

stored energy solutions for a demanding world

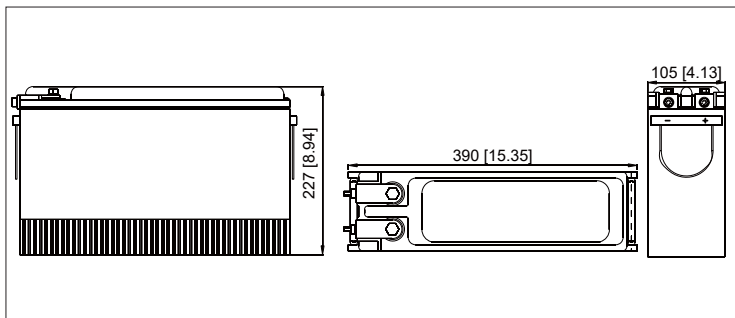
Narada

Model: **6-GFM-50F**

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is 12 years at 25°C(77°F).

Dimensions—mm [inch]



Specifications

Battery Model	6-GFM-50F
Nominal Voltage	12V
Rated Capacity	50Ah (10hour rate) to 1.80V/cell @25°C(77 °F)
Typical Weight	20.7kg
Internal Resistance	Approx 8.32mΩ
Operating Temperature Range	Operation (maximum) : -40 °C to 50 °C (-40 °F to 122 °F)
	Operation (recommended) : 15 °C to 25 °C (59 °F to 77 °F)
	Storage: -20 °C to 40 °C (-4 °F to 104 °F)
Float Voltage	2.25V/cell@25°C(77 °F)
Recommended Maximum Charging Current Limit	12.5A
Equalize and Cycle Service	2.35V~2.40V/cell@25°C(77 °F)
Self Discharge	The residual capacity is above 90% after 90 days storage(25 °C/77 °F)
Terminal	M6 Female
Terminal Hardware Torque	8 ± 1.0N·m
Container Material	ABS (V0 optional)

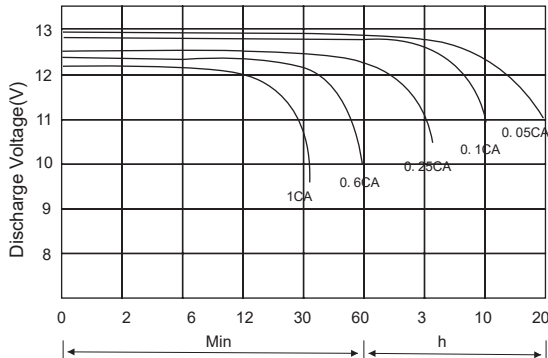
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

End voltage per cell	1h	2h	3h	4h	5h	6h	8h	10h	12h	24
1.60V	31.0	17.8	13.9	10.7	9.60	8.06	6.26	5.15	4.38	2.27
1.67V	30.8	17.7	13.7	10.6	9.50	8.02	6.19	5.08	4.33	2.25
1.70V	30.6	17.6	13.6	10.6	9.40	8.02	6.19	5.09	4.29	2.25
1.75V	30.2	17.1	13.4	10.5	9.30	7.96	6.13	5.05	4.29	2.25
1.80V	29.4	17.0	13.4	10.4	9.05	7.80	6.09	5.00	4.26	2.24
1.85V	27.2	16.1	12.6	9.81	8.55	7.37	5.75	4.78	4.06	2.19

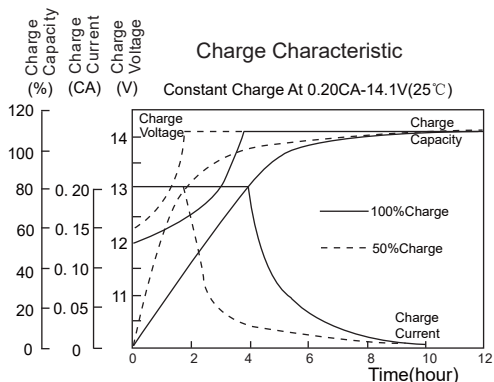
Discharge Data with Constant Power Unit: W (25°C, 77°F)

End voltage per cell	1h	2h	3h	4h	5h	6h	8h	10h	12h	24
1.60V	58.3	33.6	26.5	20.5	18.4	15.5	12.2	9.98	8.47	4.51
1.67V	58.0	33.5	26.1	20.5	18.3	15.5	12.0	9.90	8.41	4.51
1.70V	57.8	33.3	26.1	20.4	18.1	15.5	12.0	9.85	8.33	4.50
1.75V	57.0	33.2	25.9	20.4	18.0	15.4	11.9	9.82	8.32	4.50
1.80V	56.8	33.1	25.8	20.3	17.6	15.3	11.9	9.78	8.30	4.49
1.85V	52.8	31.6	24.5	19.3	16.8	14.5	11.4	9.46	8.08	4.42

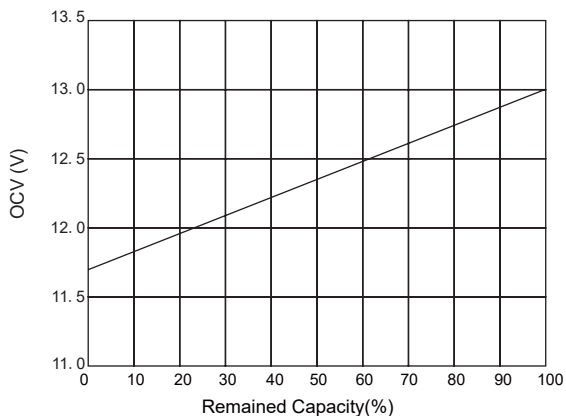
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



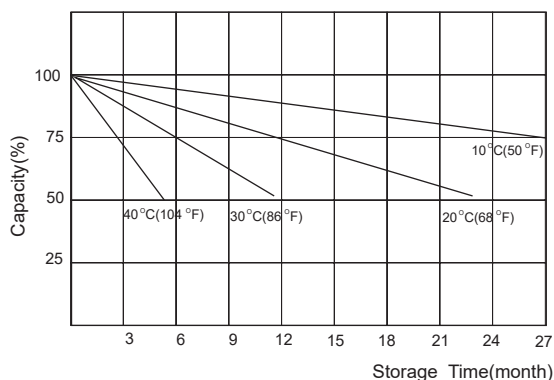
Battery Voltage Vs. Charge Time



Relationship of OCV Vs. State of Charge



Capacity Retention Characteristic



Charging Procedures

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle	25 °C	2.40	2.35~2.45	0.25C
Standby	25 °C	2.25	2.23~2.27	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.80	1.70	1.55	1.30
Discharge Current (A)	0.2C ≥ (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

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