



P-Series Power Supply Units

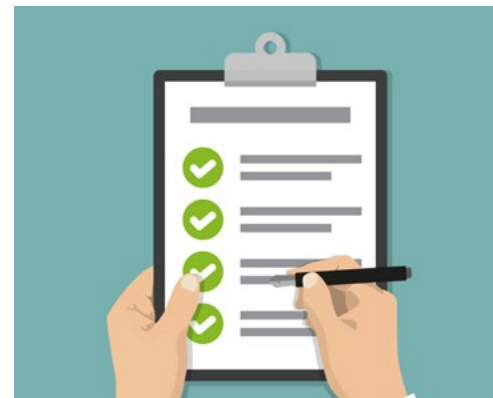


Overview:

The P-series consists of a number of different battery backups in varying sizes that communicate with Omnis via OSDP. Along with smart accessories such as; output modules for load sharing, relay cards for alarm outputs and battery boxes for increased battery capacity, the P-Series is responsible for supplying the system-wide 24V DC power in certified Omnis installations up to EN50131-3 Grade 3.

Key Features include:

- ✔ SSF1014:5 Grade 3 and EN50131-3 Grade 3 certified
- ✔ OSDP-communication with E100 / E100-S via RS485
- ✔ Choose between 14Ah- and 45Ah enclosures
- ✔ Maximum load from 5A to 25A
- ✔ Modular system
- ✔ Stabilized voltage
- ✔ E100 / E100-S Dashboard for in-depth status reports including:
 - Cumulated time of load above 80%
 - Average load last 24h
 - Anticipated battery powered operation time



VANDERBILT

A-100769-EN

Edition date: 2021-07-02



P-Series Power Supply Units

Functionalities:

The P-Series consists of SSF1014:5 and EN50131-3 approved 24V DC Power Supply Units for Omnis with back up battery capacity from 2x 14Ah up to 225Ah (10x 45Ah).

Protection against: Overload and -voltage, Over-temperature, short-circuit and deep discharge.

Alarms (via RS485): Delayed mains supply (10 s), low battery voltage, over/under-current, disconnected battery, aged battery, low battery capacity, cell short-circuit, charging fault, low system voltage, load fuse triggered, tamper.

Outputs for load: 1 double-pole secured output and 1 single-pole (+) secured output is on the base card. Depending on the model, there are an additional 5/10/20 fused outputs that are delivered individually fused to 2A with the option to extend up to 10A per output.

P5S: 2 Prioritized Outputs

P5L: 2+5 Prioritized Outputs

P10L: 2+10 Prioritized Outputs (of which 3 are selectable Unprioritized)

P15L: 2+10 Prioritized Outputs (of which 3 are selectable Unprioritized)

P25L: 2+20 Prioritized Outputs (of which 6 are selectable Unprioritized)

The well-ventilated enclosure is painted in black with structured lacquer. It has an LED for alarm indication and comes equipped with 3 knockouts for cable glands and knockouts in the back. All units can be both wall-mounted and rack-mounted (reversible angles included). Note that batteries are not included.

The Omnis PSU series offers **INTELLIGENT CHARGING** which means that when the batteries are fully charged the batteries will be electronically disconnected for standby mode and can therefore prolong the battery life by up to 50%.

The batteries are reconnected in less than 50 microseconds when needed by the system.

The system is also equipped with internal power resistors for qualified battery capacity testing, which announces when the batteries need to be replaced.

The P-Series is system certified and tested together with AGM UPLUS 10+ Design Life batteries. The P-Series can be supplemented with battery boxes if required. The battery box is placed during the battery backup and has, depending on the model, space for up to 4x 14Ah batteries, or 2x 45Ah batteries. The battery box is easily connected via wiring that comes with the battery box.



Large-Enclosure with 1 Battery Box



Large-Enclosure with 2 Battery Boxes



Large-Enclosure with 3 Battery Boxes



Large-Enclosure with 4 Battery Boxes



P-Series Power Supply Units

Technical Specification:	P5S	P5L	P10L	P15L	P25L
Mains Voltage:	230V AC				
Output Voltage:	27,3V DC				
Temperature:	+5 C till +40 C				
Dimensions (W x H x D) mm:	437 x 222 x 145	437 x 444 x 212	437 x 444 x 212	437 x 444 x 212	437 x 444 x 212
19" Rack Height Units:	??	??	??	??	??
Weight (no batteries) kg:	5,5	13	14	16	16
IP-Rating:	IP32	IP32	IP32	IP32	IP32
Battery capacity (No Battery Box):	14Ah (2x14Ah)	45Ah (2x45Ah)	45Ah (2x45Ah)	45Ah (2x45Ah)	45Ah (2x45Ah)
Maximum Battery Capacity:	42Ah (6x14Ah)	45Ah (2x45Ah)	90Ah (4x45Ah)	180Ah (8x45Ah)	225Ah (10x45Ah)
Max. Connectable Battery Boxes (Small):	1	-	-	-	-
Max. Connectable Battery Boxes (Large):	-	-	1	3	4
Max. Load:	5A	5A	10A	15A	25A
Approved Average Load ¹ no Battery Box:	1,1A	3,6A	3,6A	3,6A	3,6A
Approved Average Load ¹ 1 Battery Box:	3,3A	-	7,4A	7,4A	7,4A
Approved Average Load ² 2 Battery Boxes:	-	-	-	11,1A	11,1A
Approved Average Load ¹ 3 Battery Boxes:	-	-	-	14,8A	14,8A
Approved Average Load ¹ 4 Battery Boxes:	-	-	-	-	18,6A
Outputs for Unprioritized Load:	-	-	-	3 (selectable)	6 (selectable)
Outputs for Prioritized Load:	2	2+5	2+10	2+10	2+20
On-Board Alarm Relays:	0	0	0	0	0
Available Expansion card slots:	2	2	2	1	0

¹ = According to SSF1014:5 Grade 2.

VANDERBILT

vanderbiltindustries.com

@VanderbiltInd

Vanderbilt Industries

Vanderbilt International Ltd.

Clonshaugh Business and Technology Park

Clonshaugh, Dublin D17 KV 84, Ireland

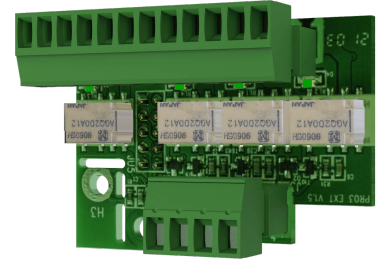
+353 1 437 2560



Accessories:

PR1 - Relay Card for Omnis PSU 5A-10A

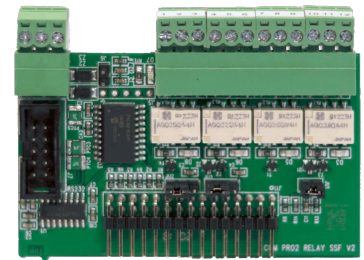
Expansion card for installations where bus communication is not used. The card has four alternating relay outputs and is jacked into the motherboard on the Omnis PSU. Intended for units with up to 10A maximum load.



PR1 - Relay Card for Omnis PSU 5A-10A

PR2 - Relay Card for Omnis PSU 15A-25A

Expansion card for installations where bus communication is not used. The card has four alternating relay outputs and is jacked into the motherboard on the Omnis PSU. Intended for units with 15-25A maximum load.



PR2 - Relay Card for Omnis PSU 15A-25A

Omnis Battery Box 24V Large

Battery box for expansion of battery capacity. Intended for combining with Large PSU enclosures and holds 2x 45Ah batteries.



Omnis Battery Box 24V Large

Ordering Information:

Type	Art. No.	E-number	Description
P5S	N54506-Z110-A300	58 717 83	P5S - Omnis PSU 5A Small
P5L	N54506-Z111-A300	58 717 84	P5L - Omnis PSU 5A Large
P10L	N54506-Z112-A300	58 717 85	P10L - Omnis PSU 10A Large
P15L	To be released		P15L - Omnis PSU 15A Large
P25L	N54506-Z114-A300	58 717 87	P25L - Omnis PSU 25A Large
Battery Box	N54506-H120-A100	58 710 47	Battery Box 24V Large
PR1	N54506-Z121-A100	58 717 88	PR1 - Relay Card for Omnis PSU 5A-10A
PR2	N54506-Z122-A100	58 717 89	PR2 - Relay Card for Omnis PSU 15A-25A