

MVG 12220M5

Valve-regulated lead-acid battery



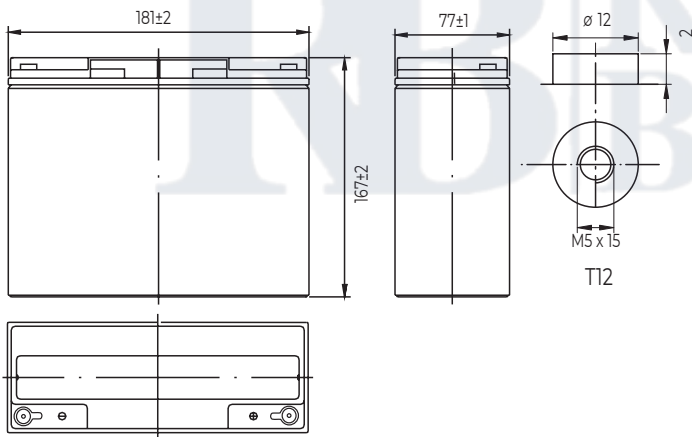
Deep Cycle Gel



SPECIFICATIONS

Nominal voltage	12V (6 cells per unit)	
Nominal capacity at 20 hours rate/10.5V (25°C)	20Ah	
Capacity (25°C)	10 Hours rate/10.8V	17.9Ah
	5 Hours rate/10.8V	16Ah
Terminal type	T12/T3	
Torque	3.0±0.6N.m	
Approx. internal resistance (25°C)	13.0mΩ	
Dimensions	Length	181±2mm (7.13inch)
	Width	77±1mm (3.03inch)
	Height	167±2mm (6.57inch)
	Total height	167±2mm (6.57inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	5.80kg (12.79lbs)±4%	
Nominal operating temperature	25±3°C (77°F±5)	
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 at 25°C	13.5V~13.8V	
Cyclic charging voltage at 25°C	14.4V~14.7V	
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)	4.0A	
Max. discharge current for 5 seconds	300A	
Self discharge rate (25°C)	≤3%/month	
Battery container ABS UL94-HB	V-0 optional	

DIMENSIONS AND TERMINAL



CONSTRUCTION

Component	Positive Plate	Negative plate	Container	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS (V-0 opt.)	AGM	Sulfuric Acid Gel	Rubber	Copper

CONSTANT CURRENT DISCHARGE CHARACTERISTICS AT 25°C

Ampere

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	61.6	42.0	35.0	20.4	12.4	7.00	4.94	4.00	3.37	1.86	1.02
9.90V	59.8	40.7	34.2	20.0	12.2	6.96	4.91	3.97	3.35	1.85	1.01
10.2V	57.3	39.1	32.9	19.4	11.9	6.90	4.87	3.95	3.32	1.84	1.01
10.5V	54.8	37.4	31.8	18.9	11.7	6.80	4.84	3.92	3.30	1.83	1.00
10.8V	51.7	35.3	30.1	18.2	11.3	6.62	4.69	3.80	3.20	1.79	0.98

CONSTANT POWER DISCHARGE CHARACTERISTICS AT 25°C

Watts

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	687	474	399	234	144	81.9	58.6	47.6	40.2	22.3	12.2
9.90V	667	460	389	229	141	81.5	58.3	47.3	40.0	22.2	12.1
10.2V	639	441	375	222	138	80.7	57.9	47.0	39.7	22.1	12.1
10.5V	612	422	362	217	135	79.5	57.5	46.7	39.4	22.0	12.0
10.8V	577	398	343	209	131	77.5	55.8	45.3	38.2	21.5	11.8

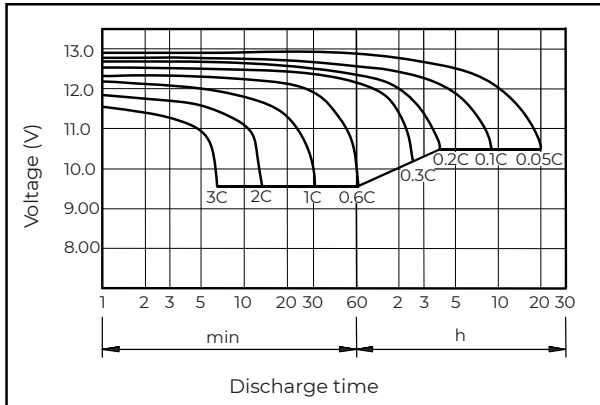
The characteristics mentioned above are based on average values observed over three charge and discharge cycles. It's essential to ensure the batteries are fully charged before conducting tests. Information in this document may change without prior notice and becomes binding only after receiving written confirmation. For the most recent version, kindly reach out to Mundilec.

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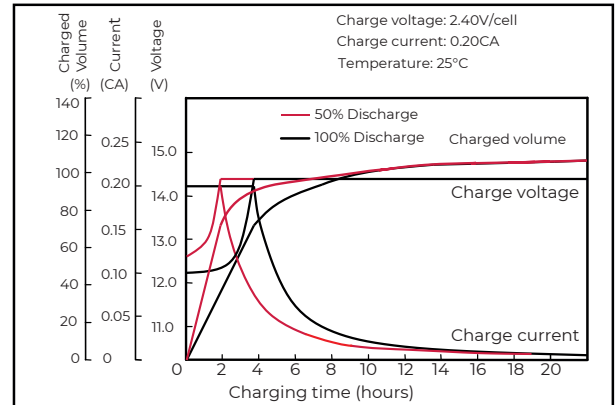
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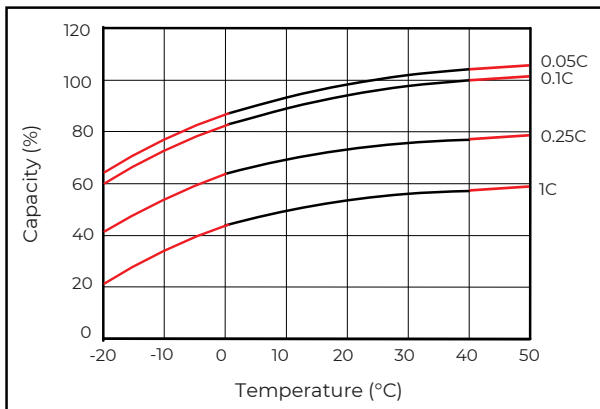
DISCHARGE CHARACTERISTICS AT 25°C



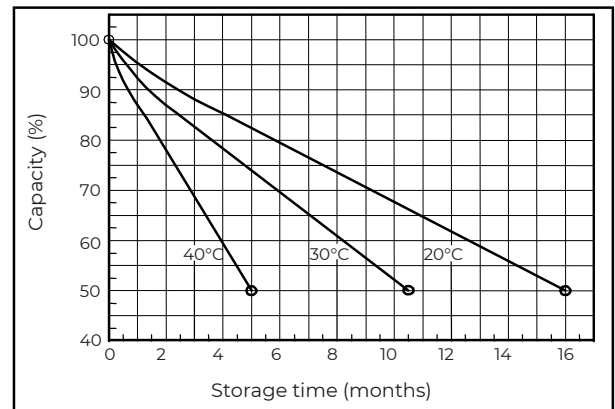
CHARGING CHARACTERISTICS AT 25°C



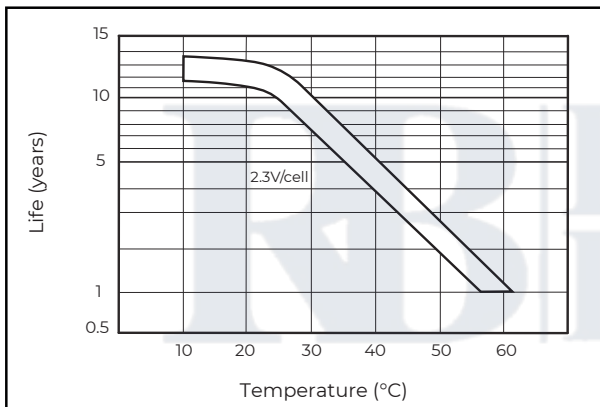
TEMPERATURE EFFECTS ON CAPACITY



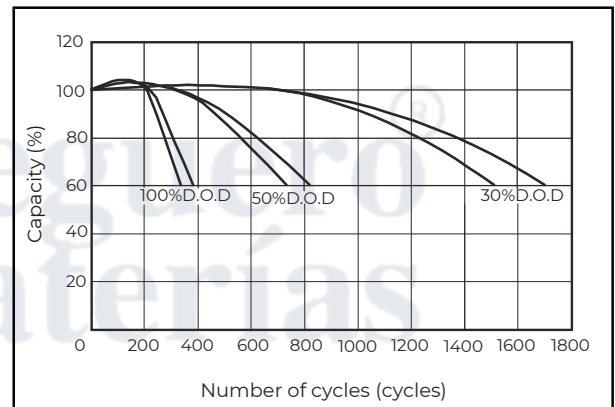
SELF-DISCHARGE CHARACTERISTICS



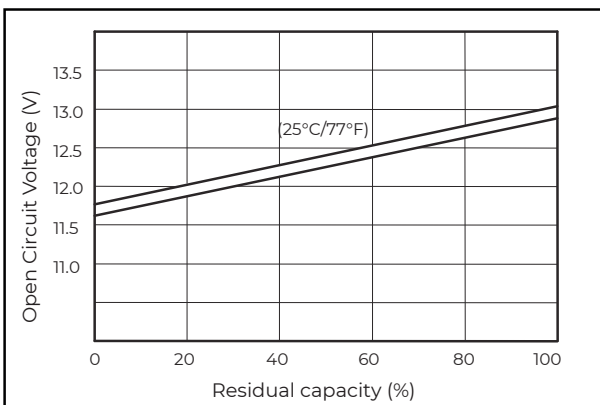
FLOATING LIFE ON TEMPERATURE



CYCLE LIFE ON D.O.D. AT 25°C



OCV VS CAPACITY AT 25°C



CHARGING VOLTAGE VS TEMPERATURE

