

stored energy solutions for a demanding world



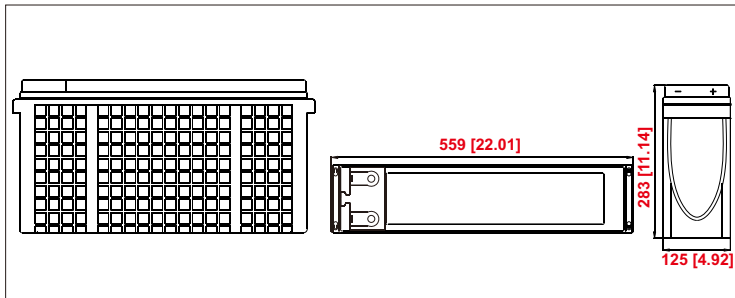
Model: **MPG12V155F**

MPG series

The MPG range valve regulated lead acid batteries adopt flat plates with gel electrolyte and are designed with front terminal structure. The perfect design ensures MPG range 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 is designed with high energy density and suitable for 19", 23" rack or cabinet, used for telecoms, UPS, solar system. MP range offers options of top connection and side of monoblocs connection. MPG range can be equipped with central gas collection system according to the requirement of customer.



Dimensions—mm [inch]



Specifications

Battery Model	MPG12V155F
Nominal Voltage	12V
Rated Capacity	155Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	53.0kg
Internal Resistance	Approx 3.10mΩ
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	38.75A
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	502	270	164	119	96.1	55.1	43.2	33.1	28.9	25.1	19.5	16.1	13.65	8.46	7.07
1.67V	472	260	161	118	95.6	54.8	42.4	32.9	28.7	25.0	19.3	15.8	13.45	8.39	7.01
1.70V	468	256	159	117	94.9	54.4	42.2	32.8	29.3	25.0	19.3	15.9	13.35	8.37	7.01
1.75V	430	248	158	116	93.5	53.0	41.7	32.4	28.8	24.8	19.1	15.8	13.35	8.35	7.00
1.80V	385	231	151	112	91.1	52.6	41.4	32.3	28.1	24.3	19.0	15.6	13.25	8.27	6.99
1.83V	367	211	148	108	87.1	51.9	40.1	30.8	27.2	23.4	18.5	15.0	12.75	8.25	6.88
1.85V	344	205	137	104	84.4	50.0	39.0	30.4	26.5	22.9	17.9	14.9	12.65	8.09	6.82

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	839	475	296	222	181.0	104.0	82.1	63.6	57.1	48.2	37.9	31.0	26.41	16.77	14.06
1.67V	809	466	293	221	180.0	104.0	81.0	63.5	56.8	48.2	37.4	30.8	26.20	16.67	14.06
1.70V	804	461	293	220	179.0	103.0	81.0	63.2	56.2	48.2	37.3	30.6	25.90	16.67	14.06
1.75V	750	457	292	220	177.0	103.0	80.2	63.2	55.9	48.0	36.9	30.5	25.90	16.67	14.06
1.80V	701	432	285	215	176.0	103.0	79.9	63.0	54.7	47.6	36.9	30.4	25.80	16.67	13.96
1.83V	676	396	282	208	169.0	101.0	78.1	60.7	53.5	46.2	36.5	29.6	25.30	16.57	13.86
1.85V	640	387	262	200	164.0	98.0	76.0	59.9	52.2	45.3	35.4	29.4	25.10	16.26	13.75

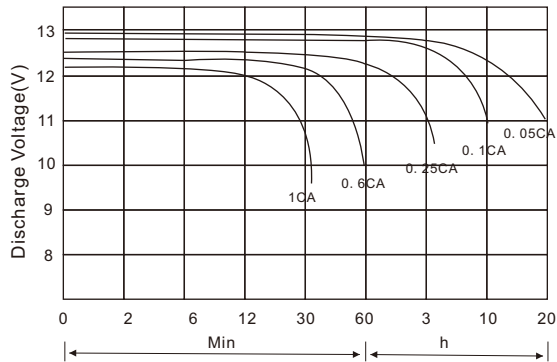
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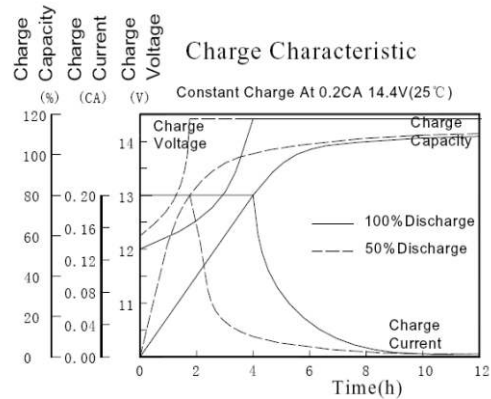
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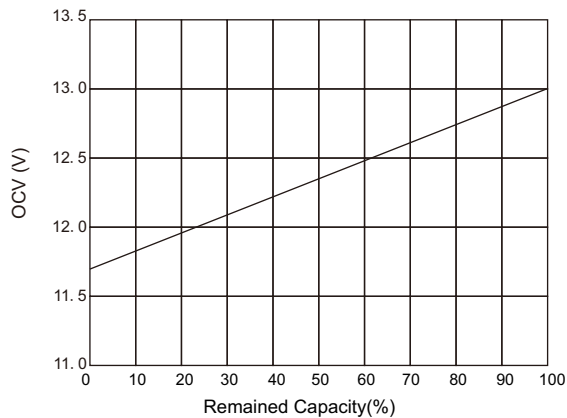
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



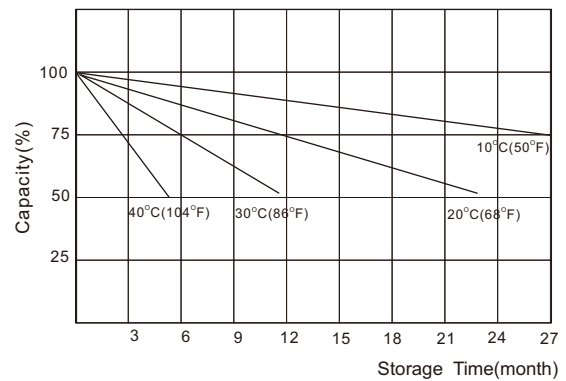
Battery Voltage Vs. Charge Time



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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