

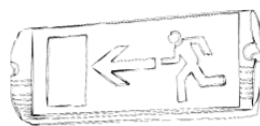
Product features

- Maintenance free battery, no need for watering
- Specific environmentally friendly formation process
- Spill & leak proof construction
- Analytical grade electrolyte
- Safety valves
- Container and lid made from ABS (UL 94 V-0 version available on request)
- Low self-discharge
- Non dangerous good according to FAA and IATA classification
- Complies with the following standards: IEC 60896-21/22, EUROBAT
- Tested by Det Norske Veritas / Germanischer Lloyd



Specification

Nominal voltage	12 V
Nominal capacity	28 Ah
Design life	12 years
Operating temperature	-20°C to 50°C (-4°F to 122°F)
Grid alloy	Lead-calcium-tin
Electrode design	Flat grid, pasted
Separator	Absorbent Glass Mat (AGM)
Active material	High purity lead and lead dioxide
Container and lid	ABS UL 94 HB (V-0 version on request)
Charge voltage	Float charging: 2.275 Vpc @ 20°C (68°F) Cyclic use: see instruction for use
Electrolyte	Maximum ripple: 0.05 C (A) Purified high grade sulfuric acid
Safety valve	EPDM rubber, opening pressure 10.5 to 14 kPa (1.5 to 2 psi), closing pressure ca. 7 kPa (1 psi)
Terminal	Insert M5



CTM GmbH encourages environmental awareness. Please observe all existing guidelines for recycling/disposal of lead.

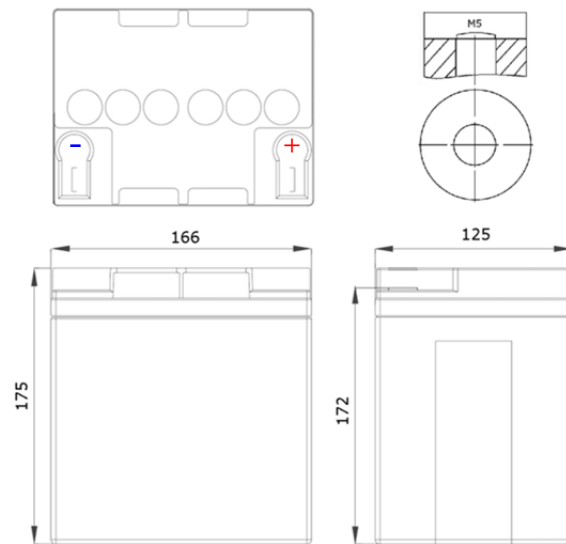
Physical Data

Dimension (±2 mm/± 0.08 inch)

Length	166 mm	6.54 inches
Width	125 mm	4.92 inches
Height	175 mm	6.89 inches
Height incl. terminal	-	-
Weight	9.0 kg	19.89 lbs.
Terminal	Standard	Insert M5
	Option	-

Electrical Data

Nominal voltage	12 V	
Capacity 20°C (68°F) to 1.7 Vpc	20 h	32.1 Ah
	10 h	30.6 Ah
	5 h	27.7 Ah
	1 h	20.7 Ah
	15 min	14.4 Ah
Internal resistance	7.75 mΩ	
Impedance	450 S	
Temperature correction factors (C20)	40°C (104°F)	102%
	20°C (68°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-discharge at 20°C (68°F) - capacity after	1 month storage	98%
	3 months storage	94%
	6 months storage	86%
Short circuit current	A @ 20°C (68°F)	910
Charging voltage	Float charging	2.27-2.30 Vpc 25-15°C (77-59°F)
	cyclic	See operating instruction



Constant current discharge – A @ 20°C (68°F)

Uf Vpc	5 min	10 min	15 min	20 min	30 min	60 min	2 h	5 h	8 h	10 h	20 h
1.85	104	64.9	49.6	40.6	30.6	17.9	10.1	4.7	3.2	2.6	1.3
1.80	111	69.4	53.0	43.4	32.7	19.1	10.8	5.0	3.4	2.8	1.4
1.75	119	73.8	56.3	46.2	34.8	20.3	11.5	5.4	3.6	2.9	1.5
1.70	121	75.4	57.6	47.2	35.6	20.7	11.7	5.5	3.7	3.0	1.6
1.65	123	76.4	58.3	47.8	36.0	21.0	11.9	-	-	-	-
1.60	124	77.1	58.9	48.2	36.4	21.2	12.0	-	-	-	-

Constant power discharge – Watt per cell @ 20°C (68°F)

Uf Vpc	5 min	10 min	15 min	20 min	30 min	60 min	2 h	5 h	8 h	10 h	20 h
1.85	232	132	96.0	77.0	58.2	35.3	19.7	9.3	6.3	5.2	2.7
1.80	248	141	103	82.2	62.2	37.7	21.1	10.0	6.7	5.5	2.8
1.75	263	151	109	87.5	66.2	40.1	22.4	10.6	7.2	5.9	3.0
1.70	269	154	112	89.4	67.6	41.0	22.9	10.9	7.3	6.0	3.1
1.65	273	156	113	90.6	68.5	41.5	23.2	-	-	-	-
1.60	275	157	114	91.4	69.1	41.9	23.4	-	-	-	-

Capacity – Ah @ 20°C (68°F)

Uf Vpc	2 h	3 h	5 h	8 h	10 h	20 h
1.85	20.2	21.8	23.8	25.6	26.3	27.7
1.80	21.6	23.3	25.5	27.3	28.1	29.5
1.75	23.0	24.7	27.1	29.1	29.9	31.4
1.70	23.5	25.3	27.7	29.7	30.6	32.1
1.65	23.8	25.6	-	-	-	-
1.60	24.0	25.9	-	-	-	-

