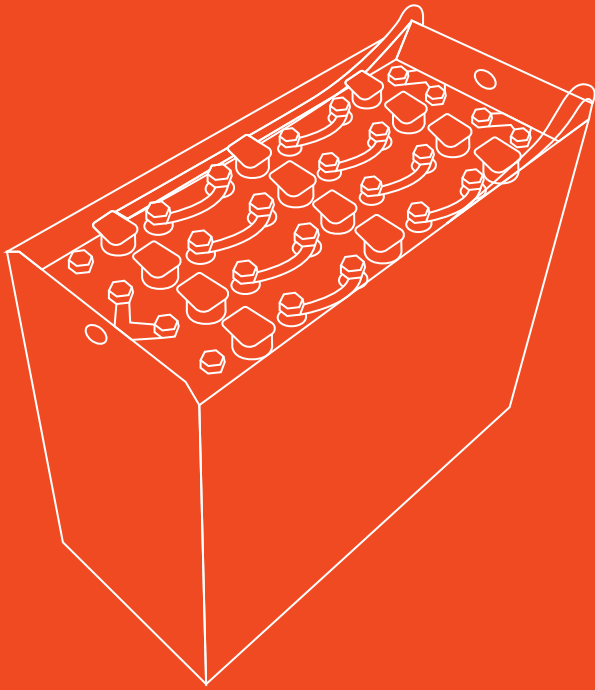


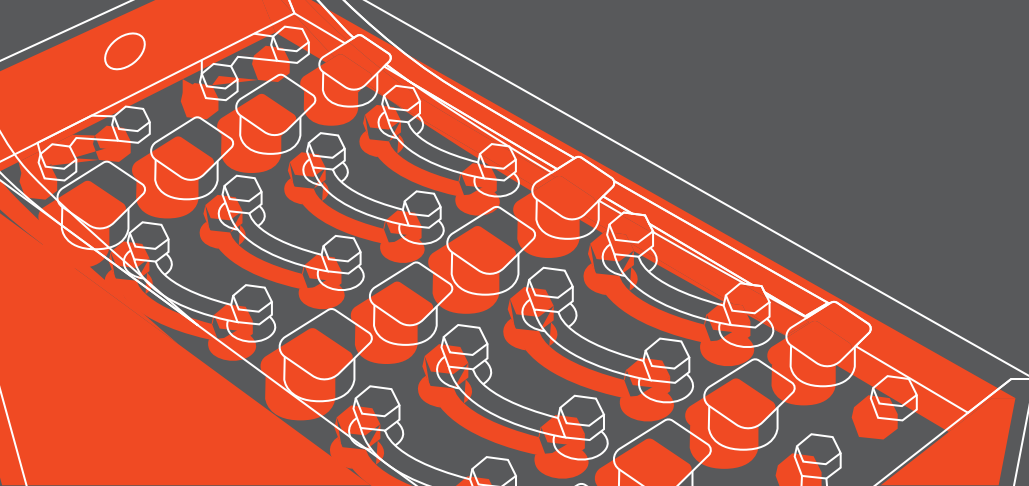
MOTIVE POWER LEAD ACID CELLS AND BATTERIES



DIN(PzS) and BS(PzB)



BARBILLON
POWER YOUR SOLUTIONS



AVAILABLE IN EVERY VOLTAGE AND CELL
ARRANGEMENT CONFIGURATION

TRAY COATED WITH POLYETHYLENE

SUITABLE FOR EVERY APPLICATION FROM
LIGHT TO HEAVY DUTY

LONG LIFE SPAN 1500 CYCLES

EUROPEAN PRODUCTS

CONSTRUCTION

1 POSITIVE PLATE

The grid of the tubular positive plate consists of several lead spines which are joined together by the upper frame. Spines are being die-casted. These thin lead spines, which are equipped with small concentric vanes, are covered with acid permeable tubes. Between the lead spines and tubes is the active positive material. Tubes are being wet-filled. A special lead alloy which is used for positive plate has an Sb portion 6%.

2 NEGATIVE PLATE

A lead grid pasted with active material forms the negative plate. Grids are being die-casted. A special lead alloy which is used for negative grid has an Sb portion 6%.

3 SEPARATORS

Daramic polyethylen, low resistance, high acid proof, microporous material. Negative plates are wrapped prevented loss active mass.

4 TERMINALS

Are being made from corrosion resistant lead alloy with brass inserted designed to give minimum resistance.

5 CONTAINER

The cell container is made of PP.

6 LID

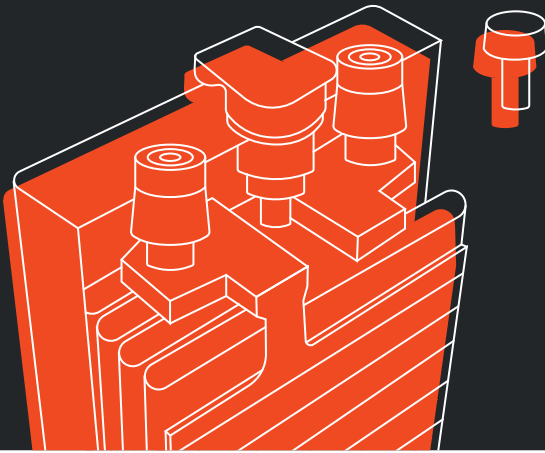
Is made of PP and equipped with well proven seal for leakage-proof insulation of the terminal construction. Lid and container are being welded.

7 CONNECTION

Fully insulated flexible copper with full insulated screw with measurements hole.

8 ELECTROLYTE

Sulphuric acid with a density $1,29\text{g/cm}^3$ +0.01 @+30°C/max level/full charged cell.



DIN CELL RANGE

(ACCORDING TO IEC 60254)

PLATE TYPE A55

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzS 110 | 110 | 198 | 47 | 315 | 345 | 6,5 | 8,3 |
| 3 PzS 165 | 165 | 198 | 65 | 315 | 345 | 9 | 11,6 |
| 4 PzS 220 | 220 | 198 | 83 | 315 | 345 | 11,6 | 15 |
| 5 PzS 275 | 275 | 198 | 101 | 315 | 345 | 14,2 | 18,3 |
| 6 PzS 330 | 330 | 198 | 119 | 315 | 345 | 16,8 | 21,8 |
| 7 PzS 385 | 385 | 198 | 137 | 315 | 345 | 19,4 | 25,3 |
| 8 PzS 440 | 440 | 198 | 155 | 315 | 345 | 21,9 | 28,5 |
| 9 PzS 495 | 495 | 198 | 173 | 315 | 345 | 24,5 | 31,7 |
| 10 PzS 550 | 550 | 198 | 191 | 315 | 345 | 27,1 | 35,1 |

PLATE TYPE A60

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzS 120 | 120 | 198 | 47 | 340 | 370 | 6,8 | 8,6 |
| 3 PzS 180 | 180 | 198 | 65 | 340 | 370 | 9,5 | 12,2 |
| 4 PzS 240 | 240 | 198 | 83 | 340 | 370 | 12,2 | 15,7 |
| 5 PzS 300 | 300 | 198 | 101 | 340 | 370 | 14,9 | 19,3 |
| 6 PzS 360 | 360 | 198 | 119 | 340 | 370 | 17,6 | 22,8 |
| 7 PzS 420 | 420 | 198 | 137 | 340 | 370 | 20,3 | 26,1 |
| 8 PzS 480 | 480 | 198 | 155 | 340 | 370 | 23,1 | 29,7 |
| 9 PzS 540 | 540 | 198 | 173 | 340 | 370 | 25,8 | 33,1 |
| 10 PzS 600 | 600 | 198 | 191 | 340 | 370 | 28,5 | 37 |

PLATE TYPE A80

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzS 160 | 160 | 198 | 47 | 405 | 435 | 8,4 | 10,5 |
| 3 PzS 240 | 240 | 198 | 65 | 405 | 435 | 11,7 | 14,7 |
| 4 PzS 320 | 320 | 198 | 83 | 405 | 435 | 15 | 19,1 |
| 5 PzS 400 | 400 | 198 | 101 | 405 | 435 | 18,4 | 23,2 |
| 6 PzS 480 | 480 | 198 | 119 | 405 | 435 | 21,7 | 27,6 |
| 7 PzS 560 | 560 | 198 | 137 | 405 | 435 | 25,1 | 31,8 |
| 8 PzS 640 | 640 | 198 | 155 | 405 | 435 | 28,4 | 35,8 |
| 9 PzS 720 | 720 | 198 | 173 | 405 | 435 | 31,8 | 40,1 |
| 10 PzS 800 | S 80 | 198 | 191 | 405 | 435 | 35,1 | 44,2 |

PLATE TYPE A90

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzS 180 | 180 | 198 | 47 | 470 | 500 | 9,3 | 12 |
| 3 PzS 270 | 270 | 198 | 65 | 470 | 500 | 13 | 17,1 |
| 4 PzS 360 | 360 | 198 | 83 | 470 | 500 | 16,7 | 21,7 |
| 5 PzS 450 | 450 | 198 | 101 | 470 | 500 | 20,4 | 26,2 |
| 6 PzS 540 | 540 | 198 | 119 | 470 | 500 | 24,1 | 31,2 |
| 7 PzS 630 | 630 | 198 | 137 | 470 | 500 | 27,8 | 36,1 |
| 8 PzS 720 | 720 | 198 | 155 | 470 | 500 | 31,5 | 40,8 |
| 9 PzS 810 | 810 | 198 | 173 | 470 | 500 | 35,2 | 45,7 |
| 10 PzS 900 | 900 | 198 | 191 | 470 | 500 | 38,9 | 50,1 |

PLATE TYPE A105

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|--------------------------|-----------|-------|-------|------|--------|------|
| | Cs Uend = 1,70 V/cell | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| [Ah] | [mm] | | | | [Ah] | | |
| 2 PzS 210 | 210 | 198 | 47 | 511 | 541 | 10,8 | 13,5 |
| 3 PzS 315 | 315 | 198 | 65 | 511 | 541 | 15,1 | 19,2 |
| 4 PzS 420 | 420 | 198 | 83 | 511 | 541 | 19,4 | 24,6 |
| 5 PzS 525 | 525 | 198 | 101 | 511 | 541 | 23,7 | 30,1 |
| 6 PzS 630 | 630 | 198 | 119 | 511 | 541 | 28 | 35,6 |
| 7 PzS 735 | 735 | 198 | 137 | 511 | 541 | 32,3 | 41,1 |
| 8 PzS 840 | 840 | 198 | 155 | 511 | 541 | 36,6 | 46,6 |
| 9 PzS 945 | 945 | 198 | 173 | 511 | 541 | 40,9 | 52,5 |
| 10 PzS 1050 | 1050 | 198 | 191 | 511 | 541 | 45,2 | 57,7 |

PLATE TYPE A115

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|--------------------------|-----------|-------|-------|------|--------|------|
| | Cs Uend = 1,70 V/cell | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| [Ah] | [mm] | | | | [Ah] | | |
| 2 PzS 230 | 230 | 198 | 47 | 545 | 575 | 11,6 | 14,7 |
| 3 PzS 345 | 345 | 198 | 65 | 545 | 575 | 16,2 | 20,7 |
| 4 PzS 460 | 460 | 198 | 83 | 545 | 575 | 20,9 | 26,7 |
| 5 PzS 575 | 575 | 198 | 101 | 545 | 575 | 25,5 | 32,6 |
| 6 PzS 960 | 960 | 198 | 119 | 545 | 575 | 30,1 | 38,9 |
| 7 PzS 805 | 805 | 198 | 137 | 545 | 575 | 34,8 | 44,5 |
| 8 PzS 920 | 920 | 198 | 155 | 545 | 575 | 39,4 | 50,4 |
| 9 PzS 1035 | 1035 | 198 | 173 | 545 | 575 | 44 | 56,6 |
| 10 PzS 1150 | 1150 | 198 | 191 | 545 | 575 | 48,7 | 62,5 |

PLATE TYPE A125

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|--------------------------|-----------|-------|-------|------|--------|------|
| | Cs Uend = 1,70 V/cell | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| [Ah] | [mm] | | | | [Ah] | | |
| 2 PzS 250 | 250 | 198 | 47 | 570 | 600 | 12,5 | 15,6 |
| 3 PzS 375 | 375 | 198 | 65 | 570 | 600 | 17,5 | 22,3 |
| 4 PzS 500 | 500 | 198 | 83 | 570 | 600 | 22,5 | 28,5 |
| 5 PzS 625 | 625 | 198 | 101 | 570 | 600 | 27,5 | 34,8 |
| 6 PzS 750 | 750 | 198 | 119 | 570 | 600 | 32,5 | 41,5 |
| 7 PzS 875 | 875 | 198 | 137 | 570 | 600 | 37,4 | 47,7 |
| 8 PzS 1000 | 1000 | 198 | 155 | 570 | 600 | 42,4 | 54,2 |
| 9 PzS 1125 | 1125 | 198 | 173 | 570 | 600 | 47,4 | 60,1 |
| 10 PzS 1250 | 1250 | 198 | 191 | 570 | 600 | 52,4 | 66,6 |

PLATE TYPE A140

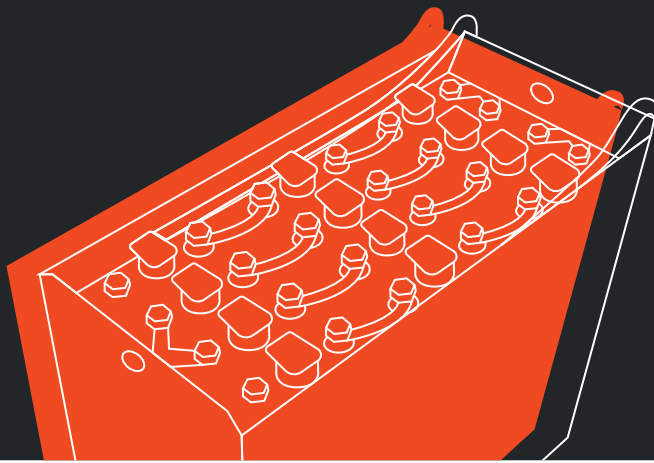
| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|--------------------------|-----------|-------|-------|------|--------|------|
| | Cs Uend = 1,70 V/cell | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| [Ah] | [mm] | | | | [Ah] | | |
| 2 PzS 280 | 280 | 198 | 47 | 685 | 715 | 14,8 | 18,5 |
| 3 PzS 420 | 420 | 198 | 65 | 685 | 715 | 20,7 | 26,3 |
| 4 PzS 560 | 560 | 198 | 83 | 685 | 715 | 26,6 | 34,3 |
| 5 PzS 700 | 700 | 198 | 101 | 685 | 715 | 32,5 | 41,7 |
| 6 PzS 840 | 840 | 198 | 119 | 685 | 715 | 38,5 | 49,2 |
| 7 PzS 980 | 980 | 198 | 137 | 685 | 715 | 44,4 | 56,9 |
| 8 PzS 1120 | 1120 | 198 | 155 | 685 | 715 | 50,3 | 64,4 |
| 9 PzS 1260 | 1260 | 198 | 173 | 685 | 715 | 56,2 | 71,5 |
| 10 PzS 1400 | 1400 | 198 | 191 | 685 | 715 | 62,1 | 80,2 |

PLATE TYPE A155

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|--------------------------|-----------|-------|-------|------|--------|------|
| | Cs Uend = 1,70 V/cell | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| [Ah] | [mm] | | | | [Ah] | | |
| 2 PzS 310 | 310 | 198 | 47 | 720 | 750 | 15,2 | 19,3 |
| 3 PzS 465 | 465 | 198 | 65 | 720 | 750 | 21,3 | 27,6 |
| 4 PzS 620 | 620 | 198 | 83 | 720 | 750 | 27,4 | 35,8 |
| 5 PzS 775 | 775 | 198 | 101 | 720 | 750 | 33,5 | 43,6 |
| 6 PzS 930 | 930 | 198 | 119 | 720 | 750 | 39,6 | 51,5 |
| 7 PzS 1085 | 1085 | 198 | 137 | 720 | 750 | 45,7 | 59,4 |
| 8 PzS 1240 | 1240 | 198 | 155 | 720 | 750 | 51,8 | 67,3 |
| 9 PzS 1395 | 1395 | 198 | 173 | 720 | 750 | 57,9 | 75,6 |
| 10 PzS 1550 | 1550 | 198 | 191 | 720 | 750 | 64 | 83,9 |



DIN CELL RANGE
(ACCORDING TO IEC 60254)



BS CELL RANGE

(ACCORDING TO IEC 60254)

PLATE TYPE B42

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 84 | 84 | 158 | 45 | 328 | 358 | 5,3 | 6,3 |
| 3 PzB 126 | 126 | 158 | 61 | 328 | 358 | 7,4 | 8,9 |
| 4 PzB 168 | 168 | 158 | 77 | 328 | 358 | 9,5 | 11,6 |
| 5 PzB 210 | 210 | 158 | 93 | 328 | 358 | 11,6 | 14,1 |
| 6 PzB 252 | 252 | 158 | 109 | 328 | 358 | 13,7 | 16,5 |
| 7 PzB 294 | 294 | 158 | 125 | 328 | 358 | 15,8 | 19,1 |
| 8 PzB 336 | 336 | 158 | 141 | 328 | 358 | 17,9 | 21,6 |
| 9 PzB 378 | 378 | 158 | 157 | 328 | 358 | 20 | 24,3 |
| 10 PzB 420 | 420 | 158 | 173 | 328 | 358 | 22,2 | 27,1 |

PLATE TYPE B55

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 110 | 110 | 158 | 45 | 328 | 358 | 6,6 | 7,8 |
| 3 PzB 165 | 165 | 158 | 61 | 328 | 358 | 9,2 | 11 |
| 4 PzB 220 | 220 | 158 | 77 | 328 | 358 | 11,9 | 14,4 |
| 5 PzB 275 | 275 | 158 | 93 | 328 | 358 | 14,5 | 17,6 |
| 6 PzB 330 | 330 | 158 | 109 | 328 | 358 | 17,1 | 20,8 |
| 7 PzB 385 | 385 | 158 | 125 | 328 | 358 | 19,8 | 24,1 |
| 8 PzB 440 | 440 | 158 | 141 | 328 | 358 | 22,4 | 27,3 |
| 9 PzB 495 | 495 | 158 | 157 | 328 | 358 | 25,1 | 30,7 |
| 10 PzB 550 | 550 | 158 | 173 | 328 | 358 | 27,7 | 33,9 |

PLATE TYPE B65

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 130 | 130 | 158 | 45 | 454 | 484 | 7,8 | 9,5 |
| 3 PzB 195 | 195 | 158 | 61 | 454 | 484 | 11 | 13,3 |
| 4 PzB 260 | 260 | 158 | 77 | 454 | 484 | 14,1 | 16,6 |
| 5 PzB 325 | 325 | 158 | 93 | 454 | 484 | 17,2 | 20,2 |
| 6 PzB 390 | 390 | 158 | 109 | 454 | 484 | 20,4 | 24 |
| 7 PzB 455 | 455 | 158 | 125 | 454 | 484 | 23,5 | 27,7 |
| 8 PzB 520 | 520 | 158 | 141 | 454 | 484 | 26,7 | 31,5 |
| 9 PzB 585 | 585 | 158 | 157 | 454 | 484 | 29,8 | 35,2 |
| 10 PzB 650 | 650 | 158 | 173 | 454 | 484 | 32,9 | 39,1 |

PLATE TYPE B75

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 150 | 150 | 158 | 45 | 511 | 541 | 8,4 | 10,2 |
| 3 PzB 225 | 225 | 158 | 61 | 511 | 541 | 11,7 | 13,9 |
| 4 PzB 300 | 300 | 158 | 77 | 511 | 541 | 15,1 | 18 |
| 5 PzB 375 | 375 | 158 | 93 | 511 | 541 | 18,4 | 21,9 |
| 6 PzB 450 | 450 | 158 | 109 | 511 | 541 | 21,8 | 25,8 |
| 7 PzB 525 | 525 | 158 | 125 | 511 | 541 | 25,1 | 29,9 |
| 8 PzB 600 | 600 | 158 | 141 | 511 | 541 | 28,5 | 33,9 |
| 9 PzB 675 | 675 | 158 | 157 | 511 | 541 | 31,8 | 37,9 |
| 10 PzB 750 | 750 | 158 | 173 | 511 | 541 | 35,2 | 42 |

PLATE TYPE B86

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 172 | 172 | 158 | 45 | 567 | 597 | 9,5 | 11,3 |
| 3 PzB 258 | 258 | 158 | 61 | 567 | 597 | 13,3 | 15,8 |
| 4 PzB 344 | 344 | 158 | 77 | 567 | 597 | 17,1 | 20,7 |
| 5 PzB 430 | 430 | 158 | 93 | 567 | 597 | 20,9 | 25,3 |
| 6 PzB 516 | 516 | 158 | 109 | 567 | 597 | 24,7 | 30 |
| 7 PzB 602 | 602 | 158 | 125 | 567 | 597 | 28,5 | 34,5 |
| 8 PzB 688 | 688 | 158 | 141 | 567 | 597 | 32,3 | 39,1 |
| 9 PzB 774 | 774 | 158 | 157 | 567 | 597 | 36,1 | 43,8 |
| 10 PzB 860 | 860 | 158 | 173 | 567 | 597 | 39,9 | 48,3 |

PLATE TYPE B100

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 200 | 200 | 158 | 45 | 603 | 633 | 10,9 | 12,9 |
| 3 PzB 300 | 300 | 158 | 61 | 603 | 633 | 15,2 | 18,1 |
| 4 PzB 400 | 400 | 158 | 77 | 603 | 633 | 19,6 | 23,9 |
| 5 PzB 500 | 500 | 158 | 93 | 603 | 633 | 24 | 29,2 |
| 6 PzB 600 | 600 | 158 | 109 | 603 | 633 | 28,3 | 34,4 |
| 7 PzB 700 | 700 | 158 | 125 | 603 | 633 | 32,7 | 39,8 |
| 8 PzB 800 | 800 | 158 | 141 | 603 | 633 | 37 | 45,2 |
| 9 PzB 900 | 900 | 158 | 157 | 603 | 633 | 41,4 | 50,5 |
| 10 PzB 1000 | 1000 | 158 | 173 | 603 | 633 | 45,7 | 55,8 |

PLATE TYPE B105

| CELL TYPE | CAPACITY | DIMENSION | | | | WEIGHT | |
|-------------|----------------------------------|-----------|-------|-------|-----|--------|------|
| | Cs Uend = 1,70 V/cell [Ah] | Length | Width | Hight | | Dry | Wet |
| | | A | B | H1 | H2 | ~5% | |
| | | [mm] | | | | [Ah] | |
| 2 PzB 210 | 210 | 158 | 45 | 683 | 713 | 11,6 | 14,1 |
| 3 PzB 315 | 315 | 158 | 61 | 683 | 713 | 16,2 | 19,6 |
| 4 PzB 420 | 420 | 158 | 77 | 683 | 713 | 20,9 | 25,1 |
| 5 PzB 525 | 525 | 158 | 93 | 683 | 713 | 25,5 | 30,8 |
| 6 PzB 630 | 630 | 158 | 109 | 683 | 713 | 30,1 | 36,2 |
| 7 PzB 735 | 735 | 158 | 125 | 683 | 713 | 34,8 | 42,5 |
| 8 PzB 840 | 840 | 158 | 141 | 683 | 713 | 39,4 | 48,3 |
| 9 PzB 945 | 945 | 158 | 157 | 683 | 713 | 44,1 | 54,1 |
| 10 PzB 1050 | 1050 | 158 | 173 | 683 | 713 | 48,7 | 61 |



BS CELL RANGE
(ACCORDING TO IEC 60254)

CHARGERS AND ACCESSORIES

CONVENTIONAL CHARGERS

Single phase 220-230-240-255 VAC
Three phase 220-380-400-420-440 VAC

Ideal for any use, thanks to high reliability and safety



HIGH FREQUENCY CHARGERS

Three phase 220-380-400-420-440-480 VAC

Reliability, high efficiency, safety, quality ,
available in onboard configuration



ELECTROLYTE LEVEL INDICATOR

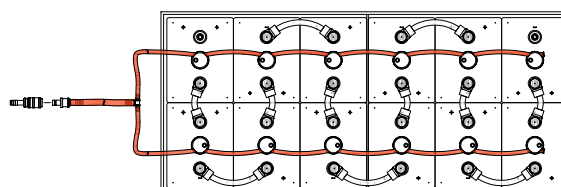
Blinky & Smart Blinky

A simple yet extremely efficient monitoring system for
the electrolyte level of the cells available in two versions



AUTOMATIC FILLING SYSTEM

A centralized piping system permanently fixed on
the battery which quickly distributes the
necessary water quantity to all the battery cells
ensuring optimum electrolyte level and density





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