



GERMANY TECHNOLOGY

3 OPzS 150

(2V-168AH @ C10)

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.

Applications

- ☑ Telecommunications
- ☑ Emergency lighting
- ☑ Microwave radio systems
- ☑ Power generation plants
- ☑ Photovoltaics

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

HIGH PERFORMANCE

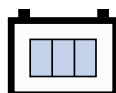


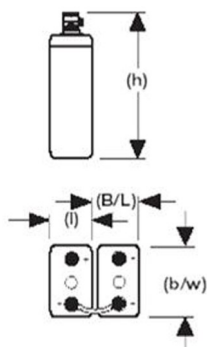
Innovative Features

- ☑ 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.

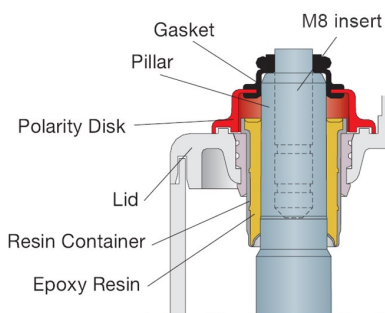
Standard and Compliance

- ☑ DIN 40736 part 1
- ☑ DIN 40737 part 2
- ☑ IEC 896 part 1

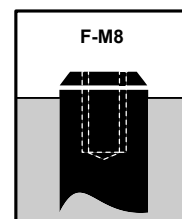




Dimension figure



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)						
2TS030150	3 OPzS 150	2	168	168	225	105	208	405	115	15.2	5.00	1	0.74	1950	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	101	99.8	93.6	87.0	79.2	62.9	52.5	45.1	35.4	29.1	24.9	17.7	14.6	7.98	
1.87	111	109	102	94.0	85.0	67.0	55.7	47.7	37.4	30.7	26.2	18.5	15.4	8.34	
1.85	121	118	110	101	90.8	71.0	58.9	50.3	39.4	32.2	27.4	19.3	16.2	8.70	
1.83	134	130	120	110	97.4	74.3	61.3	52.2	40.8	33.2	28.2	19.6	16.4	8.90	
1.80	155	148	135	124	107	79.2	64.8	54.9	42.9	34.8	29.5	20.1	16.8	9.20	
1.75	188	175	158	144	122	85.3	68.5	57.8	44.9	36.4	30.7	21.0	17.3	9.50	
1.70	220	200	177	160	134	89.4	71.0	59.1	46.0	37.0	31.2	21.1	17.5	9.60	
1.65	249	221	194	172	142	91.7	72.3	60.1	46.7	37.5	31.5	21.2	17.6	9.70	

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	163	163	156	147	138	114	96.2	83.7	66.4	55.4	47.9	34.8	28.4	15.8	
1.87	198	197	185	172	157	126	105	90.9	71.9	59.4	51.0	36.6	30.4	16.6	
1.85	223	219	205	189	170	134	112	95.7	75.5	62.1	53.1	37.7	31.7	17.2	
1.83	245	239	221	204	181	139	115	98.7	77.8	63.7	54.6	38.3	32.1	17.6	
1.80	279	268	245	226	197	147	121	103	81.3	66.5	56.8	39.1	32.7	18.2	
1.75	330	310	280	256	219	156	127	108	84.6	69.0	58.7	40.5	33.6	18.6	
1.70	376	344	308	279	236	162	130	110	86.4	69.7	59.4	40.7	33.8	18.7	
1.65	414	371	329	294	245	163	131	111	87.3	70.5	59.8	40.7	33.8	18.7	

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
2TS030150	3 OPzS 150	1.85	194	207	218	220	223	224	225
		1.80	196	209	220	222	225	226	227

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

