

PowerWalker PWB12-7

Valve-Regulated Lead Acid Battery

Standard industry format

High discharge capability

Reliable and safe sealing technology

Low self-discharge rate

Certified product



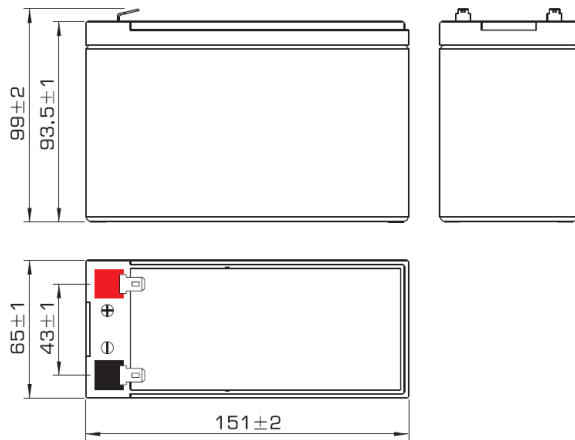
Item-No. 91010090

Product Features

PowerWalker PWB12 battery series is designed to work with UPS solutions. It is a high quality valve-regulated lead acid battery with high corrosion resistance and special exhaust structure. The sealing technology with high discharge capacity offers long life, reliability and safety. Batteries are flexible for installation and maintenance and easy to handle.

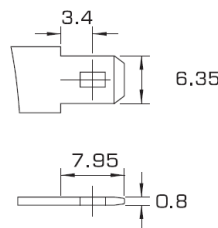
Design life is 3-5 years. The batteries feature low month self-discharge and low temperature coefficients, which means the battery will last long in good shape serving its purpose for the user.

Dimensions



Terminal

T2



ISO14001



ISO9001



Intertek ETL SEMKO

Certified quality

Product specification are subject to change without further notice.

Technical Details

Product Features

Model	PowerWalker PWB12-7
Capacity	7Ah
Nominal voltage	12V
Cells per unit	6
Internal resistance	25mΩ
Short-circuit current (5s)	105A

Discharging

Maximum continuous discharge current	35A
Discharge temperature range	-20 to 55 degC
Capacity affected by temperature	105% @ 40 degC; 100% @ 25 degC; 86% @ 0 degC

Charging

Maximum charging current	2.1A
Charging temperature range	0 to 40 degC
Float charging voltage	13.5 to 13.8V
Recommended float charging voltage	13.6V
Float charging temperature coefficient	-18mV/degC
Cycle use charging voltage	14.4 to 15.0V
Recommended cycle use charging voltage	14.7V
Cycle use charging temperature coefficient	-30mV/degC

Storage

Storage temperature range	-15 to 50 degC
Month self discharge	2% @ 20 degC

Material

Terminal	T2 (250)
Battery Container	ABS (UL94-HB)
Battery Cover	ABS
Positive Electrode Plate	PbO ₂ , Ca, Al, Sn
Negative Electrode Plate	Pb, Ca, Al, Sn
Separator	AGM
Lead Parts	Pb, Sn
Electrolyte	H ₂ SO ₄ , H ₂ O, Na ₂ SO ₄
Seal	EPDM
Safety Valve	EPDM
Sealant	Epoxy resin
Terminal	Cu, Ag

Logistic Data

Dimensions (L x W x H)	151 x 65 x 99 mm
Approximated weight	2.18kg
Pieces / Box	10
Box weight	25.6kg
Box dimensions	350 x 313 x 128 mm
Item Number	91010090
EAN Code	4260074978131

Constant current discharge in Amperes at 25 degC

cut-off voltage	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85Vpc	17,6	12,1	9,59	7,84	5,90	4,37	3,70	2,77	2,21	1,66	1,31	1,09	0,94	0,75	0,61	0,332
1.80Vpc	20,5	14,3	11,2	9,03	6,67	4,89	4,09	3,03	2,41	1,79	1,41	1,18	1,01	0,80	0,65	0,350
1.75Vpc	22,4	15,3	11,8	9,48	6,97	5,09	4,25	3,13	2,48	1,84	1,45	1,20	1,03	0,81	0,66	0,354
1.70Vpc	24,2	16,4	12,5	9,97	7,28	5,28	4,40	3,23	2,56	1,89	1,49	1,23	1,05	0,83	0,67	0,359
1.67Vpc	25,3	16,9	12,9	10,3	7,46	5,40	4,49	3,29	2,60	1,92	1,51	1,25	1,06	0,84	0,68	0,362
1.60Vpc	27,9	18,3	13,8	10,9	7,88	5,68	4,71	3,44	2,71	1,99	1,56	1,28	1,09	0,86	0,69	0,368

Constant power discharge in Watts per cell at 25 degC

cut-off voltage	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85Vpc	33,5	23,2	18,4	15,1	11,4	8,48	7,19	5,39	4,33	3,25	2,58	2,15	1,85	1,47	1,21	0,66
1.80Vpc	38,5	27,1	21,2	17,2	12,8	9,41	7,91	5,87	4,68	3,50	2,77	2,31	1,98	1,57	1,29	0,70
1.75Vpc	41,5	28,7	22,2	17,9	13,2	9,72	8,14	6,03	4,80	3,58	2,83	2,36	2,02	1,60	1,30	0,70
1.70Vpc	44,3	30,3	23,2	18,7	13,7	10,0	8,38	6,19	4,93	3,67	2,89	2,40	2,06	1,62	1,32	0,71
1.67Vpc	45,9	31,2	24,0	19,1	14,0	10,2	8,51	6,28	4,99	3,71	2,92	2,43	2,08	1,64	1,33	0,72
1.60Vpc	50,0	33,3	25,1	20,0	14,6	10,6	8,85	6,51	5,16	3,83	3,00	2,49	2,13	1,67	1,36	0,73

*values are within 2% error margin

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PowerWalker is a brand of:

BlueWalker GmbH

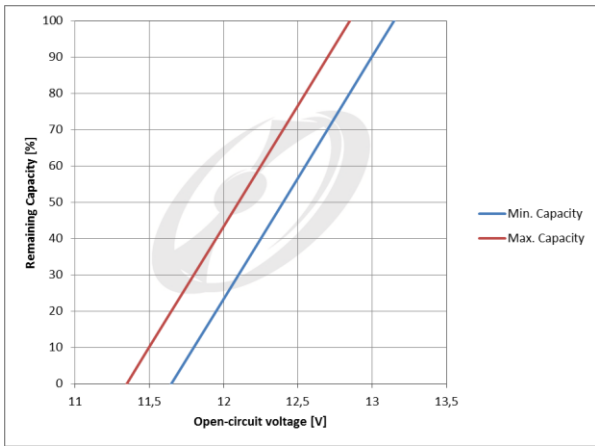
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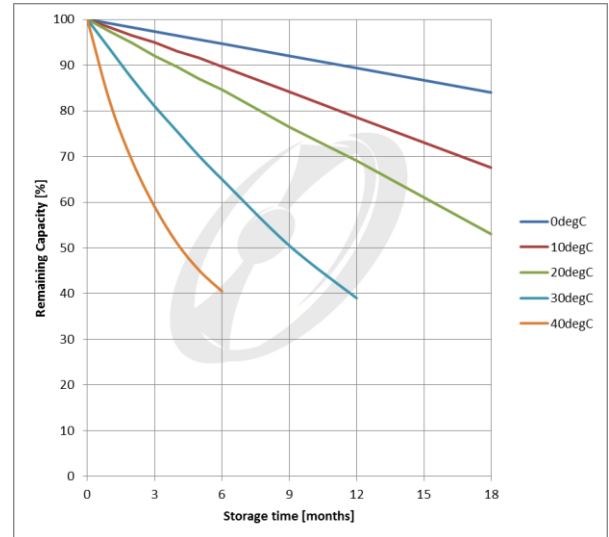
Voltage to Capacity

Open-circuit voltage vs. remaining capacity



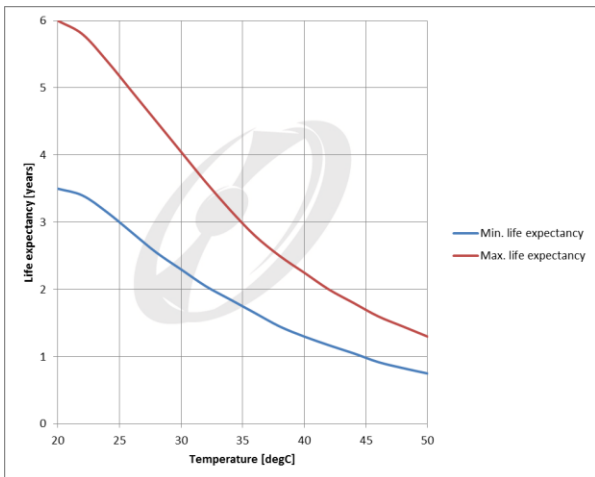
Self-discharge characteristics

Storage time vs. remaining capacity



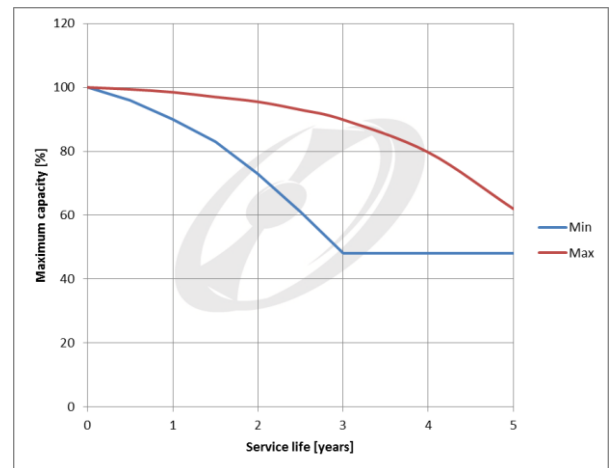
Life expectancy to Temperature

Expected service life vs. Temperature of operation



Float service life

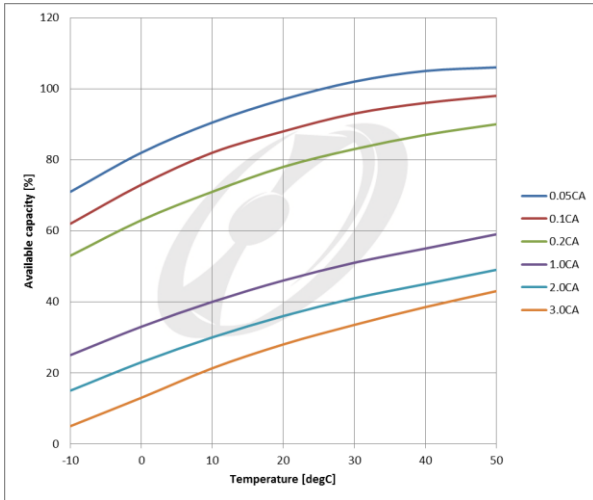
Discharge time vs. Battery voltage



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Available capacity in discharging conditions

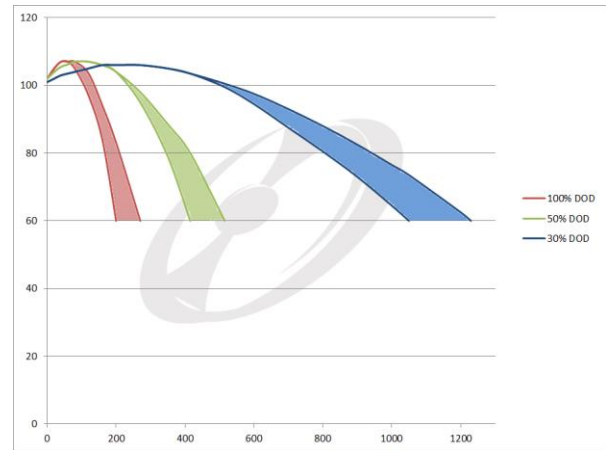
Available capacity vs. discharging temperature and discharging current



Cycle Life in relation to Depth of Discharge

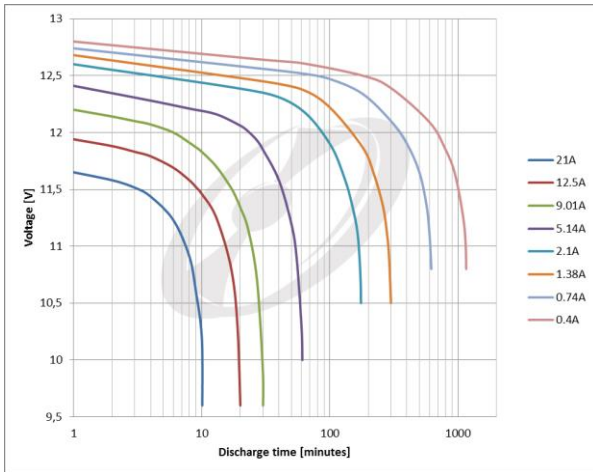
Remaining capacity vs. amount of cycles

Discharge current: 0.17C (FV 1.7Vpc)
 Charging current: 0.25C max @ 2.45Vpc
 Charging volume: 125% of discharged capacity
 Ambient Temperature: 25degC



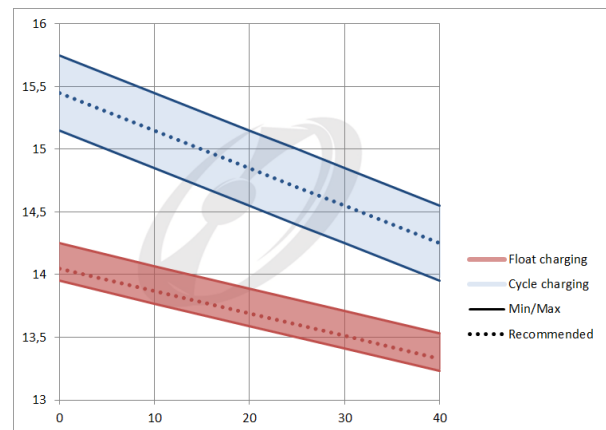
Discharge characteristics

Discharge time vs. Battery voltage



Recommended charging voltage

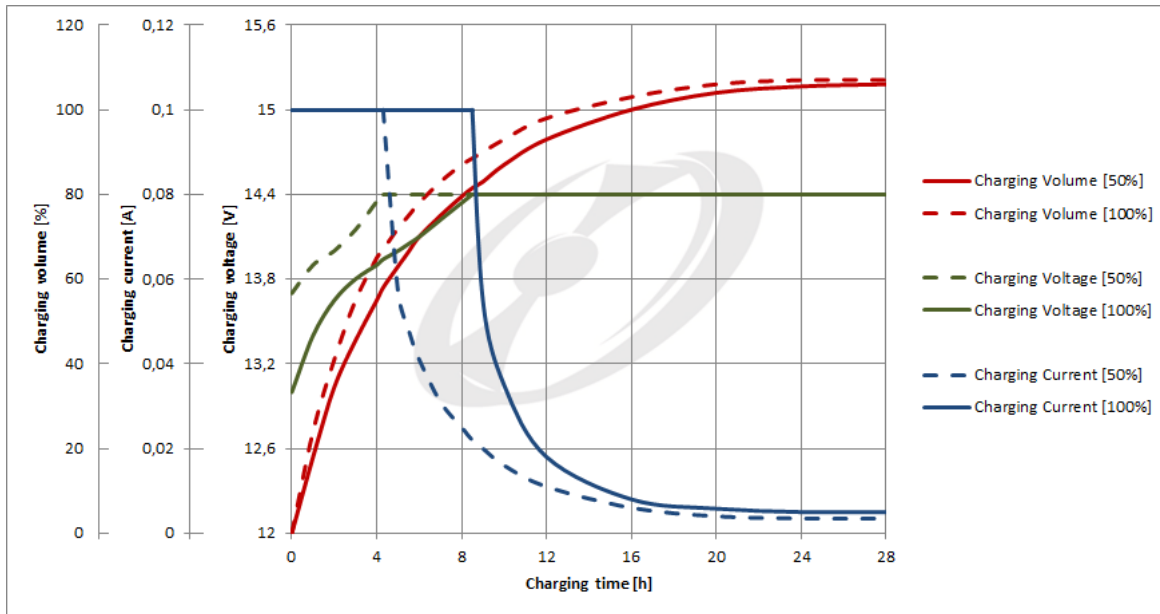
Charging voltage vs. Temperature



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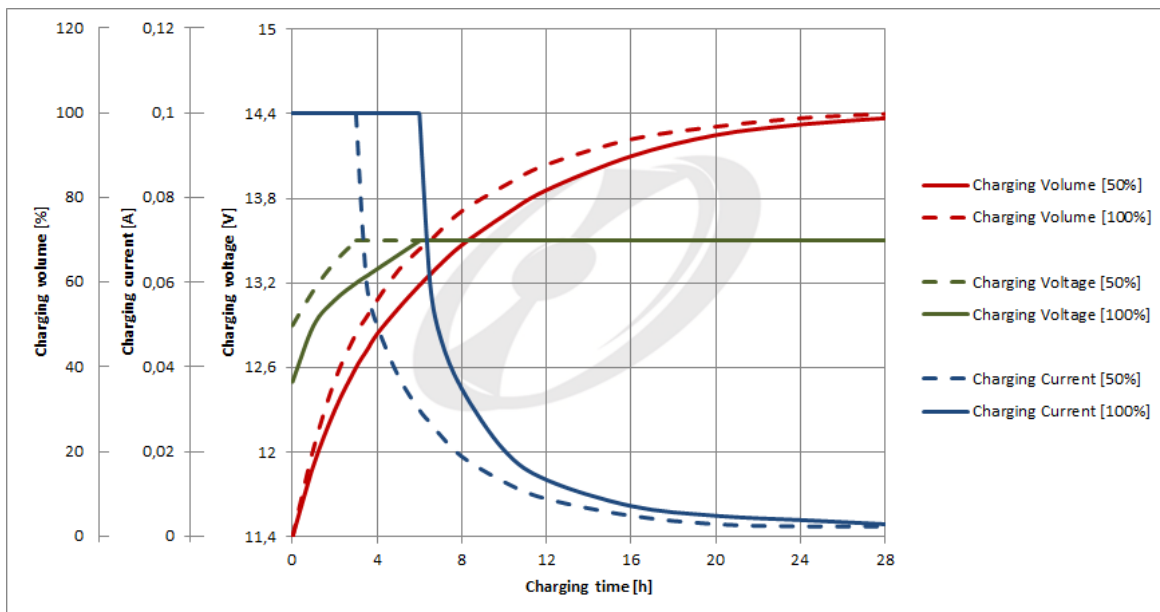
Cycle use charging characteristics

Charging volume, Charging current, Charging voltage vs. Charging time



Float charging characteristics

Charging volume, Charging current, Charging voltage vs. Charging time



Cautions

- Do not use batteries for application other than those specified
- Do not attempt to disassemble the battery
- Do not dispose the battery in water nor fire and do not heat the battery
- Do not short batteries
- Do not charge in a sealed container
- If the voltage of the battery string is above 45VDC please be sure to wear the insulated gloves during work
- There is sulfuric acid in the battery, avoid contact of the acid with skin, cloths and especially eyes. If eyes were in contact with the sulfuric acid, please wash with a lot of clean water and consult a physician immediately

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