

BTL12-45L (12V/45Ah)

BTL series is a general-purpose battery with 10 years design life in float service. With updated AGM valve regulated technology and high purity raw materials, the BTL series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS, DC-power systems, emergency light and security system applications.



Specifications		
Nominal Voltage	12V	
Nominal Capacity	45.0Ah	
Dimensions	Length	197 ±2mm
	Width	165 ±1mm
	Height	170 ±1mm
	Total height (with terminal)	170 ±2mm
Approx. Weight	14.5kg	
Terminals	F11, M6 screw terminals	
Container Material	Acrylnitril-Butadien-Styrol (ABS)	
Permitted installation position	Max. 90° to upright normal position (see picture above right)	
Rated Capacity	45.0AH / 2.25A	20h discharge, 1.80 V / cell, 25°C
	42.0AH / 4.20A	10h discharge, 1.80 V / cell, 25°C
	36.6AH / 7.31A	5h discharge, 1.75 V / cell, 25°C
	32.7AH / 10.9A	3h discharge, 1.75 V / cell, 25°C
	26.0AH / 26.0A	1h discharge, 1.60 V / cell, 25°C
Max. Discharge Current	540A (5s)	
Internal Resistance	Approx. 8.0mΩ	
Operating temperature range	Discharge	-15 ~ 40°C
	Charge	0 ~ 40°C
	Storage (charged)	-15 ~ 40°C
Recommended operating temperature	Approx. 20°C	
Max. charging current	13.5A	
Charging voltage	Boost charge	Voltage 14.4 V ~ 15.0V @ 25°C Temperature coefficient -30mV/°C
	Float charging	Voltage 13.5V ~ 13.8V @ 25°C Temperature coefficient -20 mV/°C
Capacity affected by temperature	40°C	103%
	25°C	100%
	0°C	86%
Self-discharge	EFFEKTA BTL series batteries should be recharged at least every 6 months when stored at 25°C. At higher temperatures, the time interval is shortened.	

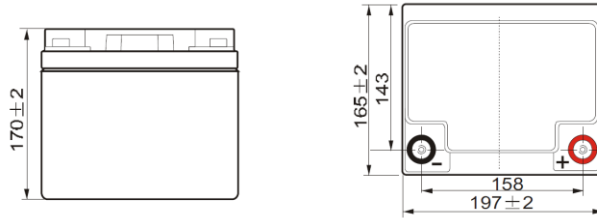
Discharge at constant current (ampere) at 25°C														
F.V/time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	49.1	41.3	36.7	30.4	23.5	20.1	13.0	9.77	8.01	6.74	5.90	4.73	4.07	2.17
1.80V/cell	56.2	46.4	40.5	33.0	25.3	21.2	14.0	10.5	8.51	7.14	6.25	4.98	4.20	2.25
1.75V/cell	63.9	52.3	44.8	35.9	27.6	23.1	14.5	10.9	8.80	7.31	6.45	5.15	4.31	2.30
1.70V/cell	72.1	58.0	49.5	39.2	29.7	24.4	15.3	11.5	9.20	7.73	6.76	5.37	4.48	2.36
1.65V/cell	77.5	62.1	52.6	41.4	31.5	25.3	15.9	12.0	9.56	7.97	6.99	5.55	4.60	2.44
1.60V/cell	85.2	68.1	57.1	44.1	32.7	26.0	16.3	12.3	9.77	8.17	7.14	5.64	4.70	2.48

Discharge at constant power (watts / cell) at 25°C														
F.V/time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	91.8	77.9	69.8	58.6	45.6	39.1	25.5	19.2	15.8	13.3	11.7	9.44	8.14	4.34
1.80V/cell	103.8	86.4	76.1	62.6	48.8	41.1	27.2	20.6	16.7	14.1	12.4	9.91	8.38	4.49
1.75V/cell	116.0	96.2	83.3	67.5	52.7	44.6	28.2	21.3	17.2	14.4	12.7	10.2	8.60	4.60
1.70V/cell	128.1	105.2	91.3	73.3	56.6	47.0	29.7	22.4	18.0	15.2	13.3	10.6	8.92	4.71
1.65V/cell	136.3	111.8	96.4	76.7	59.3	48.3	30.6	23.2	18.6	15.6	13.7	11.0	9.16	4.85
1.60V/cell	146.5	120.4	103.6	81.3	61.3	49.5	31.2	23.7	19.0	15.9	14.0	11.1	9.33	4.92

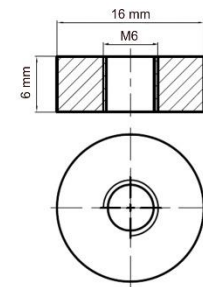
Dimensions

Unit: mm

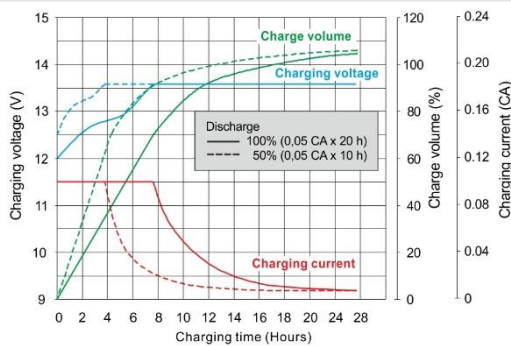
Dimensions: 197 (L) × 165 (B) × 170 (H)



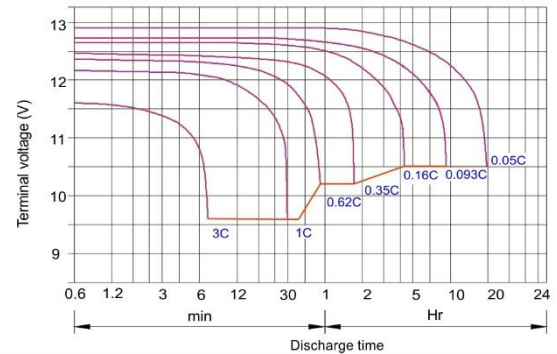
Terminal F11



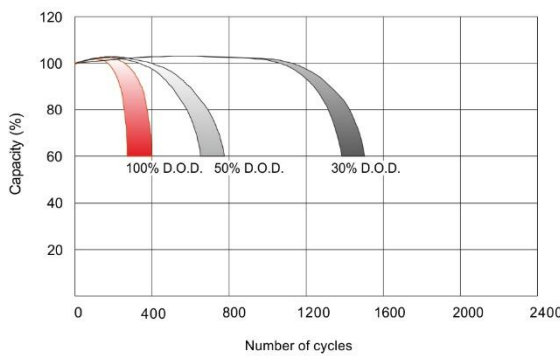
Float charging characteristics



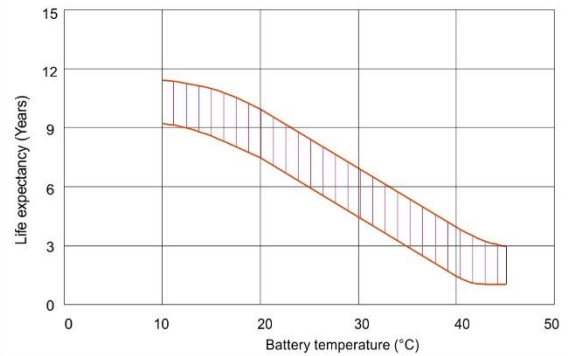
Discharge characteristics



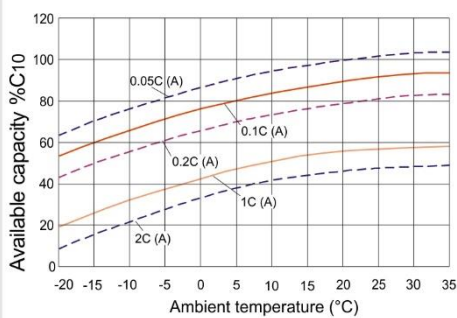
Charging cycle number in relation to discharge depth



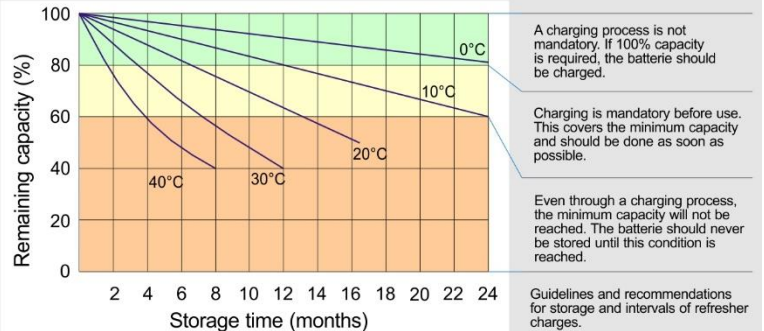
Temperature effect on the life expectancy



Effect of temperature on the capacity



Storage / self-discharge characteristics



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