

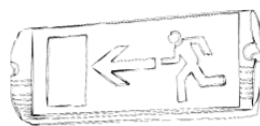
Product features

- 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	230 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
	Maximum ripple: 0.05 C (A)
Electrolyte	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 M8



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

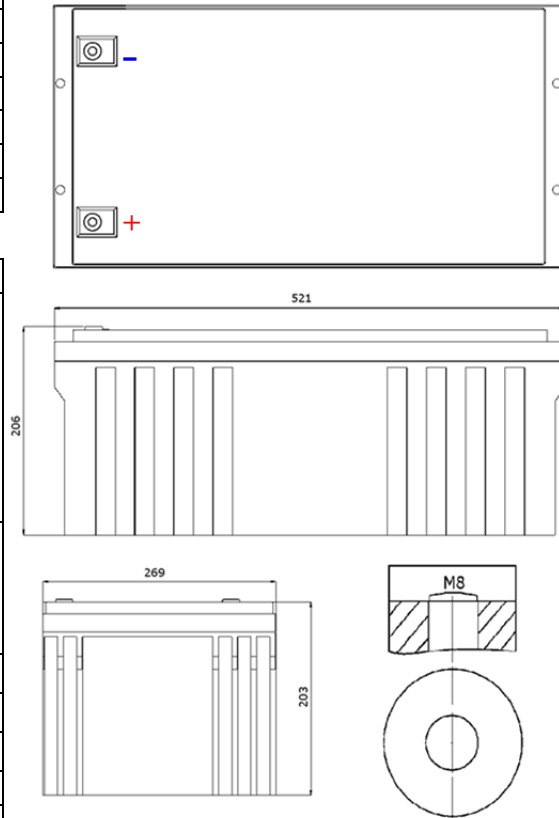
Physical Data

Dimension (±2 mm/± 0.08 inch)

Height	521 mm	20.51 inches
Height incl. terminal	269 mm	10.59 inches
Length	203 mm	7.99 inches
Width	206 mm	8.11 inches
Weight	73.5 kg	162.44 lbs.
Terminal	Standard	Insert M8
	Option	automotive

Electrical Data

Nominal voltage		12 V
Capacity 20°C (68°F) to 1.7 Vpc	20 h	268 Ah
	10 h	249 Ah
	5 h	226 Ah
	1 h	166 Ah
	15 min	86.8 Ah
Internal resistance Impedance		2.2 mΩ
		2150 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)	5900
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	418	329	299	267	223	144	84.6	39.1	26.0	21.5	11.5
1.80	447	352	319	285	238	154	90.4	41.7	27.8	22.9	12.3
1.75	475	374	340	303	253	163	96.2	44.4	29.6	24.4	13.1
1.70	486	382	347	310	259	167	98.3	45.4	30.2	24.9	13.4
1.65	492	387	351	314	262	169	100	-	-	-	-
1.60	497	391	355	317	265	171	100	-	-	-	-

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	880	657	575	527	454	294	171	80.3	53.9	44.2	23.7
1.80	940	702	614	563	485	314	183	85.7	57.6	47.2	25.3
1.75	1000	746	654	599	516	334	195	91.2	61.2	50.2	26.9
1.70	1022	763	668	612	527	341	199	93.2	62.6	51.3	27.5
1.65	1035	773	676	619	534	346	201	-	-	-	-
1.60	1045	780	683	625	539	349	203	-	-	-	-

Capacity – Ah @ 20°C (68°F)

Uf Vpc	2 h	3 h	5 h	8 h	10 h	20 h
1.85	169	182	195	208	215	231
1.80	181	194	209	222	229	247
1.75	192	207	222	237	244	263
1.70	197	211	227	242	249	269
1.65	199	214	-	-	-	-
1.60	201	216	-	-	-	-

