

BTL 12-33 L (12V / 33Ah)

BTL series is a general-purpose battery with 10-12 years design life in float service according to Eurobat. 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		33.0Ah
Dimensions	Length	197 ± 2mm
	Width	130 ± 2mm
	Height	164 ± 2mm
	Height of the terminals	164 ± 2mm
Approx. Weight		10.4kg
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	35.0Ah	20h discharge, 1.80 V / cell, 25°C
	33.5Ah	10h discharge, 1.80 V / cell, 25°C
	30.8Ah	5h discharge, 1.75 V / cell, 25°C
	28.6Ah	3h discharge, 1.75 V / cell, 25°C
	26.2Ah	1h discharge, 1.75 V / cell, 25°C
Max. Discharge Current		630A (5 s)
Internal Resistance		Approx. 7.0mΩ
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		10.5A
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.

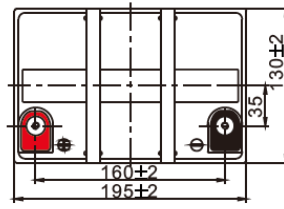
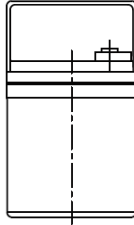
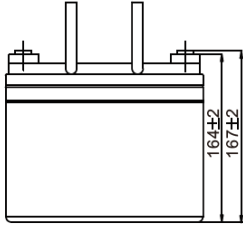
Discharge at constant current (ampere) at 25°C															
F.V/ time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	102.3	73.7	59.1	49.4	37.9	23.3	22.6	12.7	9.04	7.06	5.85	5.01	3.93	3.26	1.72
1.80V/cell	118.2	82.7	65.2	53.7	40.7	29.9	23.8	13.2	9.31	7.28	6.02	5.15	4.03	3.35	1.75
1.75V/cell	132.8	89.9	70.3	57.2	42.7	31.2	24.7	13.5	9.54	7.46	6.15	5.25	4.11	3.41	1.79
1.70V/cell	144.0	96.6	74.9	60.5	44.6	32.3	25.5	13.9	9.7	7.60	6.27	5.37	4.20	3.48	1.82
1.65V/cell	156.0	103.3	79.1	63.6	46.4	33.3	26.2	14.2	10.0	7.78	6.41	5.48	4.31	3.54	1.85
1.60V/cell	166.8	109.2	82.7	66.6	48.4	34.4	26.8	14.6	10.2	7.98	6.58	5.63	4.40	3.62	1.90

Discharge at constant power (watts / cell) at 25°C															
F.V/Zeit	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	199.0	144.2	116.2	97.6	75.4	56.4	54.2	25.6	18.3	14.3	11.9	10.2	8.05	6.71	3.55
1.80V/cell	227.6	160.2	127.1	105.1	80.1	59.3	47.4	26.3	18.7	14.7	12.2	10.4	8.22	6.85	3.59
1.75V/cell	253.0	172.4	135.7	111.1	83.4	61.2	48.9	26.9	19.0	14.9	12.4	10.6	8.33	6.94	3.66
1.70V/cell	271.2	183.3	142.9	116.2	86.3	62.9	49.9	27.4	19.3	15.1	12.5	10.8	8.45	7.03	3.70
1.65V/cell	291.5	194.5	150.0	121.4	89.3	64.5	51.2	28.0	19.7	15.4	12.7	10.9	8.62	7.12	3.75
1.60V/cell	308.1	203.4	155.2	125.9	92.2	65.9	51.7	28.3	20.0	15.7	13.0	11.1	8.73	7.21	3.81

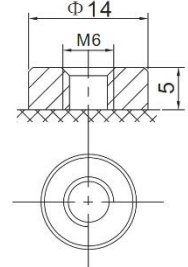
Dimensions

Unit: mm

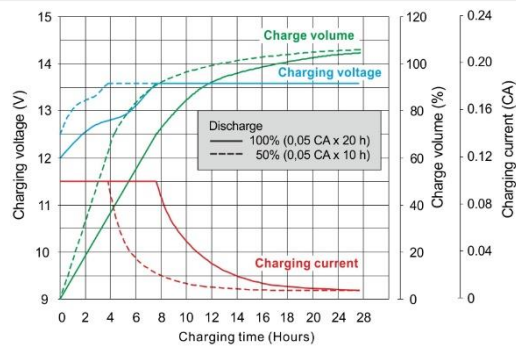
Dimensions: 195 (L) × 130 (W) × 155 (H)



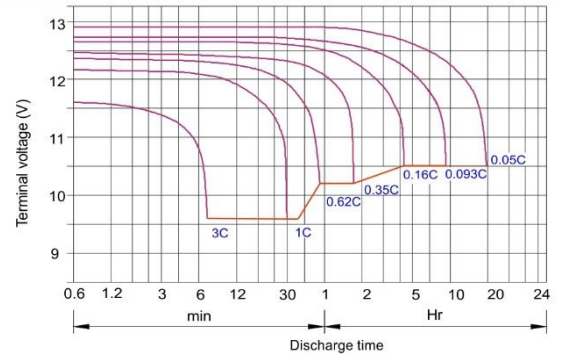
Terminal F11



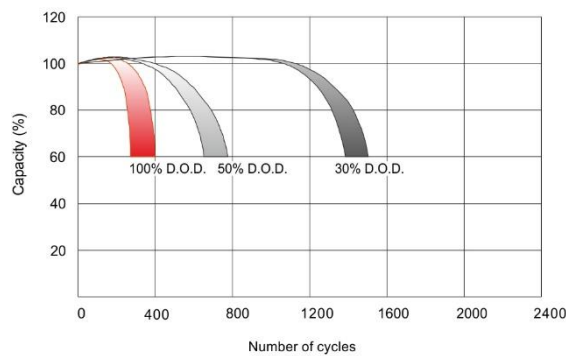
Float charging characteristics



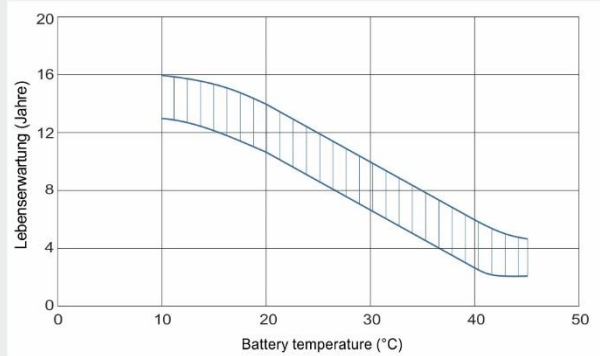
Discharge characteristics



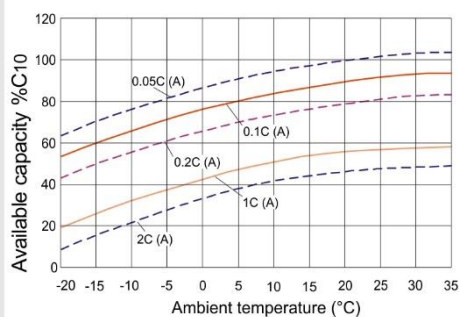
Charging cycle number in relation to discharge depth



Temperature effect on life expectancy



Effect of temperature on the capacity



Storage / self-discharge characteristics

