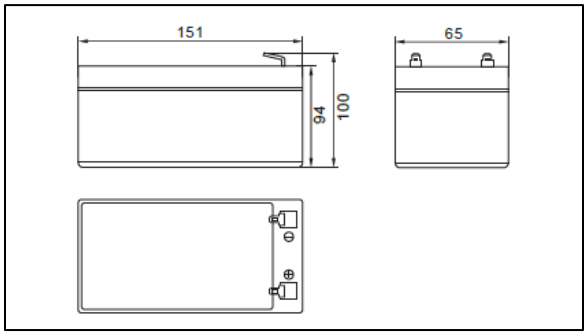
R&D Batteries, Inc.

5390

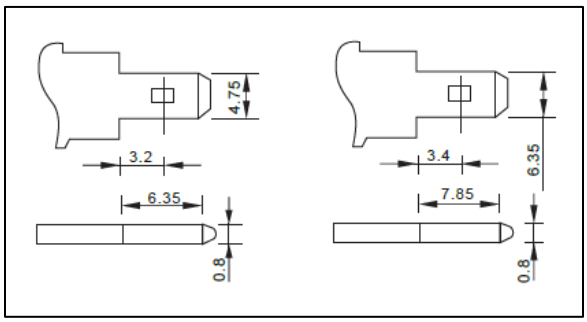
Specifications

Nominal Voltage	12V
Rated Capacity (20-hour rate)	7Ah
Dimensions	
Length	151±1.5mm (5.94inch)
Width	65±1mm (2.56inch)
Height	94±1mm (3.70inch)
Total Height	100±1mm (3.94inch)
Approximate Weight	2.1kg (4.63lbs)±4%

Outer Dimensions



Terminal Type



Characteristics

Capacity (25°C)	
20HR (10.5V)	7Ah
10HR (10.5V)	6.5Ah
1HR (9.60V)	4.2Ah
Terminal Type	F1
Internal Resistance	Approx. 25m Ω
Capacity affected by temperature (20HR)	
40°C	102%
25°C	100%
0°C	85%
-15°C	65%
Self-Discharge (25°C)	
3 months	Remaining Capacity: 91%
6 months	Remaining Capacity: 82%
12 months	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)
Float charging voltage (25°C)	13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage (25°C)	14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current	2.1A
Maximum discharge current	105A (5 sec.)
Designed Floating Life (20°C)	5 years

Construction

Component	Positive Plate	Negative Plate	Container	Cover	Separator	Electrolyte	Safety Valve	Terminal
Raw Material	Lead Dioxide	Lead	ABS	ABS	AGM	Sulfuric Acid	Rubber	Copper

Constant Current Discharge Characteristics

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	26.7	16.9	13.2	7.46	4.59	2.51	1.74	1.44	1.22	0.66	0.36
9.90V	25.9	16.4	12.9	7.31	4.52	2.49	1.72	1.43	1.21	0.66	0.35
10.2V	24.9	15.8	12.4	7.08	4.40	2.47	1.71	1.42	1.21	0.66	0.35
10.5V	23.8	15.1	12.0	6.91	4.31	2.43	1.70	1.41	1.20	0.65	0.35
10.8V	22.5	14.2	11.4	6.66	4.18	2.37	1.65	1.36	1.16	0.64	0.34

Constant Power Discharge Characteristics

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	298	191	151	85.4	53.1	29.3	20.6	17.1	14.6	7.95	4.26
9.90V	289	185	147	83.7	52.3	29.2	20.5	17.0	14.5	7.92	4.25
10.2V	278	178	142	81.2	51.0	28.9	20.3	16.9	14.4	7.88	4.23
10.5V	266	170	137	79.2	50.0	28.5	20.2	16.8	14.3	7.84	4.20
10.8V	251	161	130	76.3	48.4	27.8	19.6	16.3	13.9	7.68	4.12

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

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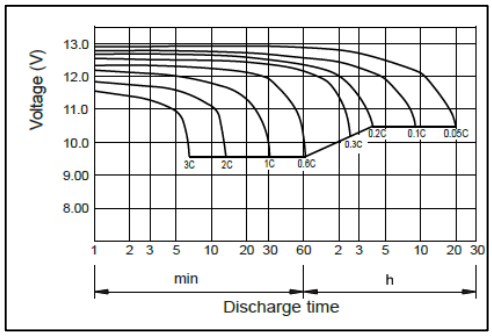
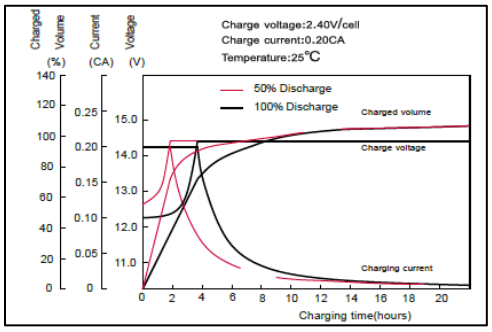
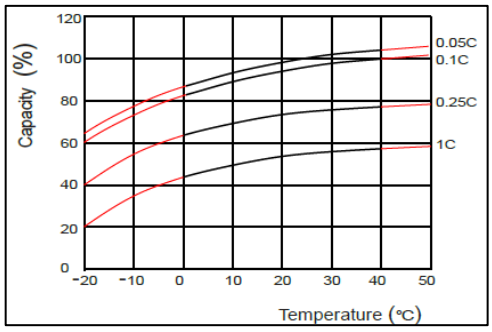
Discharge Characteristics



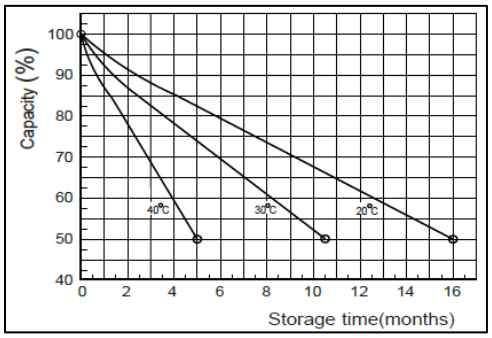
Charging Characteristics



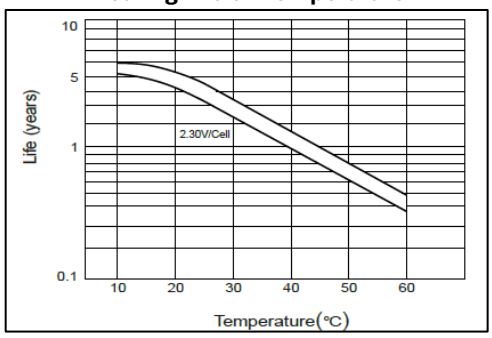
Effect of Temperature on Capacity



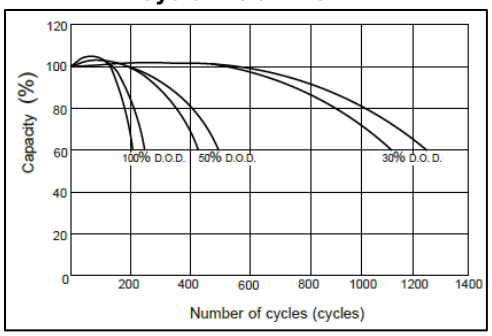
Self-discharge Characteristics



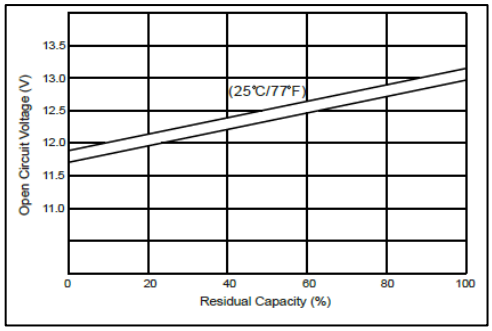
Floating Life on Temperature



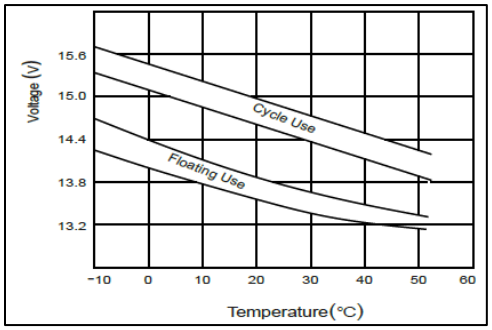
Cycle Life on D.O.D



Relationship for OCV and Capacity



Relationship for Charging voltage and Temperature



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Quality Management ISO 13485 DEKRA certified