

GM 12-40

12V40AH/10HR

GEM Battery

Stay Powerful



▶ Technology:

- ✓ Valve Regulated Lead Acid Battery / VRLA
- ✓ Sealed Maintenance Free / SMF
- ✓ AGM technology
- ✓ Complied with IEC60896-21/22 or IEC61056-1/2

▶ Main Features:

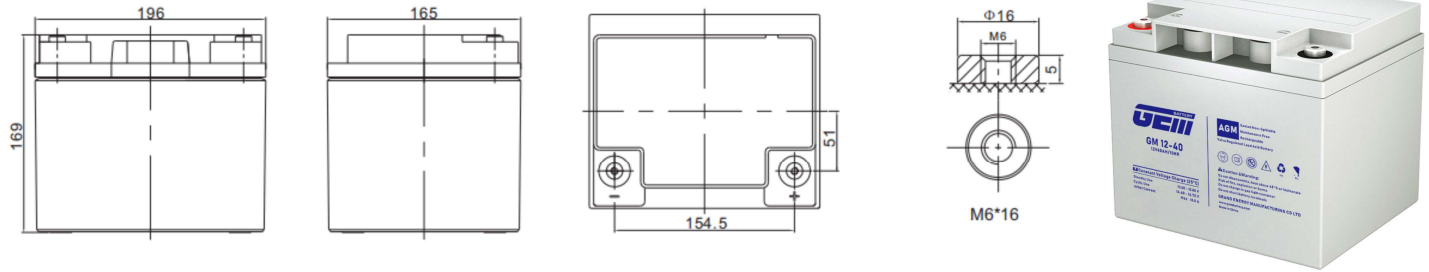
- ◆ Innovated technology of battery plate formula designed for Deep Discharge.
- ◆ Outstanding re-charge acceptability after deep discharged.
- ◆ Extreme low self-discharge, low internal resistance and low internal pressure.
- ◆ Long Life - Assembly using thicker plate with special chemical formation.

▶ Main Application:

- Sizable and critical UPS systems
- Solar PV & Wind power
- Off-grid power system / Power plant
- Medical power assurance
- Telecom & Towers power assurance
- High performance UPS system
- Deep cycle discharge
- Industrial battery & power reserve
- All general purpose

GEM Battery | GM Series batteries are designed at a larger size and higher capacity carrying more energy power to support more-power-requiring applications.

- ① Adopted with latest and most advanced AGM technology for assembly.
- ② Thick and strengthened plates with anti-corruption designed for long life time.
- ③ Using high purity metal lead/Pb during the production to assure low self-discharge and high power efficiency.
- ④ Flame Retardant UL94 V-0 available on request.



Model	GM 12-40		IR	Dimensions (mm ±2)				Weight	Terminal	
Voltage (V)	Nominal Capacity (25°C)		mΩ (25°C)	Length	Width	Height	Total Height	Kgs ±5%	L4	T4
12	40Ah	10Hr (10.8V)	8.5	196	165	169	169	13.2		M6*16

Capacity	20Hr (10.8V)	5Hr (10.5V)	3Hr (9.60V)	1Hr (9.60V)	Designed Life (25°C)	Separator	Electrolyte	Case	Sealing
Range (25°C)	42Ah	34.6Ah	30.8Ah	24.4Ah	12 Years (Float charging)	AGM	Sulfuric Acid	ABS plastic	Epoxy Glue

Max. Current (A)		Charge Voltage @25°C		Self-discharge	Capacity Effected by Temp. @20Hr			
Charge	Discharge	Float use	13.5-13.8V (-18mV/°C)	per month @25°C	40°C	25°C	0°C	-15°C
10A	400A (5s)	Cycle use	14.4-14.7V (-30mV/°C)	3%	102%	100%	85%	65%

● Constant-Current (A) Discharge / CCD @25°C

End V./VPC	5min	10min	15min	30min	1Hr	2Hr	3Hr	5Hr	10Hr	20Hr
9.60 / 1.60	137.70	93.70	64.15	39.01	23.90	14.92	11.60	7.73	4.24	2.23
9.90 / 1.65	131.80	89.70	61.42	37.35	22.89	14.28	11.10	7.40	4.18	2.20
10.2 / 1.70	128.70	87.57	59.96	36.46	22.34	13.94	10.84	7.23	4.12	2.17
10.5 / 1.75	125.50	85.43	58.49	35.57	21.80	13.60	10.58	7.05	4.06	2.14
10.8 / 1.80	124.50	84.71	58.00	35.27	21.61	13.49	10.49	6.99	4.00	2.11

● Constant-Power (Watt) Discharge / CPD @25°C

End V./VPC	5min	10min	15min	30min	1Hr	2Hr	3Hr	5Hr	10Hr	20Hr
9.60 / 1.60	147.70	100.50	68.80	41.84	25.64	16.00	12.44	8.29	4.55	2.39
9.90 / 1.65	141.40	96.20	65.87	40.06	24.54	15.32	11.91	7.94	4.48	2.36
10.2 / 1.70	138.10	93.90	64.30	39.10	23.96	14.95	11.63	7.75	4.42	2.33
10.5 / 1.75	134.70	91.60	62.73	38.15	23.38	14.59	11.34	7.56	4.35	2.29
10.8 / 1.80	133.60	90.90	62.21	37.83	23.18	14.47	11.25	7.50	4.29	2.26



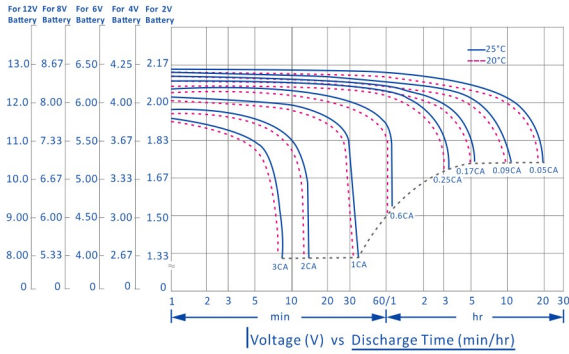
GRAND ENERGY MANUFACTURING CO LIMITED

ISO9001 / ISO14001 / ISO45001 / UL / CE / RoHS

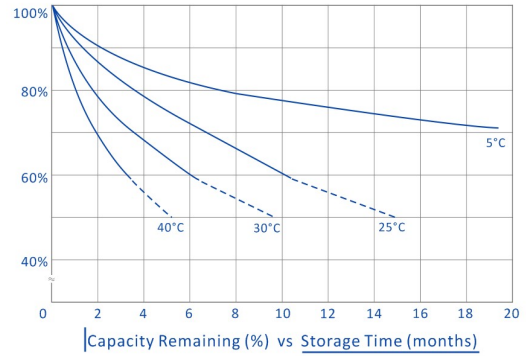
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- ▶ The trade mark GEM BATTERY is registering in China, if any trade mark infringement, please contact us.
- ▶ To follow the latest information, please contact our sales representative.

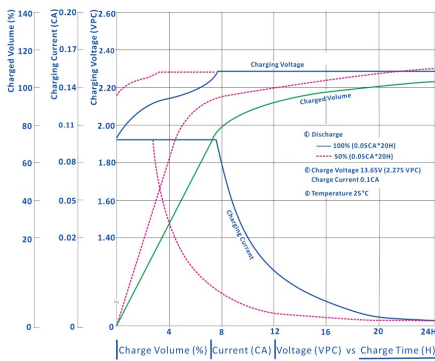
● Discharge Chart



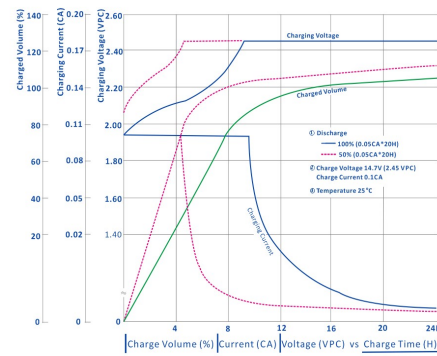
● Self-discharge/Storage Chart



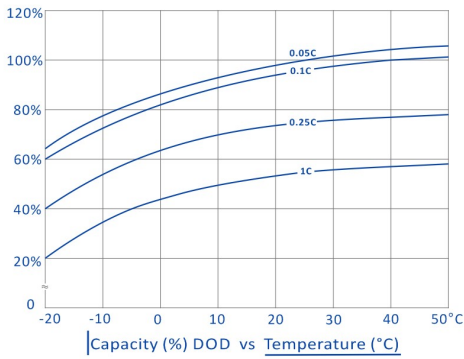
● Charging Chart for Stand-by/Float use (25°C)



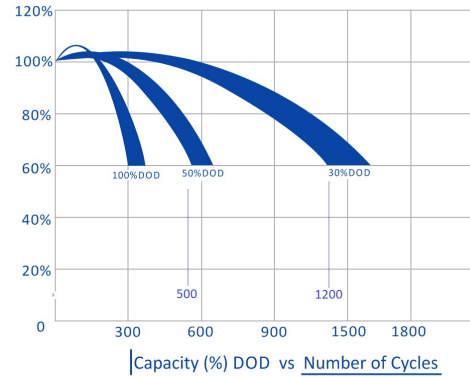
● Charging Chart for Cycle use (25°C)



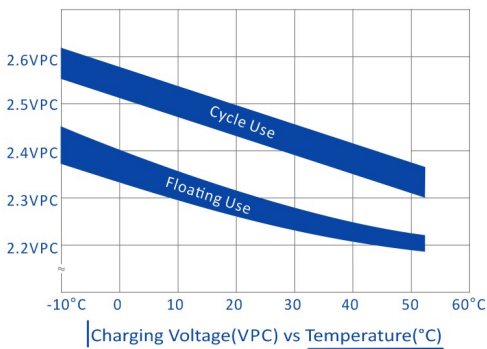
● Capacity effected by Temperature



● Cycle Service Life vs DOD



● Charging Voltage & Temperature



● Float Service Life vs Temperature

