



GERMANY TECHNOLOGY

2 OPzV 100

(2V-105AH @ C10)

HIGH PERFORMANCE



Specifications

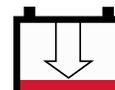
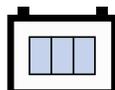
- ◆ Extraordinary energy-saving features in addition with robust reliability
- ◆ Maintenance-free (no topping up) during the whole service life
- ◆ Nominal capacity 100~3000 Ah C₁₀
- ◆ Design life: 20 years at 20°C (80% remaining capacity from C₁₀)
- ◆ Container material: ABS, UL 94-HB; optional: ABS, UL 94V-0
- ◆ Robust tubular plate technology
- ◆ Very low gassing due to internal gas recombination
- ◆ Long shelf life of up to 2 years at 20°C without recharge due to the very low self discharge rate
- ◆ Proof against deep discharge according to DIN 43 539 T5
- ◆ Cells in compliance with DIN 40742 Completely recyclable

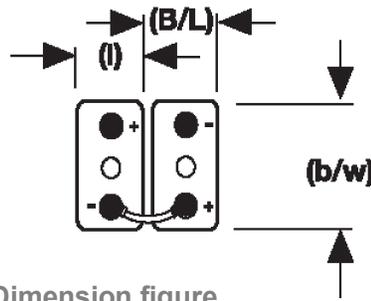
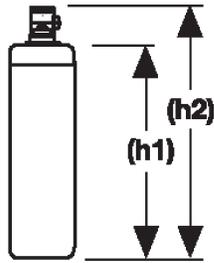
Applications

- Telecommunications Emergency lighting
- Microwave radio systems Power generation plants
- Photovoltaic / Solar

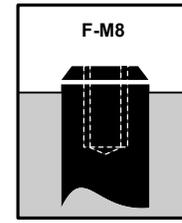
Innovative Features

- ◆ **Tubular positive plates:** Robust tubular plates consisting of a lead calcium antimony-free alloy, optimized for high corrosion resistances
- ◆ **Pasted negative plates:** Grid plate construction consisting of lead calcium alloy
- ◆ **Separators:** Micro porous and robust, for electrical separation of the positive and negative plates and optimized for low internal resistance
- ◆ **Housing:** ABS, on request flame retardant ABS according to UL 94 V-0
- ◆ **One way relief valve:** operates at low pressure and fitted with flame arrestor, release gas in case of excess pressure and protects the cell against atmosphere
- ◆ **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
- ◆ **Electrolyte:** Gel structure
- ◆ Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.





Dimension figure



20 Nm

Container: ABS, UL 94-HB Optional ABS, UL 94V-0

Tubular OPzV Range Electrical Specifications & Dimensions

| Part number | DIN Type | Nom. Voltage (V) | C10 AH to 1.80VPC | C100 AH to 1.80VPC | Outline Dimensions (mm) | | | | | Weight (kg) | Pole Pairs | Internal Resist. acc. to IEC 896-2 mOhms | Short Circuit Current acc. to IEC 896-2A | Terminal |
|-------------|------------|------------------|-------------------|--------------------|-------------------------|-------------|-------------|---------------|------------------------|-------------|------------|--|--|----------|
| | | | | | Length (l) | Width (b/w) | Height (h1) | Height t (h2) | Installed Length (B/L) | | | | | |
| 2TV020100 | 2 OPzV 100 | 2 | 105 | 130 | 103 | 206 | 355 | 390 | 111 | 12.5 | 1 | 1.00 | 1590 | F-M8 |

Acid density $d_N = 1.260 \text{ kg/l}$

Tubular OPzV Range Discharge Data Amperes at 20°C

| End Point Volts/Cell | Discharge Time in Minutes | | Discharge Time in hours | | | | | | | | |
|----------------------|---------------------------|--------|-------------------------|--------|--------|--------|--------|--------|--------|---------|---------|
| | 15 min | 30 min | 1 hour | 2 hour | 3 hour | 4 hour | 5 hour | 6 hour | 8 hour | 10 hour | 20 hour |
| 1.90 | 77 | 63.0 | 44.6 | 28.9 | 22.0 | 18.1 | 15.7 | 13.6 | 10.7 | 9.4 | 4.79 |
| 1.87 | 86 | 69 | 49.9 | 34.7 | 26.3 | 20.7 | 17.9 | 15.5 | 12.6 | 10.5 | 5.1 |
| 1.85 | 97 | 76 | 51.5 | 32.5 | 24.7 | 19.9 | 17.1 | 14.9 | 12.1 | 10.3 | 5.5 |
| 1.80 | 106 | 81 | 53.5 | 33.4 | 26.3 | 20.7 | 17.6 | 15.1 | 12.3 | 10.5 | 5.7 |
| 1.75 | 119 | 87 | 58.0 | 34.5 | 26.3 | 21.0 | 17.9 | 15.5 | 12.6 | 10.5 | 6.1 |
| 1.70 | 131 | 91 | 58.5 | 35.1 | 26.3 | 21.2 | 18.1 | 15.7 | 12.6 | 11.1 | 6.4 |

Tubular OPzV Range Discharge Data Watts at 20°C

| End Point Volts/Cell | Discharge Time in Minutes | | Discharge Time in hours | | | | | | | | |
|----------------------|---------------------------|--------|-------------------------|--------|--------|--------|--------|--------|--------|---------|---------|
| | 15 min | 30 min | 1 hour | 2 hour | 3 hour | 4 hour | 5 hour | 6 hour | 8 hour | 10 hour | 20 hour |
| 1.90 | 109 | 100 | 80.0 | 56.0 | 43.6 | 35.7 | 30.5 | 26.8 | 21.0 | 17.3 | 9.5 |
| 1.87 | 135 | 117 | 90.7 | 62.0 | 47.3 | 38.9 | 33.6 | 29.4 | 23.1 | 19.5 | 10.1 |
| 1.85 | 175 | 143 | 106 | 70.0 | 54.0 | 43.1 | 36.7 | 32.1 | 25.2 | 21.0 | 10.8 |
| 1.80 | 180 | 147 | 109 | 72 | 55 | 44 | 37.8 | 33.1 | 25.7 | 21.5 | 11.0 |
| 1.75 | 204 | 163 | 118 | 76 | 57.0 | 45.7 | 38.3 | 33.6 | 25.7 | 21.5 | 11.5 |
| 1.70 | 227 | 174 | 123 | 76 | 57.0 | 45.7 | 38.3 | 33.6 | 25.7 | 21.5 | 11.9 |

Long Duration Discharge Capacity (Ah) at 20°C

| Part No. | DIN Type | End Point Volts/Cell | C ₂₄ | C ₄₈ | C ₁₀₀ | C ₁₂₀ | C ₂₄₀ |
|-----------|------------|----------------------|-----------------|-----------------|------------------|------------------|------------------|
| 2TV020100 | 2 OPzV 100 | 1.85 | 113 | 125 | 129 | 131 | 133 |
| | | 1.80 | 114 | 126 | 130 | 132 | 134 |

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

