

MOTTECH

MT 42AH 12V

MT Series GEL type battery



Applications

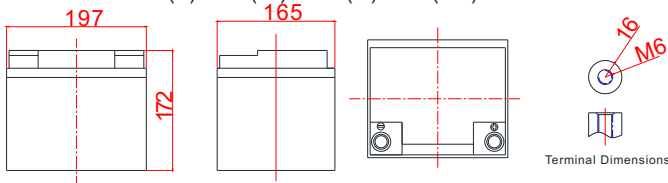
- > UPS/EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Solar/wind generating storage cyclic
- > Other general purpose

General Features

- > High corrosion resistant performance: Pb-Ca multi-alloy grid
- > High energy density and power density
- > Optimized capability of instant high-current discharging
- > Excellent charge acceptance ability
- > Excellent deep cycle discharge capability
- > Strong high and low temperature performance
- > Precision sealing technology
- > Long life



Dimension: 197(L)×165(W)×172(H)×172(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	42Ah
Design life	12 years
Terminal	M6
Approx. Weight	Approx 14.0kg
Container Material	ABS
Rated Capacity	42.0Ah → 10Hour Rate (4.20A to 10.8V)
	33.6Ah → 3Hour Rate (11.2A to 10.8V)
	27.5Ah → 1Hour Rate (27.5A to 10.5V)
Internal resistance	Full charged at 25°C: 12.2 mΩ
Max. Discharge Current	480A(5S)
Operating Temperature	Discharge: -20 ~50°C(-4~ 122°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)
Charge current:	Max. 10.5A ; Recom.4.2A
Charge Method (25 °C)	Float Charge:13.5-13.8V,recom.13.5V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.4V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

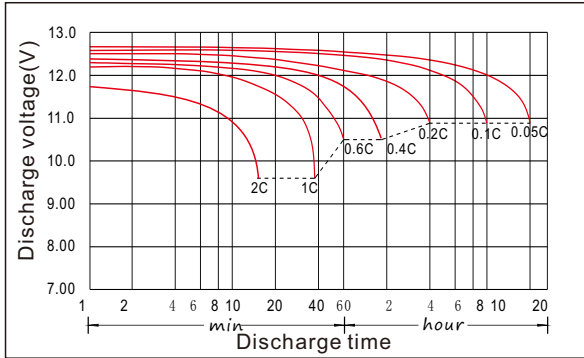
FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	148	79.5	48.4	28.2	16.2	11.8	7.91	5.19	4.37	2.29
1.65V	144	77.1	47.6	28.1	16.2	11.7	7.82	5.15	4.33	2.28
1.70V	138	75.5	46.7	27.9	16.0	11.4	7.74	5.10	4.28	2.27
1.75V	127	73.0	46.3	27.5	15.8	11.3	7.65	5.06	4.24	2.26
1.80V	113	68.0	44.3	26.8	15.4	11.2	7.46	5.02	4.20	2.25
1.85V	101	60.7	40.4	24.8	14.7	10.6	7.08	4.81	4.07	2.21

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

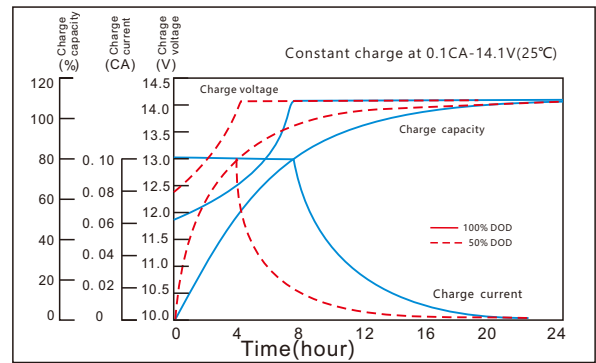
FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	248	140	87.5	53.4	30.7	22.4	15.0	10.1	8.40	4.54
1.65V	238	138	86.7	53.0	30.6	22.2	14.9	10.0	8.32	4.52
1.70V	237	135	86.7	52.6	30.5	21.9	14.8	9.95	8.23	4.49
1.75V	222	135	86.3	52.2	30.3	21.8	14.7	9.88	8.15	4.47
1.80V	204	128	84.2	51.9	30.2	21.7	14.5	9.80	8.06	4.45
1.85V	182	114	77.2	48.1	28.9	20.7	13.9	9.46	7.94	4.41

Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

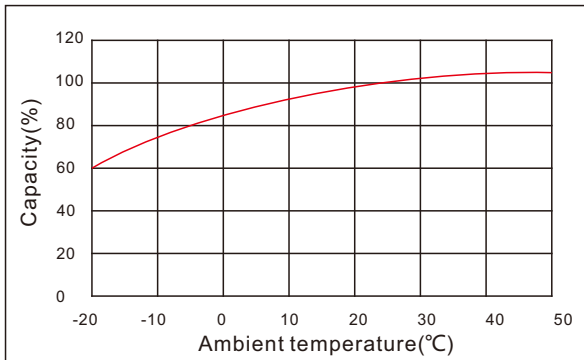
Discharge characteristic



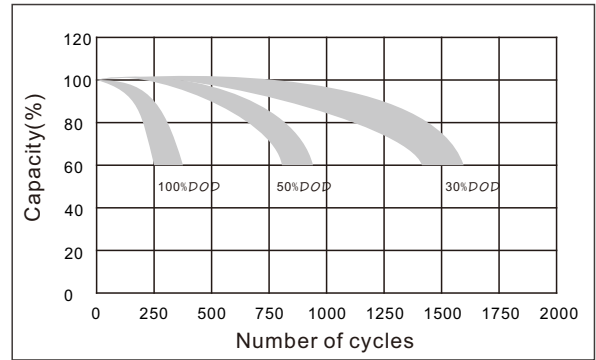
Charging characteristic



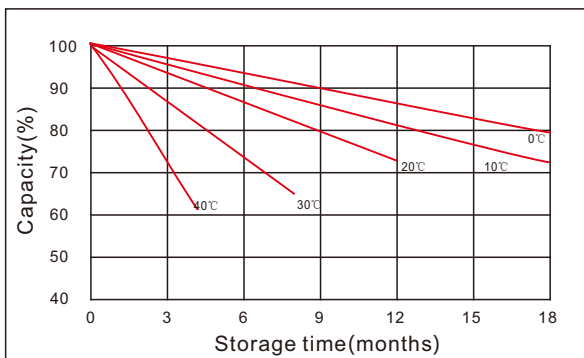
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

