

stored energy solutions for a demanding world

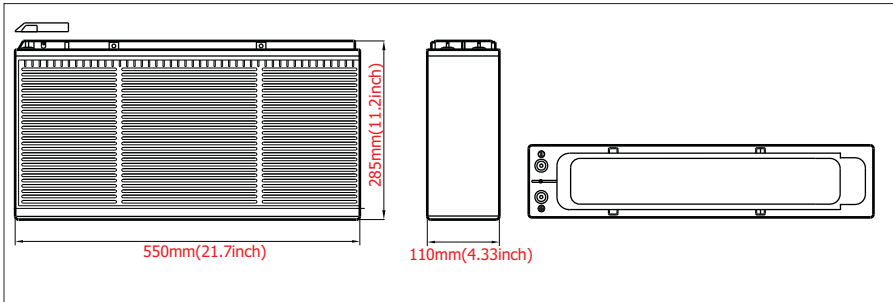


Model: **MPG12V150FB**

MPG series

The MPG range VRLA batteries adopt flat plates with gel electrolyte and are designed with front terminal structure. The perfect design ensures MPG series battery the high reliability and makes the installation quite simple and safe when placed on a standard relay rack tray or in a closed cabinet. MPG range VRLA battery is designed with high energy density and suitable for 19", 23" rack or cabinet, and also offers options of top connection and side of monoblocs connection. MPG range battery can be equipped with central gas collection system according to the requirement of customer.

Dimensions-mm[inch]



Specifications

Battery Model	MPG12V150FB
Nominal Voltage	12V
Rated Capacity	150Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	44kg
Internal Resistance	Approx 4.00mΩ
Operating Temperature Range	Operation (maximum): -40°C to 55°C(-40°F to 131°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	37.5A
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	M8 Female
Terminal Hardware Torque	10 ± 1.0Nm
Container Material	ABS (V0 optional)

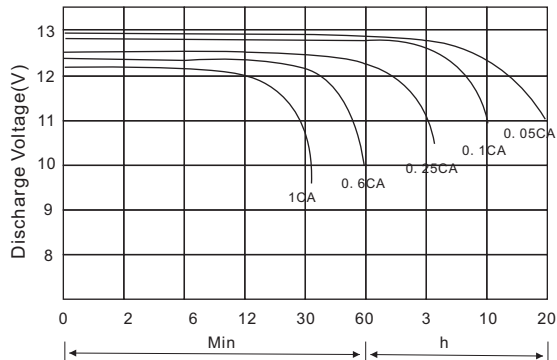
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	488	262	159	115	93.0	53.3	41.8	32.0	28.0	24.2	18.8	15.5	13.2	8.16	6.81
1.67V	458	253	156	114	92.5	53.0	41.0	31.8	27.8	24.1	18.6	15.2	13.0	8.09	6.75
1.70V	454	249	154	113	91.8	52.6	40.8	31.7	28.4	24.1	18.6	15.3	12.9	8.07	6.75
1.75V	417	241	153	112	90.5	51.3	40.4	31.4	27.9	23.9	18.4	15.2	12.9	8.05	6.75
1.80V	374	225	146	108	88.2	50.9	40.1	31.3	27.2	23.4	18.3	15.0	12.8	7.97	6.74
1.83V	356	205	143	105	84.3	50.2	38.8	29.8	26.3	22.5	17.8	14.4	12.3	7.95	6.63
1.85V	334	199	133	101	81.7	48.4	37.7	29.4	25.6	22.1	17.2	14.3	12.2	7.80	6.57

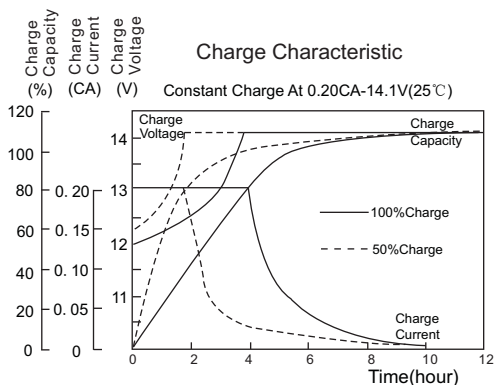
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	815	461	287	216	175	101	79.5	61.5	55.3	46.5	36.5	29.9	25.5	16.2	13.5
1.67V	785	452	285	215	174	101	78.4	61.5	55.0	46.5	36.1	29.7	25.3	16.1	13.5
1.70V	780	447	285	214	173	99.7	78.4	61.2	54.4	46.5	36.0	29.5	25.0	16.1	13.5
1.75V	728	443	284	214	171	99.7	77.6	61.2	54.1	46.3	35.6	29.4	25.0	16.1	13.5
1.80V	680	419	277	209	170	99.7	77.3	61.0	52.9	45.9	35.6	29.3	24.9	16.1	13.5
1.83V	656	384	274	202	164	97.7	75.6	58.7	51.8	44.5	35.2	28.5	24.4	16.0	13.4
1.85V	621	375	255	195	159	94.8	73.5	58.0	50.5	43.6	34.2	28.4	24.2	15.7	13.3

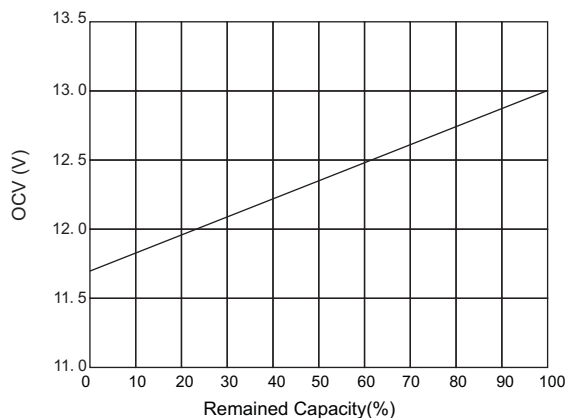
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



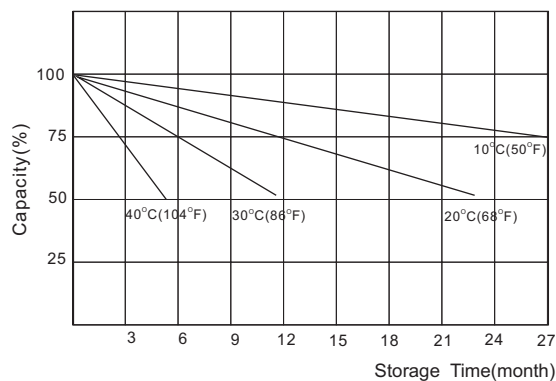
Battery Voltage Vs. Charge Time



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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