



MPI HYBRID INVERTER SETUP SOP - PYLONTECH BATTERY

(1) Inverter Spec.:

Continuous Output3,000W4,000W5,000W5,500W10,000WParallel-ReadyNoYesYesNoYesWax PV Input Fatting (GRID-TIE) </th <th>MPI HYBRID SERIES</th> <th>ЗК</th> <th>4K</th> <th>5K</th> <th>5.5K</th> <th>10K</th>	MPI HYBRID SERIES	ЗК	4K	5K	5.5K	10K
Parallel-Ready No Yes Yes No Yes PV Input Rating (GRID-TIE) No Yes No Yes No Yes No Yes Yes No Yes	Rated Power					
PV Input Rating (GRID-TIE) Vinput Power 4,500W 5,000W 10,000W 6,500W 14,850W Max PV Input Voltage 500Vdc 580Vdc 900Vdc 500Vdc 300 vdc 900Vdc 300Vdc 320 / 350 Vdc 350 / 560 Vdc 360 Vdc 70 / 320 Vac / 350 Vdc 326 / 250 Vdc 72 / 328 / 360 Vdc 72 / 328 / 360 Vdc<	Continuous Output	3,000W	4,000W	5,000W	5,500W	10,000W
Max PV Input Power 4,500W 5,000W 10,000W 6,500W 14,850W Max PV Input Voltage 500Vdc 580Vdc 900Vdc 500Vdc 900Vdc Start-up / Initial Feeding Voltage 116 / 150Vdc 120 - 500Vdc 220 / 250 Vdc 116 / 150Vdc 320 / 350 Vdc PV MPPT Range 250 - 450Vdc 120 - 500Vdc 250 - 850 Vdc 120 - 450Vdc 350 - 850 Vdc Max PV Input Current 18A 18A 10A x 2 13A x 2 18A x 2 MAX DC/AC Conversion >96% >96% >96% > > AC Input Max AC Auto Restart 120 - 140Vac / 180Vac Input Voltage Range 170 - 280Vac Nominal Frequency 50 / 60 Hz Max AC Input Current 30A 40A 40A 40A 25A AC Output Nominal AC Output Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 184 - 265Vac (P-A / 318 - 460Vac (P-A / 50 / 60.05 / 60.05 HZ 184 - 265Vac (P-A / 318	Parallel-Ready	No	Yes	Yes	No	Yes
Max PV Input Voltage S00Vdc S80Vdc 900Vdc S00Vdc 900Vdc Start-up / Initial Feeding Voltage 116 / 150Vdc 116 / 150Vdc 220 / 250 Vdc 116 / 150Vdc 320 / 350 Vdc Voltage 250 - 450Vdc 120 - 500Vdc 250 - 850 Vdc 120 - 450Vdc 350 - 850 Vdc Max PV Input Current 18A 18A 10A x 2 13A x 2 18A x 2 MAX DC/AC Conversion Efficiency 1 1 2 2 2 Max DC/AC Conversion Efficiency -96% - - - - Max A Ciput -	PV Input Rating (GRID-TIE)					
Start-up / Initial Feeding Voltage 116 / 150Vdc 116 / 150Vdc 220 / 250 Vdc 116 / 150Vdc 320 / 350 Vdc PV MPPT Range 250 - 450Vdc 120 - 500Vdc 250 - 850 Vdc 120 - 450Vdc 350 - 850 Vdc MAX PV Input Current 18A 18A 10A x 2 13A x 2 18A x 2 MPPT Tracker 1 1 2 2 2 2 MAX DC/AC Conversion Efficiency >96% - 100 x 2 180 x 2 13A x 2 18A x 2 Start-up / Auto Restart 120 - 140Vac / 180Vac - 100 x 2 180 x 2 184 x 2 Nominal Frequency 50 / 60 Hz - - - - - Nominal AC Output Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 184 - 265Vac (P-h / 318 - 460Vac (P	Max PV Input Power	4,500W	5,000W	10,000W	6,500W	14,850W
Voltage 116 / 150Vdc 116 / 150Vdc 220 / 250 Vdc 116 / 150Vdc 320 / 350 Vdc PV MPT Range 250 - 450Vdc 120 - 500Vdc 250 - 850 Vdc 120 - 450Vdc 350 - 850 Vdc Max PV Input Current 18A 18A 10A x 2 13A x 2 18A x 2 Max DC/AC Conversion >96% > 2 2 2 Max DC/AC Conversion >96% >96% Start-up / Auto Restart 120 - 140Vac / 180Vac 186 / 150Vac 2 2 Nominal Frequency 50 / 60 Hz 30A 40A 40A 40A 25A AC Output 30A 40A 40A 40A 25A 38 - 460Vac (P-00Vac) 38 - 460Vac (P-0Vac)	Max PV Input Voltage	500Vdc	580Vdc	900Vdc	500Vdc	900Vdc
Vortage Dot Assource	Start-up / Initial Feeding	116 / 150Vdc	116 / 150Vdc	220 / 250 Vdc	116 / 150Vdc	320 / 350 Vdc
Max PV Input Current 18A 18A 10A x2 13A x2 18A x2 MMX PV Input Current 1 1 2 2 2 Max DC/AC Conversion Efficiency - - - 96% - Start-up / Auto Restart 120 - 140Vac / 180Vac - 2 2 Input Voltage Range - 170 - 280Vac - - Nominal Frequency 50 / 60 Hz - 40A 25A - Max AC Input Current 30A 40A 40A 40A 25A AC Output Noltage Range - 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P - Output Voltage Range 1004 - 25A 51.5Hz / 59.3 - 60.5 Hz - - - Output Frequency (GRID-TIE) - 50 / 60Hz, auto-sensing - - Output Frequency (GRID-TIE) 50 / 60Hz, auto-sensing - - - Max Output Power (via grid relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (via grid relay) 5,100W			422 5224			
MPPT Tracker 1 1 2 2 2 Max DC/AC Conversion Efficiency ->96% ->96% ->96% AC Input ->96% AC Input ->96% ->96% AC Input ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->96% ->>96% ->>96% ->>> ->>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		2				CALCON PLATE SERVICES
Max DC/AC Conversion Fficiency >96% AC Input >96% AC Input Auto Restart 120 - 140Vac / 180Vac Input Voltage Range 170 - 280Vac Nominal Frequency 50 / 60 Hz Max AC Input Current 30A 40A 40A 40A AC Output 30A 40A 40A 40A 25A Max AC Input Current 30A 40A 40A 40A 25A AC Output Max AC Input Current 30A 40A 40A 40A 25A Max Coutput Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 400Vac, 3-Phase Doutput Voltage Range 184 - 265Vac 184 - 265Vac 184 - 265Vac (P-A Output Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 00utput Waveform 120 - 900Vac 184 - 265Vac 184 - 265Vac (P-A Output Waveform Pure Sine Wave Max Output Power (via grid 5,100W 6,000W 7,000W 6,500W 16,000W Max Chutput Power (via grid 5,100W 6,000W 5,000W 5,500W	Max PV Input Current	18A	18A	10A x 2	13A x 2	18A x 2
Start-up / Auto Restart 120 - 140Vac / 180Vac Start-up / Auto Restart 120 - 140Vac / 180Vac Input Voltage Range 50 / 60 Hz Wax AC Input Current 30A 40A 40A 25A Vominal Frequency 50 / 60 Hz 400A 25A Vominal AC Output Voltage 208/220/230/24∪Vac, Single Phase 400Vac, 3-Phase Output Voltage Range 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P <d) (p<d)<="" -="" 318="" 460vac="" td=""> Dutput Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 184 - 265Vac (P-N / 318 - 460Vac (P<d) (p<d)<="" -="" 318="" 460vac="" td=""> Dutput Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 200utput Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz Dutput Frequency (GRID-TIE) 50 / 60Hz, auto-sensing 200utput Fower (Via grid 5,100W 6,000W 7,000W 6,500W 16,000W Viax Output Power (battery 3,000W 4,000W 5,000W 5,500W 10,000W 10,00A</d)></d)>	MPPT Tracker	1	1	2	2	2
AC Input Start-up / Auto Restart 120 - 140Vac / 180Vac input Voltage Range 170 - 280Vac Nominal Frequency 50 / 60 Hz Max AC Input Current 30A 40A 40A 40A 25A AC Output Nominal AC Output Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase Dutput Voltage Range 184 - 265Vac 184 - 265Vac // 318 - 460Vac (P-N // 3100 400W 5,000W 5,000W 5,500W 16,000W // 0.00W // 0.				>96%		
Start-up / Auto Restart 120 - 140Vac / 180Vac Input Voltage Range 170 - 280Vac Nominal Frequency 50 / 60 Hz Max AC Input Current 30A 40A 40A 40A 25A AC Output 30A 40A 40A 40A 25A AC Output 30A 40A 40A 40A 25A AC Output Start Action 400Vac, 3-Phase 400Vac, 3-Phase 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P Output Voltage Range 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P 184 - 265Vac (P-N / 318 - 460Vac (P Output Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 50 / 60Hz, auto-sensing 50 / 60Hz, auto-sensing Output Frequency (OFF-GRID) 50 / 60Hz, auto-sensing 16,000W Max Output Power (battery mack output Power (battery 3,000W 4,000W 5,000W 5,500W 16,000W Max Charging Current 25A 80A 100A 60A 200A Nominal DC Voltage 48Vdc 48Vdc 48Vdc 48Vdc 48Vdc 48Vdc 4						
Interview Interview Nominal Frequency 50 / 60 Hz Wax AC Input Current 30A 40A 40A 40A 25A AC Output 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 184 - 265Vac (P-N / 318 - 460Vac (P Dutput Voltage Range 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P 184 - 265Vac (P-N / 318 - 460Vac (P Dutput Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 50 160/00W 184 - 265Vac (P-N / 318 - 460Vac (P Dutput Frequency (OFF-GRID) 50 / 60Hz, auto-sening 50 16,000W 16,000W Wax Output Power (via grid selay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Efficiency 3,000W 4,000W 5,000W 5,500W 10,000W Max Charging Current 25A 80A 100A 60A 200A <td></td> <td>e.</td> <td></td> <td></td> <td></td> <td></td>		e.				
Numeral Frequency 50 / 60 Hz VMax AC Input Current 30A 40A 40A 40A 25A AC Output VMax AC Input Current 30A 40A 40A 40A 25A AC Output Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 184 - 265Vac (P-N / 318 - 460Vac (P Dutput Voltage Range 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P ////////////////////////////////////	Start-up / Auto Restart		1	20 - 140Vac / 180	Vac	
Max AC Input Current 30A 40A 40A 40A 40A 25A AC Output 208/220/230/240Vac, Single Phase 400Vac, 3-Phase 400Vac, 3-Phase 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P Output Voltage Range 184 - 265Vac 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P Output Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 0utput Frequency (OFF-GRID) 50 / 60Hz, auto-sensing Output Waveform Pure Sine Wave Max Output Power (via grid relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Charging Current 25A 80A 100A 60A 200A Nominal DC Voltage 48Vdc 48Vdc 48Vdc 200A 200A NRNONWENTAL / MECHANICAL SPECIFICATIONS EN62109-1, EN62109-2, EN62040-1 / CE VDE4105, VDE0126-1-1 A54777/3100 (3K, 5.5K, 10K only) 200A Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 0 - 40°C	nput Voltage Range			170 - 280Vac		
AC Output AC Output Voltage 208/220/230/240Vac, Single Phase 400Vac, 3-Phase Output Voltage Range 184 - 265Vac 184 - 265Vac / 318 - 460Vac (P-N/318 - 480Vac	Nominal Frequency			50 / 60 Hz		201. P
Nominal AC Output Voltage $208/220/230/240Vac, Single Phase400Vac, 3-PhaseOutput Voltage Range184 - 265Vac184 - 265Vac184 - 265Vac184 - 265Vac184 - 265Vac184 - 265Vac20100000000000000000000000000000000000$	Max AC Input Current	30A	40A	40A	40A	25A
Dutput Voltage Range 184 - 265Vac 184 - 265Vac 184 - 265Vac (P-N / 318 - 460Vac (P Dutput Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz 50 / 60Hz, auto-sensing 50 / 60Hz, auto-sensing Dutput Frequency (OFF-GRID) 50 / 60Hz, auto-sensing 50 / 60Hz, auto-sensing 16,000W Max Output Power (via grid elay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Charging Current Sattery Charger 3,000W 4,000W 5,000W 5,500W 10,000W Max Charging Current ENVIRONMENTAL / MECHANICAL SPECIFICATIONS 93% >91% 53 50 Communication Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) 0-40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 535*438*117m 600*460*200m 450*445*110m 622*500*16	AC Output					
Dutput Voltage Range 184 - 265Vac / 318 - 460Vac (P Output Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz Output Frequency (OFF-GRID) 50 / 60Hz, auto-sensing Output Waveform Pure Sine Wave Max Output Power (via grid) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery easy) 3,000W 4,000W 5,000W 5,500W 10,000W Max Charger 3,000W 4,000W 5,000W 5,500W 10,000W Max Charger >93% >91% >91% >91% Sattery Charger 480Vdc 480A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS EN62109-1, EN62109-2, EN62040-1 / CE Communication Port RS232 / USB Certifications EN62109-1, EN62109-2, EN62040-1 / CE VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 622*500*1	Nominal AC Output Voltage		208/220/230/240	OVac, Single Phase		400Vac, 3-Phase
Output Frequency (GRID-TIE) 47.5 - 51.5Hz / 59.3 - 60.5 Hz Output Frequency (OFF-GRID) 50 / 60Hz, auto-sensing Output Waveform Pure Sine Wave Max Output Power (via grid relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >93% >91% 5,500W 10,000W Battery Charger >93% >91% 5,500W 10,000W Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS EN62109-1, EN62109-2, EN62040-1 / CE VDE4105, VDE0126-1-1 Communication Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Temp. 0 - 40°C 0 - 90% RH (No condensing) 622*500*167mn 622*500*167mn <td>Output Voltage Range</td> <td></td> <td>184 - 2</td> <td>265Vac</td> <td></td> <td>184 - 265Vac (P-N / 318 - 460Vac (P-</td>	Output Voltage Range		184 - 2	265Vac		184 - 265Vac (P-N / 318 - 460Vac (P-
Output Waveform Pure Sine Wave Max Output Power (via grid relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >93% >93% >91% Sattery Charger >93% >91% Battery Charger Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 Communication Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE Certifications Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 90% RH (No condensing) 622*500*167mm	Output Frequency (GRID-TIE)		47.5	- 51.5Hz / 59.3 -	60.5 Hz	
Max Output Power (via grid relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >93% >91% Sattery Charger >91% Nominal DC Voltage 48Vdc 48Vdc 200A 200A Environmentation Port 25A 80A 100A 60A 200A Environmentation Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 Certifications 0-40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Temp. 0-40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0-90% RH (No condensing) 622*500*167mm 622*500*167mm	Output Frequency (OFF-GRID)		5	0 / 60Hz, auto-ser	sing	
relay) 5,100W 6,000W 7,000W 6,500W 16,000W Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >>3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >>3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >>3% >>3% >>1% >>1% Battery Charger 48Vdc 48Vdc Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS 200A Communication Port RS232 / USB Certifications VDE4105, VDE0126-1-1 Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 40°C -90% RH (No condensing) 622*500*167mn	Output Waveform			Pure Sine Wave	3	
Max Output Power (battery mode) 3,000W 4,000W 5,000W 5,500W 10,000W Max Efficiency >93% >91% >91% >91% Battery Charger 48Vdc >91% >91% Nominal DC Voltage 48Vdc 48Vdc Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS RS232 / USB Communication Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mn	A REAL PROPERTY AND A REAL	5,100W	6,000W	7,000W	6,500W	16,000W
Max Efficiency >93% >91% Battery Charger A8Vdc Max Charging Current 25A 80A 100A 60A 200A Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS RS232 / USB Communication Port RS232 / USB Communication Port Certifications VDE4105, VDE0126-1-1 VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Coperating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10	Max Output Power (battery	3,000W	4,000W	5,000W	5,500W	10,000W
Battery Charger ABVIC ABVIC Nominal DC Voltage 48Vdc 48Vdc Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS ENG2109-1, ENG2109-2, ENG2040-1 / CE ENG2109-1, ENG2109-2, ENG2040-1 / CE Certifications VDE4105, VDE0126-1-1 Free Communication Port State Provide Comparison (SK, 5.5K, 10K only) Certifications 0 - 40°C -10 - 50°C	modej					
Nominal DC Voltage 48Vdc Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS EN62109-1, EN62109-2, EN62040-1 / CE Communication Port RS232 / USB Communication Port EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 Certifications 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Temp. 0 - 40°C 0 - 90% RH (No condensing) 622*500*167mm	Max Efficiency		>9	3%		>91%
Max Charging Current 25A 80A 100A 60A 200A ENVIRONMENTAL / MECHANICAL SPECIFICATIONS RS232 / USB 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A 200A			>9	3%		>91%
ENVIRONMENTAL / MECHANICAL SPECIFICATIONS RS232 / USB Communication Port EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C - 10 - 50°C 0 - 40°C - 10 - 50°C - 10 - 50°C O - 40°C - 10 - 50°C 0 - 40°C - 10 - 50°C - 0 - 40°C - 10 - 50°C - 0 - 90% RH (No condensing) Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mm	Battery Charger		>9			>91%
Communication Port RS232 / USB EN62109-1, EN62109-2, EN62040-1 / CE Certifications VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 90% RH (No condensing) 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage	254		48Vdc		5.
Certifications EN62109-1, EN62109-2, EN62040-1 / CE VDE4105, VDE0126-1-1 AS477/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C -10 - 50°C -10 - 50°C O - 40°C -10 - 50°C 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C O - 40°C -10 - 50°C O - 40°C -10 - 50°C 0 - 40°C -10 - 50°C O - 40°C -10 - 50°C 0 - 90% RH (No condensing) Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current		80A	48Vdc	60A	5. 5.
Certifications VDE4105, VDE0126-1-1 AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 90% RH (No condensing) 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC		80A	48Vdc 100A	60A	5. 5.
AS4777/3100 (3K, 5.5K, 10K only) Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 90% RH (No condensing) 622*500*167mm Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC		80A IS	48Vdc 100A RS232 / USB		5. 5.
Operating Temp. 0 - 40°C -10 - 50°C 0 - 40°C -10 - 50°C Operating Humidity 0 - 90% RH (No condensing) 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port		80A IS EN62109-	48Vdc 100A RS232 / USB 1, EN62109-2, EN	52040-1 / CE	5. 5.
Operating Humidity 0 - 90% RH (No condensing) Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port		80A IS EN62109-	48Vdc 100A RS232 / USB 1, EN62109-2, EN	52040-1 / CE	5.
Dimension 480*438*107m 535*438*117m 600*460*200m 450*445*110m 622*500*167mm	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port		80A IS EN62109- V	48Vdc 100A RS232 / USB 1, EN62109-2, EN DE4105, VDE0126	52040-1 / CE -1-1	
	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port Certifications	AL SPECIFICATION	80A IS EN62109- V AS477	48Vdc 100A RS232 / USB 1, EN62109-2, EN DE4105, VDE0126 7/3100 (3K, 5.5K,	52040-1 / CE -1-1 10K only)	200A
Net Weight 16Kg 17Kg 29Kg 16Kg 45Kg	Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port Certifications Operating Temp.	AL SPECIFICATION	80A IS EN62109- V AS477	48Vdc 100A RS232 / USB 1, EN62109-2, EN DE4105, VDE0126 7/3100 (3K, 5.5K, -10 - 50°C	52040-1 / CE -1-1 10K only) 0 - 40°C	200A
	Max Efficiency Battery Charger Nominal DC Voltage Max Charging Current ENVIRONMENTAL / MECHANIC Communication Port Certifications Operating Temp. Operating Humidity Dimension	AL SPECIFICATION	80A JS EN62109- V AS477 0°C 0 -	48Vdc 100A RS232 / USB 1, EN62109-2, EN DE4105, VDE0126 7/3100 (3K, 5.5K, -10 - 50°C 90% RH (No conde	52040-1 / CE -1-1 10K only) 0 - 40°C ensing)	200A



Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park Pudong.

Shanghai 201203, China



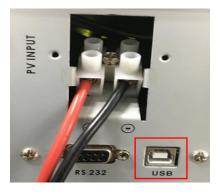
(=) ••••••							
Battery Type		US2000B/US2000BPlus/Phantom-S/US3000					
Inverter Type	MPI 3K	MPI 5K	MPI 10K				
Recommend	According to load	According to load requirement and inverter rated power.					
battery Amount	Battery Amo	Battery Amount N = Load power/1200W					
Communication	Not required, but	Not required, but need finish the setting on Inverter software					
DOD	80%	80%					
Working Temp.	0 - 50°C (Indoor o	0 - 50°C (Indoor operation)					
Charge/Dischar	N*25, N = Battery amount						
ge Current							
Warranty	Refer to each country's warranty terms, please contact your distributor						

(2) General Compatible Condition:

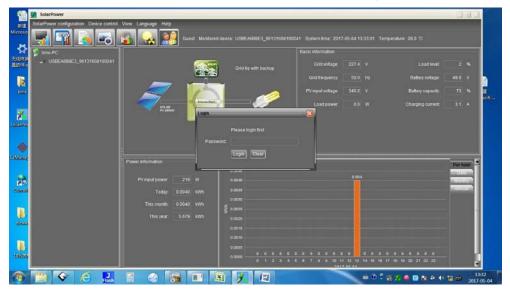
(3) Inverter set up:

(a) Connect PV or Grid power to wake up inverter; Connect the communication cable from Inverter to computer.





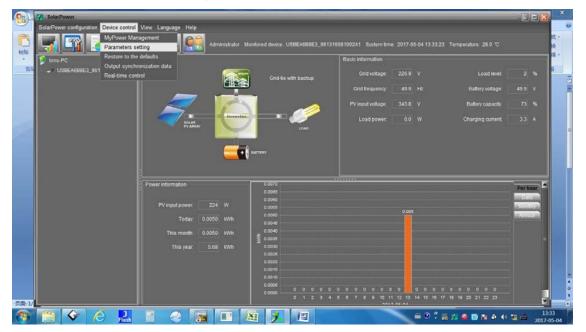
(b) Open 'Solarpower.exe'(the inverter set up software), Log in .







(c)Press 'Parameters Setting'.



(d) Set the parameter according to below recommendation, the max. charge current refer to the specific battery amount of real application. Then click 'Apply'. According to the inverter limitation, for 2kW&3kW inverter max. is 25A, for 5kW max. is 100A, for 10kW max. is 200A.

Parameters setting	-	_	_			×
Min. grid-co	onnected voltage:	189	Apply	The waiting time before grid-connection:	30 🚆 Sec.	Apply
Max. grid-co	onnected voltage:	263.5	Apply	Max. grid-connected average voltage: 2	53 📮 V	Apply
Min. grid-conr	nected frequency;	47.6	Hz Apply	Max feed-in grid power: 3,0	w 🗧 w	Apply
Max. grid-conr	rected frequency:	50,1	Hz Apply			
Min. P	V input voltage:	90 🗧 V	Apply	Bulk charging voltage(C.V. voltage):	53.2 🐺 V	Apply
Max. P	V input voltage:	500 🐺 V	Apply	Floating charging voltage:	53.2 🗧 V	Apply
Mi	n. MPP voltage:	120 V	Apply	Battery cut-off discharging voltage when Grid is available:	48 🗧 V	Apply
Ma	ix. MPP voltage:	450 🖉 V	Apply	Battery re-discharging voltage when Grid is available:	50 🗧 V	Apply
Max. ch	narging current:	25 A	Apply:	Battery cut-off discharging voltage when Grid is unavailable:	48 🗧 V	Apply
Start LCD scr	een-saver after:	300 💌 Se	c. Apply	Battery re-discharging voltage when Grid is unavailable:	50 🗧 V	Apply
T.	Mute Buzzer al	arm: 🔘 Ena	ible 🖲 Disa	ble Apply. Mute alarm in battery mode: O Enable	Disable	Apply
Mute the buzze	er in the Standby m	ode: 🔘 Ena	ible 🖲 Disa	ble Apply Generator as AC source: O Enable	Disable	Apply
When float chargin	g current is less th	an X (A) and co	intinued T (Mir	n),then charger off, when battery voltage is less than Y (V),then charger	on again.	
x	A 🖷	T: 60	Min.	Y: 51.5 V Apply		
۲	Any schedule cha	nge will affect t	he power gen	erated and shall be conservatively made.		
System time:	2017-05-04	*				
	13:34:46	Apply	1			



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PIP-MS/MG INVERTER SETUP SOP - PYLONTECH BATTERY

PIP-MS/MG *PF1* SERIES	1012MS	2024MS	3024MS	4048MS(1)	5048MS	5048MG		
ELECTRICAL SPECIFICATIONS								
Continuous Output	1000W	2000W	3000W	4000W	5000W	5000W		
Parallel-ready	NO YES, MAX 9 UNITS							
Batteryless Operation			NO			YES		
Input Power Factor				1				
Input Voltage Range	90~2	80VAC (App	liance mod	e), 170~280V	AC (UPS m	ode)		
Input/Output Frequency			50Hz	/ 60Hz				
Output Voltage			230V	AC±5%				
Output Waveform			Pure Si	ne Wave				
Output Regulation		< 3%	RMS for bat	ttery voltage	range			
Output Short Circuit			Circuit	Breaker				
Peak Efficiency		95% (lin	e mode) / 9	91% (inverter	mode)			
Transfer Time	<10ms (UPS mode), <20ms (Appliance mode) **							
Charging Mode		3-stage						
Nominal DC Voltage	12V	24	4V		48V			
Bulk Volt (Flooded, AGM)	14.6, 14.1V	29.2,	28.2V		58.4, 56.4	V		
Float Volt	13.5V	27	.0V	54.	DV	54.0V		
Max DC Volt	15.5V	31	.0V	66.	OV	66.0V		
Max AC Charging Current	20Amp	30A	hmp	60A	mp	80A		
No Load Consumption	<15W	<2	5W	<50	W	<50W		
Power Saving Mode	<5W	<1	DW	<15	W	<15W		
Solar Charger								
Algorithm			M	РРТ				
System DC Voltage	12V	24	1V	48	V	48V		
Max PV Input Voc	102V	75	5V	145	5V	450V		
MPPT Range	15 - 80V	30 -	66V	60 - 1	.15V	120 - 430V		
Max Charging Current/Power	40A, 500W	25A,	600W	80A, 4	000W	80A, 4500W		
ENVIRONMENTAL / MECHANICAL	SPECIFICATIONS							
Certification			(Έ				
Operating/Storage Temp.		C)°C ~ 55°C /	-15°C~ 60°C				
Operating Humidity				on-Condensin	g			
Dimension	355*	272*100mn		46	58*295*120	Contraction of the second s		
Net Weight	7.0Kg	7.0Kg	7.5Kg	12.5Kg	13.5Kg	11Kg		

(2) General Compatible Condition:

Battery Type	US2000B/US2000BPlus/Phantom-S/US3000
Recommend	According to load requirement and inverter rated power.
battery Amount	Battery Amount N = Load power/1200W
Communication	Not required, but need finish the setting on Inverter.
DOD	80%
Working Temp.	0 - 50℃(Indoor operation)
Charge/Dischar	N*25, N = Battery amount
ge Current	
Warranty	Refer to each country`s warranty terms, please contact your distributor





- (3) Inverter set up:
- (a) Connect Inverter with battery, wake up inverter.



(b) Press 'Enter' for 5s, to enter into the setting.







Press 'Up' and 'Down' to choose the setting item No., press 'Enter' to enter into the detailed setting parameter, when finish press 'Enter' again. The following setting items need to be set follow the recommended value:

Item No.	Setting Value
Program 02	Set to N*25A, N=battery amount
Program 05	Set to USE
Program 12	Set to 48V
Program 13	Set to 51V
Program 26	Set to 53.2V
Program 29	Set to 47.5V



Note:

- 1. PIP Inverters can only be waked up via battery, if the battery is turned off due to over-discharge, over temp. or other reasons, in order to wake up the inverter you need turn on the battery manually.
- 2. As there is no communication between inverter and battery, for a better using experience, it's also acceptable to introduce monitoring device to visually display the real-time information from battery management system via the communication channel, such as Inverter Control Center(ICC) from centurionsolar. Same as the inverter compatibility condition, <u>such a monitoring system needs get authorization from Pylontech in advance for the compatibility before using with the products from Pylontech mentioned above, otherwise the products from Pylontech will be exclusive of warranty.</u>





- (4) Change the setting of inverter via Watchpower software:
- (a) Connect computer and inverter with a USB communication cable.



4	100			-	_
10		A		-	1
6.1					
160		1.000	-	atalsev	105
		GABING CORE		(JOSEN	
	8			00	
1	-	0	े 🔳		
		COM	NC	C NO	
				PV.	

(b) Run Watchpower software, click the icon marked with red circle in picture 1, to open the login dialog.

1 💾 🔤 👪	Guest Monitored device: L	JSB87C55B3_5535553555355				
20170502-PC.vcn.vol.corp			Basic Information			
USB87C55B3_55355535553555		Battery Mo	AC voltage:		Battery discharge current:	
					Output voltage:	
	🦪 1		PV input voltage:		Output frequency:	
		inverter.	PV input power.		Output apparent power:	
		Source	: Battery Battery voltage:		Output active power.	
		 -1	Battery capacity.		Load percent	
			Charging current			
	Product Information		Rated information			
			Nominal AC voltage:			
					Nominal output current	
			Rated battery voltage:			



(c) Input the password in the dialog as picture 2, the default password is 'administrator' , then click 'login'.

WatchPower				
WatchPower configuration Device control	I View Language Help			
📑 🛐 📼 🐔	Guest Monitored device: US887C5583_55355535553555			
20170602-PC.vcn.vol.corp		Basic information		
USB87C5583_55355535553555	Battery Mode	AC voltage: 0.0 V	Battery discharge current	0.0 A
			Output voltage:	230.0 V
		PV input voltage: 0.0 V	Output frequency:	50.0 Hz
	Inverter.	PV input power. 0 W	Output apparent power.	0.0 VA
	Login 2 administrator	Battery voltage: 47.99 V	Output active power:	0.0 W
	Please logit frot	Battery capacity: 57 %		0 %
	Password	Charging current 0.0 A		
	Product Information F	Cated information		
	Model type: Stand alone	Nominal AC voltage: 230.0 V	Nominal output frequency.	50.0 Hz
			Nominal output current:	13.0 A
	Main CPU version: 00020.16	Rated ballery voltage: 48.0 V	Nominal output apparent power:	3000.0 VA
				3000.0 W

Picture 2



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(d) Select 'Device control'-> 'Parameters Setting'.

Shanghai 201203, China

5 WatchPower							
WatchPower configuration Device control Vie	w Language Help						
Parameters setting							
💯 20170602-PC.vcn.vol.corp				Basic information			
		Bat	tery Mode			Battery discharge current:	A
	<i>Z</i> 1						
		Inverter					
		Y	Source: Battery	Battery voltage:			
				Battery capacity:			
				Charging current:			
Pro	oduct Information			ated information			



(e) Change the 'maximum charging current', 'battery type', 'back to grid voltage', 'back to discharge voltage', 'CV voltage', 'floating charging voltage' in the setting page, all these setting must be set to the value listed in below table. Select the right value, then click 'Apply' for the changes to take effect.

Item	Setting Value
Maximum charging current	Set to N*25A, N=battery amount
Battery type	Set to USE
Back to grid voltage	Set to 48V
Back to discharge voltage	Set to 51V
Bulk charging voltage	Set to 53.2V
Float charging voltage	Set to 47.5V

Parameters setting		
Buzzer alarm: 🔿 Enable 💿 Disable Apply	Beeps while primary source interrupt: • Enable 🔿 Disable	Apply
Backlight 💿 Enable 🕥 Disable Apply	Overload bypass: 🔿 Enable 💿 Disable	Apply
Overload auto restart: O Enable O Disable Apply	LCD screen returns to default display screen after 1 min.: Enable Disable	Apply
Over temperature auto restart: O Enable O Disable Apply	Fault code record: 🔘 Enable 🌑 Disable	Apply
Charger source priority: Utility	Apply. Back to grid voltage: 46.0 V	Apply
Output source priority: Utility	Apply Max charging current 60	Apply
AC input range: Appliance	Apply: Max. AC charging current 15	Apply
Battery type: AGM	Apply Back to discharge voltage: 54.0 V	Apply
Output frequency: 50 Hz	Apply	
Bulk charging voltage(C.V. voltage): 56.4 V Apply	Battery cut-off voltage: 42 V	Apply
Float charging voltage: 54 V Apply		
Battery equalization setting		
Battery equalization: 🔿 Enable 💿 Disable Apply	Real-time activate battery equalization: O Activate Cancel	Apply
Equalization time: 60 🚍 Min Apply	Equalization voltage: 58.4 🚔 V	Apply
Equalization period: 30 Day(s) Apply	Equalization timeout 120 Hin	Apply
		Close



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PIP-GK INVERTER SETUP SOP - PYLONTECH BATTERY

PIP5048GK

INVERTER MODEL		5KW					
Line Mode Specification							
Input Voltage Waveform		Sinusoidal (utility or generator)					
Nominal Input Voltage		230Vac					
Max AC Input Voltage		300Vac					
Inverter Mode Specification							
Output Voltage Waveform		Pure Sine Wave					
Output Voltage Regulation		230Vac±5%					
Peak Efficiency		93%					
Overload Protection		5s@≥130% load; 10s@105%~130% load					
Surge Capacity		2* rated power for 5 seconds					
Nominal DC Input Voltage		48Vdc					
Cold Start Voltage		46.0Vdc					
Low DC Warning Voltage							
@ load < 50%	· · · · · · · · · · · · · · · · · · ·	46.0Vdc					
@ load ≥ 50%		44.0Vdc					
Low DC Warning Return Voltage							
@ load < 50%		47.0Vdc					
@ load ≥ 50%		46.0Vdc					
Low DC Cut-off Voltage							
@ load < 50%		43.0Vdc					
@ load ≥ 50%		42.0Vdc					
High DC Recovery Voltage		62Vdc					
High DC Cut-off Voltage		63Vdc					
Charge Mode Specification							
INVERTER MODEL							
Charging Algorithm		3-Step					
AC Charging Current (Max)		60Amp (@VI/P=230Vac)					
	Flooded Battery	58.4					
Bulk Charging Voltage	AGM / Gel Battery	56.4					
Floating Charging Voltage	•	54Vdc					
MPPT Solar Charging Mode							
Max. PV Array Power		4000W					
Nominal PV Voltage		240Vdc					
Start-up Voltage		150Vdc +/- 10Vdc					
PV Array MPPT Voltage Range		120~450Vdc					
Max. PV Array Open Circuit Voltage		500Vdc					
Max Charging Current (AC charger plus solar charger)		80Amp					
General							
Operating Temperature Range		-10°C to 50°C					
Storage temperature		-15°C~ 60°C					
Humidity		5% to 95% Relative Humidity (Non-condensing)					
Dimension (D*W*H), mm		115 x 300 x 440					
Net Weight, kg		10					
Communication Interface		RS232+RS485+USB+BLE+CAN					



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(2) General Compatible Condition:

Battery Type	US2000B/US2000BPlus/Phantom-S/US3000
Inverter Type	PIP 5048GK
Recommend	According to load requirement and inverter rated power.
battery Amount	Battery Amount N = Load power/1200W
Communication	Not required, but need finish the setting on Inverter.
DOD	80%
Working Temp.	0 - 50°C(Indoor operation)
Charge/Discharge Current	N*25, N = Battery amount
Warranty	Refer to each country's warranty terms, please contact your distributor

(3) Inverter set up:

Method1: Through WatchPower

(a) Connect PV or Grid power to wake up inverter; connect the communication cable (USB to RS232/micro-USB cable) from Inverter to computer.



(b) Open 'WatchPower.exe' (the inverter set up software).

WatchPower configuration Device control	View Language Help				
	Guest Monitored device: USB2D!	5AD925_92931805104429			
💆 VTW-Sandy.vtw.vol.corp			Basic information		
USB2D5AD925_92931805104429		Battery Mode	AC voltage:	Charging current:	
				Battery discharge current:	
			PV input voltage:	Output voltage:	
			PV input current:	Output frequency:	
		Source: Battery	PV input power:	Output apparent power:	
		• 0	Battery voltage:	Output active power:	
			Battery capacity:		
	Product Information		ated information		
	Model type: S	Stand alone	Nominal AC voltage:	Nominal output frequency:	
		Transformerless		Nominal output current:	
	Main CPU version: 0	00010000	Rated battery voltage:	Nominal output apparent power:	
	Remote Panel CPU version: 0		Nominal output voltage:	Nominal output active power:	
	BLE CPU version: 0				



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(c) Press 'Parameters Setting'.

Y Tratem oner	J			_	_		_	
WatchPower configuration Device control	View Language Help							
Parameters se Restore to the	Logitared devices LICRODEADORE 000040	305104429						
VTW-Sandy.vtw.vol.corp			Basic information					
USB2D5AD925_92931805104429	Ва	attery Mode	AC voltage:			Charging current:		
						Battery discharge current:		
			PV input voltage:			Output voltage:		
	Inverter					Output frequency:		
		Source: Battery	PV input power:			Output apparent power:		
			Battery voltage:			Output active power:		
			Battery capacity:					
	Product Information	Rat	ted information					
	Model type: Stand alone		Nominal AC voltage:			Nominal output frequency:	60.0	
	Topology: Transformerless					Nominal output current:		
	Main CPU version: 00010000		Rated battery voltage:			Nominal output apparent power:	5000.0	
	Remote Panel CPU version: 0001.13		Nominal output voltage:			Nominal output active power:		
	BLE CPU version: 0000.21							

(d) Set the parameter according to below recommendation, the max. charge current refer to the specific battery amount of real application. Then click 'Apply', enter password to login. According to the inverter limitation, for 5kW max is 80A.

MatchPower	Parameters setting							\mathbf{X}		
WatchPower configu	Buzzer a	larm: 💿 Enable 🔿 Dis	able Apply		Beeps while primary	source interrupt: 💿 Enat	ole 🕥 Disable Apply			
	Back	dight: 💿 Enable 🔘 Dis	able Apply			Overload bypass: 🔘 Enat	ole 💿 Disable Apply			
VTW-Sandy.vtw.vc	Overload auto re	start: 🔘 Enable 🖲 Dis	able Apply	LCD screen returns	s to default display scr	reen after 1 min.: 🌘 Enat	ole 🔘 Disable 🔥 Apply	n	t 🗌 d	D.0 A
	Over temperature auto re	start: 🔵 Enable 🖲 Dis	able Apply			ault code record: 💿 Enat	ole 🔿 Disable Apply	e		9.9 V
	Charger source priority:	Solar only	-	Apply	Output voltage:		V Apply	3		0.0 Hz
	Output source priority:	Utility	- ▼	Apply	Back to grid voltage:		V Apply	91		D.0 VA
	AC input range:	Appliance	Login		×		🗸 A Apply	e		D.0 W
	Battery type:			Please login first			A Apply	h		0 %
	Output frequency:	60	Password:	Login Clear			V Apply			
	Bulk charging voltage(C.)	V. voltage): 53.2 📮 V	L			Battery cut-off voltage:	47 V Apply			
	Float chargir	ng voltage: 53.2 📮 V	Apply							
	Battery equalization setting									
	Battery equalization: C) Enable 💿 Disable 🗛	ply		Real-time activate batt	ery equalization: 🔵 Activa	ite 💿 Cancel Apply		60.0	D Hz
	Equalization time:	60 🕂 Min Apply				Equalization voltage:	58.4 🗧 V Apply		21.7	7 A
	Equalization period:	30 Day(s) Apply				Equalization timeout:	120 🗧 Min Apply		5000.0	
							Clos	30	5000.0	v v





Method2: Through remote panel

(a) Connect Inverter with battery, wake up inverter.



(b) Press 'Enter' for 5s, to enter into the setting.



(c) Press 'Up' and 'Down' to choose the setting item No., press 'Enter' to enter into the detailed setting parameter, when finish press 'Enter' again. The following setting items need to be set follow the recommended value:







Recommended value:

Item No.	Setting Value
Program 02	Set to N*25A, N=battery amount, If N = 1, 3, minus single digit
Program 05	Set to USE
Program 12	Set to 48V
Program 13	Set to 51V
Program 26	Set to 53.2V
Program 27	Set to 53.2V
Program 29	Set to 47.5V

*for additional question please feel free to contact us at sales@mppsolar.com