



MWLD 40-12

VRLA AGM Battery 12V/40Ah

■ Features:

- VRLA (AGM) technology – maintenance-free
- Dedicated to standby and cyclic operation
- High corrosion resistant performance: Pb-Ca multi-alloy grid

■ Application:

- Emergency power supply (UPS, emergency lighting)
- Telecommunications system



ELECTRICAL SPECIFICATION

Nominal voltage	12V			
Rated capacity	10hr	$C_{20} = 40\text{Ah} \pm 4\%$	$I_{20} = 4.00\text{A}$	$U_{20} = 10.8\text{V}$
	3hr	$C_3 = 32.1\text{Ah} \pm 4\%$	$I_3 = 10.7\text{A}$	$U_3 = 10.8\text{V}$
	1hr	$C_1 = 26.2\text{Ah} \pm 4\%$	$I_1 = 26.2\text{A}$	$U_1 = 10.5\text{V}$

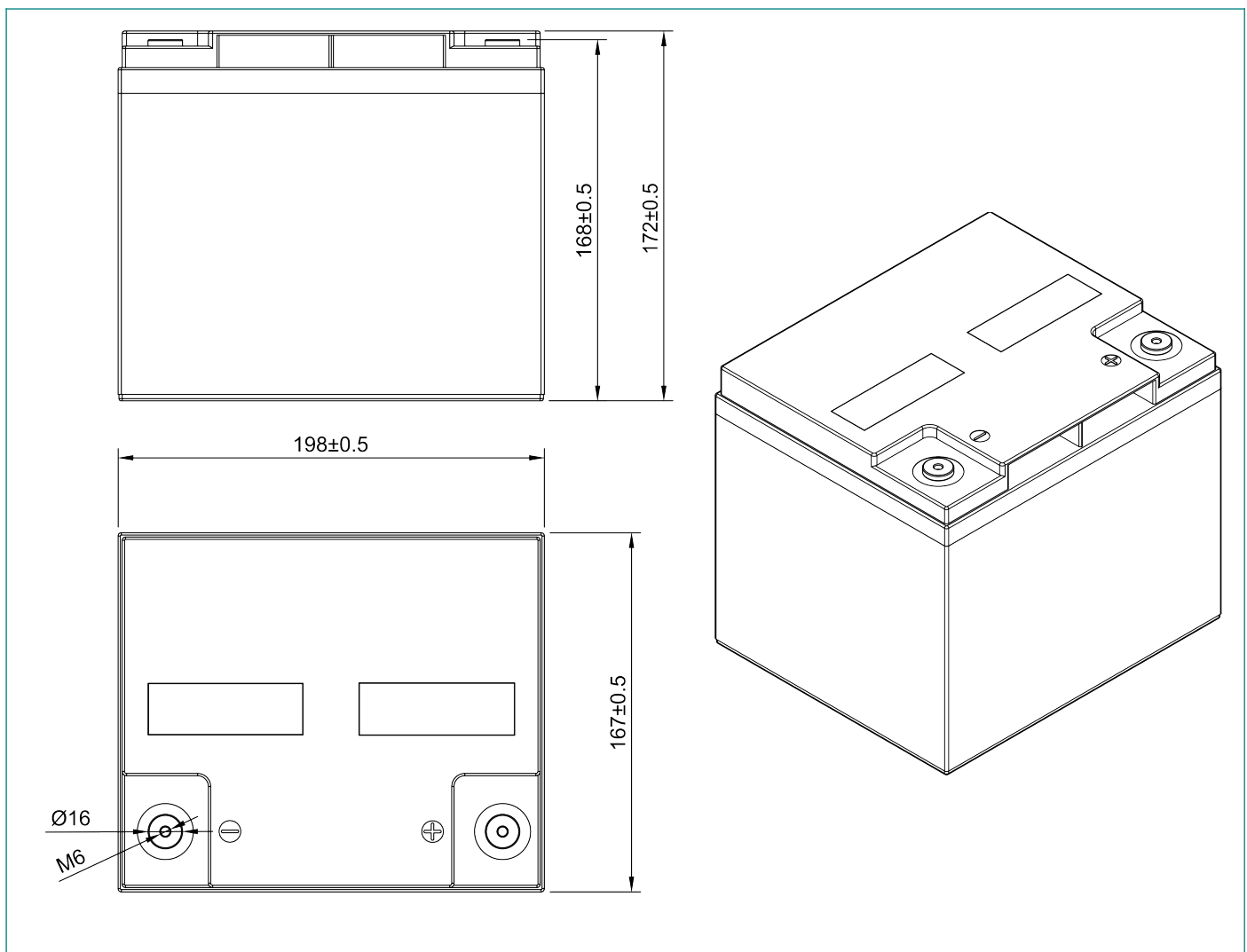
Internal resistance	Fully charged	$< 12.2\text{m}\Omega$
Self-discharge (25°C)	1 month	3%
Float charge	Charge voltage	$13.5 \div 13.8\text{VDC}$, 13.8V (recom.)
	Temperature compensation	-18mV/°C
Cycle charge	Charge voltage	$14.4 \div 15.0\text{VDC}$, 14.7V (recom.)
	Temperature compensation	-30mV/°C
Charge current	10.0A (max.)	4.0A (recom.)
Discharge current (max.)	480A (5s)	

OPERATING TEMPERATURE RANGE

Discharge	$-20^\circ\text{C} \div +50^\circ\text{C}$
Charge	$-20^\circ\text{C} \div +50^\circ\text{C}$
Storage	$-20^\circ\text{C} \div +50^\circ\text{C}$

MECHANICAL SPECIFICATION

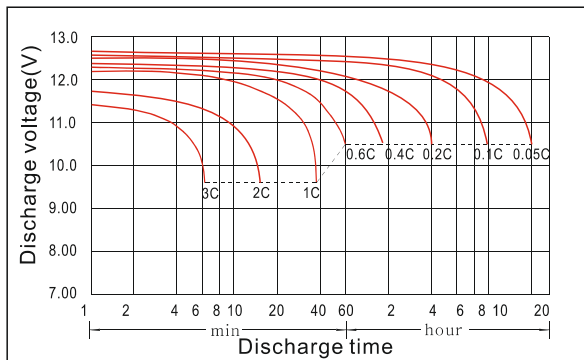
Dimensions (Container ABS)	Length (L)	198 ± 0.5mm
	Width (W)	167 ± 0.5mm
	Height (H1)	168 ± 0.5mm
	Total height (H2)	172 ± 0.5mm
Netto weight	12.5kg (± 5%)	
Terminal	M6	



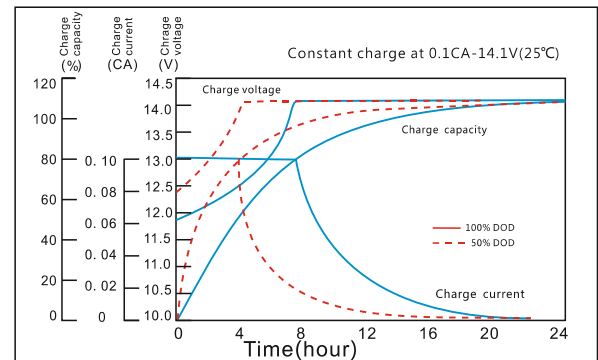
Cut off voltage	CONSTANT CURRENT DISCHARGE CHARACTERISTICS [A] (25°C)									
	5'	15'	30'	1h	2h	3h	5h	8h	10h	20h
9.6V	141	75.7	46.1	26.9	15.4	11.2	7.53	4.94	4.16	2.18
9.9V	137	73.4	45.3	26.8	15.4	11.1	7.45	4.90	4.12	2.17
10.2V	131	71.9	44.5	26.6	15.2	10.9	7.37	4.86	4.08	2.16
10.5V	121	69.5	44.1	26.2	15.0	10.8	7.29	4.82	4.04	2.15
10.8V	108	64.8	42.2	25.5	14.7	10.7	7.10	4.78	4.00	2.14
11.1V	96.4	57.8	38.5	23.6	14.0	10.1	6.74	4.58	3.88	2.10

Cut off voltage	CONSTANT POWER DISCHARGE CHARACTERISTICS [W] (25°C)									
	5'	15'	30'	1h	2h	3h	5h	8h	10h	20h
9.6V	236	133	83.3	50.9	29.2	21.3	14.3	9.60	8.00	4.32
9.9V	227	131	82.6	50.5	29.1	21.1	14.2	9.52	7.92	4.30
10.2V	226	129	82.6	50.1	29.0	20.9	14.1	9.48	7.84	4.28
10.5V	211	129	82.2	49.7	28.9	20.8	14.0	9.41	7.76	4.26
10.8V	194	122	80.2	49.4	28.8	20.7	13.8	9.33	7.68	4.24
11.1V	173	109	73.5	45.8	27.5	19.7	13.2	9.01	7.56	4.20

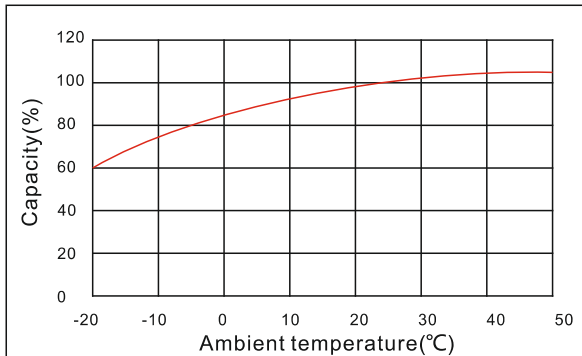
DISCHARGE CHARACTERISTIC



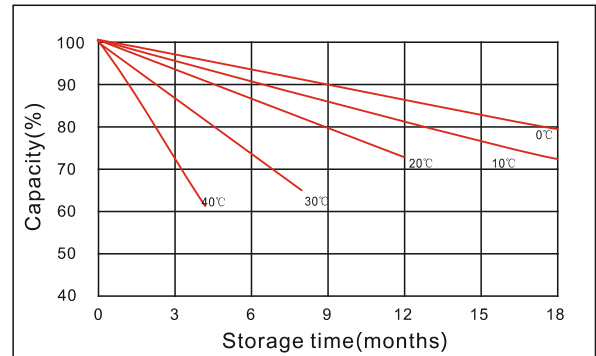
CHARGING CHARACTERISTIC



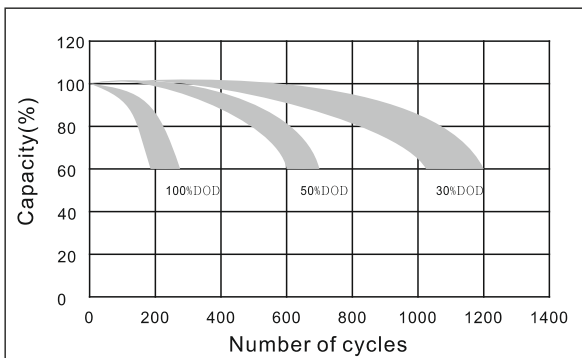
THE EFFECT OF TEMPERATURE ON CAPACITY



CURVES OF SELF-DISCHARGE



THE EFFECT OF DISCHARGE DEPTH ON CYCLE LIFE



THE EFFECT OF TEMPERATURE ON FLOAT LIFE

