

# MultiPlus-II

## Comparison sheet

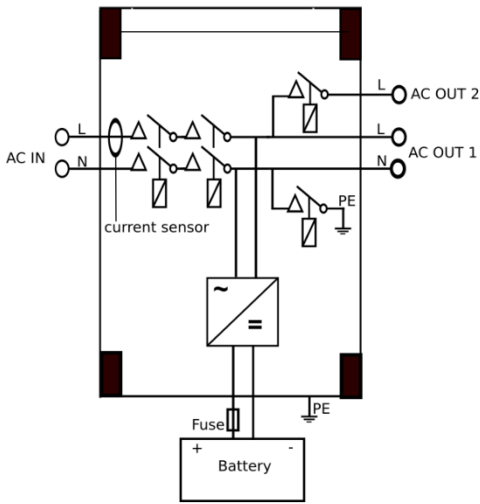


## Specifications

	MultiPlus-II 24/3000/70-32 PMP242305010 HW rev. 01 and up	MultiPlus-II 48/3000/35-32 PMP482305010 HW rev. 08 and up	MultiPlus-II 48/5000/70-50 PMP482505010 HW rev. 03 and up	MultiPlus-II 48/3000/35-32 PMP482305000 HW rev. < 08	MultiPlus-II 48/5000/70-50 PMP482505000 HW rev. < 03	MultiGrid 48/3000/35-50	MultiPlus 48/3000/35
PowerControl & PowerAssist	Yes						
Transfer switch	32A	32A	50A	32A	50A	50 A	16A or 50A
<b>INVERTER</b>							
DC Input voltage range	19 – 33 V		38 – 66 V				
Output	Output voltage: 230 VAC ± 2%			Frequency: 50 Hz ± 0,1% (1)			
Cont. output power at 25°C (3)	3000 VA	3000 VA	5000VA	3000 VA	5000VA	3000 VA	
Cont. output power at 25°C	2400 W	2400 W	4000W	2400 W	4000W	2400 W	
Cont. output power at 40°C	2200 W	2200 W	3700W	2200 W	3700W	2200 W	
Cont. output power at 65°C	1700 W	1700 W	3000W	1700 W	3000W	1700 W	
Maximum apparent feed-in power	2500VA	2500VA	4000VA	2500VA	4000VA	2500VA	
Peak power	5500 W	5500 W	9000W	5500 W	9000W	6000 W	
Maximum efficiency	95 %	95 %	96%	95 %	96%	95 %	
Zero load power	11 W	11 W	18W	11 W	18W	25 W	
Zero load power in AES mode	7 W	7 W	12W	7 W	12W	20 W	
Zero load power in Search mode	2 W	2 W	2W	2 W	2W	12 W	
<b>CHARGER</b>							
AC Input	Input voltage range: 187-265 VAC			Input frequency: 45 – 65 Hz			
Charge voltage 'absorption'	28,8 V		57,6 V				
Charge voltage 'float'	27,6 V		55,2 V				
Storage mode	26,4 V		52,8 V				
Maximum battery charge current (4)	70 A	35 A	70 A	35 A	70 A	35 A	
Charge current starter battery (A)	4 A						
Battery temperature and voltage sensor	Yes	Yes	Yes	VE.Bus Smart dongle (optional)		Yes	
<b>GENERAL</b>							
Auxiliary output	Yes (32 A) Relay with 2 minutes turn on delay			Yes (32 A) Directly connected to the AC input		Yes (16 A) Relay with 2 minutes turn on delay	
External current sensor (optional)	50A	50A	100A	50A	100A	No	
Programmable relay (5)	Yes						
Protection (2)	a - g						
VE.Bus communication port	For parallel and three phase operation, remote monitoring and system integration						
General purpose com. ports	Yes, 2x						
Remote on-off	Yes, 2 pole					Yes, 3 pole (Incl. remote Charger only)	
Operating temperature range	-40 to +65°C (fan assisted cooling)						
Humidity (non-condensing)	max 95%						
<b>ENCLOSURE</b>							
Material & Colour	Steel, blue RAL 5012					Aluminium, blue RAL 5012	
Protection category	IP22					IP20	
Battery-connection	M8 Bolts					Four M8 bolts	
230 V AC-connection	Screw terminals 13 mm <sup>2</sup> (6 AWG)						
Weight	18 kg	18 kg	29 kg	18 kg	29 kg	18 kg	
Dimensions (hxwx d)	506 x 275 x 147 mm	506 x 275 x 147 mm	565 x 323 x 148 mm	499 x 268 x 141 mm	560 x 320 x 141 mm	362 x 258 x 218 mm	

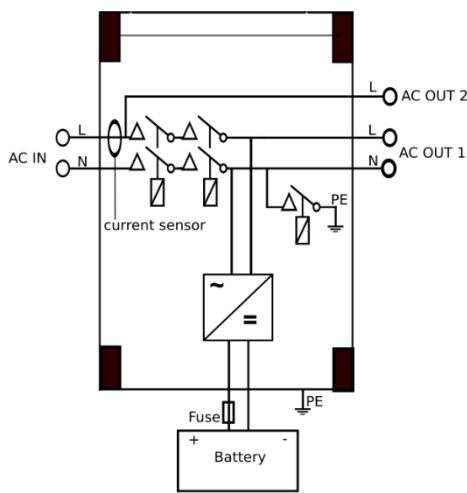
- 1) Can be adjusted to 60 Hz
- 2) Protection key:
  - a) output short circuit
  - b) overload
  - c) battery voltage too high
  - d) battery voltage too low
  - e) temperature too high
  - f) 230 VAC on inverter output
  - g) input voltage ripple too high
- 3) Non-linear load, crest factor 3:1
- 4) At 25°C ambient
- 5) Programmable relay which can be set for general alarm, DC under voltage or genset start/stop function  
AC rating: 230V / 4A, DC rating: 4A up to 35VDC and 1A up to 60VDC

PMP242305010  
 PMP482305010  
 PMP482505010



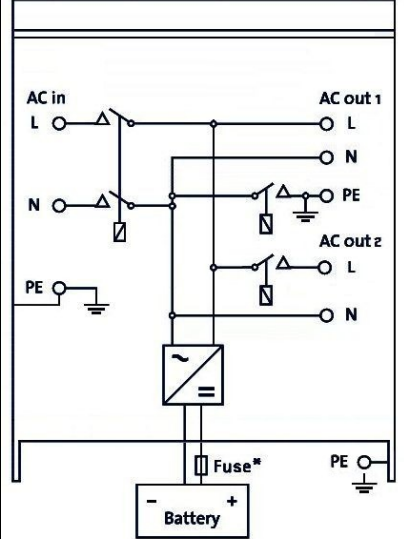
AC-out-2 is connected to the AC output

PMP482305000  
 PMP482505000



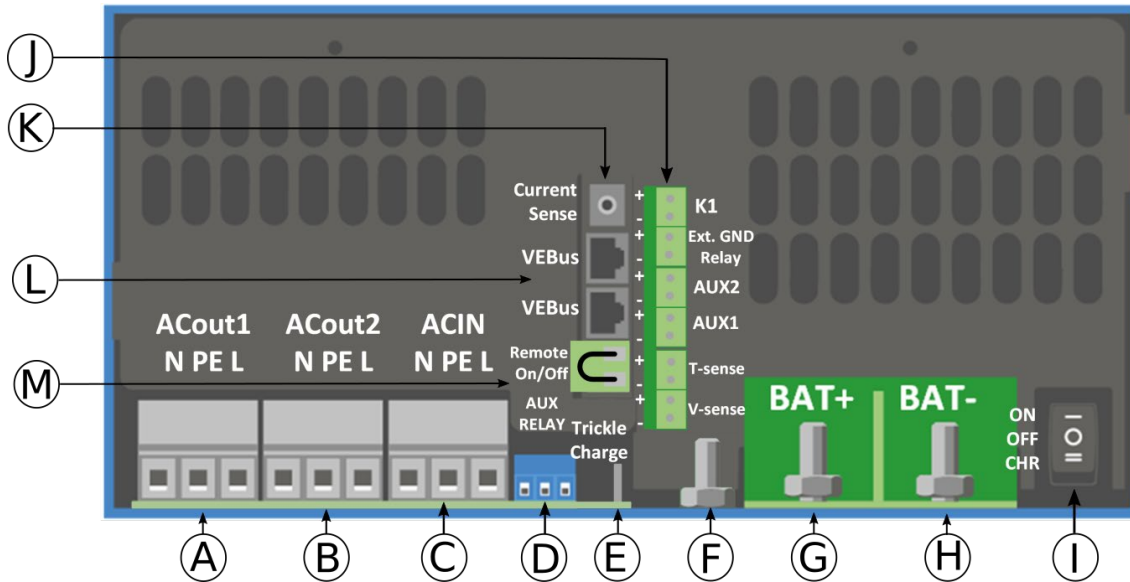
The AC-in current sensor (internal current sensor) of the MultiPlus-II is placed directly on the AC input. AC-out-2 is connected to the AC input, 'downstream' of the current sensor.

MultiGrid  
 MultiPlus



# MultiPlus-II

PMP242305010 PMP482305010 PMP482505010

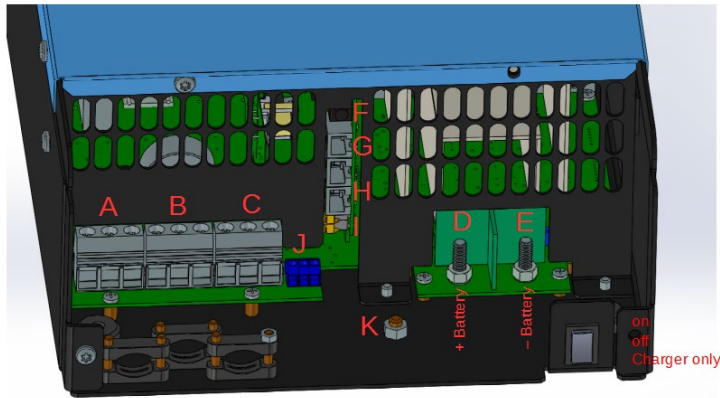


A	Load connection. AC out1. Left to right: N (neutral), PE (earth/ground), L (phase)
B	Load connection. AC out2. Left to right: N (neutral), PE (earth/ground), L (phase)
C	AC input: Left to right: N (neutral), PE (earth/ground), L (phase)
D	Alarm contact: (left to right) NO, NC, COM.
E	Trickle charge (12 and 24V model only)
F	Primary ground connection M6 (PE).
G	M8 battery positive connection.
H	M8 battery minus connection.
I	switch: 1=On, 0=Off,   =charger only
J	Terminal for: top to bottom: <ol style="list-style-type: none"> <li>1. 12V 100mA</li> <li>2. Programmable contact K1 open collector 70V 100mA</li> <li>3. External ground relay +</li> <li>4. External ground relay -</li> <li>5. Aux input 1 +</li> <li>6. Aux input 1 -</li> <li>7. Aux input 2 +</li> <li>8. Aux input 2 -</li> <li>9. Temperature sense +</li> <li>10. Temperature sense -</li> <li>11. Battery voltage sense +</li> <li>12. Battery voltage sense -</li> </ol>
K	External current sensor
L	2x RJ45 VE-BUS connector for remote control and/or parallel / three-phase operation
M	Connector for remote switch: Short to switch "on".

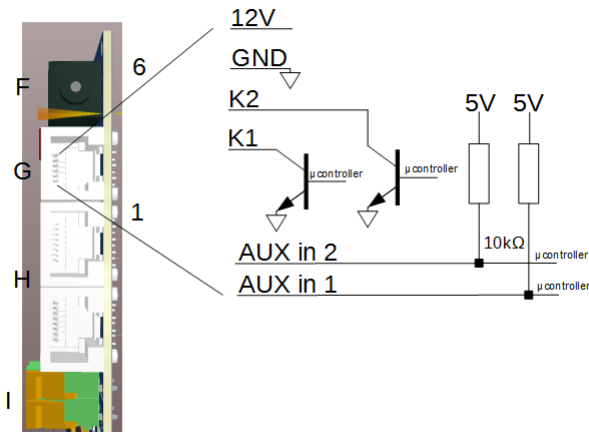
# MultiPlus-II

PMP482305000

PMP482505000



A	Load connection. AC out1. Left to right: N (neutral), PE (earth/ground), L (phase)
B	AC input: Left to right: N (neutral), PE (earth/ground), L (phase)
C	Load connection. AC out2. Left to right: N (neutral), PE (earth/ground), L (phase)
D	M8 battery positive connection.
E	M8 battery minus connection.
F	External current sensor (not available on MultiGrid)
G	RJ12 additional IO connector (see below)
H	2x RJ45 VE-BUS connector for remote control and/or parallel / three-phase operation (VE.Bus)
I	Connector for remote switch: Short to switch "on".
J	Programmable relay (left to right) NO, NC, COM.(virtual switch in VE.Configure)
K	Primary ground connection M8 (PE).



### Detail of the RJ12 additional IO connector (G)

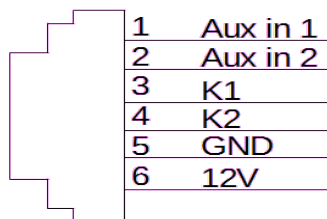
RJ12 additional IO connector

Aux in 1 and Aux in 2: 0 – 5V (same fio as in MultiGrid)

K1, K2: open collector 70V 100mA max (open collector inputs, replaces the programmable relay contacts of the MultiGrid)

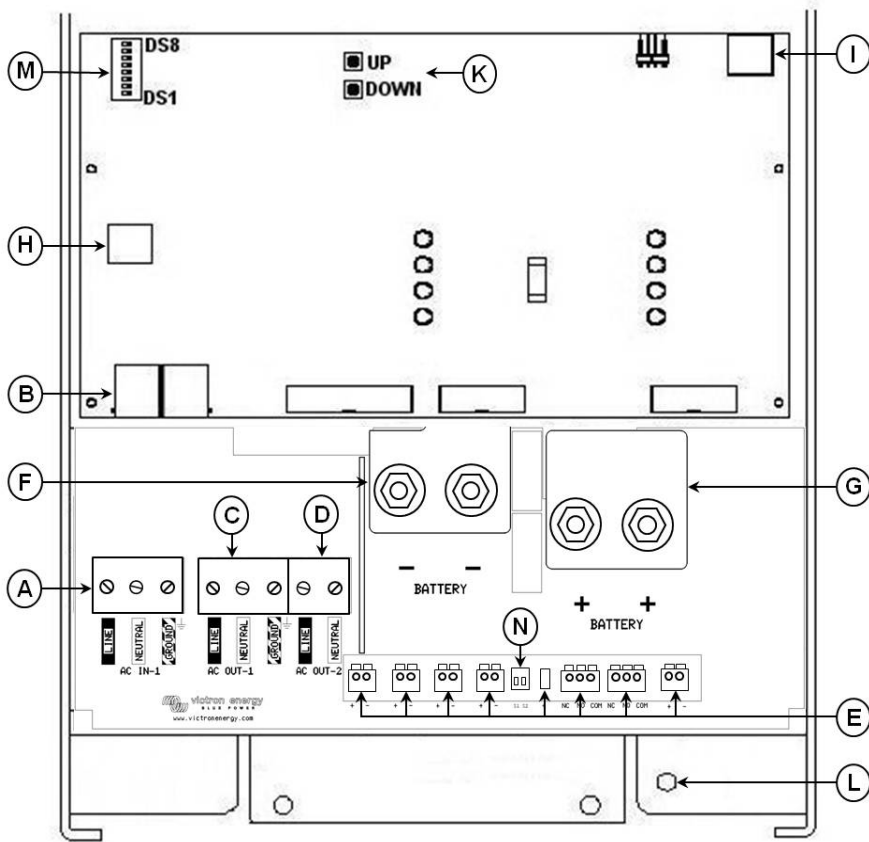
12V: 12V 100mA max power supply

Gnd: common ground



Detail of the RJ12 additional IO connector (G)

# MultiGrid



A	AC input: Left to right: L (phase), N (neutral), PE (earth/ground).
B	2x RJ45 connector for remote control and/or parallel / three-phase operation (VE.Bus)
C	Load connection. AC out1. Left to right: L (phase), N (neutral), PE (earth/ground).
D	Load connection. AC out2. Left to right: PE (earth/ground), L (phase), N (neutral).
E	Terminals Temperature sensor (not available on the MultiPlus-II: VE.Bus Smart dongle needed) Aux input 1 (same fio as MultiPlus-II) Aux input 2 (same fio as MultiPlus-II) Starter battery plus + (starter battery minus must be connected to service battery minus) Not available on the MultiPlus-II. Programmable relay contacts K1 Programmable relay contacts K2 Voltage sense (not available on the MultiPlus-II: VE.Bus Smart dongle needed)
F	Double M8 battery minus connection.
G	Double M8 battery positive connection.
H	Connector for remote switch: Short left and middle terminal to switch 'on'. Short right and middle terminal to switch to 'charger only'. <b>(not available on MultiPlus-II).</b>
I	Alarm contact: (left to right) NC, NO, COM.
K	Pushbuttons for set-up mode. Not available on MultiPlus-II.
L	Primary ground connection M8 (PE).
M	Dipswitches DS1- DS8 for set-up mode. Not available on MultiPlus-II.
N	Slide switches, factory setting: SW1= down (off) position, SW2 = down (off) position. Not available on MultiPlus-II. SW1: down (off) = internal GND relay selected, up (on) = external GND relay selected (to connect ext GND relay: see E). Not available on MultiPlus-II SW2: No application. To be used for future features. Not available on MultiPlus-II