

GUIDA ALLA COMPILAZIONE DELL'ADDENDUM TECNICO

S.MG-GAT :SG 25-50HBT REV. 1

Note informative per la compilazione del regolamento di esercizio

Information notes for the compilation of the operating regulations in parallel with the LV GRID for photovoltaic production plants.

The following information tables contain the technical characteristics of the SOLARMG SG-25-50KWHBT inverters for converting the power produced by the photovoltaic generator. Calibration of the integrated interface protection.

The calibration of the thresholds in compliance CEI 0-21:2019-04 -V1:2020-12 is enabled through the initial configuration from the country / standard display. The following table shows the thresholds and intervention times set by default in the integrated interface protection system of the SOLARMG SG-25-50KWHBT inverters.

Protezione	Soglia impostata (monofase/trifase)	Tempo di intervento impostato
Massima tensione su 10min (59.S1)	$1,10 \cdot V_n: 253/440V$	< 3s
Massima tensione (59.S2)	$1,15 \cdot V_n: 264,5 / 460V$	0,2s
Minima tensione (27.S1)	$0,85 \cdot V_n: 195,5 / 340V$	1,5s
Minimo tensione (27.S2)	$0,15 \cdot V_n: 34,5/60V$	0,2s
Massima frequenza restrittiva (81>S1)	50,2Hz	0,1s
Minima frequenza restrittiv`a (81<S1)	49,8Hz	0,1s
Massima frequenza permissiva (81>S2)	51,5Hz	0,1s
Minima frequenza permissiva (81<S2)	47,5 Hz	0,1s
Comando locale	Livello logico: basso (soglie restrittive disabilitate)	
Segnale esterno	Livello logico: alto	

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The protection $81 > S1$ (50.2Kz) and $81 < S1$ (49.8Hz) are disabled by local command as required by the CEI 021 standard. This local command is protected from improper use and accidental changes, therefore it can only be set after parameterization protected by a password. The activation threshold of the power reduction function fed into the grid as the frequency increases is set at 50.2Hz.

General Characteristics SOLARMG SG-25-50KWHBT Inverter:

Type:	Static DC/AC converter without isolation transformers
Version FW:	V1.00
Power Type:	Three Phase
Number of poles:	3P+N+PE
Nominal Voltage AC:	380/400/415V
Power factor nominal:	cos=1

Characteristics of the interface device (DDI) integrated in the inverter

Brand/Model:	SOLARMG OST-*HB-T = SG-25-50KWHBT
Type:	Rele
Conformit�:	IEC EN 61810-1,VDE
Interlocks:	Absent

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Type:	Rele
Conformit�:	IEC EN 61810-1,VDE
Interlocks:	Absent

Characteristics of the interface protection system (SPI) integrated in the inverter

Brand/Model:	SOLARMG SG-25-50KWHBT
Firmware:	V1.00
Integrated in the inverter:	yes

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Modello Inverter:	OST- 25000HB-T	OST- 30000HB-T	OST- 36000HB-T	OST- 40000HB-T
Potenza nominale:	25000W	30000W	36000W	40000W
Corrente nominale In:	30A	30A	30A	30A
Contributo alla corrente di corto circuito lcc:	38,0A	43,5A	52,0A	60,0A
Rapporto lcc/In:	1,27	1,45	1,73	2,00

Modello Inverter:	OST-50000HB-T	OST-40000HB- TP	OST-50000HB-TP
Potenza nominale:	50000W	40000W	50000W
Corrente nominale In:	30A	60A	60A
Contributo alla corrente di corto circuito lcc:	75,0A	60,0A	75,0A
Rapporto lcc/In:	2,50	1,00	1,25

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General characteristics of the Pylontech PowerCube-M1C battery series in combination with the SOLARMG SG-25-50KWHBT inverter.

Brand	Pylontech
Model Battery	PowerCube-M1C

Battery number Master /Slave	5	6	7	8	9	10
Nominal capacity	23,70kWh	28,44kWh	33,18kWh	37,92kWh	42,66kWh	47,40kWh
CUS (useful system capacity)	22.52kWh	27,02kWh	31,52kWh	36,02kWh	40,53kWh	45,03kWh
PSMAX (Power max discharge)	Potenza max scarica inverter					
Pcmax	Potenza max di carica inverter					
PSN (Nominal Power discharge)	Potenza nominale scarica inverter					
PCN (Nominal Power capacity)	Potenza nominale carica inverter					
Type:	Litio Li-ion battery LFP					
Battery management BMS	Integrated in the system					
Version battery FW	Master: 1.00 / Slave 1.00					
Sistema di protezione di interfaccia	Integrated in the inverter					
Connection Mode	DC side connection					
Tipo inverter	Bidirezionale					

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Battery number Master /Slave	11	12	13	14	15	16
Nominal capacity	52,14kWh	56,88kWh	61,62kWh	66,36kWh	71,10kWh	75,84kWh
CUS (useful system capacity)	49,53kWh	54,04kWh	58,54kWh	63,04kWh	67,55kWh	72,09kWh
PSMAX (Power max discharge)	Potenza max scarica inverter					
Pcmax	Potenza max di carica inverter					
PSN (Nominal Power discharge)	Potenza nominale scarica inverter					
PCN (Nominal Power capacity)	Potenza nominale carica inverter					
Type:	Litio Li-ion battery LFP					
Battery management BMS	Integrated in the system					
Version battery FW	Master: 1.00 / Slave 1.00					
Sistema di protezione di interfaccia	Integrated in the inverter					
Connection Mode	DC side connection					
Tipo inverter	Bidirezionale					

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Battery number Master /Slave	17	18	19	20	21	22	23
Nominal capacity	80,58kWh	85,32kWh	90,06kWh	94,80kWh	99,54kWh	104,28kWh	109,02kWh
CUS (useful system capacity)	76,55kWh	81,05kWh	85,58kWh	90,06kWh	94,56kWh	99,07kWh	103,57kWh
PSMAX (Power max discharge)	Potenza max scarica inverter						
Pcmax	Potenza max di carica inverter						
PSN (Nominal Power discharge)	Potenza nominale scarica inverter						
PCN (Nominal Power capacity)	Potenza nominale carica inverter						
Type:	Litio Li-ion battery LFP						
Battery management BMS	Integrated in the system						
Version battery FW	Master: 1.00 / Slave 1.00						
Sistema di protezione di interfaccia	Integrated in the inverter						
Connection Mode	DC side connection						
Tipo inverter	Bidirezionale						