ecobat
BATTERY

Industrial Parts and Service Catalogue


EDRIVE


GF 12 105 V


U.S. Battery


VARTA


VARTA
VARTA


Lucas
Lucas


VARTA
VARTA

Contents

Powering Tomorrow, Today

Ecobat Battery have been servicing the Industrial battery market for over 20 years.

We have a proven track record in supporting and servicing customers with tailored packages.

Features:

- Battery specialist and distributor
- Extensive range of Chargers
- Nationwide service engineer support
- First Time Fix
- Long Term Rental Packages
- Reduced Carbon Footprint Packages
- Fully Tailored Support Packages
- Rapid response times
- Maintenance Contracts
- Stock available nationwide
- Floor cleaning
- Battery Recycling
- Competitive Pricing
- Lithium battery and charger packages available

"Many thanks for the excellent service provided by Ecobat both during the installation of new batteries and in our picking barrows and BFS on all our mechanical handling equipment, and also for the after sales service we have received from you since then."

Fronius Rolls EDRIVE PREMIUM TRACTION S.P.E. ELETTRONICA INDUSTRIALE Sonnenschein

Industrial Batteries

Ecobat Industrial Batteries

Premium Performance from a brand you can trust – using state of the art production equipment and premium quality materials, EDrive Motive Power Cells & Batteries provide high end performance, excellent reliability and long service life for the Material Handling industry.

EDrive Motive Power Cells fully comply to the DIN/EN 60254-2 standards and are available both in DIN and BS dimensions, ensuring full compatibility and flexibility for all battery applications.

Features:

- Available in every voltage and cell arrangement
- Fully plastic coated steel containers
- Insulated bolts and connectors increasing user safety and simplifying maintenance
- Suitable for all applications from light to heavy duty

The service we offer

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A sample of the ranges we can offer from stock for next day delivery

Battery Voltage	Cell Type	DIN Code	Length (mm)	Width (mm)	Height (mm)	Ecobat Code
24	2PzS250	43535A	830	165	627	43535A02/627
24	2PzS250	43535B	624	212	627	43535B02/627
24	3PzS375	43535A	830	219	627	43535A03/627
24	3PzS375	43535B	624	284	627	43535B03/627
24	4PzS500	43535A	830	273	627	43535A04/627
24	4PzS500	43535B	624	356	627	43535B04/627
48	3PzS465	43531C	1220	283	784	43531C03/784
48	4PzS500	43531A	830	522	627	43531A04/627
48	4PzS620	43531C	1220	355	784	43531C04/784
48	5PzS625	43531A	830	630	627	43531A05/627
48	5PzS775	43531C	1220	427	784	43531C05/784
48	6PzS930	43531C	1220	499	784	43531C06/784
80	4PzS500	43536A	1026	708	627	43536A04/627
80	4PzS620	43536A	1028	711	784	43536A04/784
80	5PzS625	43536A	1026	852	627	43536A05/627
80	5PzS775	43536A	1028	855	784	43536A05/784
80	6PzS930	43536A	1028	999	784	43536A06/784
48	5PzS775	Flexi	812	613	981	BT-NA-FLEXI-775

Industrial Batteries

Ecobat Industrial

Ecobat Battery Motive Power Cells can be used in many different applications including Forklifts, Cleaning machines, Electric tractors, Lifting platforms and Electric vehicles.

Designed & Manufactured for Ultimate Performance & Longevity

Key Features
Design Features
✓ Benefits

1 Positive Grid

Die Casted Grid using Optimized Lead - Antimony Alloy

✓ High tensile strength, corrosion resistance, excellent interface with the active mass

2 Positive Active Mass

100% Red Lead

✓ Efficient formation ensures that full cell capacity is achieved after 3-5 cycles

Dry filling Process

✓ Uniformly filled positive plates, 100% weight controlled

In house Red Lead production

✓ Constant quality, homogeneous tamped density

Produced by 99,99% Primary Lead

✓ Long service life, high conductivity increased performance

3 Gauntlet

Non woven, high quality polyester

✓ Prevents mass shedding, high mechanical stability

4 Bottom Bar

Ultrasonically Welded

✓ Provides space for the unavoidable growth of the spine

5 Negative Grid

Gravity Casted Grid using Optimized Lead - Antimony Alloy

✓ High tensile strength, corrosion resistance, low water consumption

6 Negative Active Mass

In house production of Lead Oxide

✓ Constant quality

Fully automatic Vacuum Negative Paste Mixing Process

✓ Consistency of the Negative Active Mass

7 Separator

Highly porous Polyethylene, enveloped using mechanically crimped sleeve

✓ Increased performance preventing short-circuits

8 Formation & Activation

Fully automatic Jar Formation process

✓ Constant quality in each and every cell

9 Electrolyte

High Purity

✓ Long life performance

10 Pole Terminal

Innovative conical design of the pole sealing system

✓ Uses the unavoidable growth of the plates to press against the grommet and improve the sealing

Tin plated 16 mm diameter inserts

11 Pole Bridge

Cast On Strap manufactured pole bridge

✓ Consistent & uniform composition ensures superior connections

12 Lid

Polypropylene reinforced lid thermo-welded to the container

13 Cell Container

Polypropylene container, with sufficient sediment space

14 Operational Vent Plug

Electrolyte level marking, anti-surge baffle, free cell gassing

✓ Increased operational safety

EDrive Premium Traction

Why Choose EDrive Premium Traction Batteries?

Known worldwide, EDrive Premium Traction Batteries offer a range of traction batteries that are ideal for all types of electrical applications such as forklift trucks, locomotives, floor cleaning machines, carriage lighting, electric barges, ground handling equipment etc. the list goes on.

EDrive Premium is widely recognised as being one of the highest quality cells on the market. Such is the quality of the EDrive product; many other well-known manufacturers have their own cells built under licence by EDrive Premium Traction.

At Ecobat we have exclusive distribution rights to the EDrive brand of batteries throughout the UK. We assemble individual cells into batteries with different voltages, capacities and dimensions to suit all types of applications.

Applications:

- Electric Vehicle
- Floor Cleaning Machines
- Forklift Trucks
- Electric Road Vehicles

ecobat BATTERY

EDrive Premium Traction

DIN Standard Characteristic Data

EDRIVE PREMIUM TRACTION

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l. Weight tolerance is ± 5 %.
Cells from 7 to 10 PzS types are available with 2 poles. For 4 poles, please specify with your order.
All 12 PzS and 10 Pg/555 and 10 Pg/590 cells are available with 4 poles only.

50Ah/plate
h1 = 282, h2 = 305 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 100	100	47	6,8	5,7
3 PzS 150	150	65	9,6	7,7
4 PzS 200	200	83	12,4	9,9
5 PzS 250	250	101	15,3	12,2
6 PzS 300	300	119	18,2	14,5
7 PzS 350	350	137	21,1	16,7
8 PzS 400	400	155	24,0	19,0
9 PzS 450	450	173	26,9	21,3
10 PzS 500	500	191	29,8	23,6
12 PzS 600	600	227	35,9	28,4

60Ah/plate
h1 = 340, h2 = 363 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 120	120	47	8,5	6,5
3 PzS 180	180	65	11,9	9,2
4 PzS 240	240	83	15,4	11,9
5 PzS 300	300	101	18,9	14,6
6 PzS 360	360	119	22,4	17,2
7 PzS 420	420	137	25,9	19,9
8 PzS 480	480	155	29,4	22,6
9 PzS 540	540	173	32,9	25,2
10 PzS 600	600	191	36,4	27,9
12 PzS 720	720	227	43,7	33,6

80Ah/plate
h1 = 402, h2 = 425 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 160	160	47	10,2	8,1
3 PzS 240	240	65	14,5	11,2
4 PzS 320	320	83	18,7	14,6
5 PzS 400	400	101	22,9	17,9
6 PzS 480	480	119	27,1	21,3
7 PzS 560	560	137	31,3	24,7
8 PzS 640	640	155	35,5	28,0
9 PzS 720	720	173	39,7	31,4
10 PzS 800	800	191	43,9	34,7
12 PzS 960	960	227	52,6	41,8

90Ah/plate
h1 = 472, h2 = 495 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 180	180	47	11,6	9,1
3 PzS 270	270	65	16,6	12,8
4 PzS 360	360	83	21,4	16,6
5 PzS 450	450	101	26,2	20,5
6 PzS 540	540	119	31,0	24,4
7 PzS 630	630	137	35,8	28,2
8 PzS 720	720	155	40,6	32,1
9 PzS 810	810	173	45,4	35,9
10 PzS 900	900	191	50,2	39,8
12 PzS 1080	1080	227	60,1	47,8

105Ah/plate
h1 = 515, h2 = 538 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 210	210	47	13,3	10,3
3 PzS 315	315	65	18,3	14,4
4 PzS 420	420	83	23,7	18,6
5 PzS 525	525	101	29,1	22,9
6 PzS 630	630	119	34,5	27,1
7 PzS 735	735	137	39,9	31,4
8 PzS 840	840	155	45,3	35,6
9 PzS 945	945	173	50,7	39,9
10 PzS 1050	1050	191	56,4	44,5
12 PzS 1260	1260	227	67,2	53,0

115Ah/plate
h1 = 545, h2 = 568 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 230	230	47	14,0	10,8
3 PzS 345	345	65	19,8	15,3
4 PzS 460	460	83	25,6	19,9
5 PzS 575	575	101	31,4	24,8
6 PzS 690	690	119	37,2	29,6
7 PzS 805	805	137	43,0	34,5
8 PzS 920	920	155	48,8	39,3
9 PzS 1035	1035	173	54,9	44,5
10 PzS 1150	1150	191	60,7	49,3
12 PzS 1380	1380	227	72,3	59,0

125Ah/plate
h1 = 570, h2 = 593 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 250	250	47	14,7	11,6
3 PzS 375	375	65	20,7	16,2
4 PzS 500	500	83	26,9	21,1
5 PzS 625	625	101	33,1	26,0
6 PzS 750	750	119	39,3	30,9
7 PzS 875	875	137	45,5	35,8
8 PzS 1000	1000	155	51,7	40,7
9 PzS 1125	1125	173	58,2	45,9
10 PzS 1250	1250	191	64,4	50,8
12 PzS 1500	1500	227	76,8	60,6

140Ah/plate
h1 = 686, h2 = 709 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 280	280	47	18,3	14,4
3 PzS 420	420	65	25,3	19,4
4 PzS 560	560	83	32,2	25,1
5 PzS 700	700	101	39,5	30,9
6 PzS 840	840	119	46,7	36,6
7 PzS 980	980	137	54,0	42,3
8 PzS 1120	1120	155	61,2	48,0
9 PzS 1260	1260	173	68,8	54,1
10 PzS 1400	1400	191	76,0	59,8
12 PzS 1680	1680	227	90,5	71,3

155Ah/plate
h1 = 720, h2 = 743 mm | length = b = 198 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzS 310	310	47	18,8	14,9
3 PzS 465	465	65	26,1	20,6
4 PzS 620	620	83	33,5	26,7
5 PzS 775	775	101	41,1	32,9
6 PzS 930	930	119	48,9	39,0
7 PzS 1085	1085	137	56,7	45,1
8 PzS 1240	1240	155	64,5	51,3
9 PzS 1395	1395	173	72,8	57,8
10 PzS 1550	1550	191	80,6	64,0
12 PzS 1860	1860	227	96,2	76,2

BS Standard Characteristic Data

EDRIVE PREMIUM TRACTION

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l. Weight tolerance is ± 5 %.

Cells from 9–11 PzB types are available with 4 poles only.

23Ah/plate

h1 = 216, h2 = 240 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 46	46	45	3,7	3,0
3 PzB 69	69	61	5,4	4,2
4 PzB 92	92	77	6,9	5,4
5 PzB 115	115	93	8,4	6,6
6 PzB 138	138	109	10,0	7,8
7 PzB 161	161	125	11,6	9,0
8 PzB 184	184	141	13,2	10,2
9 PzB 207 *	207	157	15,3	11,9
10 PzB 230 *	230	173	16,9	13,1
11 PzB 253 *	253	189	18,4	14,3

32Ah/plate

h1 = 260, h2 = 284 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 64	64	45	5,1	4,0
3 PzB 96	96	61	7,1	5,6
4 PzB 128	128	77	9,2	7,2
5 PzB 160	160	93	11,3	8,8
6 PzB 192	192	109	13,2	10,3
7 PzB 224	224	125	15,0	11,7
8 PzB 256	256	141	16,8	13,1
9 PzB 288 *	288	157	19,1	14,9
10 PzB 320 *	320	173	20,9	16,3
11 PzB 352 *	352	189	22,7	17,7

42Ah/plate

h1 = 326, h2 = 350 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 84	84	45	6,9	5,4
3 PzB 126	126	61	9,4	7,3
4 PzB 168	168	77	11,9	9,3
5 PzB 210	210	93	14,5	11,3
6 PzB 252	252	109	17,3	13,5
7 PzB 294	294	125	20,0	15,6
8 PzB 336	336	141	22,3	17,6
9 PzB 378 *	378	157	25,2	19,9
10 PzB 420 *	420	173	27,6	21,8
11 PzB 462 *	462	189	30,0	23,7

55Ah/plate

h1 = 399, h2 = 423 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 110	110	45	7,6	6,1
3 PzB 165	165	61	10,5	8,5
4 PzB 220	220	77	13,5	11,0
5 PzB 275	275	93	16,5	13,5
6 PzB 330	330	109	19,6	15,9
7 PzB 385	385	125	22,6	18,4
8 PzB 440	440	141	25,6	20,8
9 PzB 495	495	157	29,1	23,8
10 PzB 550	550	173	32,1	26,3
11 PzB 605	605	189	35,2	28,7

65Ah/plate

h1 = 453, h2 = 477 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 130	130	45	8,2	6,8
3 PzB 195	195	61	12,0	10,1
4 PzB 260	260	77	15,5	13,0
5 PzB 325	325	93	19,0	16,0
6 PzB 390	390	109	22,6	18,9
7 PzB 455	455	125	26,1	21,8
8 PzB 520	520	141	29,6	24,5
9 PzB 585 *	585	157	33,6	27,9
10 PzB 650 *	650	173	37,2	30,6
11 PzB 715 *	715	189	40,7	33,3

75Ah/plate

h1 = 513, h2 = 537 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 150	150	45	10,0	7,5
3 PzB 225	225	61	13,9	10,8
4 PzB 300	300	77	17,8	14,1
5 PzB 375	375	93	21,6	17,5
6 PzB 450	450	109	25,6	20,9
7 PzB 525	525	125	29,6	24,1
8 PzB 600	600	141	33,5	27,4
9 PzB 675 *	675	157	38,2	31,1
10 PzB 750 *	750	173	42,3	34,2
11 PzB 825 *	825	189	46,4	37,3

86Ah/plate

h1 = 567, h2 = 591 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 172	172	45	10,7	8,3
3 PzB 258	258	61	15,0	11,8
4 PzB 344	344	77	19,3	15,2
5 PzB 430	430	93	23,7	18,6
6 PzB 516	516	109	28,1	22,0
7 PzB 602	602	125	32,6	25,4
8 PzB 688	688	141	37,1	28,8
9 PzB 774	774	157	42,3	32,9
10 PzB 860	860	173	46,9	36,3
11 PzB 946	946	189	51,4	39,7

100Ah/plate

h1 = 608 h2 = 632 mm | length = b = 157,5 mm

CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 200	200	45	11,8	9,4
3 PzB 300	300	61	16,6	13,5
4 PzB 400	400	77	21,5	17,5
5 PzB 500	500	93	26,4	21,6
6 PzB 600	600	109	31,5	25,6
7 PzB 700	700	125	36,4	29,7
8 PzB 800	800	141	41,4	33,7
9 PzB 900	900	157	47,1	38,6
10 PzB 1000	1000	173	52,0	42,7
11 PzB 1100	1100	189	56,9	46,7

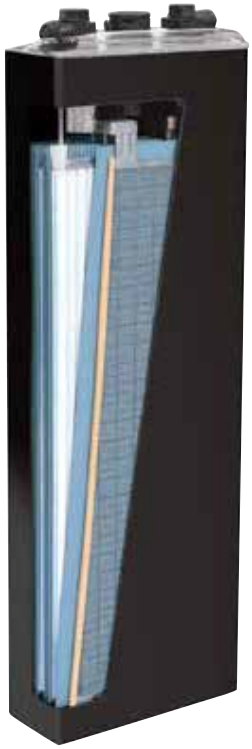
108Ah/plate

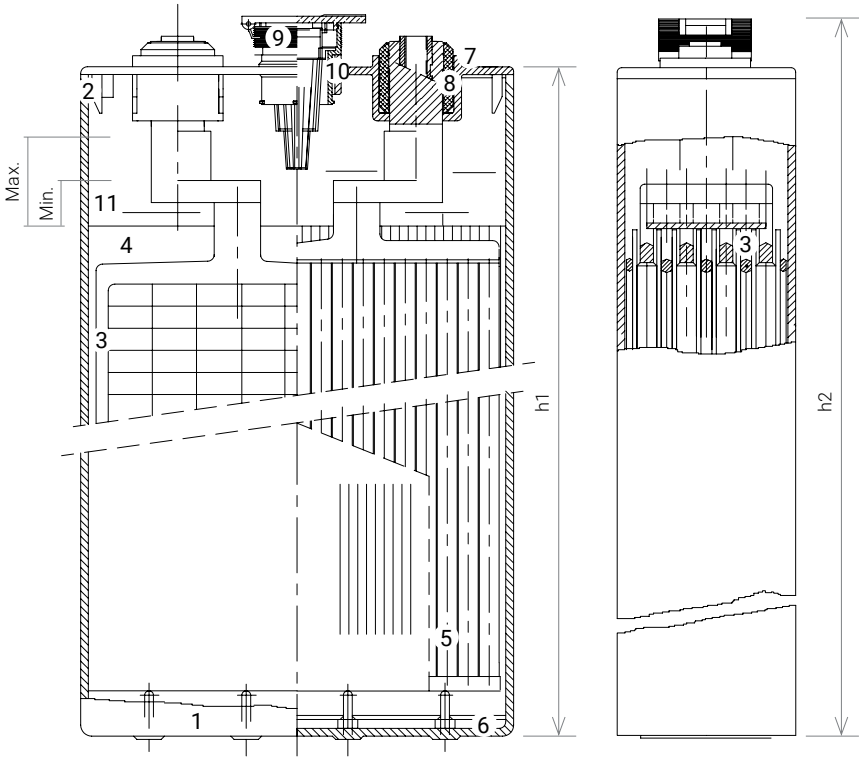
h1 = 688, h2 = 712 mm | length = b = 157,5 mm

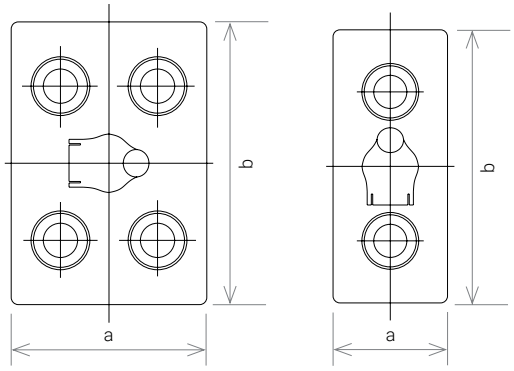
CELL TYPE	CAPACITY 5h	WIDTH mm	WEIGHT with acid	WEIGHT dry (kg)
2 PzB 216	216	45	13,5	9,9
3 PzB 324	324	61	18,9	14,3
4 PzB 432	432	77	24,3	18,7
5 PzB 540	540	93	29,7	23,2
6 PzB 648	648	109	35,1	27,6
7 PzB 756	756	125	40,5	32,1
8 PzB 864	864	141	45,9	36,5
9 PzB 972	972	157	52,0	41,6
10 PzB 1080	1080	173	57,4	46,0
11 PzB 1188	1188	189	62,8	50,4

EDrive Premium Traction

EDrive Premium Traction Batteries







1. Polypropylene container
2. Polypropylene cover
3. Negative grid Plate
4. Microporous separator
5. Positive armoured tube Plate
6. Settling rib
7. Terminal post
8. Rubber sealing
9. Cell plug Ø 35,5
10. Plug sealing Ø 35,5
11. Electrolyte

DIN STANDARD Characteristic Data:

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l. Weight tolerance is ± 5 %.
Cells from 7 to 10 PzS types are available with 2 and 4 poles.
10 PzS 1400, 10 PzS 1550 and all 12 PzS cells are available with 4 poles only.

DIN S STANDARD Characteristic Data:

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l. Weight tolerance is ± 5 %.
Cells from 7 to 10 PzS types are available with 2 and 4 poles.
10 PzS 1450 S and all 12 PzS cells are available with 4 poles only.

BS STANDARD Characteristic Data:

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l. Weight tolerance is ± 5 %.
Cells from 9 to 11 PzB types are available with 4 poles only.

BCI STANDARD Characteristic Data:

Fully charged Specific Gravity 1,29 ± 0,01 kg/l at 30 °C. Weight tolerance is ± 5 %.Cells from 9 to 15 USI types are available with 4 poles only.

EDrive Aqualess

EDrive Aqualess Batteries

Cell design with proven PzS technology using tubular plates in combination with an adjusted charging regime, resulting in extended watering intervals. Cells are equipped with Electrolyte Mixing system to prevent electrolyte stratification and to ensure optimized charging. EDrive PzRM cells are manufactured and tested according to EN60254-1 and IEC254-1.

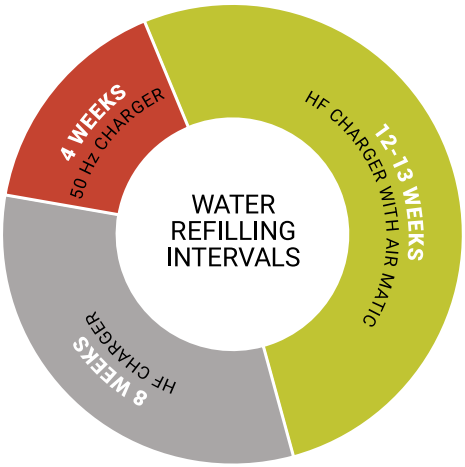
Features:

- Water refill interval is efficiently prolonged
- Reduced water consumption
- Low maintenance and reduced operational costs
- 50 to 80% reduced gas release and ventilation requirements
- 20 to 30% less charging time
- Cost saving due to lower energy consumption from 10 to 20%
- Reduced operating temperatures
- Reduced charging factor

Cell Type	Amper Hour (Ah)	Capacity Range	Dimensions (mm) L x H	Dimensions (mm) Width Range	Weight Range (Kg)
PzRM	80 Ah	160-960	198 x 402	47-227	10.2-52.6
PzRM	90 Ah	180-1080	198 x 472	47-227	11.6-60.1
PzRM	105 Ah	210-1260	198 x 515	47-227	13.3-67.2
PzRM	115 Ah	230-1380	198 x 545	47-227	14.0-70.1
PzRM	125 Ah	250-1500	198 x 570	47-227	14.5-74.8
PzRM	140 Ah	280-1680	198 x 686	47-227	18.5-90.5
PzRM	155 Ah	310-1860	198 x 720	47-227	18.8-96.2

EDrive Aqualess	Aqua 1	Aqua 2	Aqua 3
Refilling Interval in weeks	4	8	12-13
Charger	50 Hz H	HF	HF + Air Matic
Charging Factor	1.2	1.10-1.11	1.07-1.08
Electrolyte Level indicator	Serial	Serial	Serial
Central Water Filling System	Optional	Optional	Optional
Air Matic	Optional	Optional	Serial

Water refill interval is efficiently prolonged



EDrive Traction Gel

EDrive Traction Gel

EDrive Traction Gel Batteries combines the benefits of recombination technology, (virtually without maintenance due to its very low gas emissions), in addition to the advantages of conventional vented batteries with tubular positive plates, (i.e. long life and excellent cycling possibility). These are the ideal energy source for many applications.

Design

- TUBULAR POSITIVE PLATES
  Special grid construction, pressure cast from antimony free alloy, with highly porous gauntlets that retain the active material
- PASTED NEGATIVE PLATES
  Service lives consistent with the positive plates
- ELECTROLYTE
  Gel structure
- SEPARATORS
  Extremely high porosity and low internal resistance

PzV Standard Characteristic Data

55Ah/plate
h1 = 340, h2 = 350mm | length = b = 198mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzV 110	110	47	9,3
3 PzV 165	165	65	12,7
4 PzV 220	220	83	16,5
5 PzV 275	275	101	20,1
6 PzV 330	330	119	23,8
7 PzV 385	385	137	27,4

70Ah/plate
h1 = 402, h2 = 412mm | length = b = 198mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzV 140	140	47	10,8
3 PzV 210	210	65	15,5
4 PzV 280	280	83	19,7
5 PzV 350	350	101	24,2
6 PzV 420	420	119	29,1

80Ah/plate
h1 = 472, h2 = 482mm | length = b = 198mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzV 160	160	47	12,7
3 PzV 240	240	65	18,1
4 PzV 320	320	83	23,6
5 PzV 400	400	101	29,0
6 PzV 480	480	119	35,0

100Ah/plate
h1 = 563, h2 = 573mm | length = b = 198mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzV 200	200	47	14,7
3 PzV 300	300	65	21,6
4 PzV 400	400	83	27,8
5 PzV 500	500	101	34,3
6 PzV 600	600	119	40,6

120Ah/plate
h1 = 720, h2 = 730mm | length = b = 198mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzV 240	240	47	19,7
3 PzV 360	360	65	27,4
4 PzV 480	480	83	35,3
5 PzV 600	600	101	42,1
6 PzV 720	720	119	50,0

PzVB Standard

61Ah/plate
h1 = 472, h2 = 486mm | length = b = 157,5mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzVB 122	122	45	9,7
3 PzVB 183	183	61	13,5
4 PzVB 244	244	77	16,9

71Ah/plate
h1 = 516, h2 = 530mm | length = b = 157,5mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzVB 142	142	45	10,6
3 PzVB 213	213	61	14,8
4 PzVB 284	284	77	18,5

81Ah/plate
h1 = 611, h2 = 625mm | length = b = 157,5mm

CELL TYPE	CAPACITY C5	WIDTH mm	WEIGHT with acid
2 PzVB 170	170	45	11,8
3 PzVB 255	255	61	16,1
4 PzVB 340	340	77	20,7

Battery Watering

It is essential that electrolyte levels are topped up correctly.

Our Autofill systems make this difficult and dirty job simple and quick.

A 24-cell battery for example can be topped up correctly in 1-2 minutes compared to the 10-15 minutes or more it would take to do it manually.

It's simple! Connect the Autofill system to either a manual hand pump or electric cart with one simple and secure connector and allow the system to do its job.

It's accurate! No more guessing at levels – with Autofill the water supply will shut off automatically when the correct electrolyte level in each cell is reached.

It's clean! No spillage on battery tops and no wiping up afterwards.

It's safe! Because there is no contact with hazardous substances, there is no need for extensive protective clothing and equipment although we would always advise the wearing of safety glasses and gloves during any topping up procedure.

It's cost effective! The cost of adding Autofill to a new battery or retrofitting to an existing one is small and any cost is soon recouped in saved labour time.

Maintaining the correct levels of electrolyte is vital for optimum performance and battery life

Battery Watering

Powered Top Up Carts

Being the ideal solution for larger fleets, our range of powered carts will allow you to fill several Autofill equipped batteries anywhere on site quickly, safely and conveniently. Powered by their own internal battery and featuring large water tanks, they can also be fitted with a dispensing gun for use on non-Autofill batteries.

Trolley Top Up Bottle

Additional features include wheels for additional mobility, 15.5 Ltr capacity and can be adapted for manual topping.

Suitable for use with BFS, Aquamatik and most single point watering systems.

De-ionising Systems

Tap water should never be used to top up batteries as it contains ingredients that are harmful to a battery.

Cost-effective and convenient, our de-ionising systems are wall mounted and easily connected to a water supply. The filter system will take out any impurities in the water supply and dispense de-ionised water suitable for topping up all types of motive power batteries. The cartridges are long lasting and easily swapped making this the cheapest and most convenient method of generating battery quality water for regular maintenance.

We can supply replacement cartridges when required.

Dispense Guns

Dispensing guns can be used with our powered top up carts and allow quicker and more accurate filling of non-Autofill batteries.

Smart Blinky

This device gives an easy-to-see visual warning of when a battery requires topping up.

Powered by the battery itself, the LED indicator shines green when the electrolyte level is OK and it turns red when the battery requires topping up.

This works very well in conjunction with our Autofill systems.

EDrive Din Trays

Application

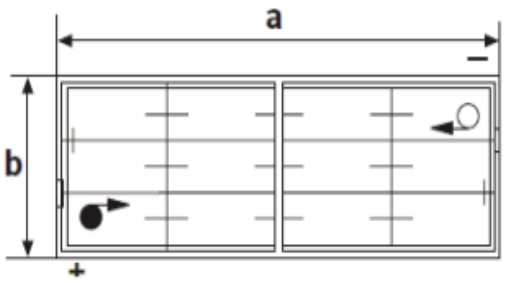
DIN-Trays can be used in a variety of devices and vehicles of different manufacturers with standardised battery in the desired colours.

Features:

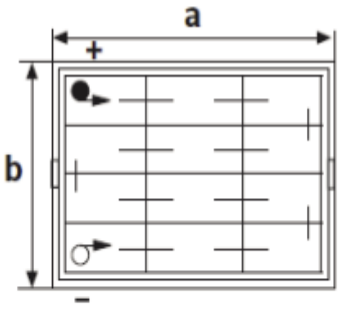
- For material-reduced variants, a material reduction of up to 20% is possible.
- The 24V 3/300 DIN B is also available in RAL 7021 as injection-moulded plastic tray.
- The DIN-Trays fulfil all the standard requirements (DIN 43531, DIN 43535, DIN 43536 und DIN EN 62485-3), each of them is 100 % tested regarding dielectric strength with 5 kV and they are labelled with a quality seal.
- Basic material is steel with your desired coating and colour.
- Standard is PE coating applied by means of a fluid bed process in colours RAL 7021, RAL 1028, RAL 2002, JH-GR and RAL 9005. In case of common special colours such as RAL 2000, the tray is PE-coated and subsequently sprayed with RAL 2000 powder, which is, compared to wet paint, more resistant to mechanical load.
- For all other RAL colours, the tray is PE-coated and then wet-painted. The tray can also be PUR-coated on request and painted in the required colour.

EDrive Din Trays layout

24v



Layout A
Circuit A



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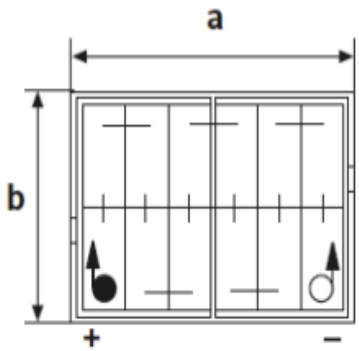
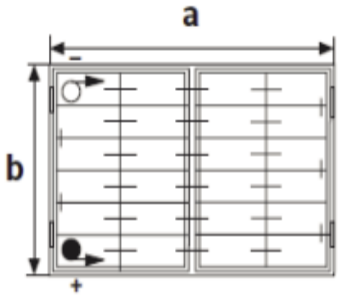
Circuit B

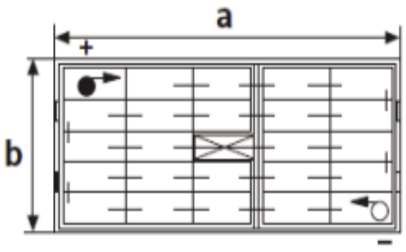


Layout C
Circuit

48v



Layout A
Circuit A



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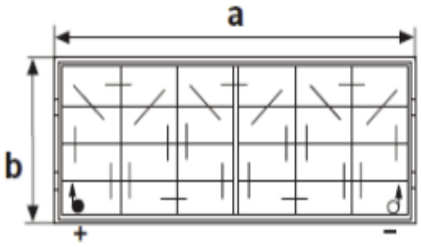
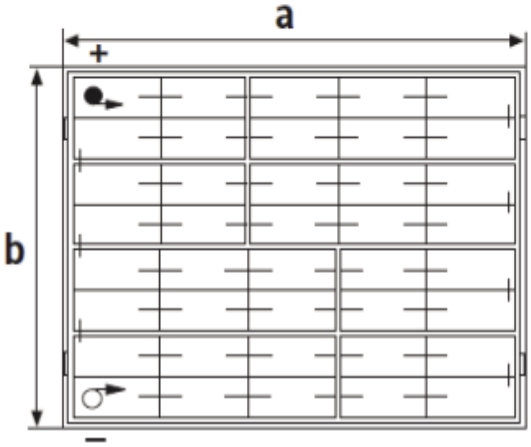
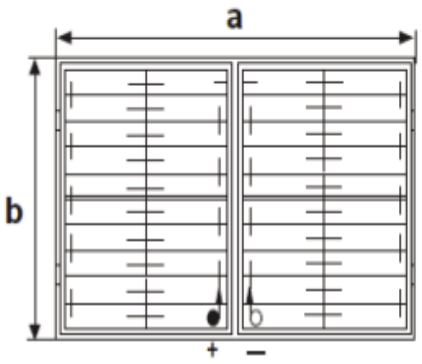
Circuit B



Layout C
Circuit

80v





SPE Battery Chargers

GREEN2 - Main features:

- Power up to 2.5 kW, from 24V up to 96V, from 17A up to 70A
- Programmable via USB type A/B port or via display
- Graphical display

Dimensions (L x W x H):
300 x 475 x 180 mm

Weight: 11 Kg

Protection Grade: IP20

Input Voltage: 120/200-240 Vac

Part Number		Voltage	Current	Battery range (C5)		
				IUIa Wet 8h	IUIa Wet 12h	IUIa Gel PzV 10-14h
24V	GREEN2 24-50	24 V	50 A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN2 24-60	24 V	60 A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN2 24-70	24 V	70 A	390÷480 Ah	630÷770 Ah	480÷590 Ah
36V	GREEN2 36-40	36 V	40 A	230÷280 Ah	360÷440 Ah	275÷340 Ah
	GREEN2 36-45	36 V	45 A	250÷310 Ah	410÷500 Ah	310÷380 Ah
48V	GREEN2 48-30	48 V	30 A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN2 48-40	48 V	40 A	230÷280 Ah	360÷440 Ah	275÷340 Ah
72V	GREEN2 72-25	72 V	25 A	140÷170 Ah	230÷280 Ah	175÷210 Ah
80V	GREEN2 80-20	80 V	20 A	110÷140 Ah	180÷220 Ah	140÷170 Ah
96V	GREEN2 96-17	96 V	17 A	100÷120 Ah	155÷190 Ah	115÷145 Ah

GREEN4 - Main features:

- Power up to 2.5 kW, from 24V up to 96V, from 17A up to 70A
- Programmable via USB type A/B port or via display
- Graphical display

Dimensions (L x W x H):
333.50 x 520 x 180 mm

Weight: 13 Kg

Protection Grade: IP20

Input Voltage: 200-240Vac

Part Number		Voltage	Current	Battery range (C5)		
				IUIa Wet 8h	IUIa Wet 12h	IUIa Gel PzV 10-14h
24V	GREEN4 24-80	24 V	80 A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN4 24-90	24 V	90 A	510÷620 Ah	810÷990 Ah	620÷760 Ah
	GREEN4 24-100	24 V	100 A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
	GREEN4 24-120	24 V	120 A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
36V	GREEN4 36-50	36 V	50 A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN4 36-60	36 V	60 A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN4 36-70	36 V	70 A	390÷480 Ah	630÷770 Ah	480÷590 Ah
	GREEN4 36-80	36 V	80 A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN4 36-90	36 V	90 A	510÷620 Ah	810÷990 Ah	620÷760 Ah
48V	GREEN4 48-50	48 V	50 A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN4 48-60	48 V	60 A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN4 48-75	48 V	75 A	420÷520 Ah	680÷830 Ah	520÷630 Ah
72V	GREEN4 72-30	72 V	30 A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN4 72-40	72 V	40 A	230÷280 Ah	360÷440 Ah	275÷340 Ah
	GREEN4 72-50	72 V	50 A	280÷340 Ah	450÷550 Ah	350÷420 Ah
80V	GREEN4 80-30	80 V	30 A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN4 80-40	80 V	40 A	230÷280 Ah	360÷440 Ah	275÷340 Ah
96V	GREEN4 96-25	96 V	25 A	140÷170 Ah	230÷280 Ah	175÷210 Ah
	GREEN4 96-30	96 V	30 A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN4 96-35	96 V	35 A	200÷240 Ah	315÷380 Ah	240÷300 Ah

ecobat BATTERY

SPE Battery Chargers

GREEN6 - Main features:

- Modular system (4 configurable modules)
- Power up to 10.5 kW, up to 200 A @ 48 V, up to 130 A @ 80 V, up to 100 A @ 96 V
- Programmable via USB type A/B port or via display
- Graphical display

Dimensions (L x W x H): 448 x 665.5 x 217.5 mm
Weight: 43.35Kg
Protection Grade: IP20
Input Voltage: 200/208-240/400/480 Vac – 50-60 Hz

Part Number		Voltage	Charging Current	Battery range (C5)		
				IUIa Wet 8h	IUIa Wet 12h	IUIa Gel PzV 10-14h
24V	GREEN6 24-50	24 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 24-60	24 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 24-70	24 V	70A	390÷480 Ah	630÷770 Ah	480÷590 Ah
	GREEN6 24-80	24 V	80A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN6 24-100	24 V	100A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
	GREEN6 24-120	24 V	120A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
	GREEN6 24-150	24 V	150A	840÷1030 Ah	1350÷1650 Ah	1040÷1270 Ah
36V	GREEN6 36-50	36 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 36-60	36 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 36-70	36 V	70A	390÷480 Ah	630÷770 Ah	480÷590 Ah
	GREEN6 36-80	36 V	80A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN6 36-100	36 V	100A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
	GREEN6 36-120	36 V	120A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
	GREEN6 36-150	36 V	150A	840÷1030 Ah	1350÷1650 Ah	1040÷1270 Ah
48V	GREEN6 48-50	48 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 48-60	48 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 48-70	48 V	70A	390÷480 Ah	630÷770 Ah	480÷590 Ah
	GREEN6 48-80	48 V	80A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN6 48-100	48 V	100A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
	GREEN6 48-120	48 V	120A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
	GREEN6 48-130	48 V	130A	730÷890 Ah	1170÷1430 Ah	900÷1100 Ah
	GREEN6 48-150	48 V	150A	840÷1030 Ah	1350÷1650 Ah	1040÷1270 Ah
72V	GREEN6 72-30	72 V	30A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN6 72-40	72 V	40A	230÷280 Ah	360÷440 Ah	275÷340 Ah
	GREEN6 72-50	72 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 72-60	72 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 72-80	72 V	80A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN6 72-100	72 V	100A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
80V	GREEN6 80-30	80 V	30A	170÷210 Ah	270÷330 Ah	210÷255 Ah
	GREEN6 80-40	80 V	40A	230÷280 Ah	360÷440 Ah	275÷340 Ah
	GREEN6 80-50	80 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 80-60	80 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 80-80	80 V	80A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN6 80-100	80 V	100A	560÷690 Ah	900÷1100 Ah	690÷850 Ah
96V	GREEN6 96-20	96 V	20A	110÷140 Ah	180÷220 Ah	140÷170 Ah
	GREEN6 96-25	96 V	25A	140÷170 Ah	230÷280 Ah	170÷210 Ah
	GREEN6 96-30	96 V	30A	170÷210 Ah	270÷330 Ah	210÷250 Ah
	GREEN6 96-40	96 V	40A	230÷280 Ah	360÷440 Ah	280÷340 Ah
	GREEN6 96-50	96 V	50A	280÷340 Ah	450÷550 Ah	350÷420 Ah
	GREEN6 96-60	96 V	60A	340÷410 Ah	540÷660 Ah	420÷510 Ah
	GREEN6 96-70	96 V	70A	390÷480 Ah	630÷770 Ah	480÷590 Ah
	GREEN6 96-75	96 V	75A	420÷520 Ah	680÷830 Ah	520÷630 Ah

GREEN8 - Main features:

- Modular system (4 configurable modules)
- Power up to 10.5 kW, up to 200 A @ 48 V, up to 130 A @ 80 V, up to 100 A @ 96 V
- Programmable via USB type A/B port or via display
- Graphical display

Dimensions (L x W x H): 448 x 665.5 x 217.5 mm
Weight: 43.35Kg
Protection Grade: IP20
Input Voltage: 200/208-240/400/480 Vac – 50-60 Hz

Part Number		Voltage	Charging Current	Battery range (C5)		
				IUIa Wet 8h	IUIa Wet 12h	IUIa Gel PzV 10-14h
24V	GREEN8 24-160	24 V	160 A	900÷1100 Ah	1440÷1760 Ah	1110÷1350 Ah
	GREEN8 24-180	24 V	180 A	1010÷1240 Ah	1620÷1980 Ah	1250÷1520 Ah
	GREEN8 24-200	24 V	200 A	1130÷1380 Ah	1800÷2200 Ah	1380÷1690 Ah
36V	GREEN8 36-160	36 V	160 A	900÷1100 Ah	1440÷1760 Ah	1110÷1350 Ah
	GREEN8 36-180	36 V	180 A	1010÷1240 Ah	1620÷1980 Ah	1250÷1520 Ah
	GREEN8 36-200	36 V	200 A	1130÷1380 Ah	1800÷2200 Ah	1380÷1690 Ah
48V	GREEN8 48-160	48 V	160 A	900÷1100 Ah	1440÷1760 Ah	1110÷1350 Ah
	GREEN8 48-180	48 V	180 A	1010÷1240 Ah	1620÷1980 Ah	1250÷1520 Ah
	GREEN8 48-200	48 V	200 A	1130÷1380 Ah	1800÷2200 Ah	1380÷1690 Ah
72V	GREEN8 72-110	72 V	110 A	620÷760 Ah	990÷1210 Ah	760÷930 Ah
	GREEN8 72-120	72 V	120 A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
	GREEN8 72-130	72 V	130 A	730÷890 Ah	1170÷1430 Ah	900÷1100 Ah
80V	GREEN8 80-110	80 V	110 A	620÷760 Ah	990÷1210 Ah	760÷930 Ah
	GREEN8 80-120	80 V	120 A	680÷830 Ah	1080÷1320 Ah	830÷1020 Ah
	GREEN8 80-130	80 V	130 A	730÷890 Ah	1170÷1430 Ah	900÷1100 Ah
96V	GREEN8 96-80	96 V	80 A	450÷550 Ah	720÷880 Ah	550÷680 Ah
	GREEN8 96-100	96 V	100 A	560÷690 Ah	900÷1100 Ah	690÷850 Ah

SPE Battery Chargers

Popular Plus
Single Phase

POPULAR PLUS - Single-phase

POPULARPLUS Single Phase					
Volt	A	Profile	Mains Voltage	BOX	Ah range
24	80	Wa curve	1 phase 240VAC	S	max 480
24	100	Wa curve	1 phase 240VAC	S	max 600
24	120	Wa curve	1 phase 240VAC	S	max 720
24	140	Wa curve	1 phase 240VAC	S	max 840
24	160	Wa curve	1 phase 240VAC	S	max 960
36	60	Wa curve	1 phase 240VAC	S	max 360
36	80	Wa curve	1 phase 240VAC	S	max 480
36	100	Wa curve	1 phase 240VAC	S	max 600
36	120	Wa curve	1 phase 240VAC	S	max 720
48	60	Wa curve	1 phase 240VAC	S	max 360
48	80	Wa curve	1 phase 240VAC	S	max 480
48	100	Wa curve	1 phase 240VAC	S	max 600
48	120	Wa curve	1 phase 240VAC	N	max 720
48	140	Wa curve	1 phase 240VAC	N	max 840
72	60	Wa curve	1 phase 240VAC	S	max 360
72	80	Wa curve	1 phase 240VAC	S	max 480
72	100	Wa curve	1 phase 240VAC	N	max 600
72	120	Wa curve	1 phase 240VAC	N	max 720
80	60	Wa curve	1 phase 240VAC	S	max 360
80	80	Wa curve	1 phase 240VAC	S	max 480
80	100	Wa curve	1 phase 240VAC	N	max 600
80	120	Wa curve	1 phase 240VAC	N	max 720

Box Dimensions (mm)

- “S” 500 (L) x 400 (W) x 800 (H)
- “N” 500 (L) x 400 (W) x 1000 (H)
- “L” 600 (L) x 480 (W) x 1100 (H)

Features

- Power supply: 240V AC, single-phase (adjustable ± 5%)
- Standard colour: Black 9001 - white 9010L
- Frequency: 50/60 Hz
- Equipped with mains and battery cables

POPULAR PLUS - Three-phase

POPULARPLUS Three Phase					
Volt	A	Profile	Mains Voltage	BOX	Ah range
24	60	Wa curve	3 phase 420VAC	S	max 360
24	80	Wa curve	3 phase 420VAC	S	max 480
24	100	Wa curve	3 phase 420VAC	S	max 600
24	120	Wa curve	3 phase 420VAC	S	max 720
24	140	Wa curve	3 phase 420VAC	S	max 840
24	160	Wa curve	3 phase 420VAC	N	max 960
36	60	Wa curve	3 phase 420VAC	S	max 360
36	80	Wa curve	3 phase 420VAC	S	max 480
36	100	Wa curve	3 phase 420VAC	S	max 600
36	120	Wa curve	3 phase 420VAC	S	max 720
36	140	Wa curve	3 phase 420VAC	S	max 840
36	160	Wa curve	3 phase 420VAC	N	max 960
48	60	Wa curve	3 phase 420VAC	S	max 360
48	80	Wa curve	3 phase 420VAC	S	max 480
48	100	Wa curve	3 phase 420VAC	S	max 600
48	120	Wa curve	3 phase 420VAC	N	max 720
48	140	Wa curve	3 phase 420VAC	N	max 840
48	160	Wa curve	3 phase 420VAC	N	max 960
72	60	Wa curve	3 phase 420VAC	S	max 360
72	80	Wa curve	3 phase 420VAC	S	max 480
72	100	Wa curve	3 phase 420VAC	N	max 600
72	120	Wa curve	3 phase 420VAC	N	max 720
80	60	Wa curve	3 phase 420VAC	S	max 360
80	80	Wa curve	3 phase 420VAC	N	max 480
80	100	Wa curve	3 phase 420VAC	N	max 600
80	120	Wa curve	3 phase 420VAC	N	max 720
80	140	Wa curve	3 phase 420VAC	N	max 840
80	160	Wa curve	3 phase 420VAC	N	max 960

Box Dimensions (mm)

- “S” 500 (L) x 400 (W) x 800 (H)
- “N” 500 (L) x 400 (W) x 1000 (H)
- “L” 600 (L) x 480 (W) x 1100 (H)

Features

- Power supply: 420V AC, single-phase (adjustable ± 5%)
- Standard colour: Black 9001 - white 9010L
- Frequency: 50/60 Hz
- Equipped with mains and battery cables

SPE Battery Chargers

Power Plus
Three Phase

Power Plus
Single Phase

POWER PLUS - Single-phase

Model	Ah Battery 10 ÷ 11 h	Mains voltage	Box
12V / 15A	90 ÷ 105	240	L
12V / 20A	110 ÷ 140	240	L
12V / 25A	150 ÷ 175	240	L
12V / 30A	180 ÷ 210	240	L
12V / 40A	220 ÷ 280	240	L
12V / 50A	300 ÷ 340	240	L
12V / 60A	350 ÷ 400	240	XL
24V / 15A	90 ÷ 105	240	L
24V / 20A	110 ÷ 140	240	L
24V / 25A	150 ÷ 175	240	L
24V / 30A	180 ÷ 210	240	L
24V / 40A	220 ÷ 280	240	L
24V / 50A	300 ÷ 340	240	XL
24V / 60A	350 ÷ 400	240	XL
24V / 70A	410 ÷ 480	240	XL
36V / 15A	90 ÷ 105	240	L
36V / 20A	110 ÷ 140	240	L
36V / 25A	150 ÷ 175	240	L
36V / 30A	180 ÷ 210	240	XL
36V / 40A	220 ÷ 280	240	XL
36V / 50A	300 - 340	240	XL
48V / 20A	110 ÷ 140	240	XL
48V / 30A	180 ÷ 210	240	XL

Box Dimensions (mm)

- "L" 425 (L) x 270 (W) x 280 (H)
- "XL" 500 (L) x 300 (W) x 300 (H)

Features

- Power supply: 240V AC, single-phase (adjustable ± 5%)
- Standard colour: BLACK 9005- white 9010L
- Preset holes for wall mounting
- Equipped with mains and battery cables

POWER PLUS - Three-phase

Model	Battery Ah	Mains voltage	Box
24V / 60A	max 360	240/420	S
24V / 70A	max 420	240/420	S
24V / 80A	max 480	240/420	S
24V / 90A	max 540	240/420	S
24V / 100A	max 600	240/420	S
24V / 110A	max 660	240/420	S
24V / 120A	max 720	240/420	S
24V / 130A	max 780	240/420	S
24V / 140A	max 840	240/420	S
24V / 160A	max 960	240/420	N
36V / 60A	max 360	240/420	S
36V / 70A	max 420	240/420	S
36V / 80A	max 480	240/420	S
36V / 90A	max 540	240/420	S
36V / 100A	max 600	240/420	S
36V / 110A	max 660	240/420	S
36V / 120A	max 720	240/420	S
36V / 130A	max 780	240/420	S
36V / 140A	max 840	240/420	S
36V / 160A	max 960	240/420	N
48V / 50A	max 300	240/420	S
48V / 60A	max 360	240/420	S
48V / 70A	max 420	240/420	S
48V / 80A	max 480	240/420	S
48V / 90A	max 540	240/420	S
48V / 100A	max 600	240/420	S
48V / 110A	max 660	240/420	S
48V / 120A	max 720	240/420	N
48V / 130A	max 780	240/420	N
48V / 140A	max 840	240/420	N
48V / 160A	max 930	240/420	N
72V / 60A	max 360	240/420	S
72V / 70A	max 420	240/420	S
72V / 80A	max 480	240/420	S
72V / 90A	max 540	240/420	S
72V / 100A	max 600	240/420	N
72V / 110A	max 660	240/420	N
72V / 120A	max 720	240/420	N
80V / 40A	max 240	240/420	S
80V / 50A	max 300	240/420	S
80V / 60A	max 360	240/420	S
80V / 70A	max 420	240/420	S
80V / 80A	max 480	240/420	N
80V / 90A	max 540	240/420	N
80V / 100A	max 600	240/420	N
80V / 110A	max 660	240/420	N
80V / 120A	max 720	240/420	N

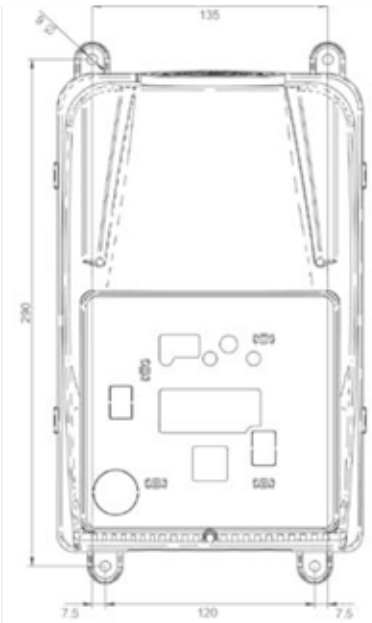
SPE Battery Chargers

CBHF2(XP)

Features:

- Single-phase battery chargers
- High frequency system with advanced technology
- Charging process controlled by microprocessor
- Thermal protection
- High brightness digital display
- Voltage: 12V, 24V, 36V, 48V
- Programmable for charging curve, charging current and battery voltage via dip switch
- Suitable for Lead-Acid, Sealed, Gel Traction and Lithium batteries
- Remote LED option

Battery Voltage	Battery Range (5h)		Battery Range (20h)	Charging Current	Model
	8-9 hours charging time	10-12 hours charging time	10-12 hours charging time		
12V	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	12-35 (XP)
12V	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	12-40 (XP)
24V	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	24-35 (XP)
24V	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	24-40 (XP)
36V	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	36-30 (XP)
48V	105÷140 Ah	150÷220 Ah	165÷265 Ah	22A	48-22 (XP)



CBHF2(XP) - Main features:

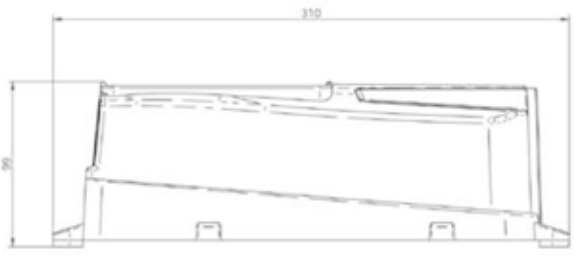
- Power from 180W up to 1050W
- Current from 15A to 40A
- Active PFC
- Charging cycles information through USB (optional)

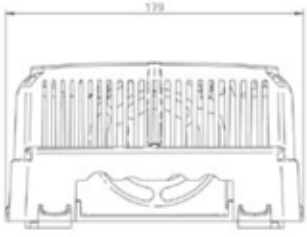
Dimensions (L x W x H):
180 x 310 x 100 mm

Weight: 3.5 Kg

Protection Grade: Ip30

Input Voltage: CBHF2-XP 36V/48V:
208 ÷ 240 Vac – 50-60 Hz





SPE Battery Chargers

CBHF2-HK

CBHF2-HK - Main features:

- STOP button on front panel
- Hard metal case
- ON-BOARD application
- Extra Power version available (XP model)

Dimensions (L x W x H):
270 x 225 x 97 mm

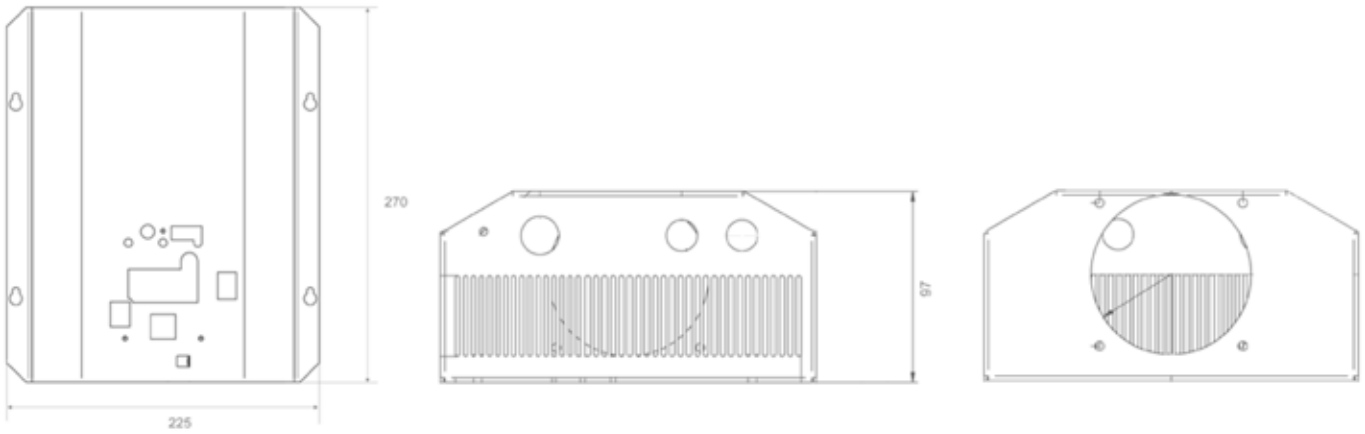
Weight: 4 Kg

Protection Grade: Ip30

Input Voltage: 100 ÷ 240 Vac – 50-60 Hz

* XP model 36V/48V: 208 ÷ 240 Vac – 50-60 Hz

Battery Voltage	Battery Range (5h)		Battery Range (20h)	Charging Current	Model
	8-9 hours charging time	10-12 hours charging time	10-12 hours charging time		
12V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	12-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	12-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	12-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	12-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	12-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	12-40 (XP)
24V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	24-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	24-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	24-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	24-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	24-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	24-40 (XP)
36V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	36-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	36-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	36-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	36-30 (XP)
48V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	48-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	48-20
	105÷140 Ah	150÷220 Ah	165÷265 Ah	22A	48-22 (XP)



Fronius Chargers

Fronius Selectiva 4.0

Battery Charging Systems For Intralogistics

With battery charging systems from Fronius, the Selectiva 4.0 series offers the most advanced solution for charging lead acid batteries available on the global market.

The innovative and patented Ri charging process does not follow a fixed charging characteristic, adapting to the age, temperature and individual state of the battery to gently charge the battery efficiently thus extending the battery life.

The Selectiva 4.0 series is available with outputs of 1, 2, 3, 8, 16, 18 and 30kW. Each power category comprises of several models from which to choose from according to the voltage, capacity and charging time of your batteries. All Selectiva 4.0 1 – 18kW models include a wall mount bracket as standard.

Features

- Ri charging characteristic
- Calendar function
- Charging status visualisation
- Multivoltage capabilities
- Opportunity and fast charging
- Deep discharge function
- USB Interface
- External start/stop
- Cold logistics option

Selectiva 1kW:

Battery voltage	Device	Output		Mains				
		Voltage	Current	Phases	Voltage	Current	Power	Fuse
12V	Selectiva 1020	12	20	1	230V	3A	0.3kW	16A
	Selectiva 1030	12	30	1	230V	3A	0.4kW	16A
24V	Selectiva 2010	24	10	1	230V	3A	0.3kW	16A
	Selectiva 2015	24	15	1	230V	3A	0.4kW	16A
	Selectiva 2020	24	20	1	230V	4A	0.7kW	16A
	Selectiva 2032	24	32	1	230V	8A	1.0kW	16A
	Selectiva 2040	24	35	1	230V	8A	1.1kW	16A

Type: 1kW
Dimensions W/H/D: 247 x 162 x 88 mm
Weight including charging and mains leads: 4 kg
Protection class: IP40

Mains lead: 2 m
Charging lead: 2.5 m
Mains voltage: 1 x 230V AC (-15%/+15%)

Selectiva 4.0 2kW:

Battery voltage	Device	Output		Mains				
		Voltage	Current	Phases	Voltage	Current	Power	Fuse
24V	Selectiva 4.0 2040 2kW	24	40	1	230V	8A	1.5kW	16A
	Selectiva 4.0 2050 2kW	24	50	1	230V	10A	1.9kW	16A
	Selectiva 4.0 2060 2kW	24	60	1	230V	12A	2.3kW	16A
	Selectiva 4.0 2070 2kW	24	70	1	230V	12A	2.4kW	16A
36V / 48V	Selectiva 4.0 4020 2kW	48	20	1	230V	8A	1.5kW	16A
	Selectiva 4.0 4035 2kW	48	35	1	230V	12A	2.3kW	16A

Type: 2kW
Dimensions W/H/D: 341 x 198 x 110 mm
Weight including charging and mains leads: 6 kg
Protection class: IP21

Mains lead: 2.5 m
Charging lead: 3 m
Mains voltage: 1 x 230V AC (-15%/+15%)

Fronius Chargers

Selectiva 4.0 3kW

Battery voltage	DEVICE	OUTPUT		MAINS				
		VOLTAGE	CURRENT	PHASES	VOLTAGE	CURRENT	POWER	FUSE
24V	Selectiva 4.0 2080 3kW	24	80	1	230V	15A	3.0kW	16A
	Selectiva 4.0 2100 3kW	24	100	1	230V	15A	3.3kW	16A
	Selectiva 4.0 2120 3kW	24	120	1	230V	16A	3.3kW	16A
36V / 48V	Selectiva 4.0 4045 3kW	48	45	1	230V	15A	3.3kW	16A
	Selectiva 4.0 4060 3kW	48	60	1	230V	15A	3.3kW	16A

Type: 3kW
Dimensions W/H/D: 417 x 198 x 110 mm
Weight including charging and mains leads: 8 kg
Protection class: IP21

Mains lead: 2.5 m
Charging lead: 3 m
Mains voltage: 1 x 230V AC (-15%/+15%)

Selectiva 4.0 8kW

Battery voltage	DEVICE	OUTPUT		MAINS				
		VOLTAGE	CURRENT	PHASES	VOLTAGE	CURRENT	POWER	FUSE
24V	Selectiva 4.0 2100 8kW	24	100	3	400V	7A	3.9kW	16A
	Selectiva 4.0 2120 8kW	24	120	3	400V	8A	4.6kW	16A
	Selectiva 4.0 2140 8kW	24	140	3	400V	9A	5.4kW	16A
	Selectiva 4.0 2160 8kW	24	160	3	400V	10A	6.1kW	16A
	Selectiva 4.0 2180 8kW	24	180	3	400V	11A	6.9kW	16A
	Selectiva 4.0 2200 8kW	24	200	3	400V	12A	7.6kW	16A
	Selectiva 4.0 2225 8kW	24	225	3	400V	14A	8.6kW	16A
36V / 48V	Selectiva 4.0 4060 8kW	48	60	3	400V	7A	4.6kW	16A
	Selectiva 4.0 4075 8kW	48	75	3	400V	9A	5.7kW	16A
	Selectiva 4.0 4090 8kW	48	90	3	400V	11A	6.8kW	16A
	Selectiva 4.0 4120 8kW	48	120	3	400V	14A	9.1kW	16A
	Selectiva 4.0 4140 8kW	48	140	3	400V	14A	9.3kW	16A
	Selectiva 4.0 4160 8kW	48	160	3	400V	15A	9.4kW	16A
	Selectiva 4.0 4185 8kW	48	185	3	400V	15A	10.0kW	16A
72/80V	Selectiva 4.0 8040 8kW	80	40	3	400V	8A	5.0kW	16A
	Selectiva 4.0 8060 8kW	80	60	3	400V	12A	7.4kW	16A
	Selectiva 4.0 8075 8kW	80	75	3	400V	14A	9.1kW	16A
	Selectiva 4.0 8090 8kW	80	90	3	400V	14A	9.2kW	16A
	Selectiva 4.0 8110 8kW	80	110	3	400V	15A	9.7kW	16A

Type: 8kW
Dimensions W/H/D: 633 x 344 x 180 mm
Weight including charging and mains leads: 23 kg
Protection class: IP20

Mains lead: 3 m
Charging lead: 3 m
Mains voltage: 3 x 400V AC (-10%/+30%)

Selectiva 4.0 16kw / 18kw /30kw

Battery voltage	DEVICE	OUTPUT		MAINS				
		VOLTAGE	CURRENT	PHASES	VOLTAGE	CURRENT	POWER	FUSE
24V	Selectiva 4.0 2250 18kW	24	250	3	400	15A	9.7kW	32A
	Selectiva 4.0 2300 18kW	24	300	3	400	16A	9.9kW	32A
	Selectiva 4.0 2350 18kW	24	350	3	400	16A	10.1kW	32A
36V / 48V	Selectiva 4.0 4120 16kW	48	120	3	220	29	9.1kW	32A
	Selectiva 4.0 4140 16kW	48	140	3	220	30	9.4kW	32A
	Selectiva 4.0 4160 16kW	48	160	3	220	30	9.5kW	32A
	Selectiva 4.0 4210 16kW	48	210	3	400	28	15.9kW	32A
	Selectiva 4.0 4250 18kW	48	250	3	400	30	18.7kW	32A
	Selectiva 4.0 4300 18kW	48	300	3	400	31	19.5kW	32A
	Selectiva 4.0 4325 18kW	48	325	3	400	31	19.6kW	32A
72V / 80V	Selectiva 4.0 8120 16kW	80	120	3	400	24	14.8kW	32A
	Selectiva 4.0 8140 16kW	80	140	3	400	28	17.3kW	32A
	Selectiva 4.0 8160 16kW	80	160	3	400	30	18.2kW	32A
	Selectiva 4.0 8180 16kW	80	180	3	400	31	18.3kW	32A
	Selectiva 4.0 8210 16kW	80	210	3	400	31	18.4kW	32A
	Selectiva 4.0 8250 30kW	80	250	3	400	49	30.5kW	63A
	Selectiva 4.0 8300 30kW	80	300	3	400	52	31.6kW	63A
	Selectiva 4.0 8375 30kW	80	375	3	400	54	32.3kW	63A

Type: 16kW / 18kW
16kW Dimensions W/H/D: 647 x 392 x 247 mm
18kW Dimensions W/H/D: 785 x 392 x 247 mm
16kW Weight including charging and mains leads: 37 kg
18kW Weight including charging and mains leads: 47 kg

Protection class: IP20
Mains lead: 3 m
Charging lead: 3 m
Mains voltage: 3 x 400V AC (-10%/+30%)
3 x 220V AC (-10%/+30%)

Fronius Charger Accessories

Flexible and expandable charging modules

- Wall mounting brackets, with integrated cable holder, come with Selectiva 4.0 chargers as standard
- Flexible and expandable charging modules, racks and bases ensures the safe positioning of the charger
- 3D visual plan available to visualise your charging solution in situ

Mobile charging modules

Charger rack easy

Charging Module 2000

Charging Housing Rental

Transport box

Solution for short term rental and demo trucks

- The integrated cable holder ensures charging leads are stored safely
- Enables safe transportation of chargers
- Avoids damage to the charger during transport or on customer site

* The spare parts discounts correspond to the quarterly published discounts in the new trucks business.

Fronius Charger Accessories

Air Filter

- Protects the inside of the charger from contamination and increases the reliability of the charger
- Designed for heavy industrial use
- Recommended when there is extremely high contamination of dirt and dust in the environment

LED Charging Status Stripe

- Immediate identification from afar of the current status of the charger / battery
- Operators can go straight to the next ready battery
- The fullest charged battery can be easily selected

Remote Display

- Easy control of chargers from a remote location
- Ideal if chargers and batteries are in separate rooms

Carry Strap and Bar

- Easy movement of chargers to an alternative location
- Aids lifting and carrying of chargers

Sonnenschein GF-V Range

Range GF-V (dryfit® Traction Block)

The GF-V range* of blocks is suitable for heavy industrial use. This includes applications for automated guided vehicles, mobile elevating work platforms, cleaning machines, walk behind pallet trucks, electric cars, and buses.

Main technical features and benefits:

- VRLA (valve regulated battery technology), electrolyte is fixed in a gel
- Maintenance-free (no topping up) during the whole service life due to the Sonnenschein dryfit® technology
- 700 cycles according to IEC 60254-1
- Extremely robust

dryfit® inside

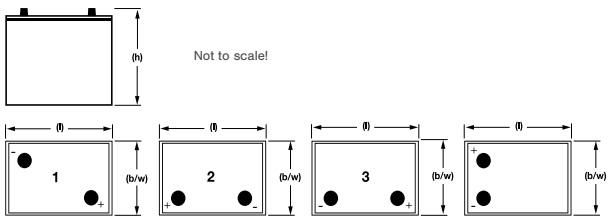
* GNB® Industrial Power as your partner for system solutions also offers optimised chargers for these blocks.

Technical characteristics and data

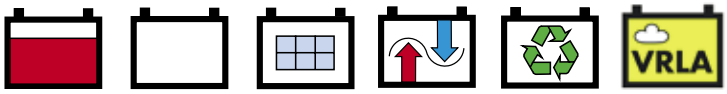
Type	Nominal voltage V	Nominal capacity C_5 (30°C) Ah	Nominal capacity C_{20} (30°C) Ah	Length (l) max. mm	Width (b/w) max. mm	Height (h) max. mm	Weight* kg	Terminal	Terminal position
GF 06 160 V1	6	160	196	246	192	275	29.0	A-Terminal	1
GF 06 180 V	6	180	200	246	192	275	30.0	A-Terminal	1
GF 06 180 VQ	6	180	200	246	192	284	30.5	F-M10	1
GF 06 240 V	6	240	270	311	183	358	47.0	A-Terminal	1
GF 12 050 V	12	50.0	55.0	278	175	190	18.0	A-Terminal	3
GF 12 050 VG	12	50.0	55.0	278	175	190	18.0	G-M6	3
GF 12 076 V	12	76	86	330	171	236	28.8	A-Terminal	2
GF 12 090 V	12	90	98	513	189	219	36.5	A-Terminal	4
GF 12 105 V	12	105	120	345	174	283	37.5	A-Terminal	3
GF 12 110 V	12	110	120	513	223	219	45.5	A-Terminal	4
GF 12 160 V	12	160	196	518	274	238	62.5	A-Terminal	4

Drawings with terminal position, terminal and torque

8 Nm | 6 Nm | 20 Nm



Specifications



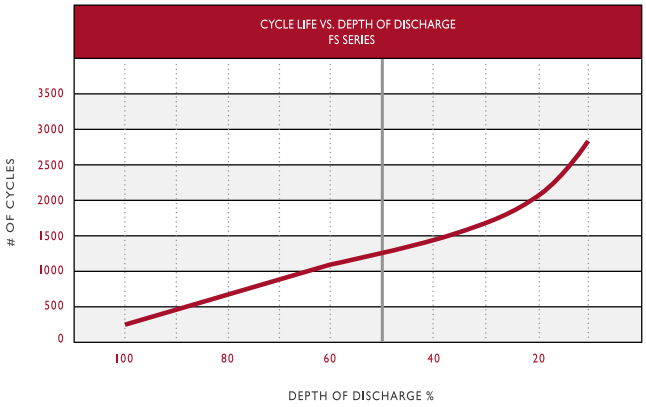
Nominal capacity 50 - 240 Ah (C_5) 55 - 270 Ah (C_{20}) | Block battery | Grid plate | 700 cycles in accordance with IEC 60254-1 | Recyclable | Valve regulated lead-acid batteries | Proof against deep discharge | Maintenance-free (no topping up)

Rolls FS Series Batteries

Rolls FS Series Batteries

With the ever increasing demand placed on batteries in today's tough markets, reliability is key. Rolls 6V, 8V and 12V FS Series batteries incorporate a new plate design with a larger surface area and higher density paste, providing increased performance for high current applications. Powerful and dependable, these popular models provide ample power for floor cleaning equipment, golf cart & electric vehicles, traffic management systems, material handling equipment, and the marine market.

Reliability is key and by offering a larger plate surface area with maximised paste density this range is ideal for high duty cycle demands.



Features:

- Envelope separators
- Increased electrolyte reserve
- Greater rigidity
- Greater durability
- Less maintenance
- Advanced NAM additive for quicker & more efficient charging, increased capacity & improved cycle life

ENHANCED PERFORMANCE & CYCLE LIFE

ADVANCED NAM

	Part Number	Capacity in Ah at		Terminal Type	Dimensions (mm) L x W x H	Weight (Kg)
		C20	C5			
6V	6-FS-GC	215Ah	170Ah	DT	259 x 181 x 279	27.0
	6-FS-GC-HC	235Ah	186Ah	DT	259 x 181 x 279	29.0
	6-FS-145	250Ah	198Ah	DT	259 x 181 x 290	32.0
	6-FS-GC-DIN	250Ah	198Ah	AP	244 x 191 x 275	32.0
	6-FS-250-SC	281Ah	222Ah	DT	298 x 181 x 286	40.0
	6-FS-305-HC	320Ah	253Ah	LT	311 x 181 x 362	44.0
	6-FS-305-SC	360Ah	284Ah	LT	311 x 181 x 362	46.5
	6-FS-L16	375Ah	300Ah	DT	318 x 181 x 425	51.0
	6-FS-L16-HC	425Ah	340Ah	DT	318 x 181 x 425	55.5
8V	8-FS-GC	155Ah	122Ah	UTL	259 x 181 x 279	27.0
	8-FS-GC-HC	182Ah	144Ah	UTL	259 x 181 x 279	29.5
12V	12-FS-24	85Ah	69Ah	DT	279 x 171 x 238	21.5
	12-FS-27	105Ah	85Ah	DT	321 x 171 x 238	24.5
	12-FS-31	130Ah	98Ah	DT	330 x 171 x 241	29.5
	12-FS-GC-HC	155Ah	122Ah	UTL	333 x 182 x 289	37.5
	12-FS-185-HC	210Ah	166Ah	DT	391 x 178 x 365	52.0

US Batteries

ENDURANCE PLUS™ batteries utilise U.S. Battery's Xtreme Capacity™ formulation with Diamond Plate Technology® which yields the highest initial capacity, the fastest cycle up to rated capacity, and the highest total energy delivered over the life of the battery available.

Available in 6V, 8V, and 12V, the redesigned US2000, US8VGC, and US12VRX feature molded in terminals, re-engineered internal components, and an all new look! All of U.S.

Battery's ENDURANCE PLUS™ Deep Cycle batteries are handcrafted in the USA of rugged materials, and are perfect for any application where long lasting deep cycle batteries are required.

Part Number	Voltage	Capacity (Ah)	Dimensions (mm) L x W x H	Weight (Kg)
US125	6	242	260 x 181 x 286	30.4
US125DT	6	242	260 x 181 x 286	30.4
US145	6	251	260 x 181 x 302	32.8
US2000	6	216	260 x 181 x 286	30
US2000DT	6	216	260 x 181 x 286	30
US2200	6	232	260 x 181 x 286	30
US2200DT	6	232	260 x 181 x 286	30
US250	6	258	295 x 181 x 295	32.7
US250HC	6	283	295 x 181 x 295	35.5
US305N	6	310	302 x 181 x 371	39.5
US305HC	6	340	302 x 181 x 371	43.6
USL16N	6	380	302 x 181 x 425	50.5
USL16HC	6	420	302 x 181 x 425	53.2
US8VGC	8	170	260 x 181 x 286	30
US12VXC	12	155	350 x 179 x 289	39
US24DCXC	12	85	273 x 171 x 248	30
US27DCXC	12	105	324 x 171 x 248	30
US31DCXC	12	130	330 x 175 x 240	30
US185	12	200	397 x 179 x 378	49.4
US185HC	12	220	397 x 179 x 378	54.5

SPE Battery Chargers

SPE SMART battery chargers

On-Board and Stand-Alone Industrial Electronic Battery Chargers

SPE Elettronica Industriale manufactures Smart on-board and stand-alone industrial electronic battery chargers for both Traditional and High Frequency Lead-Acid and Gel traction batteries, offering complete programmability of the charging process

Applications

- Aerial Working Platforms
- Electric Vehicles
- Cleaning Machines
- Materials Handling Industry

CBHF1-SM - Main features:

- Compact & lightweight
- Power from 48W up to 290W
- Current from 4A to 12A

Dimensions (L x W x H):
134.5 x 241 x 80 mm

Weight: 1.80 Kg

Protection Grade: IP30

Input Voltage: 208 ÷ 240 Vac – 50-60 Hz

Part Number		Voltage	Current	Battery Range	
				5 Hr	20 Hr
12V	CBHF1-SM 12-4	12	4 A	20÷40 Ah	30÷50 Ah
	CBHF1-SM 12-8	12	8 A	40÷80 Ah	60÷105 Ah
	CBHF1-SM 12-10	12	10 A	60÷100 Ah	70÷130 Ah
	CBHF1-SM 12-12	12	12 A	90÷120 Ah	120÷157 Ah
24V	CBHF1-SM 24-4	24	4 A	20÷40 Ah	30÷50 Ah
	CBHF1-SM 24-8	24	8 A	40÷80 Ah	60÷105 Ah
	CBHF1-SM 24-10	24	10 A	60÷100 Ah	70÷130 Ah
	CBHF1-SM 24-12	24	12 A	90÷120 Ah	120÷157 Ah

CBHF1-V2 - Main features:

- Compact & lightweight
- Power from 96W up to 340W
- Current from 8A to 14A

Dimensions (L x W x H):
154 x 268 x 100 mm

Weight: 2.0 Kg

Protection Grade: IP30

Input Voltage: 208 ÷ 240 Vac – 50-60 Hz

Part Number		Voltage	Current	Battery Range	
				5 Hr	20 Hr
12V	CBHF1-V2 12-8	12	8 A	40÷80 Ah	60÷105 Ah
	CBHF1-V2 12-10	12	10 A	60÷100 Ah	70÷130 Ah
	CBHF1-V2 12-12	12	12 A	90÷120 Ah	120÷160 Ah
	CBHF1-V2 12-14	12	14A	90÷130 Ah	120÷170 Ah
24V	CBHF1-V2 24-8	24	8 A	40÷80 Ah	60÷105 Ah
	CBHF1-V2 24-10	24	10 A	60÷100 Ah	70÷130 Ah
	CBHF1-V2 24-12	24	12 A	90÷120 Ah	120÷160 Ah
	CBHF1-V2 24-14	24	14A	90÷130 Ah	120÷170 Ah

CBHF2 - Main features:

- Power from 180W up to 1050W
- Current from 15A to 40A
- Active PFC
- Charging cycles information through USB (optional)
- Exclusive to Ecobat
- Programmable for Wet, GEL, AGM and LFP batteries.

Dimensions (L x W x H):
180 x 310 x 100 mm

Weight: 3.5 Kg

Protection Grade: IP30

Input Voltage: Universal 100 ÷ 240 Vac – 50-60 Hz - 240 Vac only available

Input Voltage: 110-240Vac 50-60Hz CBHF2-LCD 24V 30A 110-240Vac, w/plug EU

Part Number		Voltage	Current	Battery range (5h)		Battery range (20h)
				8-9h charging time	10-12h charging time	10-12h charging time
12V	CBHF2 12-15	12 V	15 A	80÷100 Ah	100÷150 Ah	130÷185 Ah
	CBHF2 12-20	12 V	20 A	95÷120 Ah	120÷195 Ah	150÷240 Ah
	CBHF2 12-25	12 V	25 A	120÷160 Ah	180÷260 Ah	220÷315 Ah
	CBHF2 12-30	12 V	30 A	145÷180 Ah	200÷280 Ah	245÷350 Ah
24V	CBHF2 24-15	24 V	15 A	80÷100 Ah	100÷150 Ah	130÷185 Ah
	CBHF2 24-20	24 V	20 A	95÷120 Ah	120÷195 Ah	150÷240 Ah
	CBHF2 24-25	24 V	25 A	120÷160 Ah	180÷260 Ah	220÷315 Ah
	CBHF2 24-30	24 V	30 A	145÷180 Ah	200÷280 Ah	245÷350 Ah
36V	CBHF2 36-15	36 V	15 A	80÷110 Ah	100÷150 Ah	130÷185 Ah
	CBHF2 36-20	36 V	20 A	95÷120 Ah	120÷195 Ah	150÷240 Ah
	CBHF2 36-25	36 V	25 A	120÷160 Ah	180÷260 Ah	220÷315 Ah
48V	CBHF2 48-15	48 V	15 A	80÷110 Ah	100÷150 Ah	130÷185 Ah
	CBHF2 48-20	48 V	20 A	95÷120 Ah	120÷195 Ah	150÷240 Ah

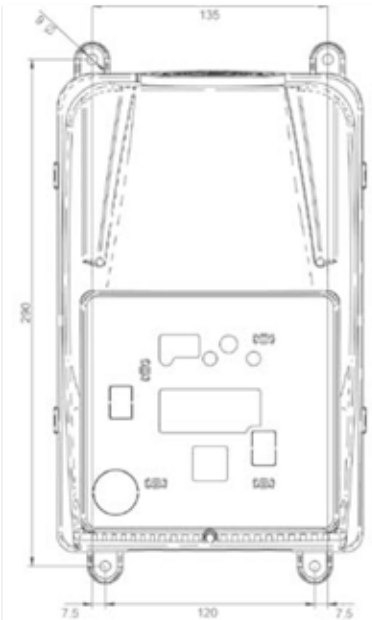
SPE Battery Chargers

CBHF2(XP)

Features:

- Single-phase battery chargers
- High frequency system with advanced technology
- Charging process controlled by microprocessor
- Thermal protection
- High brightness digital display
- Voltage: 12V, 24V, 36V, 48V
- Programmable for charging curve, charging current and battery voltage via dip switch
- Suitable for Lead-Acid, Sealed, Gel Traction and Lithium batteries
- Remote LED option

Battery Voltage	Battery Range (5h)		Battery Range (20h)	Charging Current	Model
	8-9 hours charging time	10-12 hours charging time	10-12 hours charging time		
12V	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	12-35 (XP)
12V	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	12-40 (XP)
24V	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	24-35 (XP)
24V	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	24-40 (XP)
36V	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	36-30 (XP)
48V	105÷140 Ah	150÷220 Ah	165÷265 Ah	22A	48-22 (XP)



CBHF2(XP) - Main features:

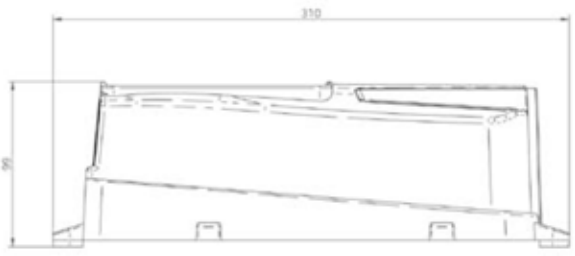
- Power from 180W up to 1050W
- Current from 15A to 40A
- Active PFC
- Charging cycles information through USB (optional)

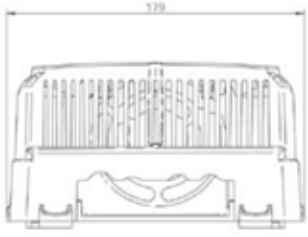
Dimensions (L x W x H):
180 x 310 x 100 mm

Weight: 3.5 Kg

Protection Grade: Ip30

Input Voltage: CBHF2-XP 36V/48V:
208 ÷ 240 Vac – 50-60 Hz





SPE Battery Chargers

CBHF2-HK

CBHF2-HK - Main features:

- STOP button on front panel
- Hard metal case
- ON-BOARD application
- Extra Power version available (XP model)

Dimensions (L x W x H):
270 x 225 x 97 mm

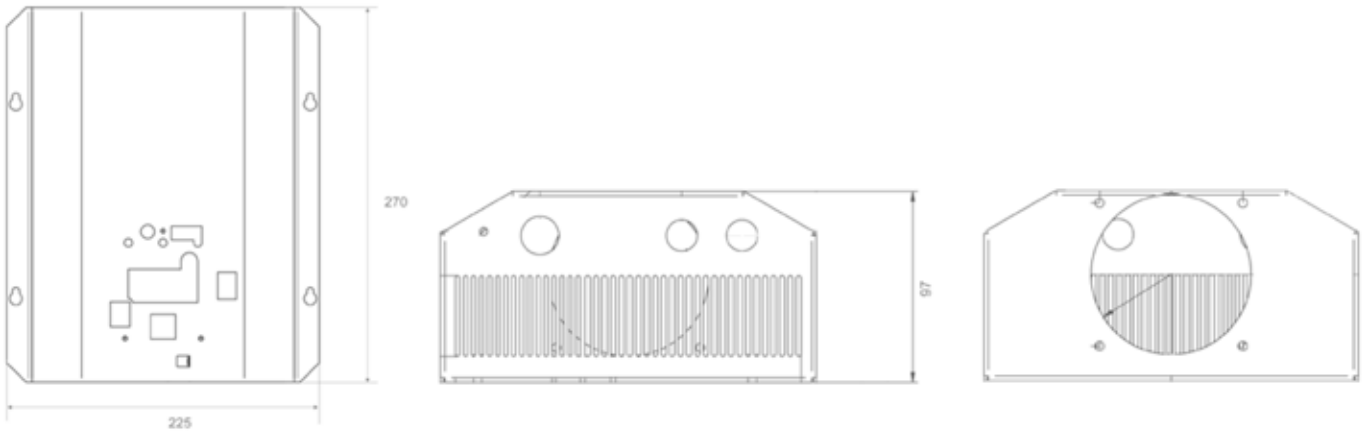
Weight: 4 Kg

Protection Grade: Ip30

Input Voltage: 100 ÷ 240 Vac – 50-60 Hz

* XP model 36V/48V: 208 ÷ 240 Vac – 50-60 Hz

Battery Voltage	Battery Range (5h)		Battery Range (20h)	Charging Current	Model
	8-9 hours charging time	10-12 hours charging time	10-12 hours charging time		
12V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	12-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	12-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	12-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	12-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	12-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	12-40 (XP)
24V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	24-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	24-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	24-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	24-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	24-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	24-40 (XP)
36V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	36-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	36-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	36-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	36-30 (XP)
48V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	48-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	48-20
	105÷140 Ah	150÷220 Ah	165÷265 Ah	22A	48-22 (XP)

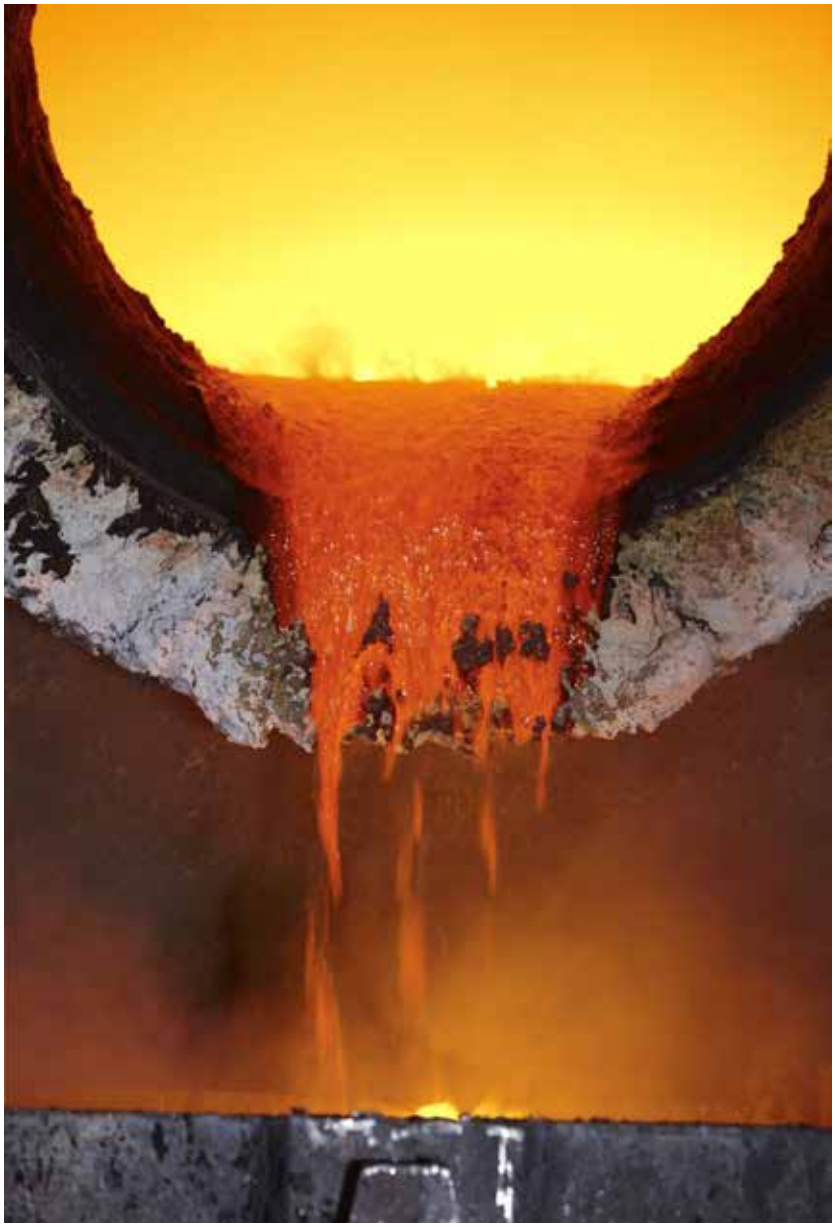


Lead Battery Collection and Recycling

As well as distributing leading battery brands, Ecobat is a global leader in the responsible recycling of lead-acid batteries. We are committed to playing our part in keeping batteries out of landfills so their materials can be safely used again and again. So while we provide batteries into the market, we also close the loop by providing a sustainable recycling option, promoting and ensuring material circularity.

We buy used automotive, traction and industrial batteries for end-of-life recycling. Our suppliers enjoy all the benefits of doing business with a trusted industry leader, with the confidence of knowing Ecobat's commitment to minimise waste and maximise environmental sustainability. Ecobat's advanced recycling techniques recover over 97% of materials that can re-enter manufacturing.

Whether delivered or collected nationwide, Ecobat maintains competitive prices and prompt payment. When you're ready to dispose of used batteries or battery scrap, Ecobat Resources is the smart choice for pricing, consistency and service.



Lead Battery Collection and Recycling

We are the leader in the responsible recycling and production of resources essential to modern life. Backed by an international network of smelters, we are the world's largest producer of soft lead and bespoke lead alloys used in energy storage solutions and other industrial and commercial applications.

Alongside our lead production and recycling operations, we manage the reclamation of polypropylene and other plastics used in the development of premium polymer solutions. We use state of the art technology and a highly trained workforce to ensure the lead acid batteries we recycle into refined lead do not harm the environment, employees, or the communities in which we work.

According to Battery Council International, 97 percent of all battery lead is recycled, and a typical new lead acid battery contains 60 to 80 percent recycled lead and plastic. We are proud to be part of this initiative and at the forefront of efforts to making the business of batteries safer and more sustainable.

Ecobat Solutions

SUSTAINABILITY:

A sustainable solution, now and for the future.

Every day, billions of people benefit from the technologies that use and rely on lead. It provides efficient energy storage solutions in transportation, medicine, telecom, agriculture, clean energy, and more. Lead is a key resource that connects us to modern life today as well as tomorrow.

We are proud to say that we supply key resources necessary to our global energy supply, and that we help develop and produce the next generations of low-emission technologies. Managing the production and recycling of lead responsibly is essential to making all of this possible. At Ecobat, our operations are centred around sustainable processes and practices for the safe, effective handling of lead. Recycling and resource recovery comprise more than 80% of our business.

Our closed-loop recycling approach helps us maintain the supply of lead while reducing the overall environmental footprint of lead. At the same time, we've invested millions to help preserve the environment by reducing and eliminating emissions from our operations.

Our commitment to the well-being of our team members, partners, communities, and the planet guides us in everything we do, and we continually look for new ways to enhance our efforts.

"Ecobat is committed to ethically developing, delivering and using our products in a way that minimizes our environmental footprint. We seek to maximize company performance and contribute to sustainable global energy solutions, while minimizing our impacts to our people, partners, stakeholders and the communities where we live and work."

Industrial Battery Specialists

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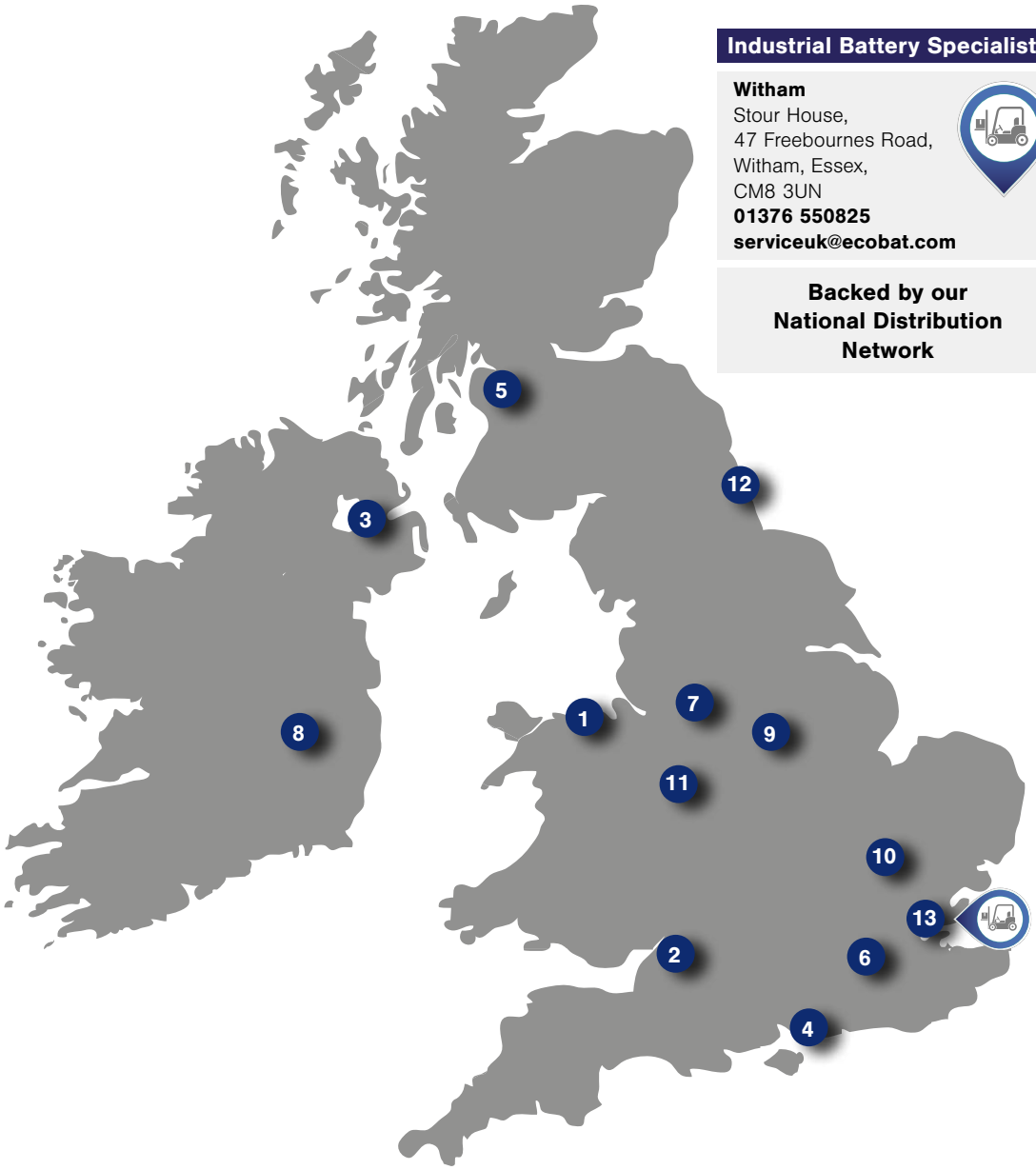
Backed by our National Distribution Network



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4	Fareham	5 Little Park Farm Road, Fareham, PO15 5SJ	01489 570770	IS.Info@ecobat.com
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ecobat BATTERY

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