

Qoltec®

Product name: Gel Battery

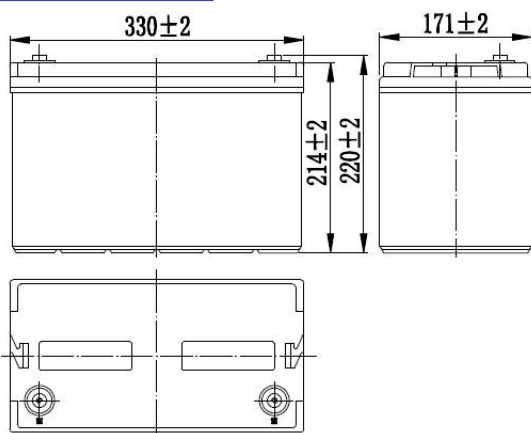
Trade name: Gel battery | 12V | 100Ah

Model: 53080

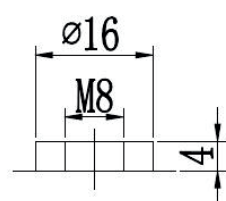
● Specification

Nominal Voltage		12 V
Rated capacity(20HR)		100Ah
Dimension	Length	330±2mm (12.99inch)
	Width	171±2mm (6.73inch)
	Height	214±2mm (8.43inch)
	Total Height	220±2mm (8.66inch)
Approx. Weight		28.5kg (62.8lbs) ±3%

● Dimensions



● Terminal



● Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper

● Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	185	152	92.2	57.0	34.7	24.7	19.4	16.5	11.6	9.67	5.13
9.90V	180	148	90.3	56.1	34.5	24.6	19.3	16.4	11.6	9.65	5.12
10.2V	172	143	87.5	54.7	34.2	24.4	19.1	16.3	11.5	9.62	5.10
10.5V	165	138	85.4	53.0	33.7	24.2	19.0	16.2	11.4	9.57	5.07
10.8V	156	131	82.3	51.3	32.8	23.7	18.4	15.7	11.1	9.50	5.04

● Constant Power Discharge Characteristics (Watt, 25°C)

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2001	1669	1034	650	402	291	228	195	138	115	61.5
9.90V	1941	1629	1013	640	400	289	227	194	137	115	61.4
10.2V	1861	1569	982	624	396	287	225	192	136	115	61.2
10.5V	1781	1515	958	604	390	285	223	191	135	114	60.8
10.8V	1681	1435	923	585	380	279	217	185	131	113	60.4

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

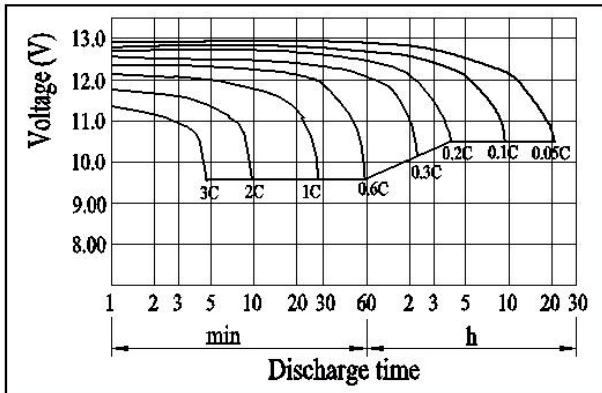
Discharge Characteristics(25°C)



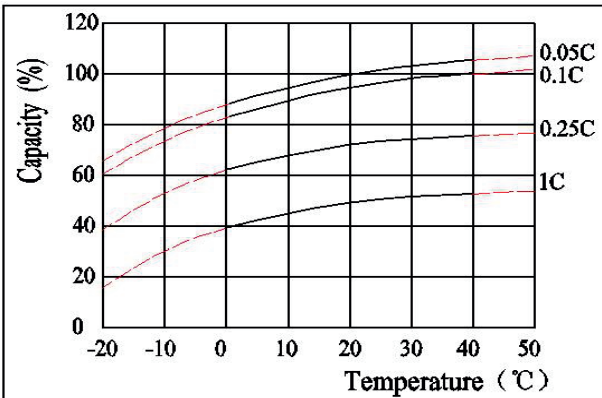
● Characteristics

Capacity (25°C)	20HR(10.5V)	100 Ah
	10HR(10.5V)	95Ah
	1HR(9.60V)	57Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 5.3m
Capacity affected by temperature (10HR)	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)
Float charging voltage (25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.40 to 14.70V Temperature compensation: -30mV/°C
Maximum charging current		20A
Terminal material		Copper
Maximum discharge current		800A(5 sec.)
Designed floating life (20°C)		12 years

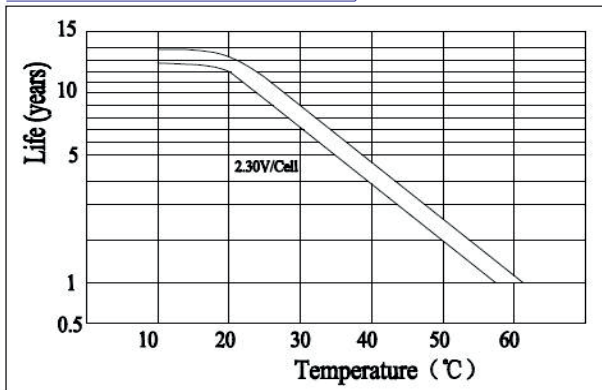
Discharging Characteristics(25°C)



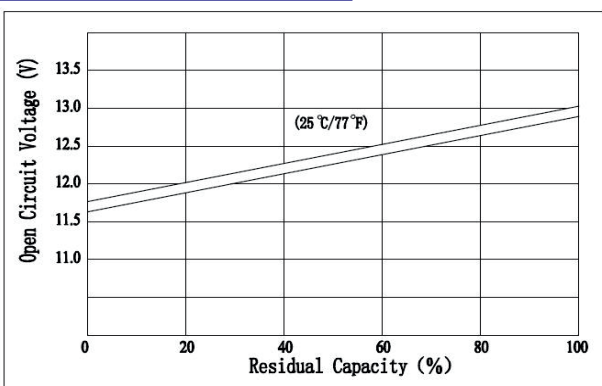
Effect of Temperature on Capacity



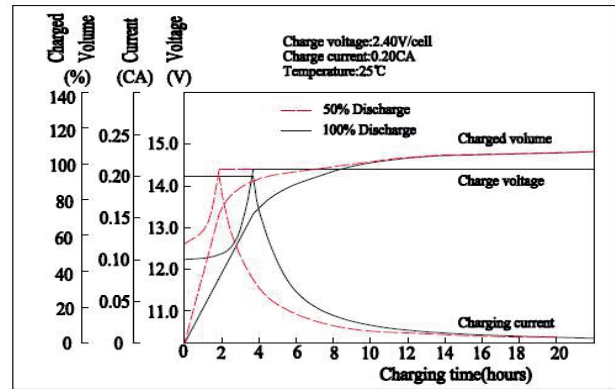
Floating Life on Temperature



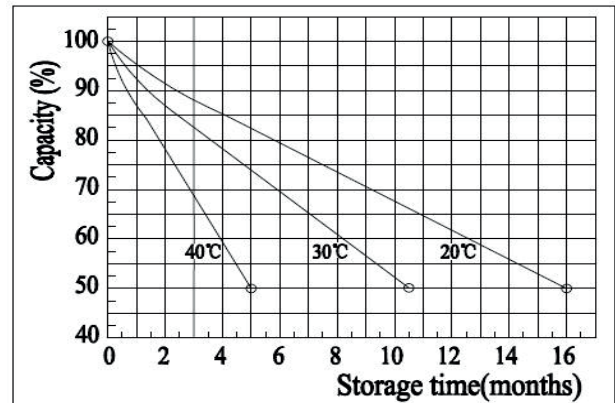
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



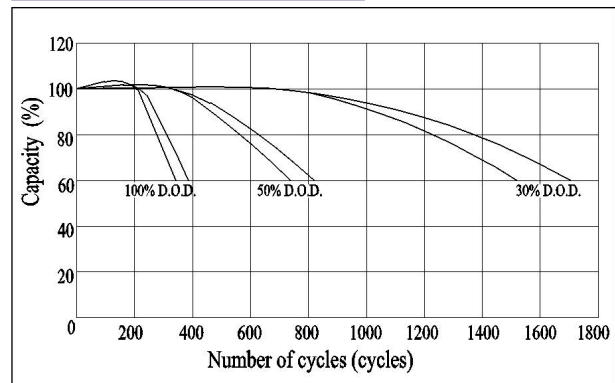
Charging Characteristics(25°C)



Self-discharge Characteristics



Cycle Life on D.O.D(25°C)



The Relationship for Charging Voltage and Temperature

