



**POWER SERIES**  
**GSR 12-220**

**12V**  
**220Ah**

### Salient Features

- Design life of 5 to 10 years at 270C, depending on the model
- Superior Lead Calcium alloy grid with high density active materials
- Excellent cyclic performance and recovery after over-discharging
- High purity material ensuring low self-discharge.
- Valve regulated (sealed) construction for sales operation in any position
- Tank formed plates optimise cell voltage balance and performance
- Completely leak-proof and maintenance-free
- Compact design with high power to power ratio
- High impact ABS casing

### Applications

- UPS Back up
- Railway Signaling Systems
- Emergency lighting
- Network Communication Equipments
- Tele Communication Power Supply
- Medical Equipments
- DC Power Supply
- Power Station Systems
- Electronic Weighting Machines



HIGH PERFORMANCE



FAST CHARGE



STRONGER BATTERY & LONG LIFE



MAINTENANCE FREE

### AVAILABLE RANGE

12V 100AH to 12V 240AH

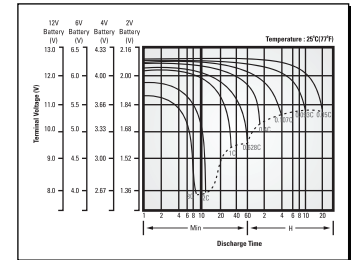
## DIMENSIONAL AND ELECTRICAL DATA

Model	Capacity (AH) at 27°C					HRD 0.5 hr Amperes 9.6V	Dimensions (mm) ± 3mm				Normal Charging Current (A)	Short Circuit Current (A)	Internal Resistance (mΩ)	Shipping Weight (Kg) ± 3%
	20 hr 10.5V	10 hr 10.5V	5 hr 10.5V	3 hr 10.5V	1 hr 10.2V		Length	Width	Height	Total Height				
GSR12-6.5	6.50	6.00	5.50	4.90	3.90	6.50	152	65	95	100	0.65	170	30.00	2.00
GSR12-7	7.00	6.50	5.90	5.30	4.20	7.00	152	65	95	100	0.70	198	30.00	2.15
GSR12-7.5	7.50	6.97	6.38	5.63	4.50	7.50	152	65	95	100	0.75	212	30.00	2.32
GSR12-9	9.00	8.37	7.65	6.75	5.40	9.00	152	65	95	100	0.90	242	19.00	2.42
GSR12-10	10.00	9.30	8.50	7.50	6.00	10.00	151	98	95	100	1.00	290	19.00	3.08
GSR12-12	12.00	11.20	10.20	9.00	7.20	12.00	151	98	95	100	1.20	339	17.00	3.58
GSR12-18	18.00	16.70	15.30	13.50	10.80	18.00	181	78	171	171	1.80	360	15.00	6.04
GSR12-20	20.00	18.60	17.00	15.00	12.00	20.00	181	78	171	171	2.00	397	14.00	6.54
GSR12-22	22.00	20.50	18.70	16.50	13.20	22.00	181	78	171	171	2.20	492	14.00	7.21
GSR12-26	26.00	24.20	22.10	19.50	15.60	26.00	177	167	126	126	2.60	760	14.00	8.56
GSR12-28	28.00	26.00	23.80	21.00	16.80	28.00	177	167	126	126	2.80	789	14.00	8.88
GSR12-42	42.00	39.06	35.70	31.50	25.20	42.00	199	167	179	179	4.20	1092	13.00	13.77
GSR12-45	45.00	41.90	38.30	33.90	27.00	45.00	199	167	179	179	4.50	1152	13.00	14.70
GSR12-65	65.00	60.50	55.30	48.80	39.00	65.00	347	167	190	190	6.50	1351	11.00	19.82
GSR12-70	70.00	65.15	59.55	52.55	42.00	70.00	347	167	190	190	7.00	1531	11.00	21.65
GSR12-75	75.00	69.70	63.75	56.40	45.00	75.00	347	167	190	190	7.50	1595	11.00	23.28
GSR12-85	85.00	79.00	72.25	63.90	51.00	85.00	330	173	220	225	8.50	1799	8.00	25.65
GSR12-90	90.00	83.60	76.50	67.70	54.00	90.00	330	173	220	225	9.00	1832	6.70	28.58
GSR12-100	100.00	93.00	85.00	75.00	60.00	100.00	330	173	220	225	10.00	1948	5.30	29.00
GSR12-120	120.00	111.60	102.00	90.00	72.00	120.00	405	173	236	236	12.00	2522	4.00	37.82
GSR12-150	150.00	139.50	127.50	112.50	90.00	150.00	486	170	239	239	15.00	2743	3.50	42.68
GSR12-165	165.00	153.50	140.25	123.80	99.00	165.00	522	238	219	225	16.50	2900	3.50	45.74
GSR12-180	180.00	167.40	153.00	135.05	108.00	180.00	522	238	219	225	18.00	3400	3.50	58.40
GSR12-200	200.00	186.00	170.00	150.00	120.00	200.00	522	238	219	225	20.00	3685	3.00	61.34
GSR12-220	220.00	204.60	187.00	165.00	132.00	220.00	522	238	219	225	22.00	3800	3.00	64.70
GSR12-240	240.00	223.20	204.00	180.00	144.00	240.00	522	238	219	225	24.00	3987	3.00	68.32

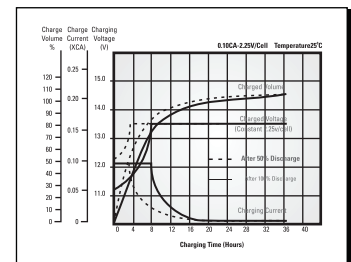
\*Specification are under continuous improvement. Subject to change without notice.

## ELECTRICAL PERFORMANCE

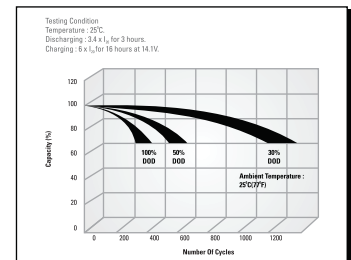
Discharge Characteristics



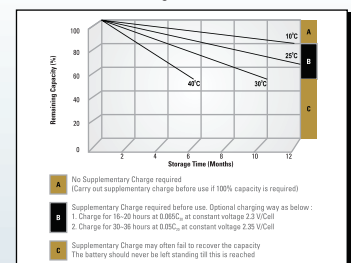
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No Supplementary Charge required  
(Carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary Charge required before use. Optional charging way as below:  
1. Charge for 16-20 hours at 0.085C<sub>10</sub> at constant voltage 2.3 V/Cell  
2. Charge for 26-30 hours at 0.05C<sub>10</sub> at constant voltage 2.30 V/Cell
- C** Supplementary Charge may often fail to recover the capacity  
The battery should never be left standing till this is reached