

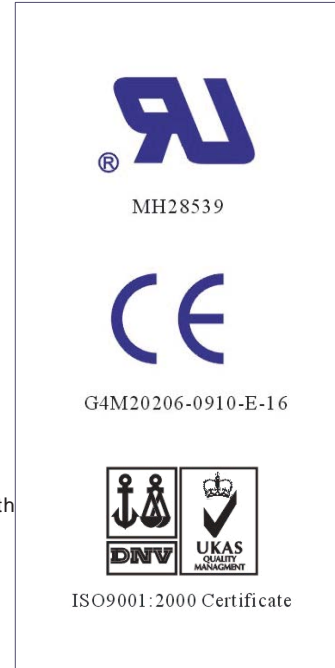
BTL 2-400 (2V400Ah)



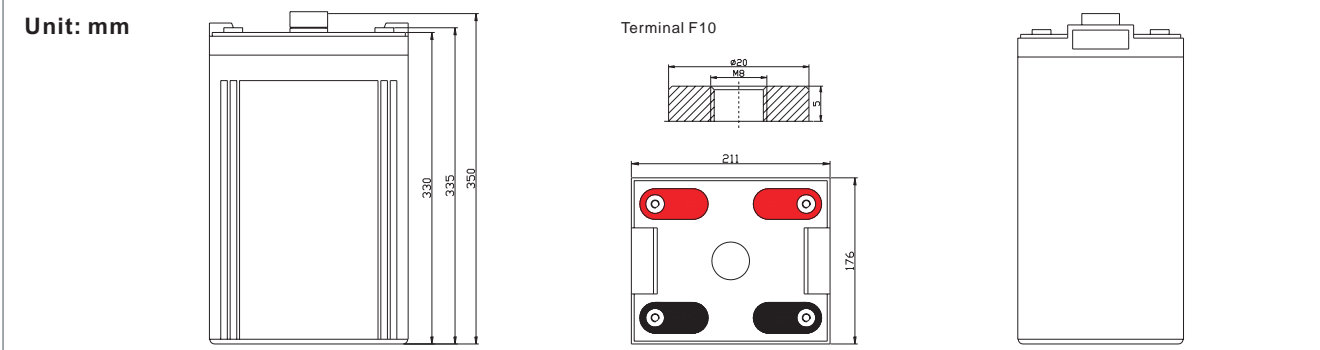
BTL 2-400 is a general purpose battery with 10~15 years expected life under normal float charge, As with all EFFEKTA batteries, all are rechargeable, highly efficient, leak proof and maintenance free.

Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	400Ah @ 10hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 28Kg
Max. Discharge Current	2000A(5sec)
Internal Resistance	Approx. 0.7mΩ
Operating Temperature Range	Discharge: -20°C~50°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	2.25 to 2.30 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	100A
Equalization and Cycle Service	2.40 to 2.45 VDC/unit Average at 25°C
Self Discharge	EFFEKTA batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Thread insert & Bolt (F10)
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.



Dimensions



Constant Current Discharge Characteristics Unit: A(25°C)

F.V/Time	5MIN	10MIN	30MIN	1HR	2HR	3HR	5HR	10HR	12HR	24HR
1.60V	1091	848	440	279	168	127	82.8	42.8	36.0	18.8
1.65V	970	784	428	275	164	123	78.8	42.6	36.0	18.8
1.70V	889	727	408	263	160	117	74.7	42.4	36.0	18.2
1.75V	818	673	396	257	153	110	74.3	42.2	35.6	18.2
1.80V	723	614	382	242	147	109	72.5	40.4	34.3	18.2
1.85V	533	477	311	200	133	101	66.3	38.2	32.7	17.8

Constant Power Discharge Characteristics Unit: W(25°C)

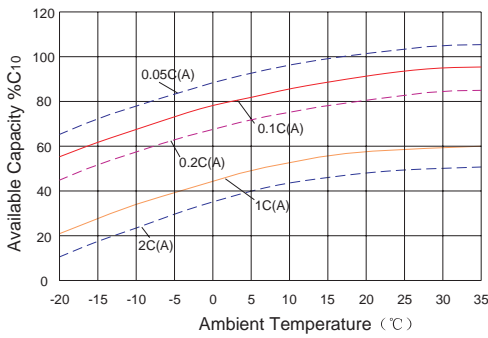
F.V/Time	5MIN	10MIN	30MIN	1HR	2HR	3HR	5HR	10HR	12HR	24HR
1.60V	1783	1439	822	523	322	231	153	83.4	70.4	36.6
1.65V	1650	1353	1387	513	310	227	150	83.4	70.4	36.6
1.70V	1542	1254	748	496	299	219	147	80.4	67.3	36.2
1.75V	1423	1198	724	484	293	211	143	80.0	67.3	36.2
1.80V	1290	1099	623	420	283	209	141	79.2	67.3	36.2
1.85V	989	886	607	390	257	195	129	74.4	64.3	34.2

All mentioned values are average values.

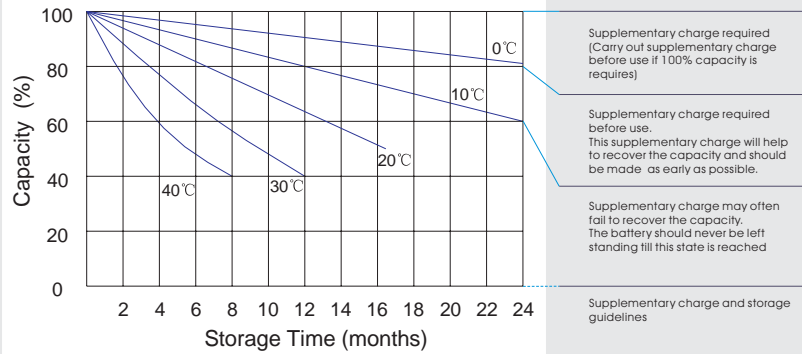
BTL 2-400

2V400Ah

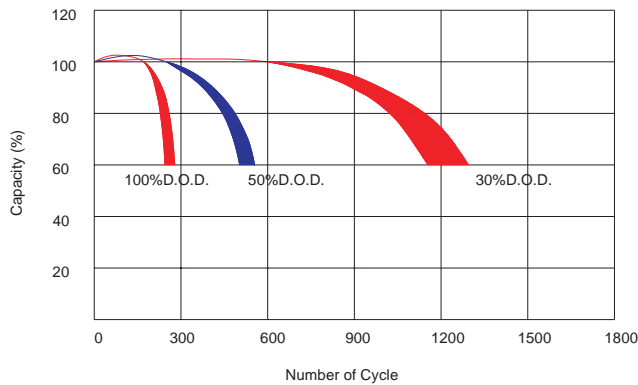
Temperature effects curve



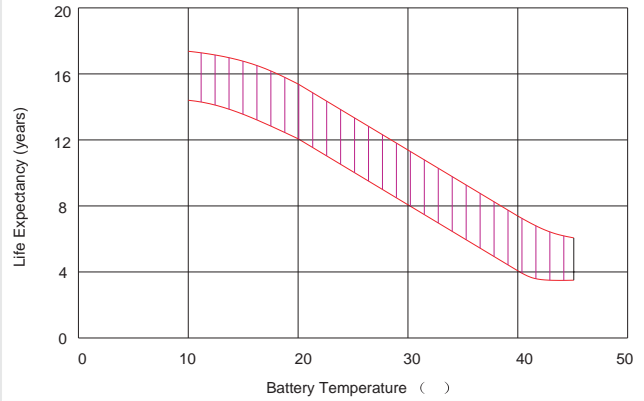
Storage characteristic



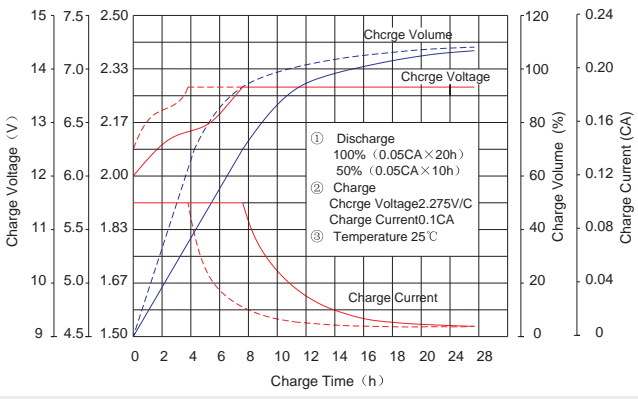
Life characteristics of cyclic use



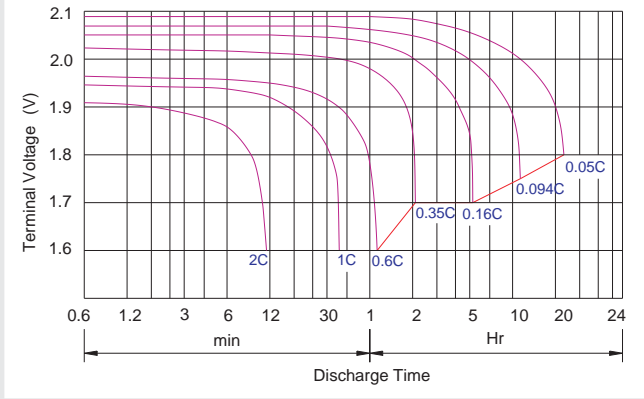
Effect of temperature on long term float life



Charge characteristic Curve for standby use



Discharge characteristic Curve



Charging Procedures(12V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4~15.0	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	2.25~2.50V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA × 5h
Fast	0.3CA × 1.7h

Charging Procedures(2V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	2.275	2.25~2.30	0.3C
Standby	25°C	2.425	2.4~2.45	0.3C