



Small Traction
powerbloc
powerbloc dry

Bigger Power for small tractors

|| powerbloc

|| powerbloc dry

Powerbloc and powerbloc dry 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 and powerbloc dry are gas recombination batteries. Both ranges can be recharged with 50 Hz 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.

powerbloc
TP^{FP} FPT

powerbloc dry
XP^{MFP} XFC

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 part4) 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 (respect of polarity for the connection, 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.

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 TP

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions (max. mm) | | | Weight (kg) | No of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|-----------|-------------|---------------------|----------------------|----------------------|-----|-----|-------------|----------------------------|----------|------------------------|
| | | | | L | W | H | | | | |
| 6 TP 175 | 6 | 175 | 227 | 263 | 182 | 271 | 34 | 1100 | 1 | AP |
| 6 TP 210 | 6 | 210 | 270 | 244 | 190 | 275 | 34.2 | 1100 | 1 | AP |
| 12 TP 90 | 12 | 90 | 120 | 346 | 172 | 236 | 30 | 1100 | 1 | AP |
| 12 TP 110 | 12 | 110 | 150 | 344 | 172 | 286 | 39 | 1100 | 1 | AP |
| 12 TP 125 | 12 | 125 | 167 | 509 | 175 | 230 | 43 | 1100 | 3 | AP |

powerbloc FP

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions (max. mm) | | | Weight (kg) | No of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|-----------|-------------|---------------------|----------------------|----------------------|-----|-----|-------------|----------------------------|----------|------------------------|
| | | | | L | W | H | | | | |
| 6 FP 190 | 6 | 190 | 243 | 245 | 190 | 275 | 32 | 400 | 1 | AP |
| 12 FP 55 | 12 | 55 | 70 | 275 | 175 | 205 | 22 | 400 | 1 | AP |
| 12 FP 80 | 12 | 80 | 102 | 349 | 175 | 235 | 29.5 | 400 | 1 | AP |
| 12 FP 100 | 12 | 100 | 128 | 350 | 175 | 290 | 37 | 400 | 2 | AP |

powerbloc FPT

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions | | | | | Weight (kg) | No. of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|------------|-------------|---------------------|----------------------|------------------|------------------|------------------|------------------|-----|-------------|-----------------------------|----------|------------------------|
| | | | | L1 ²⁾ | L2 ²⁾ | W1 ²⁾ | W2 ²⁾ | H | | | | |
| 6 FPT 185 | 6 | 185 | 237 | 264 | | 181 | | 276 | 26 | 700 | 2 | LPT |
| 6 FPT 195 | 6 | 195 | 250 | 264 | | 181 | | 276 | 28 | 700 | 1 | DT |
| 6 FPT 200 | 6 | 200 | 256 | 244 | | 191 | | 276 | 31 | 700 | 1 | AP |
| 6 FPT 210 | 6 | 210 | 269 | 264 | | 181 | | 295 | 33 | 700 | 1 | DT |
| 6 FPT 215 | 6 | 215 | 275 | 292 | | 172 | | 290 | 30 | 700 | 1 | UT |
| 6 FPT 255 | 6 | 255 | 326 | | 295 | | 178 | 365 | 41 | 700 | 1 | UT |
| 6 FPT 305 | 6 | 305 | 390 | | 295 | | 178 | 432 | 48 | 700 | 1 | DT |
| 8 FPT 145 | 8 | 145 | 186 | 264 | | 181 | | 276 | 29 | 700 | 1 | DT |
| 12 FPT 70 | 12 | 70 | 90 | | 286 | | 171 | 248 | 21 | 700 | 2 | DT |
| 12 FPT 85 | 12 | 85 | 109 | | 324 | | 171 | 248 | 25 | 700 | 1 | DT |
| 12 FPT 105 | 12 | 105 | 134 | | 355 | | 171 | 238 | 30 | 700 | 1 | AP |
| 12 FPT 114 | 12 | 114 | 146 | 346 | | 171 | | 289 | 39 | 700 | 1 | AP |
| 12 FPT 150 | 12 | 150 | 192 | | 381 | | 178 | 371 | 48 | 700 | 1 | DT |

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.

³⁾ Terminal Configuration, see next page.

powerbloc TP

Cell construction

The TP series consists of robust tubular 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 FP

Cell construction

The FP series consists of reinforced flat grid plates with free electrolyte and is especially designed for use as a motive power battery.

Connection

This range is equipped with lug type terminals or tapered terminals.

Benefits

- Economical and reliable, the FP range gives 400 cycle performance to suit your everyday needs.
- Reliable, predictable performance for standard duty applications.
- Tailored specification to give best cost/performance balance.

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 | | | |

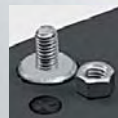
Terminal Configuration



Automotive Post (AP)



Wingnut Terminal (WNT)



Stud Terminal (ST)



Lighting Terminal (LT)



Female Terminal (FT)



Universal Terminal (UT)



Dual Terminal (DT)



Low Profile Terminal (LPT)

powerbloc dry

powerbloc XP

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions (max. mm) | | | Weight (kg) | No of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|----------|-------------|---------------------|----------------------|----------------------|-----|-----|-------------|----------------------------|----------|------------------------|
| | | | | L | W | H | | | | |
| 6 XP 180 | 6 | 180 | 230 | 246 | 192 | 276 | 37 | 800-1000 | 1 | ST-M8 |
| 12 XP 51 | 12 | 51 | 65 | 271 | 164 | 220 | 22.1 | 800-1000 | 1 | ST-M6 |
| 12 XP 73 | 12 | 73 | 93 | 360 | 164 | 227 | 30.6 | 800-1000 | 1 | ST-M6 |

powerbloc MFP

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions | | | | | Weight (kg) | No. of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|------------|-------------|---------------------|----------------------|------------------|------------------|------------------|------------------|-----|-------------|-----------------------------|----------|------------------------|
| | | | | L1 ²⁾ | L2 ²⁾ | W1 ²⁾ | W2 ²⁾ | H | | | | |
| 6 MFP 160 | 6 | 160 | 205 | 264 | | 183 | | 270 | 33 | 500 | 1 | AP |
| 6 MFP 180 | 6 | 180 | 230 | 244 | | 190 | | 275 | 31 | 500 | 1 | AP |
| 6 MFP 240 | 6 | 240 | 307 | | 311 | | 182 | 359 | 48 | 500 | 1 | AP |
| 12 MFP 27 | 12 | 27 | 35 | 195 | 211 | 132 | 132.6 | 178 | 10.6 | 500 | 2 | LT |
| 12 MFP 44 | 12 | 44 | 56 | 229 | 250 | 139 | 139.2 | 228 | 17.7 | 500 | 2 | AP |
| 12 MFP 50 | 12 | 50 | 64 | 278 | | 175 | | 190 | 20 | 500 | 1 | AP |
| 12 MFP 63 | 12 | 63 | 81 | 260 | 281.7 | 169 | 169.2 | 228 | 24.1 | 500 | 2 | AP |
| 12 MFP 77 | 12 | 77 | 98 | 307 | 331 | 169 | 169.2 | 228 | 27.7 | 500 | 2 | AP |
| 12 MFP 105 | 12 | 105 | 134 | 345 | | 174 | | 283 | 40 | 500 | 1 | AP |

powerbloc XFC

| Type | Voltage (V) | C ₅ (Ah) | C ₂₀ (Ah) | Dimensions (max. mm) | | | Weight (kg) | No of cycles ¹⁾ | Polarity | Terminal ³⁾ |
|-----------|-------------|---------------------|----------------------|----------------------|-----|-----|-------------|----------------------------|----------|------------------------|
| | | | | L | W | H | | | | |
| 12 XFC 37 | 12 | 37 | 47 | 196 | 165 | 170 | 17.4 | 400-500 | 1 | ST-M6 |
| 12 XFC 60 | 12 | 60 | 77 | 329 | 166 | 174 | 28.8 | 400-500 | 1 | ST-M6 |

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.

³⁾ Terminal Configuration, see next page.

powerbloc XP

Cell construction

This range consists of flat grid plates in special alloy with high mechanical resistance. The electrolyte is absorbed in a microporous separator (AGM).

Benefits

- Fully sealed for zero-maintenance, the XP range uses gas recombination to eliminate the need for watering.
- Long shelf life due to very low self-discharge & low internal resistance.
- Advanced plate composition and separators result in improved recovery from deep discharge.
- For applications in medium cycling duty and decentralised installation.

powerbloc 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.

powerbloc XFC

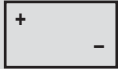
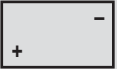
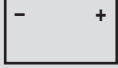


Cell construction

The XFC consists of very thin grid plates in special alloy. The electrolyte is absorbed in a microporous separator (AGM).

Benefits

- Highly advanced 'pure lead' technology allows very fast charging and deep discharge.
- Specially engineered plates ideally suited to AGV and Electric Vehicle applications.
- Fast charge feature allows for multi-shift operation and opportunity charging.

Variants of polarity

| | 1 | 2 |
|------|--|---|
| 6 V |  |  |
| 8 V |  | |
| 12 V |  |  |

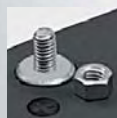
Terminal Configuration



Automotive Post (AP)



Wingnut Terminal (WNT)



Stud Terminal (ST)



Lighting Terminal (LT)



Female Terminal (FT)



Universal Terminal (UT)



Dual Terminal (DT)



Low Profile Terminal (LPT)



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