

# Valve Regulated Lead Acid batteries

#### **Gel Series**

### **GEL12240**

### (12V24Ah/20hr)





The rechargeable GEL batteries are lead-lead dioxide systems. Which are new products developed success base on SLA batteries. In contrast with AGM batteries, electrolyte of GEL batteries is composed of micro millimeter SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte is reversibility and steady three-dimensional network structure; especial grid alloy and gelled electrolyte " micro-crack" structure is easy for returning into H<sub>2</sub>O when producing oxygen; special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. On the other hand, the battery is completely sealed, maintenance-free, Safety and usable in any position.

#### **General Features**

- •Sealed and maintenance free operation.
- •Non-Spillable construction design.
- •ABS containers and covers(UL94HB, UL94V-0) optional.
- •Safety valve installation for explosion proof .
- •High quality and high reliability.
- •Exceptional deep discharge recovery performance.
- •Low self discharge characteristic.
- •Flexibility design for multiple install positions.

#### Application

Medical Equipment

• Emergency Power System

- •Cable Television
- Power tools

#### CONSTRUCTION

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Gelled acid

#### TECHNOLOGY PARAMETER

Battery model	GEL12240							
Designed Floating Life	3~5 Years							
Capacity	20hR(1.2A, 10.5V) 10hR(2.23A, 10.5V)		5hR(3.89A, 10.5V)	1hR(14.9A, 9.60V)				
(25℃)	24Ah	22.3Ah	19.45Ah	14.9Ah				
Dimensions	Length	Width	Height	Total Height				
Dimensions	175±1mm 166±1mm 125±1mm		125 ±1 mm	125±1mm				
Approx. weight (±5%)	7.3Kg							
Internal resistance	Full charged at 25°C: 13mOhms							
Self discharge	3% of capacity declined per month at 25 $^{\circ}$ C (average)							
Capacity Affected	40 °C	25 °C	0 °C	-15 °C				
by Temp.(20HR)	102% 100%		85%	65%				
Channe Valtage (25°C)	Cycl	le use	Float use					
Charge voltage (25 C)	14.4-14.7V(-30mV/°C	C), max. Current: 4.8A	13.6-13.8V(-20mV/°C)					





#### •UPS Communication Equipment

Toys

•Control Equipment



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## GEL12240 (12V24Ah/20hr)

End Point									
Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	82.9	58.0	44.2	26.2	14.9	6.50	4.24	2.35	1.26
1.65V	78.7	55.4	42.0	25.1	14.6	6.29	4.13	2.31	1.23
1.70V	74.1	52.3	39.9	24.0	14.2	6.08	4.01	2.26	1.22
1.75V	69.4	49.2	37.7	22.8	13.6	5.82	3.89	2.23	1.20
1.80V	64.7	46.6	35.5	21.7	13.0	5.55	3.77	2.19	1.18

#### Constant current discharge ratings-amperes at 25 $^{\circ}$ C

#### Constant power discharge ratings-watts at 25 $^\circ\!\!\mathrm{C}$

End Point									
Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	153	107	82.1	48.9	28.0	12.3	8.06	4.48	2.42
1.65V	145	102	77.7	46.7	27.3	11.8	7.80	4.38	2.35
1.70V	136	95.7	73.3	44.5	26.5	11.4	7.54	4.27	2.31
1.75V	126	89.5	69.0	42.0	25.2	10.8	7.28	4.20	2.27
1.80V	117	83.9	64.3	39.5	23.8	10.2	6.98	4.07	2.20





