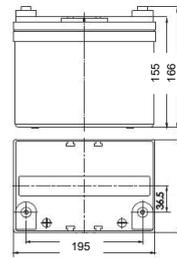
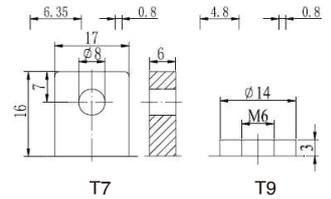




Dimensions



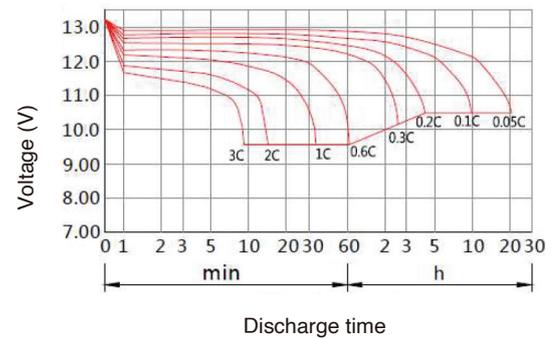
Terminal



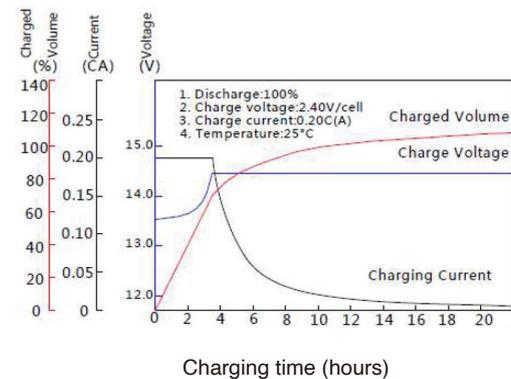
Specifications

Nominal Voltage		12V
Capacity (25°C)	10HR (10.5V)	33Ah
	5HR (10.5V)	28.9Ah
	1HR (9.60V)	20.5Ah
Dimensions	Length	195 ± 2mm (7.68inch)
	Width	130 ± 1mm (5.12inch)
	Height	155 ± 2mm (6.10inch)
	Total Height	T7: 180 ± 2mm (7.09inch) T9: 166 ± 2mm (6.54inch)
Approx. Weight		9.2kg (20.3lbs) ± 4%
Terminal type		T7/T9
Internal resistance (Fully charged, 25°C)		Approx. 10mΩ
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		9.9A
Terminal material		T7: Lead, T9: Copper
Maximum discharging current		330A (5sec.)
Design floating life (20°C)		12 years

Discharge Characteristics (25°C)



Charging Characteristics (25°C)



Constant Current Discharge Characteristics (A, 25°C)

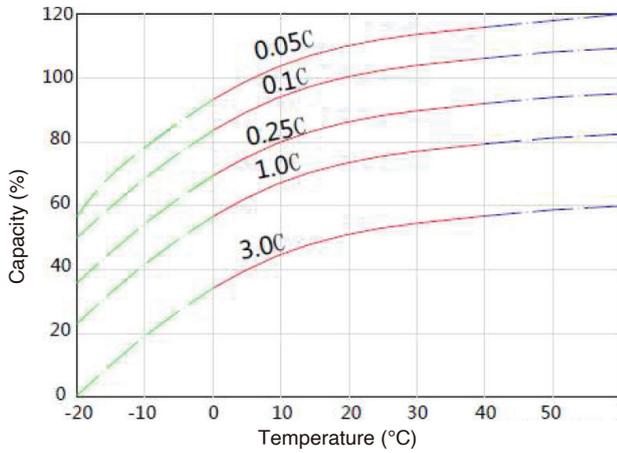
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	69.3	54.5	33.0	20.5	12.1	8.42	6.90	5.89	4.04	3.36	1.76
9.90V	67.2	53.1	32.3	20.2	12.0	8.37	6.86	5.86	4.02	3.35	1.76
10.2V	64.4	51.2	31.4	19.6	11.9	8.31	6.81	5.82	3.99	3.34	1.76
10.5V	61.7	49.4	30.6	19.3	11.7	8.25	6.77	5.78	3.96	3.32	1.74
10.8V	58.2	46.8	29.5	18.7	11.4	8.00	6.56	5.60	3.84	3.30	1.73

Constant Current Discharge Characteristics (Watt, 25°C)

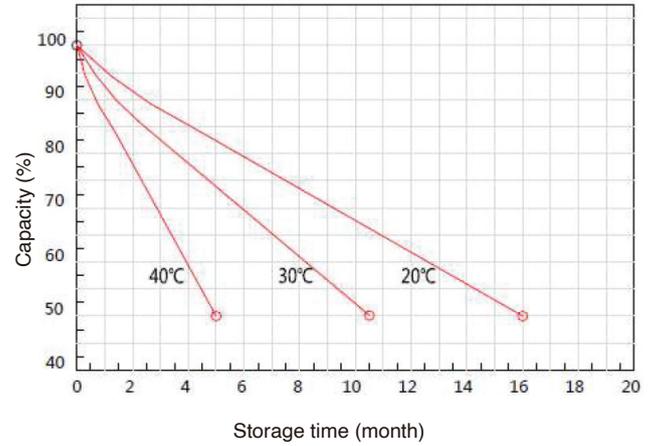
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	748	598	370	233	140	99.0	81.1	69.9	48.0	40.1	21.2
9.90V	726	584	363	230	139	98.4	80.7	69.2	47.7	40.0	21.1
10.2V	696	562	352	224	138	97.7	80.1	68.7	47.4	39.9	21.1
10.5V	666	543	343	219	136	97.0	79.6	68.3	47.0	39.7	20.9
10.8V	629	514	331	213	132	94.1	77.2	66.2	45.6	39.4	20.8

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

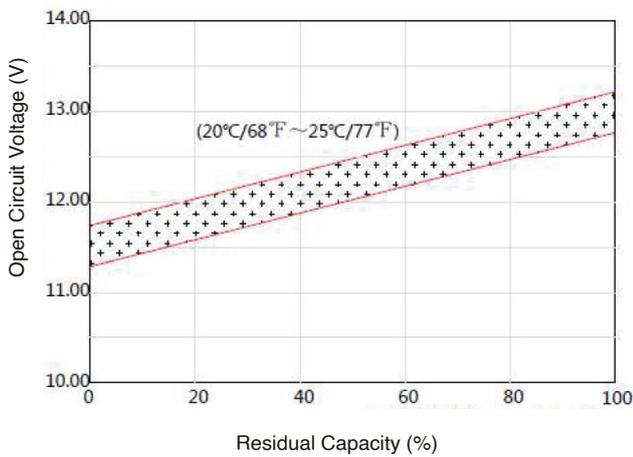
Effect of Temperature on Capacity



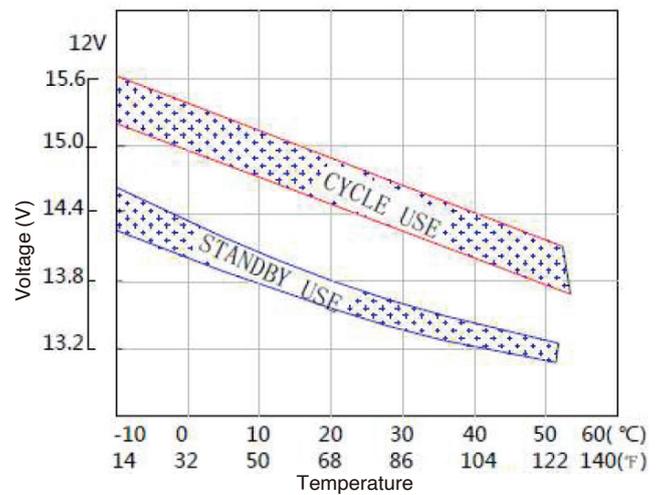
Self-discharge Characteristic



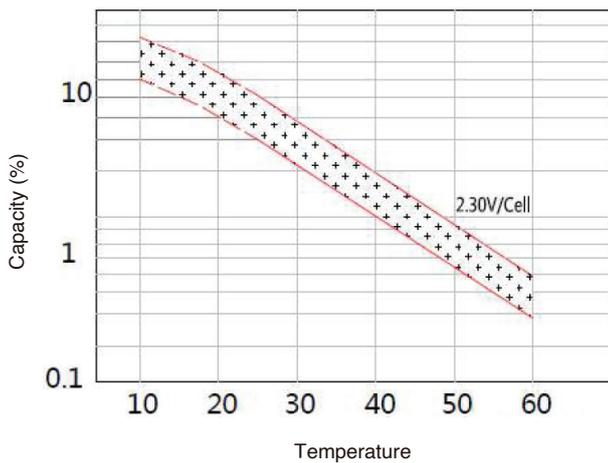
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



The Relationship for Charging Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D (25°C)

