## Design

## Technical Features

| | |
|---|---|
| Positive plates | Tubular plates with special low-antimony lead alloy (≤2% Sb). |
| Negative plates | Pasted negative plates of grid design with optimized low-antimony lead alloy.(≤2% Sb). |
| Separators | Low resistance, microporous. |
| Electrolyte | Sulfuric acid of 1,24±0,01 kg/l |
| Container, lid material | High impact, transparent SAN (Styrene Acrylonitrile) for container.<br>Robust ABS (Acrylonitrile Butadiene Styrene) Material for lid. |
| Poles | Premium design with insert and rubber seal in the lid for hardness and Poles acid resistance.<br>M10 brass inlay. Impedance measurements possible. |
| Connectors | Flexible insulated copper cable, with cross-section of 35, 50, or 70 mm² |
| Ceramic Plugs | Flame arresting design. Ceramic funnel plugs also available. |

## Operational Data

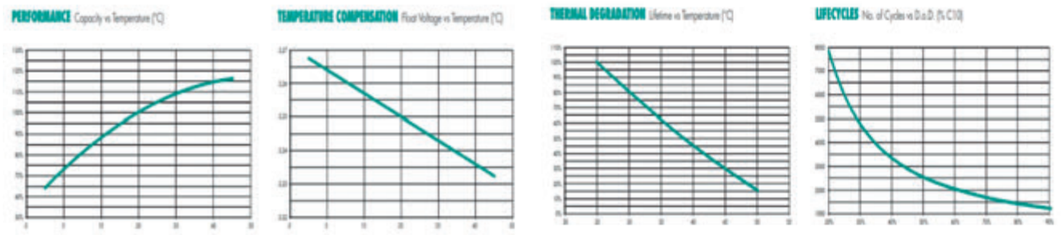
| | |
|---|---|
| Design life | Minium 15 years for 2V cells and 6V & 12V blocks (stand-by float, 20°C). |
| Number of cycles | 2300 cycles for 2V cells, 2000 cycles for 6V & 12V blocks (60% DoD, 20°C). |
| Maintenance | Low topping up requirements |
| Operating temperature | Recommended 10°C to 30°C. Max: 55°C. |
| Storage Time | Maximum shelf life up to 3 months at 20°C, 2 months at 30°C or 1 month at 40°C. |
| Self discharge rate | Approx. 2.5% per month at 20°C. |

## Certified Quality

- Fully compliant with IEC 60896-11 requirements for vented lead-acid batteries.
- Full conformity to DIN 40736-1 specifications for OPzS cells and DIN 40737-3 for OPzS blocks.
- Compliant to the safety requirements of EN 50272-2 for stationary batteries.
- Manufactured in ELHIM-ISKRA, certified with ISO 9001,BS OHSAS 45001.

## Operation Parameters

- Float Voltage (Vpc) 2.23 to 2.25 Vpc
- Max Float Current (A) 0.15 C10
- Boost Voltage (Vpc) 2.35 to 2.45 Vpc
- Max Boost Current (A) 0.15 C10
- Torque setting 20±1 Nm (bolts on connections)




*ELHIM-ISKRA reserves the right to carry out at any time any kind of modification to the technical data, to the manufacturing procedures and/or top the range of products, without giving previous written information

## Maintenance

### EVERY 6 MONTH

· Check battery voltage pilot block voltage, temperature

### EVERY 12 MONTH

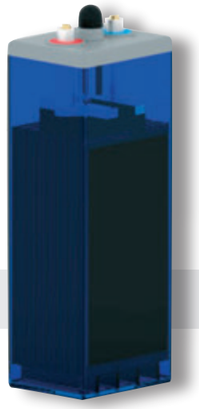
· Take down battery voltage block voltage, temperature

ELHIM ISKRA JSC

# Reserve Power OPz S Batteries

BULGARIA, 4400
Pazardjik, 9, Iskra Str.
Executive Manager:
+359 34 444548
fax: +359 34 443438
Sales Dept.:
+ 359 34 441751
fax: +359 34 444206
office@elhim-iskra.com

# Reserve Power OPz S Batteries



## Advantages

- Long life under cycling use
- Extended topping-up intervals
- Maximum charging efficiency
- Minimal positive growth
- Improved safety against accidental contacts

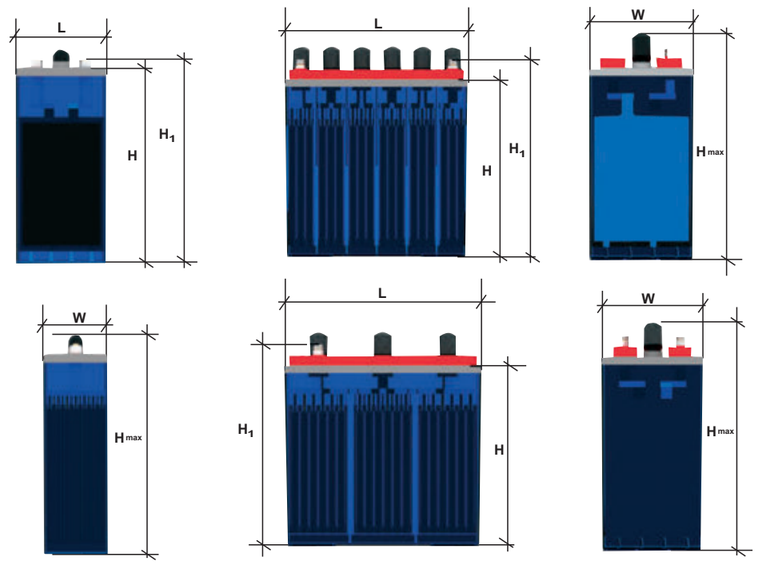
## Main Applications

- Renewable energy
- Energy storage
- Emergency power
- Railways
- Telecommunications

## Certified Quality

Fully compliant with IEC 60896-11 requirements for vented lead-acid batteries.
Full conformity to DIN 40736-1 specifications for OPzS cells and DIN 40737-3 for OPzS blocks.
Compliant to the safety requirements of EN 50272-2 for stationary batteries.
Manufactured in ELHIM-ISKRA, certified with ISO 9001, ISO 45001.

# Product Range




# Product Range

| | Type | Number of poles | C10(Ah) 1.8Vpc | C5(Ah) 1.75Vpc | Length (mm) | Width (mm) | Height1 (mm) | Height2 (mm) | Poles dist. (mm) | Wet Weight (kg) | Dry Weight (kg) | Internal Resistance (mOhm) | Short Circuit Curent (A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cells | 2V 2 OPzS 100 | 2 | 103 | 100 | 103 | 206 | 355 | 395 | - | 14.50 | 8.50 | 1.600 | 1250 |
| | 2V 3 OPzS 150 | 2 | 178 | 145 | 103 | 206 | 355 | 395 | - | 16.30 | 11.20 | 1.078 | 1850 |
| | 2V 4 OPzS 200 | 2 | 213 | 185 | 103 | 206 | 355 | 395 | - | 18.20 | 13.40 | 0.840 | 2375 |
| | 2V 5 OPzS 250 | 2 | 265 | 225 | 124 | 206 | 355 | 395 | - | 21.10 | 15.30 | 0.650 | 1995 |
| | 2V 6 OPzS 300 | 2 | 320 | 275 | 147 | 206 | 355 | 395 | - | 26.20 | 19.20 | 0.580 | 3485 |
| | 2V 5 OPzS 350 | 2 | 390 | 345 | 124 | 206 | 471 | 505 | - | 28.00 | 21.20 | 0.610 | 3290 |
| | 2V 6 OPzS 420 | 2 | 470 | 410 | 145 | 206 | 471 | 505 | - | 34.10 | 23.90 | 0.520 | 3895 |
| | 2V 7 OPzS 490 | 2 | 530 | 480 | 166 | 206 | 471 | 505 | - | 39.20 | 28.10 | 0.450 | 4440 |
| | 2V 5 OPzS 500 | 2 | 605 | 520 | 145 | 206 | 646 | 670 | - | 42.10 | 29.50 | 0.540 | 3740 |
| | 2V 6 OPzS 600 | 2 | 665 | 580 | 145 | 206 | 646 | 670 | - | 46.30 | 33.20 | 0.445 | 4500 |
| | 2V 7 OPzS 700 | 4 | 830 | 720 | 191 | 210 | 646 | 670 | 80 | 60.20 | 43.30 | 0.375 | 5345 |
| | 2V 8 OPzS 800 | 4 | 880 | 780 | 191 | 210 | 646 | 670 | 80 | 64.10 | 47.40 | 0.320 | 6200 |
| | 2V 9 OPzS 900 | 4 | 1010 | 890 | 233 | 210 | 646 | 670 | 110 | 73.30 | 53.60 | 0.285 | 6940 |
| | 2V 10 OPzS 1000 | 4 | 1100 | 980 | 233 | 210 | 646 | 670 | 110 | 78.40 | 57.20 | 0.260 | 7740 |
| | 2V 12 OPzS 1200 | 4 | 1310 | 1170 | 275 | 210 | 646 | 670 | 140 | 91.40 | 66.30 | 0.225 | 8850 |
| | 2V 11 OPzS 1375 | 4 | 1620 | 1410 | 275 | 210 | 796 | 820 | 140 | 111.50 | 77.00 | 0.240 | 8470 |
| | 2V 12 OPzS 1500 | 4 | 1630 | 1430 | 275 | 210 | 796 | 820 | 140 | 116.00 | 81.50 | 0.220 | 8990 |
| | 2V 14 OPzS 1750 | 6 | 1970 | 1720 | 397 | 212 | 772 | 795 | 110 | 144.00 | 97.00 | 0.195 | 10300 |
| | 2V 15 OPzS 1875 | 6 | 2100 | 1850 | 397 | 212 | 772 | 795 | 110 | 149.50 | 104.00 | 0.175 | 11500 |
| | 2V 16 OPzS 2000 | 6 | 2170 | 1920 | 397 | 212 | 772 | 795 | 110 | 156.00 | 110.00 | 0.160 | 12570 |
| | 2V 18 OPzS 2250 | 8 | 2675 | 2320 | 487 | 212 | 772 | 795 | 110 | 184.50 | 126.00 | 0.145 | 14440 |
| | 2V 20 OPzS 2500 | 8 | 2920 | 2540 | 487 | 212 | 772 | 795 | 110 | 202.00 | 135.00 | 0.120 | 16170 |
| | 2V 24 OPzS 3000 | 8 | 3350 | 2940 | 576 | 212 | 772 | 795 | 140 | 232.00 | 160.00 | 0.110 | 18780 |
| Blocks | 6V 2 OPzS 100 | 2 | 115 | 97.5 | 272 | 205 | 332 | 375 | - | 41.10 | 30.50 | 1.600 | 1250 |
| | 6V 3 OPzS 150 | 2 | 161 | 132.5 | 272 | 205 | 332 | 375 | - | 46.40 | 34.10 | 1.350 | 1770 |
| | 6V 4 OPzS 200 | 2 | 206 | 199 | 272 | 205 | 332 | 375 | - | 58.80 | 40.00 | 2.600 | 2283 |
| | 6V 6 OPzS 300 | 2 | 304 | 261.5 | 380 | 205 | 332 | 375 | - | 62.00 | 44.00 | 1.900 | 3035 |
| | 12V 2 OPzS 100 | 2 | 103 | 88 | 272 | 205 | 332 | 375 | - | 45.00 | 34.00 | 1.600 | 1250 |
| | 12V 3 OPzS 150 | 2 | 154 | 132 | 380 | 205 | 332 | 375 | - | 66.00 | 49.00 | 1.350 | 1770 |

# Non portable metallic trays