

stored energy solutions for a demanding world



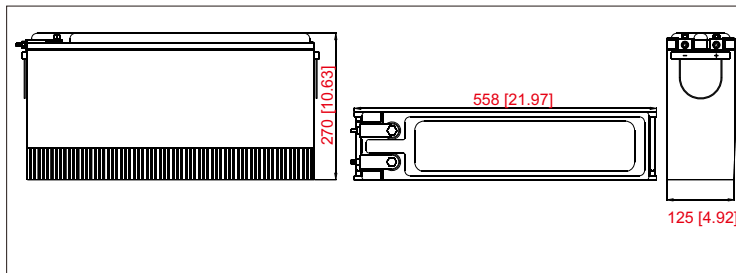
Model: **MPG12V125F**

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. The design float life is 12 years at 25°C(77°F).



**Dimensions-mm[inch]**



**Specifications**

Battery Model	MPG12V125F
Nominal Voltage	12V
Rated Capacity	125Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	48.0kg
Internal Resistance	About 4.94mΩ
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	31.25A
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 ± 1.0Nm
Container Material	ABS (V0 optional)

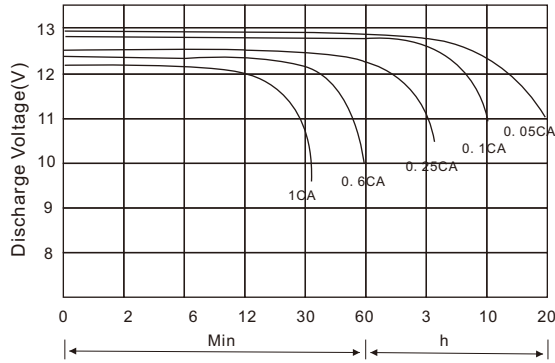
**Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)**

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	408	219	133	96	77.8	44.7	34.9	26.8	24.1	20.2	15.8	13.1	10.94	6.83	5.70
1.67V	384	212	131	96	77.4	44.4	34.3	26.7	23.9	20.2	15.6	13.0	10.84	6.77	5.65
1.70V	380	208	129	95	76.8	44.1	34.1	26.5	23.6	20.2	15.6	12.8	10.74	6.75	5.65
1.75V	349	202	128	94	75.7	43.0	33.7	26.2	23.3	20.0	15.4	12.7	10.74	6.74	5.64
1.80V	313	188	123	91	73.7	42.6	33.5	26.2	22.7	19.6	15.3	12.6	10.64	6.67	5.63
1.83V	299	172	120	88	70.5	42.1	32.4	24.9	22.0	18.9	14.9	12.0	10.24	6.66	5.54
1.85V	280	167	112	84	68.4	40.5	31.5	24.6	21.5	18.5	14.5	11.9	10.14	6.53	5.49

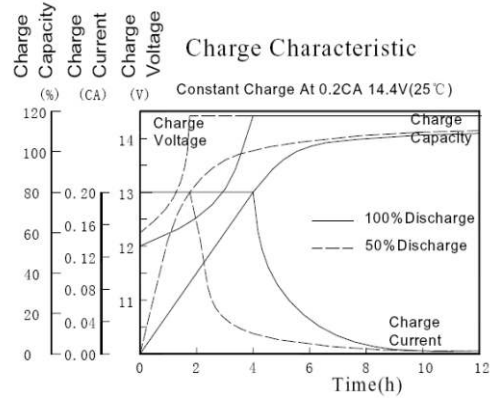
**Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)**

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	683	386	240	181	146.6	84.2	66.5	51.5	46.2	38.9	30.5	25.3	21.28	13.55	11.35
1.67V	658	379	238	180	145.6	84.0	65.6	51.4	46.0	39.0	30.1	25.2	21.08	13.45	11.35
1.70V	654	375	238	180	145.6	83.7	65.6	51.2	45.6	38.9	30.1	24.7	20.88	13.45	11.35
1.75V	611	372	237	179	142.6	83.2	65.0	51.1	45.3	38.8	29.8	24.6	20.88	13.35	11.35
1.80V	570	351	232	175	142.6	83.0	64.8	51.0	44.3	38.4	29.8	24.5	20.78	13.45	11.24
1.83V	549	322	229	170	136.5	81.9	63.3	49.2	43.3	37.2	29.5	23.9	20.38	13.35	11.24
1.85V	521	315	213	163	132.5	79.3	61.5	48.5	42.3	36.5	28.6	23.7	20.28	13.15	11.14

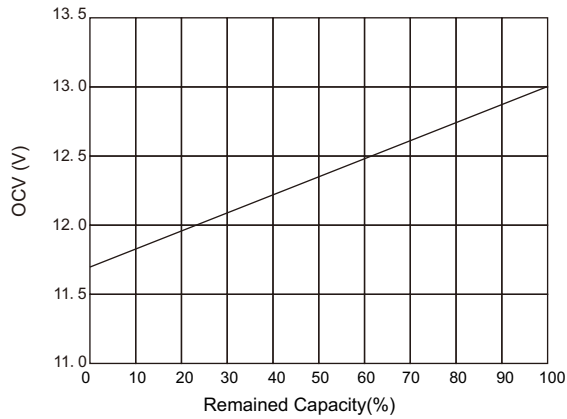
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



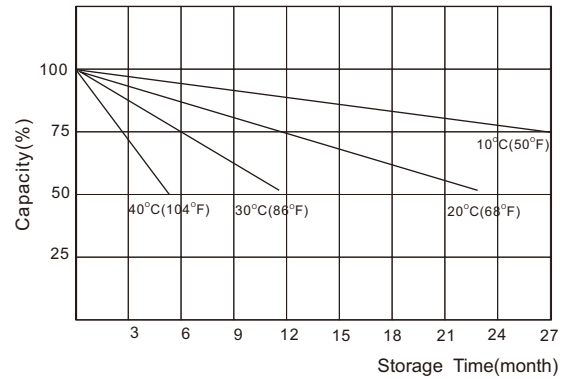
Battery Voltage Vs. Charge Time



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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