stored energy solutions for a demanding world

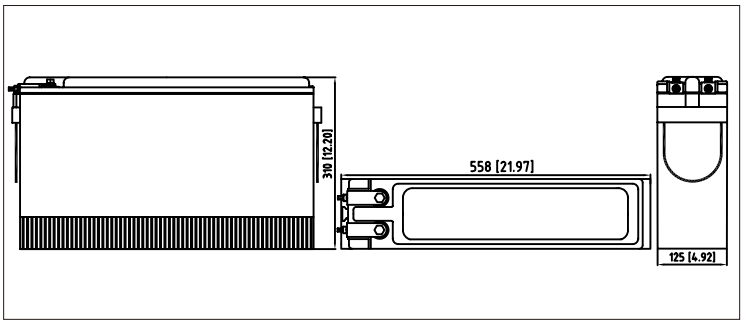
Narada

Model: MPG12V170F

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	MPG12V170F
Nominal Voltage	12V
Rated Capacity	170Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	55.5kg
Internal Resistance	Approx 3.03mΩ
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	42.5A
Equalize and Cycle Serivice	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	625	336	203	148	119.4	68.2	49.4	38.8	32.8	28.2	21.6	17.8	14.94	9.38	7.84
1.67V	588	324	200	147	118.4	67.8	48.5	38.6	32.6	27.9	21.5	17.6	14.94	9.30	7.77
1.70V	581	318	197	145	117.4	67.3	48.3	38.4	32.1	27.7	21.4	17.6	14.84	9.28	7.76
1.75V	534	309	195	144	115.3	65.6	47.7	37.9	31.9	27.5	21.2	17.5	14.84	9.26	7.76
1.80V	479	288	187	139	112.3	65.0	47.4	37.8	31.2	26.9	21.1	17.3	14.64	9.17	7.74
1.83V	457	264	183	134	107.3	64.2	45.8	36.1	30.2	26.0	20.5	16.6	13.94	9.15	7.62
1.85V	429	256	171	129	104.3	61.8	44.6	35.6	29.5	25.4	19.9	16.4	13.84	8.97	7.55

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	1044	591	368	277	223.7	128.4	94.0	74.5	62.9	54.2	41.9	34.4	28.99	18.56	15.55
1.67V	1006	579	365	275	222.7	128.4	92.8	74.4	62.9	53.9	41.7	34.2	28.99	18.56	15.55
1.70V	1000	573	365	275	221.7	127.4	92.8	74.1	61.9	53.5	41.4	33.9	28.69	18.46	15.55
1.75V	934	568	363	275	218.7	127.4	91.8	74.0	61.9	53.3	41.0	33.9	28.69	18.46	15.55
1.80V	856	537	355	268	217.7	126.4	91.6	73.8	60.9	52.8	40.9	33.7	28.59	18.46	15.55
1.83V	818	493	350	260	208.6	125.4	89.5	71.1	59.6	51.2	40.5	32.9	27.78	18.35	15.35
1.85V	765	481	326	249	202.6	121.4	87.0	70.2	58.1	50.2	39.3	32.6	27.48	18.05	15.25

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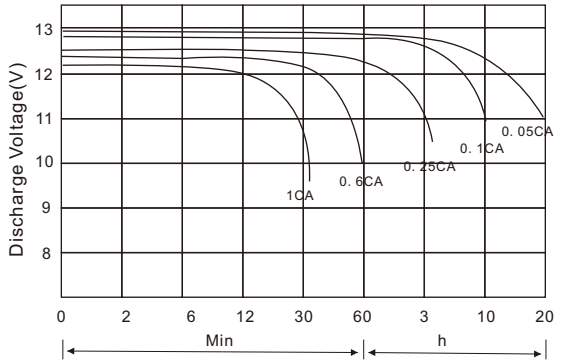
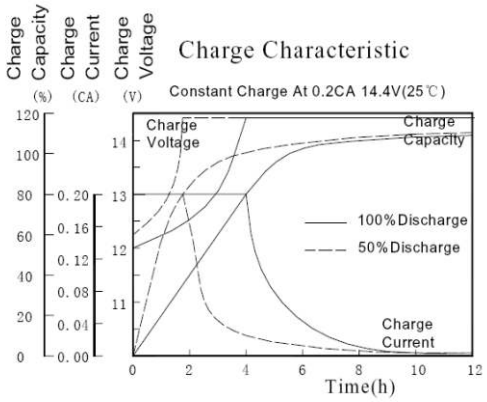
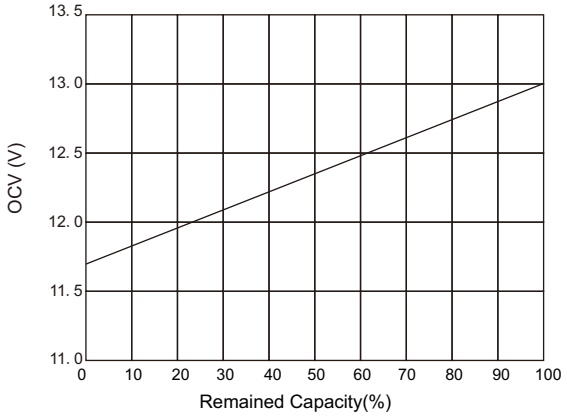
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



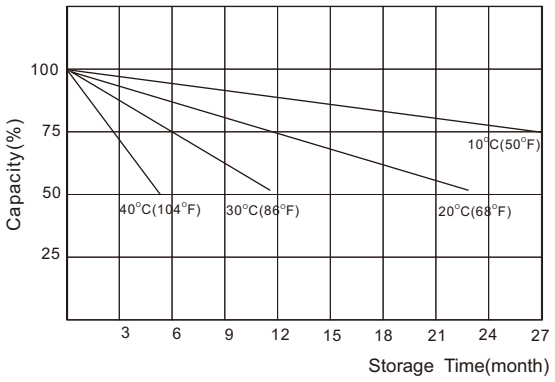
Battery Voltage Vs. Charge Time



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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