



GERMANY TECHNOLOGY
14 OPzS 1750
(2V-1800AH @ C10)

HIGH PERFORMANCE



Specifications:

Very high operational reliability under rough operating conditions.

Low maintenance due to reduced antimony in the alloy and high electrolyte reserve.

20 years at 20°C (80% remaining capacity from C10).

Also designed for cyclic applications.

Also available in dry charged condition with separate electrolyte.

Low gassing due to PbSb1.6SnSe alloy (EN 50272-2).

Conforms to DIN 40 736 and DIN 40 737 T3.

Electrolyte: diluted sulphuric acid dN = 1.25 kg/l.

Optimized plate design produces increased capacities compared to DIN.

Completely recyclable.

Innovative Features

- ◆ Tubular positive plates: Robust tubular plates consisting of a lead antimony alloy, optimized for high corrosion resistances.
- ◆ Pasted negative plates: Grid plate construction consisting of low antimony with long-life expander material.
- ◆ Separators: Microporous and robust, for electrical separation of the positive and negative plates and optimized for low internal resistance.
- ◆ Container: High impact, transparent SAN (Styrol-Acryl-Nitril).
- ◆ Safety Vents: Cells incorporate flame retardant ceramic plugs that filter out any drops of electrolyte from the escaping gases preventing any errant spark or flame from entering the battery.
- ◆ Poles: Screw connection for easy and safe assembly and maintenance-free connection with excellent conductivity.
- ◆ Post seals: Extremely high integrity post seal design to prevent electrolyte leakage and terminal corrosion.
- ◆ Connectors: Flexible, fully insulated cable connectors screwed to the terminal with an insulated screw having a probe hole on the top for electrical measurement.

Applications

Telecommunications

Emergency lighting

Microwave radio systems

Power generation plants

Photovoltaics

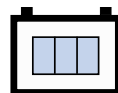
**PROVEN HIGH RELIABILITY ENERGY
STORAGE FOR CRITICAL APPLICATION**

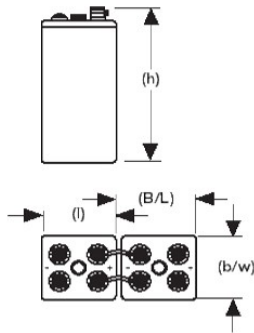
Standard and Compliance

DIN 40736 part 1

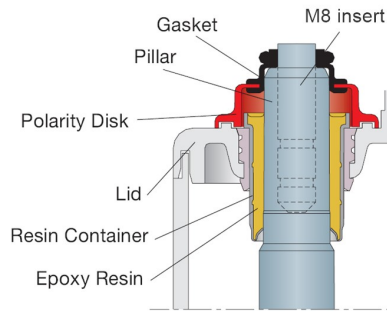
DIN 40737 part 2

IEC 896 part 1

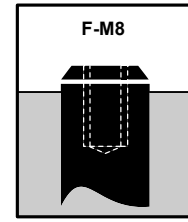




Dimension figure



High Reliability Post Seal



16 Nm

Container: SAN (acrylonitrile polystyrene),
UL 94 V-0 standard

Tubular OPzS Range Electrical Specifications & Dimensions

| Part number | DIN Type | Nom. Voltage (V) | C8 AH to 1.75VPC | C10 AH to 1.80VPC | C100 AH to 1.80VPC | Outline Dimensions (mm) | | | | Weight With acid (kg) | Acid Weight (kg) | Pole Pairs | Internal Resist. acc. to IEC 896-2 mOhms | Short Circuit Current | Terminal |
|-------------|--------------|------------------|------------------|-------------------|--------------------|-------------------------|-------------|------------|------------------------|-----------------------|------------------|------------|--|-----------------------|----------|
| | | | | | | Length (l) | Width (b/w) | Height (h) | Installed Length (B/L) | | | | | | |
| 2TS141750 | 14 OPzS 1750 | 2 | 1800 | 1800 | 2573 | 215 | 400 | 815 | 225 | 142 | 41.0 | 3 | 0.3 | 10500 | F-M8 |

Acid density $d_N = 1.250 \text{ kg/l}$

Tubular OPzS Range Discharge Data Amperes at 20°C

| End Point Volts/Cell | Discharge Time in Minutes | | | | | Discharge Time in hours | | | | | | | | | |
|----------------------|---------------------------|--------|--------|--------|--------|-------------------------|----------|--------|--------|--------|--------|--------|---------|---------|--|
| | 5 min | 10 min | 15 min | 20 min | 30 min | 1 hour | 1.5 hour | 2 hour | 3 hour | 4 hour | 5 hour | 8 hour | 10 hour | 20 hour | |
| 1.90 | 525 | 524 | 514 | 505 | 483 | 422 | 388 | 353 | 298 | 258 | 233 | 174 | 149 | 80.3 | |
| 1.87 | 580 | 578 | 566 | 554 | 530 | 460 | 421 | 382 | 320 | 276 | 247 | 184 | 158 | 85.2 | |
| 1.85 | 635 | 632 | 617 | 602 | 576 | 497 | 454 | 410 | 342 | 293 | 261 | 194 | 166 | 90.0 | |
| 1.83 | 713 | 708 | 691 | 671 | 638 | 543 | 493 | 442 | 364 | 310 | 274 | 201 | 172 | 93.4 | |
| 1.80 | 831 | 823 | 801 | 774 | 731 | 612 | 551 | 490 | 396 | 334 | 293 | 212 | 180 | 98.6 | |
| 1.75 | 1025 | 1010 | 977 | 936 | 873 | 716 | 634 | 554 | 437 | 366 | 319 | 225 | 188 | 103 | |
| 1.70 | 1215 | 1190 | 1150 | 1090 | 1005 | 814 | 704 | 607 | 468 | 389 | 337 | 232 | 193 | 106 | |
| 1.65 | 1410 | 1375 | 1315 | 1245 | 1135 | 904 | 763 | 648 | 490 | 405 | 349 | 236 | 194 | 107 | |

Tubular OPzS Range Discharge Data Watts at 20°C

| End Point Volts/Cell | Discharge Time in Minutes | | | | | Discharge Time in hours | | | | | | | | | |
|----------------------|---------------------------|--------|--------|--------|--------|-------------------------|----------|--------|--------|--------|--------|--------|---------|---------|--|
| | 5 min | 10 min | 15 min | 20 min | 30 min | 1 hour | 1.5 hour | 2 hour | 3 hour | 4 hour | 5 hour | 8 hour | 10 hour | 20 hour | |
| 1.90 | 821 | 821 | 809 | 813 | 772 | 695 | 645 | 605 | 525 | 466 | 428 | 325 | 284 | 151 | |
| 1.87 | 1030 | 1030 | 1010 | 995 | 889 | 835 | 769 | 703 | 598 | 521 | 472 | 356 | 308 | 167 | |
| 1.85 | 1175 | 1170 | 1145 | 1115 | 1070 | 927 | 850 | 770 | 648 | 557 | 500 | 375 | 324 | 177 | |
| 1.83 | 1300 | 1295 | 1270 | 1235 | 1175 | 1005 | 915 | 823 | 686 | 586 | 522 | 387 | 334 | 183 | |
| 1.80 | 1495 | 1485 | 1450 | 1410 | 1335 | 1120 | 1015 | 905 | 740 | 628 | 555 | 406 | 347 | 192 | |
| 1.75 | 1795 | 1780 | 1725 | 1665 | 1560 | 1280 | 1140 | 1005 | 805 | 679 | 599 | 427 | 360 | 200 | |
| 1.70 | 2070 | 2040 | 1980 | 1890 | 1755 | 1430 | 1245 | 1085 | 850 | 712 | 626 | 438 | 368 | 205 | |
| 1.65 | 2330 | 2295 | 2210 | 2115 | 1945 | 1565 | 1330 | 1145 | 883 | 737 | 645 | 444 | 369 | 206 | |

Long Duration Discharge Capacity (Ah) at 20°C

| Part No. | DIN Type | End Point Volts/Cell | C ₂₄ | C ₄₈ | C ₇₂ | C ₉₆ | C ₁₀₀ | C ₁₂₀ | C ₂₄₀ |
|-----------|--------------|----------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| 2TS141750 | 14 OPzS 1750 | 1.85 | 2163 | 2415 | 2524 | 2539 | 2548 | 2560 | 2606 |
| | | 1.80 | 2185 | 2439 | 2549 | 2564 | 2573 | 2586 | 2632 |

Actual battery performance data may be +/-5% of figures shown above.

