

MP-12400-GT

Features:



- >> Electric tools
- >> Vehicle in place of walking
- >> Lawn mowers
- >> Golf trolleys and golf cart
- >> Portable apparatus, lights and instruments;
- >> Electric toys
- >> Illumination light
- >> Fire alarms
- >> Portable power
- >> Wheelchairs
- >> Medical equipments.

Technical Specifications

Model	MP-12400-GT	
Nominal Voltage	12V	
Nominal Capacity(10HR)	40AH	
Dimension	Length	197 ± 2mm (7.76 inches)
	Width	165 ± 2mm (6.50 inches)
	Container Height	176 ± 2mm (6.92 inches)
	Total Height (with Terminal)	176± 2mm (6.92 inches)
Approx. Weight	Approx 11.9Kg (26.3lbs)	
Terminal	T6 / T12	
Container Material	ABS	
Rated Capacity	42.7 AH/2.04A	(20hr ,1.80V/cell,25°C/77°F)
	38.0 AH/3.80A	(10hr,1.80V/cell,25°C/77°F)
	33.3AH/6.67	(5hr,1.75V/cell,25°C/77°F)
	30.2 AH/10.1A	(3hr,1.75V/cell,25°C/77°F)
	24.5 AH/24.5A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	456A (5s)	
Internal Resistance	Approx 9.0 mΩ	
Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F) Charge: 0 ~ 40°C (32 ~ 104°F) Storage: -15 ~ 40°C (5 ~ 104°F)	
Nominal Operating Temp. Range	25 ± 3°C (77± 5°F)	
Cycle Use	Initial Charging Current less than 12 A Voltage 14.4V~14.9V at 25°C (77°F) Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104 °F)	103%
	25°C (77 °F)	100%
	0°C (32 °F)	86%
Self-Discharge	MEDAL POWER DC series batteries may be stored for up to 6 months at 25°C (77°F) and battery should be recharge before use. For higher temperatures the time interval will be shorter.	

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Constant Current Discharge (Amperes) at 25C (77 F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	55.6	46.8	40.9	29.4	23.4	19.0	11.8	9.19	7.44	6.05	5.28	4.31	3.59	2.02
1.80V/cell	71.1	56.6	48.4	34.7	27.2	21.3	12.9	9.89	7.95	6.49	5.66	4.57	3.80	2.04
1.75V/cell	78.1	61.8	52.0	36.1	28.2	22.2	13.3	10.1	8.12	6.67	5.81	4.65	3.84	2.06
1.70V/cell	85.1	66.0	54.7	37.5	29.3	22.9	13.9	10.4	8.34	6.83	5.94	4.71	3.88	2.09
1.65V/cell	91.9	70.1	58.1	39.6	30.1	23.7	14.3	10.8	8.63	7.02	6.06	4.79	3.96	2.12
1.60V/cell	99.8	75.0	61.9	41.8	31.4	24.5	14.7	11.1	8.90	7.25	6.20	4.83	4.00	2.13

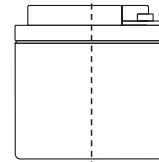
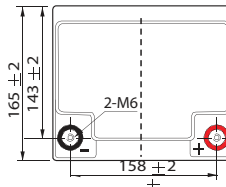
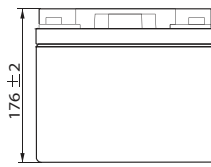
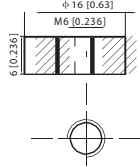
Constant Power Discharge (Watts) at 25C (77 F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	103.8	88.3	78.0	56.6	45.2	36.8	23.0	18.0	14.6	11.9	10.42	8.52	7.11	4.04
1.80V/cell	130.9	105.1	90.8	65.9	52.2	41.0	24.9	19.2	15.5	12.7	11.14	9.02	7.52	4.07
1.75V/cell	142.0	113.6	96.8	68.1	53.9	42.7	25.8	19.5	15.8	13.0	11.43	9.17	7.59	4.10
1.70V/cell	152.6	120.4	101.2	70.6	55.9	44.0	26.7	20.0	16.2	13.3	11.65	9.29	7.66	4.18
1.65V/cell	163.6	127.2	107.0	74.2	57.1	45.3	27.4	20.8	16.7	13.7	11.89	9.43	7.81	4.22
1.60V/cell	174.6	134.4	112.8	77.5	58.9	46.5	28.1	21.4	17.2	14.1	12.12	9.51	7.89	4.24

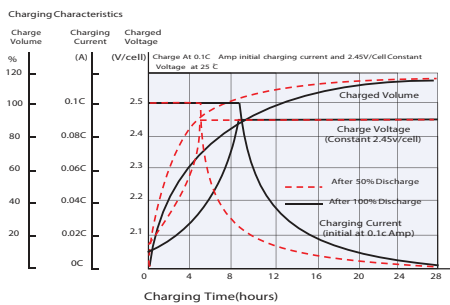
Dimensions

T6 Terminal

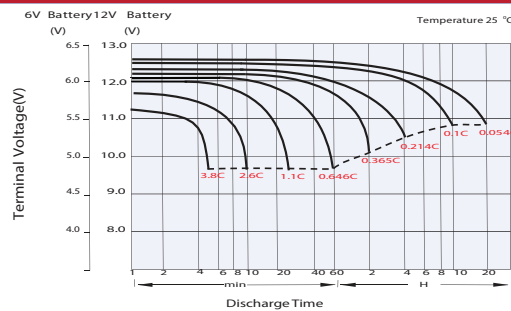
Unit: mm [inches]



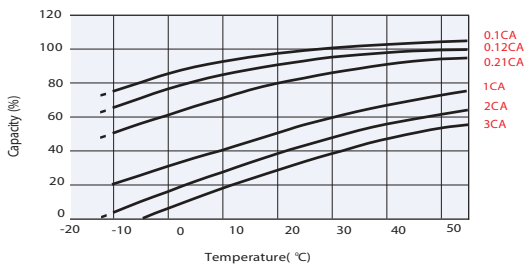
Charging Characteristics (cycle use)



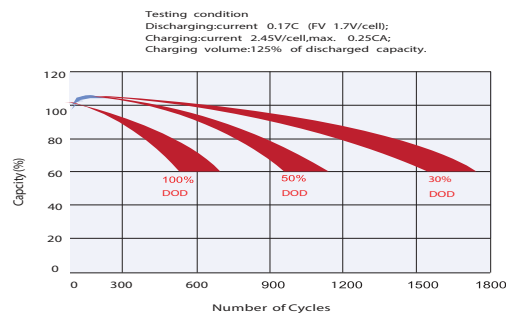
Discharge Characteristics



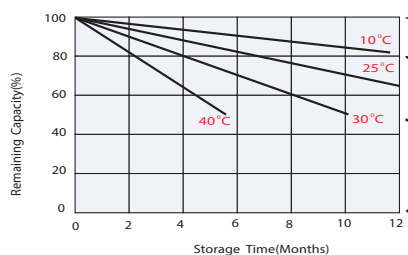
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8~10 hours at limited current 0.05CA.

Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.