EnerSys®
Power/Full Solutions

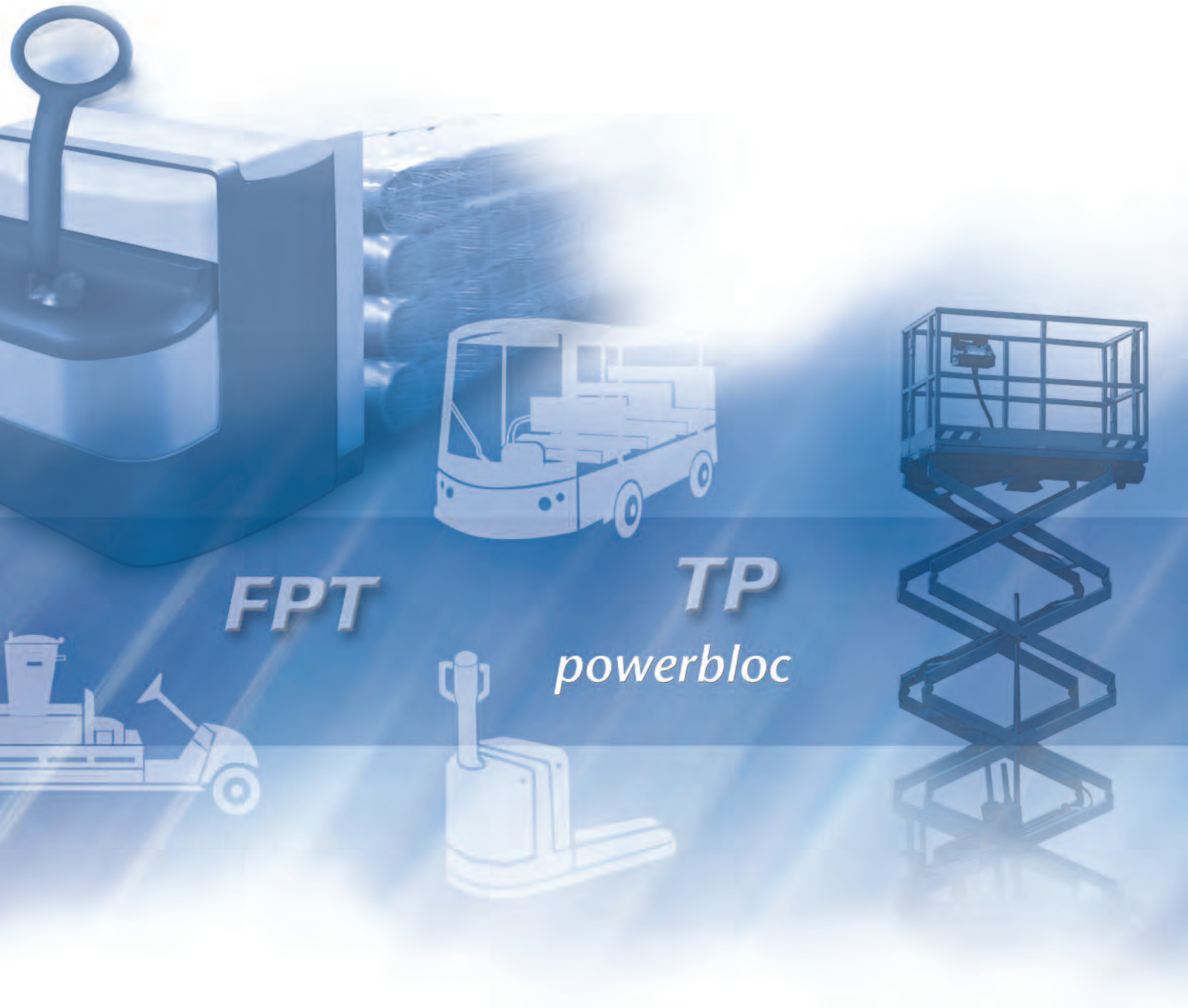
Small Traction
powerbloc
powerbloc dry
Hawker® XFC™

Bigger power for small traction

Powerbloc Powerbloc dry Hawker® XFC™

Powerbloc, powerbloc dry and Hawker XFC are ranges of bloc batteries for all applications in small traction, from cleaning machines to pallet trucks, industrial electric vehicles etc. as well as some domestic applications like wheelchairs, golf carts, etc. Powerbloc are flooded batteries when powerbloc dry and Hawker XFC are gas recombination batteries. These ranges can be recharged with 50 Hz (except Hawker XFC) or HF chargers. If you wish to use an existing charger you should check that the profile is approved by our technical team.

Our HF chargers are equipped with microprocessors and ensure a reliable full recharge for any degree of discharge of the battery (max 80%). These chargers have an electronically regulated characteristic charging curve. Charging process is automatically controlled and terminated. All chargers are protected against overload and short circuit.



Operation

To achieve optimal operating life avoid deep discharges. Never leave the battery in a discharged state. Electrolyte level for flooded batteries has to be checked regularly and then filled with demineralized water (DIN43530-4) filled up to max. level mark. The single point automatic watering system can be considered on some types. Valve regulated batteries with absorbed electrolyte (AGM) or gel electrolyte are sealed for life and need no watering.

Installation

Battery monoblocs should be installed in accordance with the instructions from vehicles/trucks manufacturers (observe connection polarity, and mechanically robust installation). While operating on battery connections avoid short circuits.

Storage

If batteries have to be stored out of service for a long time, they must be kept fully charged in a dry, clean and frost free zone. A monthly refreshing charge avoids any harmful deep discharge and damage to the battery. (except for Hawker® XFC™ range which should be refresh charged every 12 months)

Maintenance

Keep batteries clean and dry to avoid current leakage. Clean the monoblocs with a damp cotton rag. Never use any organic solution!
Operation and maintenance instructions for each product range should always be observed.

powerbloc

powerbloc TP

Type	Voltage [V]	C_5 [Ah]	C_{20} [Ah]	Dimensions [max. mm] L	W	H	Weight [kg]	No of cycles[1]	Polarity	Terminal[2]
6 TP 175	6	175	220	263	183	270	30.5	1100	1	AP
6 TP 210	6	210	225	244	190	269	33.5	1100	1	AP
12 TP 70	12	70	88	308	174	220	27.0	1100	1	AP
12 TP 90	12	90	120	345	170	235	29.0	1100	1	AP
12 TP 110	12	110	135	343	173	278	39.0	1100	1	AP
12 TP 125	12	125	167	510	175	225	40.0	1100	3	AP

powerbloc FPT

Type	Voltage [V]	C_5 [Ah]	C_{20} [Ah]	Dimensions [max. mm] L	W	H	Weight [kg]	No. of cycles[1]	Polarity	Terminal[2]
6 FPT 185	6	185	237	260	181	283	28.6	700	1	UT
6 FPT 195	6	195	250	260	181	283	30.4	700	1	UT
6 FPT 210	6	210	269	260	181	302	31.8	700	1	UT
6 FPT 215	6	215	275	298	184	292	32.7	700	1	UT
6 FPT 255	6	255	326	302	184	371	39.5	700	1	UT
6 FPT 305	6	305	390	302	184	419	50.3	700	1	UT
8 FPT 145	8	145	186	260	181	283	29.3	700	1	UT
12 FPT 85	12	85	109	324	171	248	24.5	700	2	DT
12 FPT 105	12	105	134	349	171	248	29.0	700	2	DT
12 FPT 120	12	120	154	346	171	283	39.5	700	2	UT
12 FPT 150	12	150	192	394	180	363	49.4	700	1	UT

Dimensions: +/- 2 mm
Overall Height
Weight: +/- 5%

[1] 80 % depth of discharge max.
[2] Terminal Configuration, see next page.

powerbloc TP

Cell construction

The TP series consists of robust tubular positive plate with free electrolyte to ensure a long operating life.

Benefits

- Premium tubular plate construction for robust 1100 cycle performance.
- Maximum performance giving best possible run-times in the heaviest duty applications.
- Extended performance and run time for maximum machine performance.

powerbloc FPT

Cell construction

The powerbloc FPT range has advanced flat grid plates and paste formulation giving extended service life. It is especially suited to arduous deep cycle semi-traction applications.

Benefits

- Advanced separator design and paste formulation gives true 700 cycle performance.
- Enhanced performance gives extended running times and lower maintenance.
- Superior performance means more productive run-time.

Variants of polarity

	1	2	3
6 V	+ –	– +	
8 V	– +		
12 V	– +	+ –	+ –

Terminal Configuration

Automotive Post (AP)

Universal Terminal (UT)

Dual Terminal (DT)

powerbloc dry

powerbloc dry MFP

Type	Voltage [V]	C_5 [Ah]	C_{20} [Ah]	Dimensions [max. mm]					Weight [kg]	No. of cycles 60% DOD	No. of cycles 80% DOD	Polarity	Terminal
				L1[2]	L2[2]	W1[2]	W2[2]	H					
6 MFP 160	6	160	205	261		181		269	34.0	700	500	1	AP
6 MFP 180	6	180	230	249		190		275	31.0	700	500	1	AP
6 MFP 240	6	240	307		310		181	360	48.0	700	500	1	AP
12 MFP 50	12	50	56		278		175	190	21.0	700	500	1	AP
12 MFP 62	12	62	80		353		175	190	25.0	700	500	1	AP
12 MFP 77	12	77	98	307	331	169	169.2	228	27.0	700	500	2	AP
12 MFP 105	12	105	134	349		174		283	39.0	700	500	1	AP

Dimensions: +/- 2 mm Overall Height Weight: +/- 5%

[1] 80 % depth of discharge max.
[2] L1 = length without handles, L2 = length with handles, W1 = width without handles, W2 = width with handles. Always supplied with handles.

powerbloc dry MFP

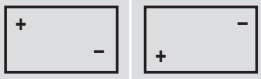
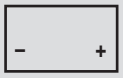
Cell construction

The MFP consists of grid plates in special alloy with gel electrolyte.

Benefits

- Totally maintenance free due to electrolyte immobilized in a gel.
- Very high aptitude for high current, reduced self-discharge and resilient to temperature variations.
- For applications in medium cycling duty.

Variants of polarity

	1	2
6 V		
12 V		

Terminal Configuration

Automotive Post (AP)

Hawker® XFC™

Hawker XFC

Type	Voltage [V]	Nominal Capacity [Ah] C_5	Nominal Capacity [Ah] C_{20}	Dimensions [mm] L	W	Box Ht	Term. Ht	Weight [kg]	No. of cycles 60% DOD	No. of cycles 80% DOD	Terminal	Teminal adapter	Polarity
12XFC25	12	25	29	250	97	147	144	9.6	1200	700	M6 Female	SAE post	A
12XFC35	12	35	41	250	97	197	194	13.2	1200	700	M6 Female	SAE post	A
12XFC48	12	48	54	220	121	252	248	18.7	1200	700	M6 Female	SAE post	A
12XFC58	12	58	64	280	97	264	248	19.1	1200	700	M8 Female	not applicable	C
12XFC60*	12	60	63	329	166	174	166	24.2	1200	700	M6 Female	SAE post	A
12XFC82*	12	82	98	395	105	264	248	27.2	1200	700	M8 Female	not applicable	C
12XFC85	12	85	100	302	175	223	227	31.5	1200	700	M6 Female	SAE post	B
12XFC115	12	115	128	338	173	272	273	43.0	1200	700	M6 Female	SAE post	B
12XFC158*	12	158	179	561	125	283	263	50.8	1200	700	M8 Female	M6 Male front terminal	C
12XFC177*	12	177	202	561	125	317	297	58.8	1200	700	M8 Female	M6 Male front terminal	C

*Always supplied with handles.
Dimensions: +/- 2 mm Weight: +/- 3%

Hawker XFC

Cell construction

Unique/advanced thin plate pure lead technology.
The electrolyte is absorbed in a superior quality microporous glass mat separator with high absorption and stability designed to enhance cyclic capability.

Benefits

- Opportunity charge whenever the truck is not being used, can eliminate the need for spare batteries & battery changing.
- Short recharge time (less than 5 hours at 60% DOD, with approved charger).
- Suitable for multi-shift operations and optimises machine availability.
- Totally maintenance-free, no topping-up.
- 'Green' - reduced carbon footprint due to very low charge factor.
- Reduced electricity costs for recharging due to very low charge factor.
- Space saving: Hawker XFC typically occupies 30% less space than an equivalent capacity battery of conventional design = more power for less space.
- Excellent cycle life (up to 1,200 cycles at 60% DOD).
- High energy throughput (up to 3x80% of C_5 per 24 hours-maximum DOD of 80% must be observed, please ask for further details for this application).
- Environmentally friendly.
- Minimum gassing: ideal for use in shops, public areas and sensitive manufacturing areas.
- Hawker XFC is available in single 12 V units or assembled batteries to suit various applications: pallet trucks, floor care, personnel and industrial electric trucks.
- Easy installation in any orientation except inverted.
- Highly recyclable.

Variants of polarity

	A	B	C
12 V	– +	+ –	– +

Terminal Configuration

SAE post

Female to male adapter

M6 male front terminal adapter

Wherever you do business, EnerSys® can support you with motive power energy. The Hawker® branded battery range, matched chargers and systems provide trouble free performance under the most demanding service conditions. Our strategically located manufacturing plants are efficient and responsive with a culture of continuous improvement and added value for our business partners.

EnerSys has an enviable position in technology leadership and with significant investment in research and development we intend to stay at the leading edge in product innovation. The recently developed energy solutions: Water Less® 20 and Hawker XFC™ batteries, Lifetech® and LifeSpeed IQ™ HF chargers, have defined new benefits for our customers: faster recharge, more machine availability, lower operating and investment costs, reduced carbon footprint. Our team of development engineers is driven by the desire to build the best energy solutions and works closely with our customers and suppliers to identify development opportunities. Our bias for rapid innovation means we get new products to market fast.

EnerSys's integrated sales and service network is dedicated to providing our customers with the best solutions and after-sales support for their business. Whether you require 1 battery or a complete fleet of batteries, chargers, a battery handling system and a state of the art fleet management system, you can count on us. EnerSys is the world's largest industrial battery manufacturer and we are dedicated to being the best.

European Headquarters:

EnerSys EMEA
EH Europe GmbH
Löwenstrasse 32
8001 Zürich
Switzerland
Phone: +41 44 215 74 10
Fax: +41 44 215 74 11

Local contact:

Enersys Ltd
Oak Court
Clifton Business Park
Wynne Avenue
Swinton
Manchester M27 8FF
Phone: 0161 794 4611
Fax: 0161 727 3809

Please refer to the website address for details of your nearest EnerSys office: www.enersys-emea.com

Ref. DCT0212G / 01.2014 Subject to revisions without prior notice. E&OE