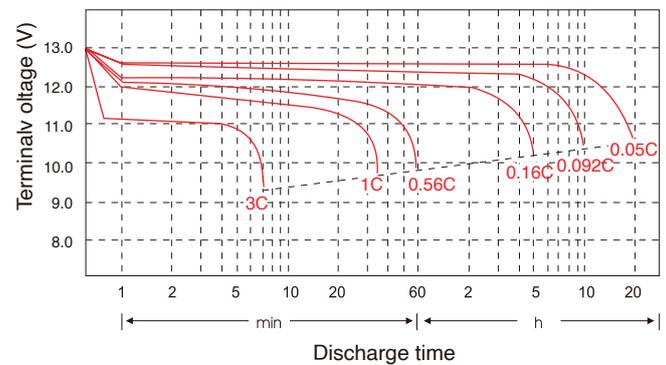


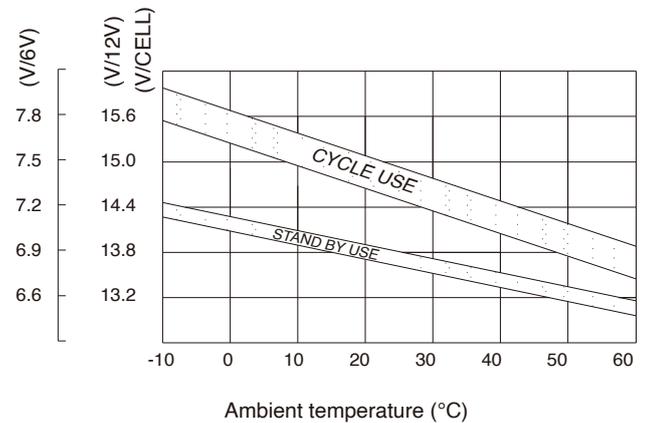
Specifications

Nominal Voltage		12V
Capacity (25°C)	20HR (10.5V)	2.3Ah
	10HR (10.5V)	2.1Ah
	1HR (9.60V)	1.5Ah
Dimensions	Length	178 ± 1mm (7.01inch)
	Width	35 ± 1mm (1.38inch)
	Height	61 ± 1mm (2.40inch)
	Total Height	67 ± 1mm (2.64inch)
Approx. Weight		0.99kg (2.18lbs) ± 5%
Terminal type		T1
Internal resistance (Fully charged, 25°C)		Approx. 60 mΩ
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25°C ± 3°C (77°F ± 5°F)
Operating temperature range	Discharge	-15°C ~ 50°C (5°F ~ 122°F)
	Charge	-10°C ~ 50°C (14°F ~ 122°F)
	Storage	-20°C ~ 50°C (-4°F ~ 122°F)
Floating charging voltage (25°C)		13.60 to 13.80V Temperature compensation: -18mV/°C
Cycling charging current		14.50 to 14.90V Temperature compensation: -30mV/°C
Maximum charging current		0.69A
Terminal material		Copper
Maximum discharging current		34.5A (5sec.)
Design floating life (20°C)		10 years

Discharge Characteristics (25°C)



The Relationship for Charging Voltage and temperature



Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	8.74	5.52	4.37	2.44	1.50	0.82	0.59	0.47	0.40	0.22	0.117
9.90V	8.48	5.35	4.27	2.39	1.47	0.81	0.58	0.47	0.40	0.22	0.116
10.2V	8.13	5.13	4.11	2.32	1.44	0.81	0.58	0.46	0.39	0.22	0.116
10.5V	7.78	4.91	3.97	2.26	1.41	0.79	0.58	0.46	0.39	0.21	0.115
10.8V	7.34	4.64	3.76	2.18	1.36	0.77	0.56	0.45	0.38	0.21	0.113

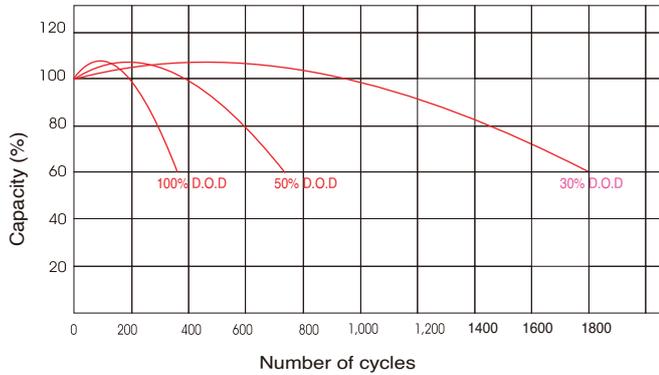
Constant Current Discharge Characteristics (Watt, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	97.5	62.3	49.8	27.9	17.3	9.56	6.97	5.59	4.76	2.61	1.40
9.90V	94.6	60.4	48.6	27.4	17.1	9.50	6.93	5.56	4.73	2.60	1.40
10.2V	90.7	57.9	46.8	26.5	16.6	9.42	6.88	5.52	4.70	2.58	1.39
10.5V	86.8	55.4	45.2	25.9	16.3	9.28	6.83	5.48	4.67	2.57	1.38
10.8V	81.9	52.3	42.8	24.9	15.8	9.04	6.63	5.31	4.53	2.52	1.35

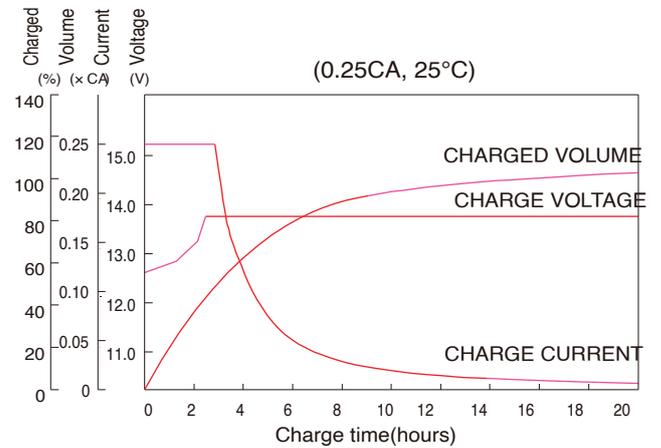
Note: The above characteristics data can be obtained within three charge/discharge cycles.

The operating environment temperature above 40°C should be avoided, After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles. To get the longest life, ICAL battery should be fully charged before storage.

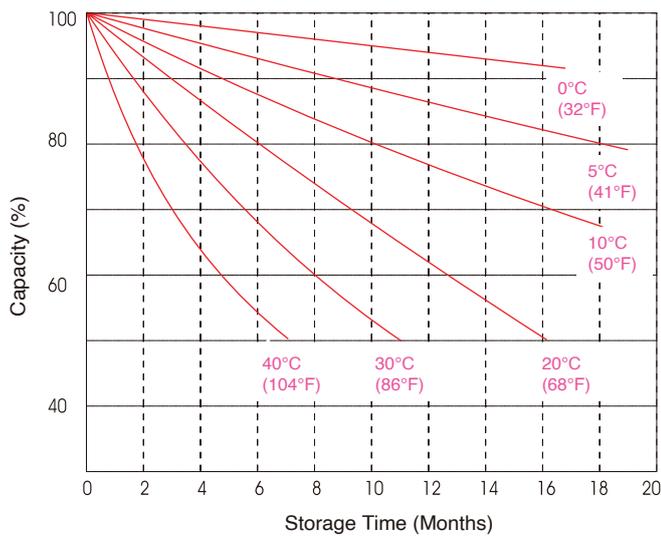
■ Cycle service life in relation to depth of discharge



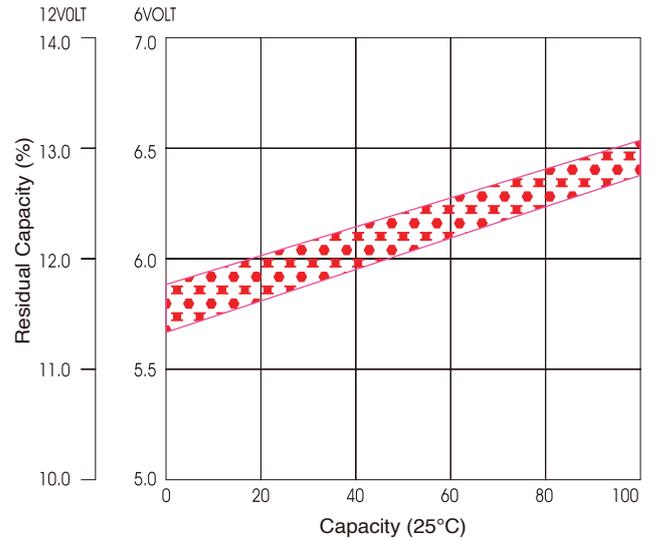
■ Constant voltage charge characteristic



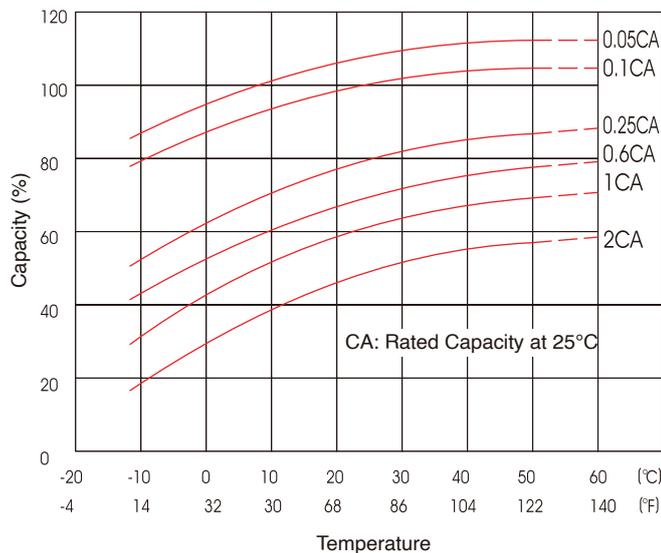
■ Self-Discharge Characteristics



■ Relationship of OCV and Residual Capacity % (25°C)



■ Temperature effects on capacity



■ Temperature effects float life

