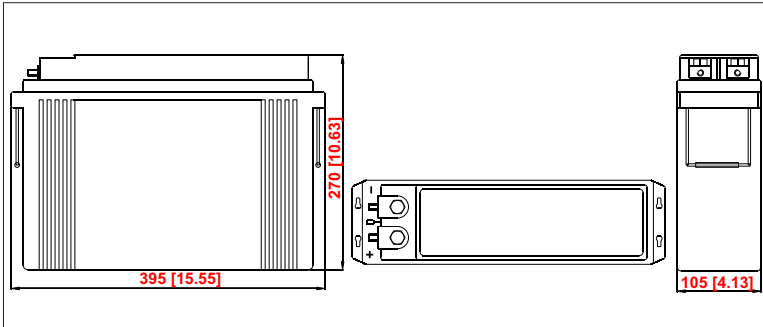


Model: **MPG12V65F**

MP 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.

Dimensions—mm [inch]



Specifications

Battery Model	MPG12V65F
Nominal Voltage	12V
Rated Capacity	65Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	24.5 kg
Internal Resistance	Approx 7.5mΩ
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	16.25A
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)

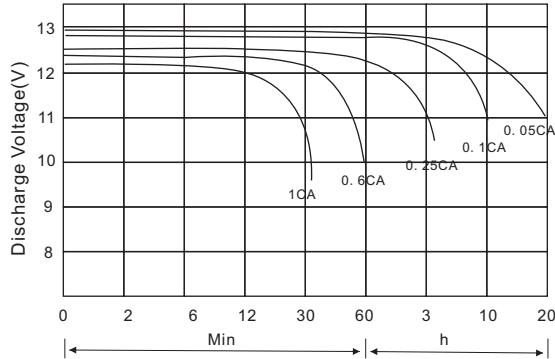
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	240.1	129.2	78.9	58.7	46.9	26.8	19.0	15.2	12.6	10.9	8.34	6.92	5.77	3.62	3.02
1.67V	228.6	124.6	77.7	57.6	46.6	26.2	18.8	14.9	12.5	10.8	8.26	6.89	5.75	3.59	3.01
1.70V	222.3	122.4	76.6	56.9	46.3	25.9	18.7	14.8	12.4	10.7	8.24	6.85	5.72	3.58	3.00
1.75V	205.7	117.5	75.2	55.3	44.9	25.6	18.5	14.7	12.3	10.6	8.18	6.78	5.70	3.57	2.99
1.80V	186.3	109.9	72.4	53.2	43.2	25.1	18.2	14.4	12.1	10.4	8.06	6.68	5.66	3.55	2.97
1.83V	174.9	103.9	71.3	51.5	41.5	24.8	17.9	14.0	11.8	10.1	7.88	6.56	5.48	3.53	2.94
1.85V	164.4	97.9	68.6	49.9	40.2	24.5	17.7	13.8	11.6	9.9	7.70	6.45	5.38	3.46	2.91

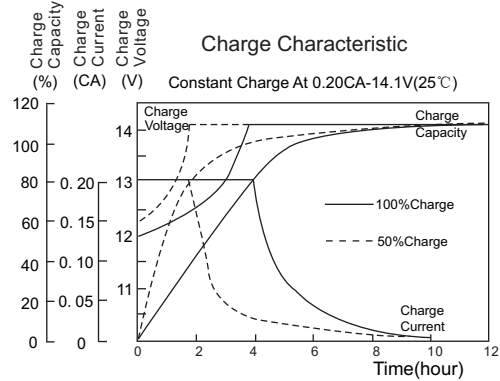
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	401.5	227.1	141.5	106.3	86.4	49.6	37.2	28.9	24.2	20.9	16.8	14.4	11.4	7.17	6.00
1.67V	391.7	223.5	140.7	105.6	85.6	49.5	36.4	28.7	24.1	20.7	16.6	14.3	11.3	7.14	6.00
1.70V	383.6	220.2	139.9	105.5	85.4	49.3	35.9	28.6	23.9	20.6	16.4	14.2	11.2	7.12	5.99
1.75V	363.2	215.7	138.2	105.0	84.1	49.0	35.6	28.5	23.8	20.5	16.2	13.9	11.1	7.11	5.99
1.80V	339.4	206.5	135.1	103.2	82.6	48.7	35.3	28.2	23.5	20.4	16.0	13.8	11.0	7.10	5.98
1.83V	322.5	198.6	132.6	101.2	80.6	48.1	35.1	27.8	22.9	20.2	15.7	13.7	10.7	7.09	5.93
1.85V	305.9	192.1	129.4	98.6	78.6	47.2	34.9	27.4	22.4	20.0	15.4	13.6	10.6	6.95	5.89

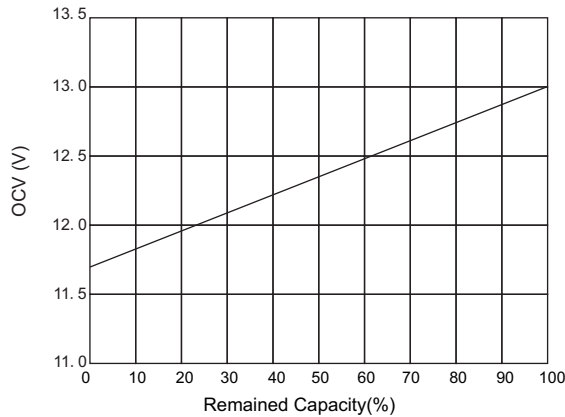
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



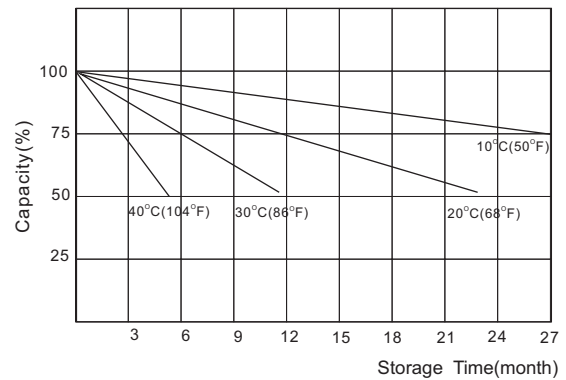
Battery Voltage Vs. Charge Time



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	2.35~2.40	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

NARADA POWER SOURCE CO.,LTD.
 9F, Building A, No. 50 Zijinghua Road, Hangzhou, China
 Tel:+86-571-28827013 Fax:+86-571-28828290
 Website:www.naradabattery.com E-mail:intl@narada.biz

NARADA ASIA PACIFIC PTE.LTD.
 65 Ubi Crescent #07-05 HOLA centre, Singapore
 Tel: +65-6848 1191 Fax: +65-6749 3498
 E-mail: sales@narada.com.sg

NARADA EUROPE (UK) LIMITED
 Spectrum House, Dunstable Road, Redbourn,
 St. Albans, Herts AL3 7PR
 Tel: +44 (0)845 371 7095 Fax:+44 (0)845 612 2031
 E-mail: sales@naradaeurope.com

