Datasheet

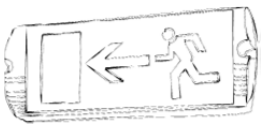
CTL 110-12

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	110 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	**A**bsorbent **G**lass **M**at (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 M6



Pb

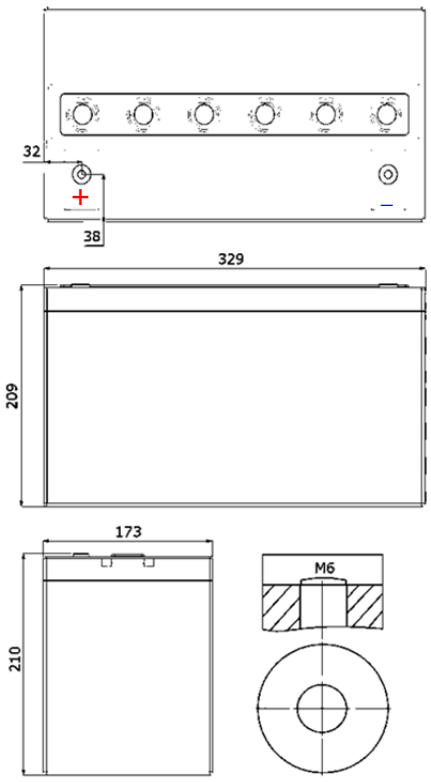
CTM GmbH encourages environmental awareness. Please observe all existing guidelines for recycling/disposal of lead.

Energy

We power the future.

CTL 110-12

Physical Data	Dimension (±2 mm/± 0.08 inch)	
Length	329 mm	12.95 inches
Width	173 mm	6.81 inches
Height	209 mm	8.23 inches
Height incl. terminal	210 mm	8.27 inches
Weight	32.6 kg	72.05 lbs.
Terminal	Standard	Insert M6
	Option	automotive



Electrical Data

Nominal voltage		12 V
Capacity 20°C (68°F) to 1.7 Vpc	20 h 10 h 5 h 1 h 15 min Internal resistance Impedance	125 Ah 118 Ah 109 Ah 78.3 Ah 52.5 Ah 3.2 mΩ 1200 S
Temperature correction factors (C20)	40°C (104°F) 20°C (68°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 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)	3000
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	324	223	181	151	115	67.4	39.3	18.9	12.5	10.2	5.4
1.80	347	238	193	162	123	72.0	42.0	20.2	13.4	10.9	5.7
1.75	369	253	205	172	131	76.6	44.6	21.5	14.2	11.6	6.1
1.70	377	259	210	176	133	78.3	45.6	22.0	14.5	11.9	6.2
1.65	382	262	213	178	135	79.3	46.2	-	-	-	-
1.60	385	265	215	180	136	80.0	46.6	-	-	-	-

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	717	439	345	291	222	134	75.5	36.9	24.9	20.4	11.0
1.80	766	469	369	311	238	143	80.7	39.4	26.6	21.8	11.8
1.75	814	499	392	331	253	152	85.8	41.9	28.2	23.2	12.5
1.70	832	510	401	338	258	155	87.7	42.8	28.9	23.7	12.8
1.65	843	516	406	343	262	157	88.8	-	-	-	-
1.60	851	521	410	346	264	159	89.7	-	-	-	-

Capacity – Ah @ 20°C (68°F)

Uf Vpc	2 h	3 h	5 h	8 h	10 h	20 h
1.85	78.6	86.0	94.6	100	102	108
1.80	83.9	91.9	101	107	109	116
1.75	89.3	97.7	108	114	116	123
1.70	91.2	99.9	110	116	119	126
1.65	92.4	101	-	-	-	-
1.60	93.3	102	-	-	-	-

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