform.
- 2) At Module-STC in accordance with EN 60904-3
- 3) The actual DC start voltage is derived from the currently available PC generator output $\frac{1}{2}$
- 4) Line-to-line voltage; other rated system voltages on request
- 5) Data referred to inverter excluding medium voltage transformer
- 6) Without fan in passive mode

Data as per E EN 50524:2008-10



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Technical data

	PVMI-85-			
Designation	2000	2500	3000	
Safety / Protective equipment				
Insulation monitoring of PV generator		Yes		
AC/DC surge voltage protector	Optional / Yes			
Temperature monitoring	Temperature-dependent derating, shutdown at impermissible temperatures			
Overload response	Current limitation, operating point shift			
PV generator/mains decoupling	Electrical isolation by internal medium voltage transformer			
Isolation point	Yes			
Protection class (IEC 62103)	1			
Protection type	NEMA 3R			
Standards		NEWA SIL		
Standards	■ CE conformity			
	-	ronic Equipment for Use in Power	Installations	
	■ DIN EN 50274: 2002-11: Low-voltage switchgear and control gear assemblies			
General	■ EMC: DIN EN 61000-6-4 / DIN EN 61000-6-2			
	■ IEEE 1547			
	■ UL 1741			
	■ BDEW (Bundesverband der Energie- und Wasserwirtschaft e. V Federal Energy and Water			
	Management Association) guidelines: Guidelines for connection and parallel operation of			
	generating plants on medium voltage networks, issued 06/2008, and regulations and transition			
	periods for specific requirements supplementary to the technical guidelines, issued 02/2011. In accordance with country-specific requirements			
System monitoring	In acco	ordance with country-specific requ	uirements	
Interfaces / Features / Options				
Interfaces	■ Ethernet (RJ45)			
	microSD card			
	 Digital outputs as floating contacts (24 V to 230 V, AC/DC, changeover contact) Digital inputs with extended-range actuation coils (24 V or 230 V, AC/DC) 			
	SO pulse inputs			
	■ Analog inputs (0 V to +10 V / -10 V to +10 V / 0 mA to 20 mA / 4 mA to 20 mA)			
	■ PT100 inputs			
	■ CAN (e.g. for string monitoring)			
	■ LTi InterCOM (cross-communication between multiple PVmaster III)			
	■ RS232			
Features	■ DC surge protector type 2			
	■ DC main switch			
	■ AC short-circuit proofing			
	 Insulation monitoring of PV generator Web server with extensive functionality 			
	■ Integrated data logger	Ctionality		
	■ Support for various online port	tals		
	■ LTi medium voltage transforme			
	■ Air/water heat exchanger with			
	Air conditioner in inverter space	ce. Benefits:		
	Controlled temperature and hi			
	No filters and no dust contami	nation		
Options	■ DC surge protector type 1 + 2			
	AC surge protector type 1 + 2			
	PV generator earthing			
	GSM modem			
	 Control station with extensive functionality Online monitoring of operational data 			
	■ Trouble reports issued by e-ma			
	Service contract, service extens			
	■ Extended temperature range			