

Qoltec®

Product name: Gel Battery

Trade name: Gel battery | 12V | 120Ah

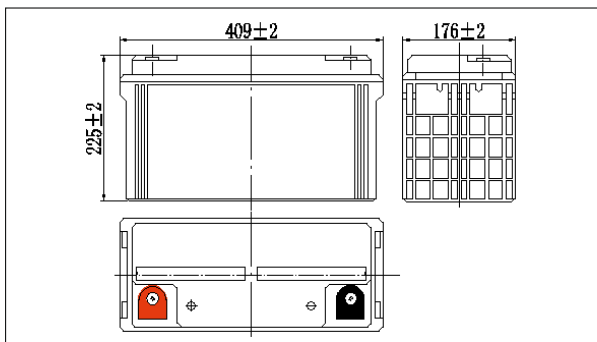
Model: 53081

● Specifications

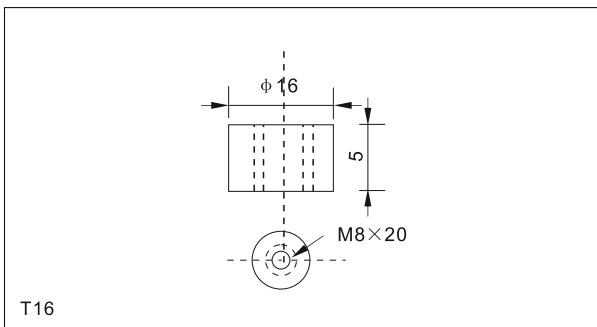
Nominal Voltage		12V
Rated capacity (10 hour rate)		120Ah
Dimensions	Length	409±2mm(16.10inch)
	Width	176±2mm(6.93inch)
	Height	225±2mm(8.86inch)
	Total Height	225±2mm(8.86inch)
Approx. Weight		34.8kg(79.4lbs)±3%



● Outer dimensions (mm)



● Terminal Type (mm)



● Characteristics

Capacity (25°C)	10HR(10.8V)	120Ah
	3HR(10.8V)	90Ah
	1HR(10.5V)	66Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4.5m Ω
Capacity affected by temperature (10HR)	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)		14.40 to 14.70V Temperature compensation: -30mV/°C
Maximum charging current		24A
Maximum discharge current		950A (5 sec.)
Designed floating life (20°C)		10 years

● 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 Unit: A(25°C, 77°F)

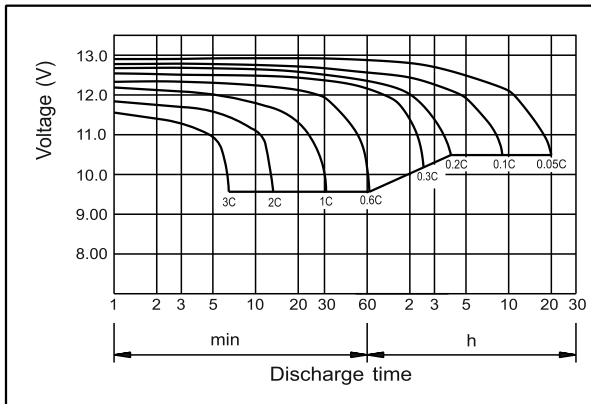
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	232	190	115	71.3	43.4	30.9	24.2	20.6	14.5	12.1	6.41
9.90V	225	186	113	70.2	43.2	30.7	24.1	20.5	14.5	12.1	6.40
10.2V	215	179	109	68.4	42.8	30.5	23.9	20.3	14.4	12.0	6.38
10.5V	206	173	107	66.3	42.1	30.3	23.8	20.2	14.3	12.0	6.34
10.8V	195	163	103	64.2	41.1	29.7	23.0	19.6	13.8	11.9	6.30

● Constant Power Discharge Characteristics Unit: W(25°C, 77°F)

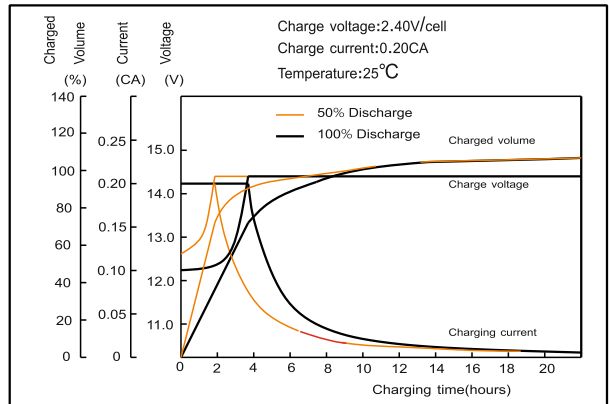
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2502	2087	1293	813	503	363	285	243	173	144	76.9
9.90V	2427	2037	1267	800	500	361	283	242	172	144	76.8
10.2V	2327	1962	1228	780	495	359	281	240	171	144	76.5
10.5V	2227	1895	1199	756	488	356	279	239	169	143	76.1
10.8V	2102	1795	1155	731	475	349	271	232	164	142	75.6

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

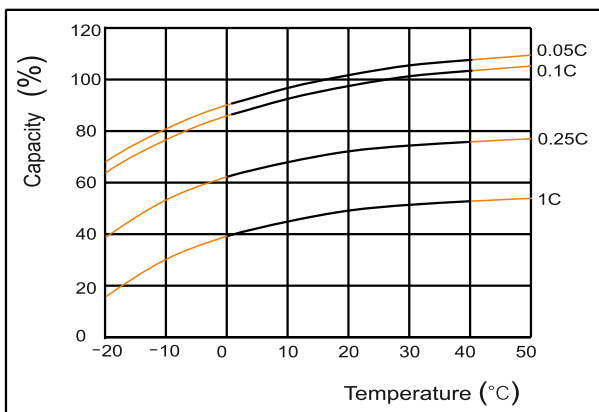
● Discharge characteristics(25°C)



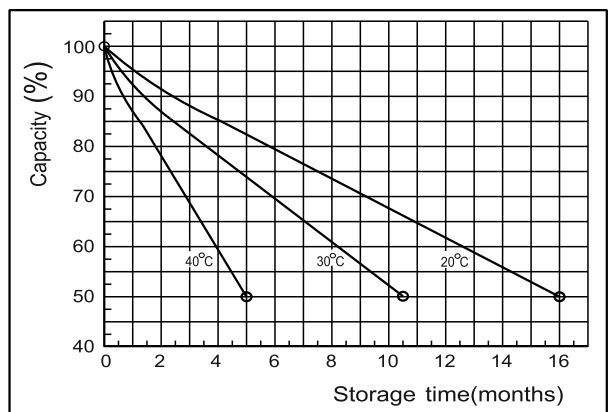
● Charging characteristics (25°C)



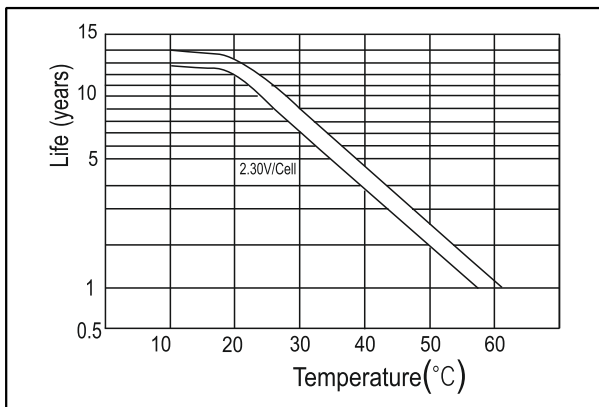
● Temperature effects on Capacity



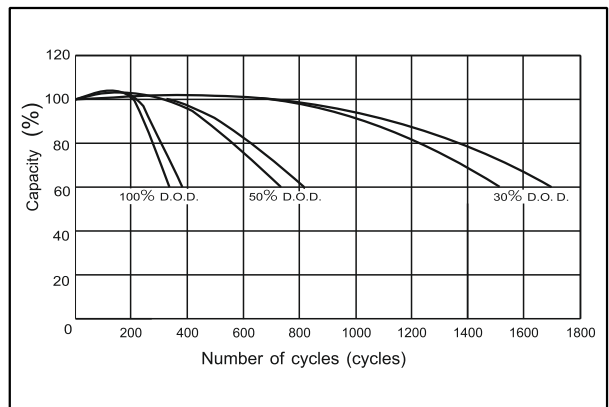
● Self-discharge characteristics



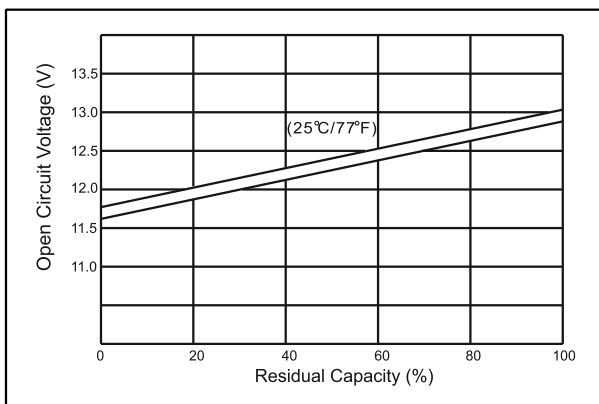
● Floating life on Temperature



● Cycle life on D.O.D (25°C)



● The relationship for OCV and Capacity (25°C)



● The relationship for Charging voltage and Temperature

