

# stored energy solutions for a demanding world

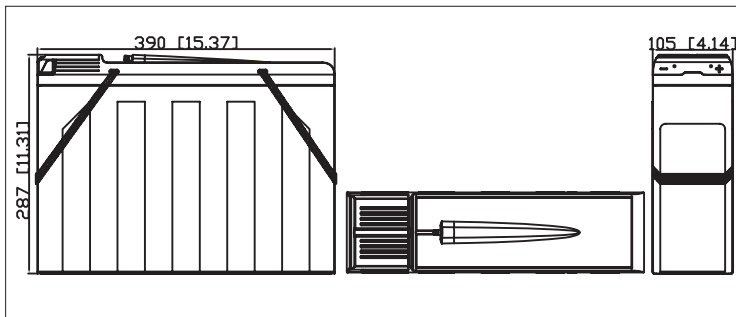
**NARADA**

Model: **AG12V100F**

**AcmeG** Series

The AcmeG range front access valve regulated lead acid batteries is designed based on the Acme series. Using the polymer gel electrolyte with real front access structure. The state of the art internal and external design ensures AcmeG the high reliability and makes the installations quite simple and safe when placed on a standard relay rack tray or in a closed cabinet. The design float life is 12 years at 20°C (68°F).

**Dimensions—mm [inch]**



**Specifications**

Battery Model	AG12V100F
Nominal Voltage	12V
Rated Capacity	100Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	34.0kg
Internal Resistance	Approx 6.36mΩ
Temperature Ranges	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	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	10 ± 1.0Nm
Container Material	ABS (V0 optional)

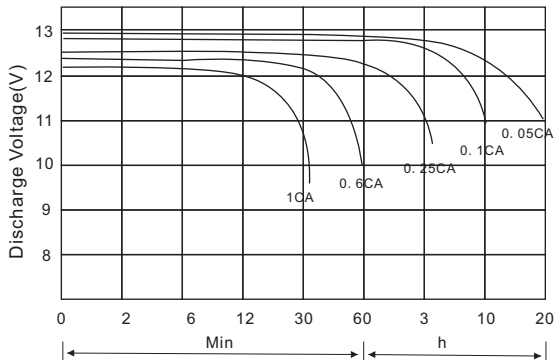
**Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)**

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	359.6	193.2	117.5	85.0	68.7	39.4	28.6	22.4	19.0	16.3	12.5	10.3	8.71	5.46	4.55
1.67V	337.6	186.3	115.5	84.3	68.3	39.2	28.1	22.3	18.9	16.2	12.4	10.2	8.70	5.41	4.51
1.70V	334.7	183.3	113.5	83.7	67.8	38.9	27.9	22.2	18.6	16.0	12.4	10.2	8.61	5.40	4.51
1.75V	307.8	177.3	112.5	83.1	66.8	37.9	27.6	21.9	18.5	15.9	12.3	10.1	8.61	5.39	4.51
1.80V	275.9	165.3	107.6	79.7	65.1	37.6	27.4	21.8	18.1	15.6	12.2	10.0	8.54	5.33	4.50
1.83V	262.9	151.4	105.6	77.0	62.2	37.1	26.5	20.8	17.5	15.1	11.9	9.62	8.11	5.32	4.43
1.85V	246.0	147.4	98.2	74.0	60.3	35.7	25.8	20.6	17.1	14.7	11.5	9.54	8.02	5.22	4.39

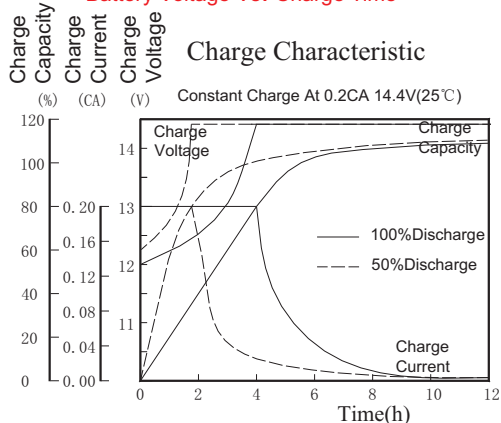
**Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)**

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	602.8	340.3	212.6	159.7	129.9	74.5	54.4	43.2	36.4	31.4	24.3	20.0	16.8	10.8	9.01
1.67V	579.8	334.3	210.6	158.7	128.9	74.3	53.7	43.1	36.4	31.2	24.2	19.8	16.8	10.7	9.01
1.70V	576.8	330.3	210.6	158.7	128.9	74.0	53.7	42.9	35.9	31.0	24.0	19.6	16.7	10.7	8.99
1.75V	537.9	328.3	209.6	157.7	126.9	73.6	53.1	42.9	35.9	30.9	23.8	19.6	16.6	10.7	8.99
1.80V	494.0	310.4	204.6	154.7	125.9	73.4	53.0	42.8	35.3	30.6	23.7	19.6	16.6	10.7	8.97
1.83V	472.1	284.4	202.6	149.7	120.9	72.5	51.7	41.2	34.5	29.7	23.5	19.1	16.1	10.7	8.91
1.85V	441.1	277.4	187.6	143.7	116.9	70.1	50.3	40.7	33.7	29.1	22.8	18.9	15.9	10.5	8.84

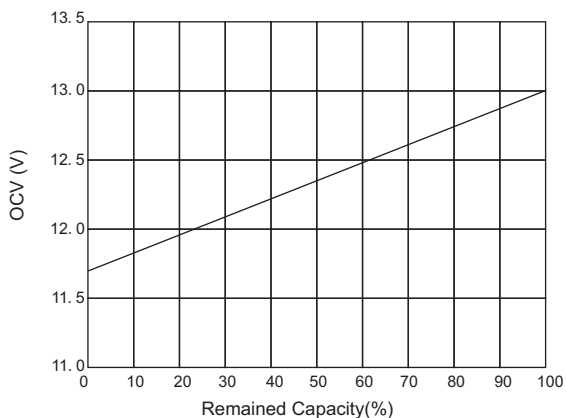
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



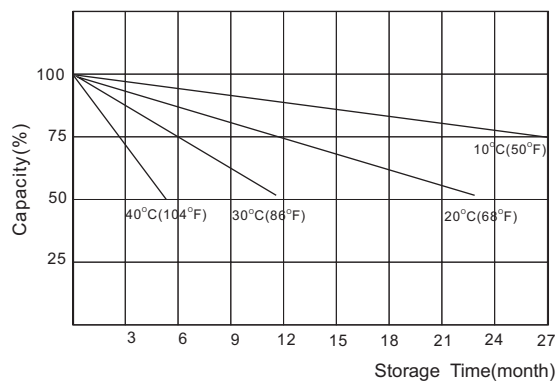
Battery Voltage Vs. Charge Time



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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