

Type: Victron Multiplus II  
3000/48 FW version: 510  
Serial number: HQ2249U4GH3

## Information - inverter

Producer.

Type: Multiplus II 3000/48

Power: 3000 VA

DC input parameters: 38 - 66 V; 13 A (16.25 A  $I_{SC}$ )

Output parameters AC: 230 V/ 50 Hz; 3000 VA (2400 W at 25 °C)

Efficiency: 0.8<sub>ind</sub> - 0.8<sub>kap</sub>

Phase: 1f

Hybrid: YES

Set grid code: EN50549



## Information - MMPT

Manufacturer.

Type: SmartSolar MMPT 250/85

Power: 4900 W at 48V

Input parameters DC: 250 V  $U_{OC}$ , 70 A  $I_{SC}$

Output parameters DC: 48 V, 85 A

Remark:

Protocol issue date: 2.2.2024

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## List of tests performed

	Legislation		Tech. Report	Request Detail	Measurement detail	Meets
	Document	Art./Cap.				
Frequency Stability	RfG	Article 13.1 a)	1	Operating time t = 30 min for f 47.5 - 48.5 Hz	f 47.6 Hz 5 min	YES
	PPDS	9.1.1		Operating time t = 30 min for f 51 - 51.5 Hz	f 51.4 Hz 5 min	
RoCoF	RfG	Article 13.1 b)	2	RoCoF - 2 Hz/s	Handles 2 Hz/s ramp	YES
	PPDS	9.1.1				
Reduction of active power at overfrequency	RfG	Article 13.2	3	Static with - 5 %	100 % Pn - 4,88 % - OK 50 % Pn - 4,65 % - OK	YES
	PPDS	9.3.1		Threshold frequency 50.2 Hz	50.2 Hz	
Reduction of active power at subfrequencies	RfG	Article 13.4 a 13.5	4	f>49 permissible drop P o 2%/Hz	0 %/Hz	YES
	PPDS	9.3.2				
Logical module	RfG	Article 13.6	5	Disconnection time - 5 s	Supply interruption within 5 s	YES
	PPDS	5.1				
Automatic VM reconnection	RfG	Article 13.7	6	Gradient P - max 10 %/min	9.7%/min	YES
	PPDS	9.5		Analysis time - 300 s	303 s	
				Connection out of range	NO	
Reduction of active power at overfrequency	PPDS	9.3.1	3	Threshold frequency for active power restoration 50.05 Hz	YES	YES
				Gradient of increase in active power	10 %/min	
Verification Rated performance	PPDS	2	7	Pn (cosφ =1) =		YES
Voltage Stability	PPDS	9.1.2	8	Continuous operation 0.85 -1.1 Un	0.86 Un 10 min	YES
					1,09 Un 10 min	
Undervoltage bridging	PPDS	9.2.2.1	9	URVT curve according to PPDS	UPS mode	
Bridging Surge	PPDS	9.2.2.2	10	ORVT curve according to PPDS	He bridged the OVRT	YES
Function P(U)	PPDS	9.3.5	11	Set according to EG.D	P(U) corresponds to the setting	YES
Function Q(U)	PPDS	9.4.2	11	Set according to EG.D	Q(U) corresponds to the setting	YES
				Response of Q to change in U τ = 20 s	Measured τ = 20 s	
Settings protection	SoP		12	Set according to EG.D		YES

## Information - tests

Number of tests performed	13
Granted	12
Failed	0
Not done	1
Overall rating of the inverter	Conforming