



# ELECTRIC VEHICLE BATTERY

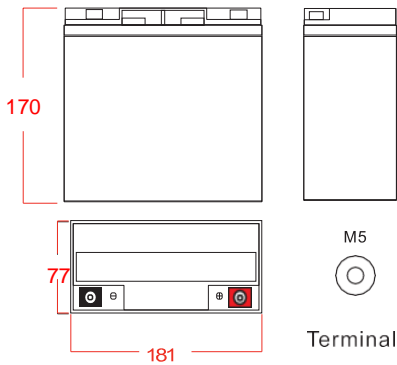
## 6-DZF-20 12V20Ah

### ● Specification

Nominal Voltage		12V
Rated capacity (2 hour rate)		20Ah
Dimensions	Length	181mm
	Width	77mm
	Height	170mm
	Total Height	170mm
Approx. Weight		5.8kg



### ● Outer dimension (mm)



### ● Characteristic

Capacity (25°C)	10HR(10.5V)	25Ah
	2HR(10.5V)	20Ah
	1HR(9.60V)	17.4Ah
Terminal type		M5
Internal resistance (Fully charged, 25°C)		Approx. 15m Ω
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3month	Remaining Capacity: 91%
	6month	Remaining Capacity: 82%
	12month	Remaining Capacity: 65%
Nominal operating temperature		25°C
Operating temperature range	Discharge	-15°C~50°C
	Charge	-10°C~50°C
	Storage	-20°C~50°C
Float charging voltage (25°C)		13.70 to 13.90V Temperature compensation: -18mV/°C
Cyclic charging voltage (25°C)		14.70 to 14.90V Temperature compensation: -30mV/°C
Maximum charging current		3.0A
Maximum discharge current		180A (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 Characteristic Unit:A(25°C)

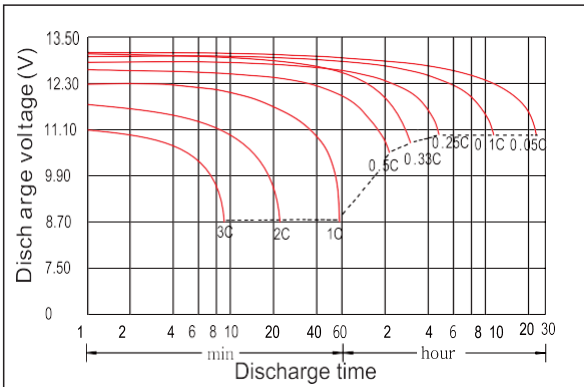
F.V/Time	5min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	93.6	50.3	30.6	17.9	10.3	7.60	5.00	3.20	2.63	1.38
9.90V	90.8	48.8	30.1	17.8	10.2	7.52	4.95	3.18	2.61	1.37
10.2V	87.1	47.7	29.5	17.7	10.1	7.42	4.89	3.15	2.58	1.37
10.5V	80.1	46.2	29.3	17.4	10.0	7.34	4.84	3.13	2.53	1.36
10.8V	71.8	43.0	28.0	16.9	9.79	7.28	4.71	3.10	2.45	1.35

### ● Constant Power Discharge Characteristic Unit:W(25°C)

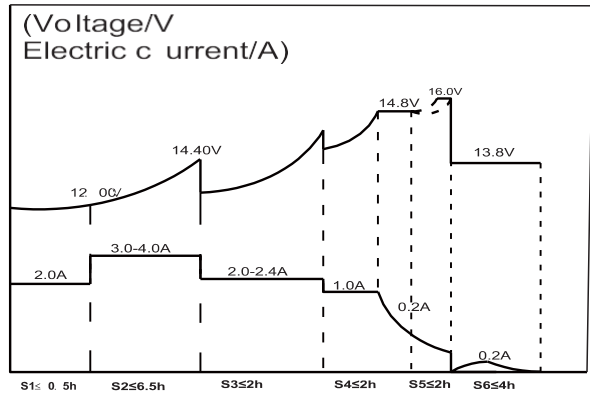
F.V/Time	5min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	157	88.6	55.3	33.8	19.4	14.5	9.48	6.23	5.06	2.73
9.90V	151	87.0	54.8	33.6	19.3	14.3	9.42	6.17	5.01	2.72
10.2V	150	86.0	54.8	33.3	19.3	14.2	9.35	6.15	4.96	2.71
10.5V	140	85.5	54.6	33.0	19.2	14.1	9.29	6.10	4.91	2.69
10.8V	129	80.8	53.3	32.8	19.1	14.1	9.19	6.05	4.86	2.68

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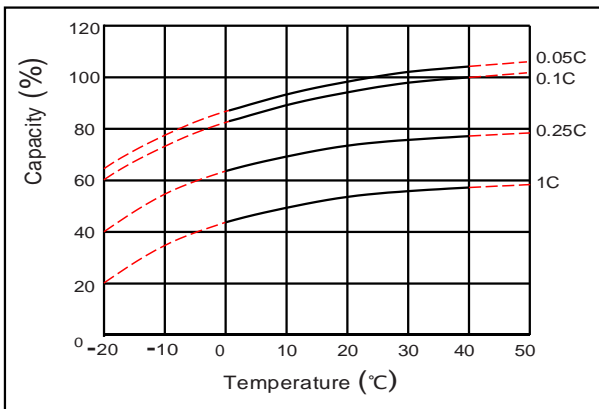
### Discharge characteristics(25°C)



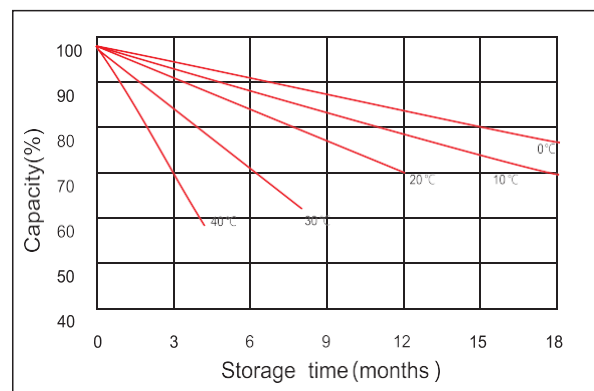
### Charging characteristics (25°C)



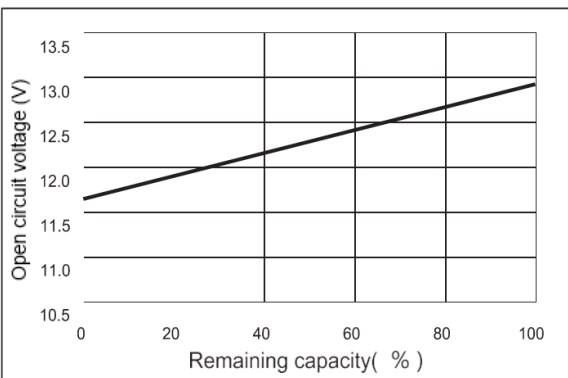
### Effect of temperature on capacity



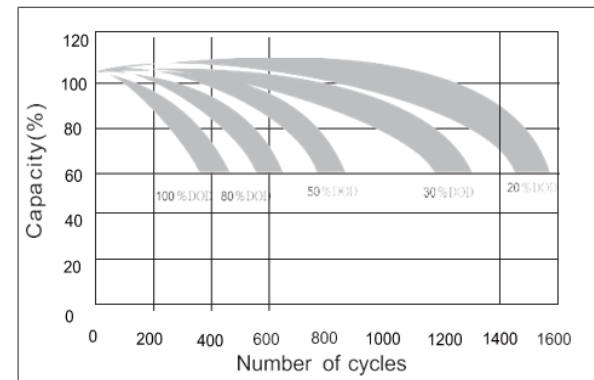
### Self-discharge characteristics



### Effect of open circuit voltage on capacity



### Cycle life on D.O.D(25°C)



MH47211