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# **Always fully charged on-site**

Built-in mains chargers for campers, for the marine field and for special purpose vehicles

The crucial point regarding the functionality of the electronic system on board is a sound board battery. If it fails, comfort ends and the journey must be interrupted. The charger series "Pb" had been created for high-quality campers, for the marine field, as well as for special purpose vehicles, where it is successfully applied for years. The continuous further development of the battery technology had a formative influence on this equipment series. The units are technically mature, and they are always up-to-date with the charging technology. An intelligent microprocessor completed by robust power electronics ensures an unattended charging with careful treatment of the battery, also in continuous operation.

Advanced characteristic lines IUoU for lead-acid, gel and AGM batteries had been adapted and optimised to each particular application for optinum charging of the board battery. Connected consumers are supplied automatically and simultaneously. During extended stop periods, the integrated battery regeneration keeps the battery ready for operation, and the battery life is extremely extended. Unattended connection of the battery at the charger is allowed, overcharging is excluded. The integrated on-board mains suppression filter ensures a smooth cooperation with other charging sources.

Even if a nice parking lot has only a weakly protected power supply, charging with reduced capacity is still possible by means of the Silent Run function or the AC Power Limit.

#### **PRODUCT FEATURES**

- High operating safety
- Quick, gentle charging for extended service life of the battery
- Small, lightweight and compact
- Full charging capacity, even in case of low supply voltage
- Optimised 6-stage characteristic line of charging for acid, gel and AGM batteries
- Temperature compensation
- Unattended charging
- Suitable for floating operation
- Automatic battery regeneration

## Series Pb

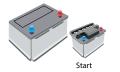
### Automatic chargers



## Chargers for supply and starter batteries

110-230 V/AC – 12 V/DC Max. charging current: 15, 20, 25, 30, 80 A

110-230 V/AC – 24 V/DC Max. charging current: 16, 40 A



### Chargers with selective charging current distributor for 2 batteries and starter battery

110-230 V/AC – 12 V/DC Max. charging current: 40, 50, 60 A

110-230 V/AC – 24 V/DC Max. charging current: 25 A



\* Charging current distributor also adjustable to starter battery

>> All units with technical data are listed on page 12/13.

#### 🕖 🛛 Our tip

Charging of lead batteries is strongly depending on the temperature. Therefore, a temperature sensor 825 or temperature sensor 625 should be used for full charging of gel and AGM batteries.

Charging of advanced lithium LiFePO4 batteries with conventional units, which are solely designed for batteries in conventional lead-acid technology (also Gel or AGM), possibly are limiting the use of the technical advantages of this new technology (capacity, number of cycles etc.).

#### ! We recommend

The service life of lead batteries is extended by 100 % full charging by means of a mains charger, once a month. Insufficient recharging results in capacity loss and premature ageing of the battery.

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Automatic Charger	U	U	(i)	ü	Ű	U
Pb 12 V			E. M			
Unit Type	Pb 1215 SMT 2B	Pb 1220 SMT 2B	Pb 1225 SMT 2B	Pb 1230 SMT 2B	Pb 1240 SMT 3B	Pb 1250 SMT 3B
Order No.	3100	3101	3102	3114	3124	3125
Rated voltage / Current	<b>12 V;</b> 12.0-13.3 V / 15 A	<b>12 V;</b> 12.0-13.3 V / 20 A	<b>12 V;</b> 12.0-13.3 V / 25 A	<b>12 V;</b> 12.0-13.3 V / 30 A	<b>12 V;</b> 12.0-13.3 V / 40 A	<b>12 V;</b> 12.0-13.3 V / 50 A
Auxiliary Charging Port "S"	12 V / 2 A	12 V / 2 A	12 V / 2 A	12 V / 3 A	12 V / 4 A	12 V / 4 A
Battery Capacity	38-170 Ah	50-230 Ah	60-290 Ah	75-350 Ah	75-480 Ah	88-550 Ah
No. of Charging Ports	1+S	1+S	1+S	1+S	2+S	2+S
Charging current distributor, switchable Start	-	-	-	-	● <sup>1</sup>	● <sup>1</sup>
Mains Voltage	110 V bis 230 V AC $^{\rm 2}$	(110 V) 230 V AC $^{\rm 4}$	(110 V) 230 V AC $^{\rm 4}$	(110 V) 230 V AC $^{\rm 4}$	(110 V) 230 V AC $^3$	(110 V) 230 V AC <sup>3</sup>
Max. Power Consumption (AC)	240 W	330 W	400 W	490 W	680 W	840 W
Dimensions* (DxWxH)	227x138x74 mm	227x138x74 mm	227x138x74 mm	227x138x74 mm	327x138x74 mm	327x138x74 mm
Weight	1250 g	1280 g	1300 g	1350 g	2350 g	2400 g
No. of charging program adjustable (see p. 6)	1,2,4 🕕	1,2,4 🕕	1,2,4 🕕	1,2,4 🕕	1,2,4 🕕	1,2,4 🕕
Automatic Battery Regeneration/Li Auto Wake Up	•/•	•/•	•/•	•/•	•/•	●/●
Power Pack Function (Battery Replacement)	•	•	•	•	•	•
Connection Remote Control/Remote Indicator	•	•	•	•	•	•
Battery Capacity (size) adjustable	-	-	-	-	•	•
AC Power Limit Function	-	-	-	-	•	•
Silent Run Function	•	•	•	•	•	•
Lead Temperature Compensation/LiFePO4 Protection	•/•	•/•	•/•	•/•	•/•	●/●
Temperature Sensor 825 in Delivery Scope	-	_	_	-	_	_
Voltage Sensor	-	-	-	-	•	•

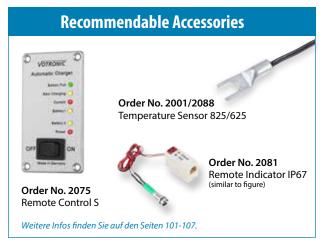
Automatic Charger Pb 24 V	Berg		
Unit Type	Pb 2416 SMT 2B	Pb 2425 SMT 3B	Pb 2440 SMT 2B
Order No.	6232	6239	6250
Rated voltage / Current	24 V / 16 A	<b>24 V</b> / 25 A	<b>24 V</b> / 40 A
Auxiliary Charging Port "S"	24 V / 2 A	24 V / 4 A	24 V / 2 A
Battery Capacity	40-200 Ah	46-290 Ah	75-440 Ah
No. of Charging Ports	1+S	2+S	1+S
Charging current distributor, switchable Start <sup>1</sup>	-	•	-
Mains Voltage	(110 V) 230 V AC <sup>3</sup>	(110 V) 230 V AC <sup>3</sup>	(110 V) 230 V AC <sup>3</sup>
Max. Power Consumption (AC)	510 W	830 W	1380 W
Dimensions* (DxWxH)	227x138x74 mm	327x138x74 mm	305x265x90 mm
Weight	1350 g	2400 g	3900 g
No. of charging program adjustable (see p. 6)	1,2,3,4	1,2,3,4	1,2,4
Automatic Battery Regeneration	•	•	•
Power Pack Function (Battery Replacement)	٠	•	-
Connection Remote Control/Remote Indicator	•	•	•
Battery Capacity (size) adjustable	_	٠	•
AC Power Limit Function	-	•	•
Silent Run Function	•	•	•
Lead Temperature Compensation	•	•	•
Temperature Sensor 825 in Delivery Scope	_	_	_
Voltage Sensor	-	٠	•

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	7-01	1
Pb 1260 SMT 3B	Pb 1280 SMT 2B	Pb 1280 SMT Li
3126	3131	3289
<b>12 V;</b> 12,0-13,3 V / 60 A	<b>12 V</b> / 80 A	<b>12,0 V - 13,3 V</b> / 80 A
12V/4A	12 V / 2 A	12 V / 2 A
110-660 Ah	150-880 Ah	100-600 Ah
2+S	1+S	1+S
● <sup>1</sup>	-	-
(110 V) 230 V AC <sup>3</sup>	(110 V) 230 V AC <sup>3</sup>	(110 V) 230 V AC <sup>3</sup>
1020 W	1400 W	1400 W
327x138x74 mm	305x265x90 mm	305x265x90 mm
2500 g	3900 g	3900 g
1,2,4 🕕	1,2,4	4 x 🕕
•/•	•/-	-
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•	•	•
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•	•	•
•	•	•
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-	_	•
•	•	•

- <sup>1</sup> The 2nd output of the charging current distributor can also be adjusted to the vehicle starter battery with full charging current, with own starter program. It allows short charging times, high capacity storage and different battery types for board (acid / AGM / Gel / LiFePO4) and starter battery.
- <sup>2</sup> 110 V to 230 V AC: Operating voltage range worldwide: 90 V 270 V AC / 45-65 Hz with full charging capacity, short-time (5 s) 305 V AC.
- <sup>3</sup> (110 V) 230 V AC: Operating voltage range: 190 V 270 V AC / 45-65 Hz with full charging capacity, short-time (5 s) 305 V AC. Works from 90 V AC, at 110 V AC approx. 50 % charging capacity.
- <sup>4</sup> (110 V) 230 V AC: Operating voltage range: 190 V 270 V AC / 45-65 Hz with full charging capacity, short-time (5 s) 305 V AC. Works from 90 V AC, at 110 V AC approx. 18 A charging current.
- \* Dimensions incl. mounting flanges/feeds without connections

Delivery Scope: Mains cable, manual. Pb 1280 SMT Li: Temperature sensor 825



>> More technical specifications and informations you will get at our website www.votronic.de