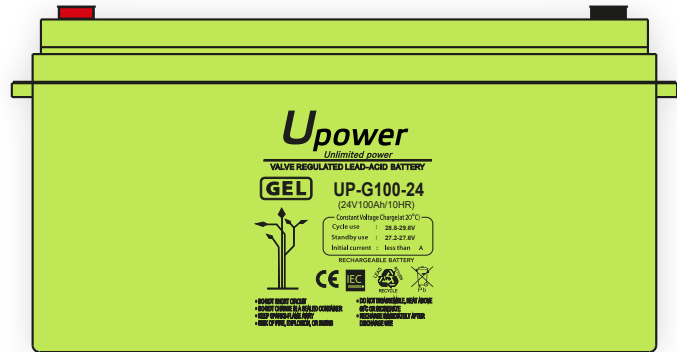


## UP Series G100-24

GENERAL PURPOSE GEL



### Main Features

- By combining a newly developed corrosion resistance alloy and advanced curing process, Upower created a range of long life batteries - Duration range.
- The range features top termination and offers 12 years design life.
- This battery series is highly suited to UPS systems, switchgear, CATV and telecommunication systems applications.

#### Complied Standards

- IEC 60896-21/22
- JIS C8704
- UL1989
- GB/T19639

24 V  
voltage

100 Ah  
capacity

GEL  
technology

12 years  
design life

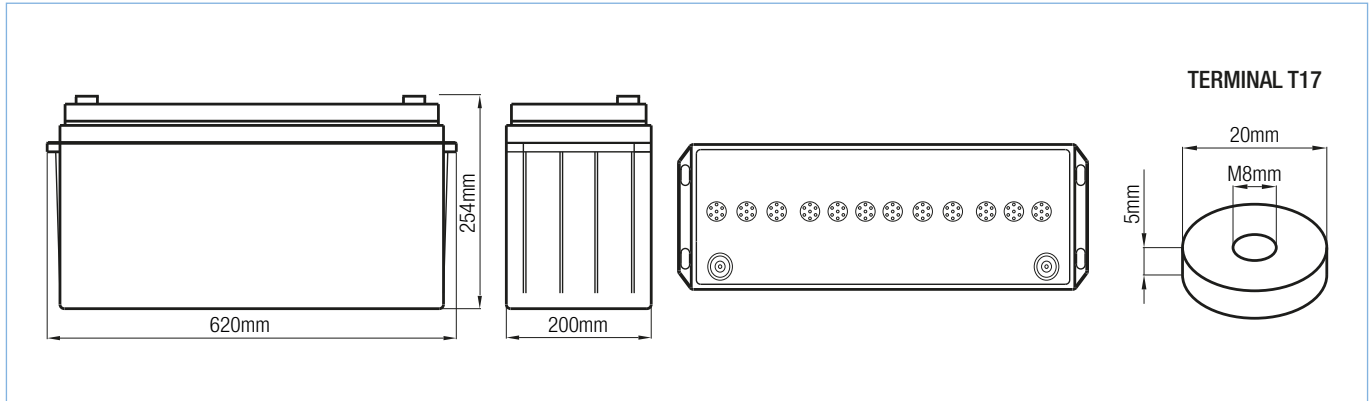


### Technical Specifications

Nominal Voltage (V)	24 (12 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	100Ah @ 10Hr-rate (to 1.80Vpc)
Dimension, L x W x H (mm)	620 x 200 x 254
Approx. Weight	60Kg (132.4lbs)
Terminal Type	Female Copper Insert M8 (torque: 6 ~ 7N.m)
Internal Resistance	Approx. 0.0045 Ω (fully charged @ 20°C)
Maximum Charge Current	25A
Maximum Discharge Current (5S)	800A
Short Circuit Current	2600A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -20 ~ 60°C Charge: -20 ~ 60°C Storage: -20 ~ 45°C
Float Charge Voltage (20~25°C)	27.2 - 27.6V (-3 mV/cell/°C)
Equalize and Cycle Use Charge Voltage (20~25°C)	28.8 - 29.6V (-5 mV/cell/°C)
Container Material	ABS (UL94-V0 optional)



## Battery Dimensions



## Battery Discharge Tables

Constant Current Discharge Characteristics: Amps (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	300	221	183	113	67.6	39.3	28.3	22.6	18.8	12.9	10.6	5.71
1.67 V	268	204	172	108	65.8	38.6	28.0	22.3	18.6	12.7	10.5	5.58
1.70 V	239	185	163	104	64.3	38.1	27.7	22.1	18.4	12.5	10.3	5.45
1.75 V	208	172	151	100	63.0	37.4	27.2	21.8	18.2	12.4	10.2	5.35
1.80 V	184	157	141	95.6	60.9	36.6	26.7	21.3	17.7	12.1	10.0	5.25
1.85 V	157	141	128	90.2	58.3	35.2	25.8	20.7	17.3	11.8	9.74	5.13

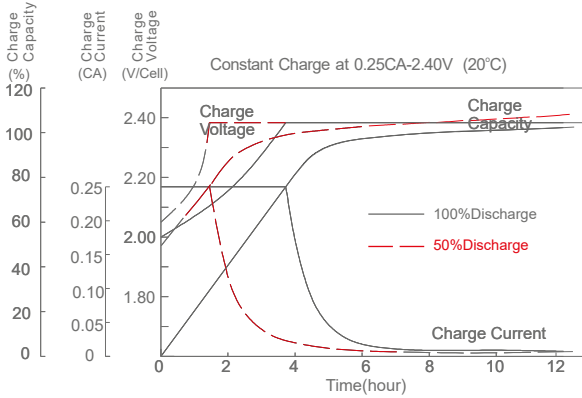
Constant Power Discharge Characteristics: W/cell (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	528	398	333	208	126	73.7	53.5	42.8	35.8	24.7	20.5	11.1
1.67 V	477	370	316	200	123	72.9	53.2	42.5	35.6	24.5	20.3	10.9
1.70 V	431	340	302	194	121	72.5	52.9	42.4	35.5	24.4	20.2	10.7
1.75 V	380	320	283	189	120	71.8	52.6	42.3	35.4	24.3	20.1	10.6
1.80 V	340	294	267	182	117	70.9	52.0	41.7	34.8	23.9	19.9	10.5
1.85 V	296	268	245	174	113	68.8	50.7	40.8	34.3	23.5	19.5	10.3

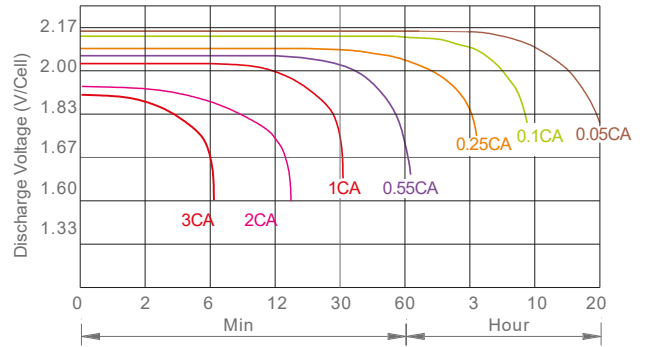
## Final Voltage Settings Recommended According to the Discharge Current

Discharge Current I (A)	$I \leq 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$I \geq 1.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$

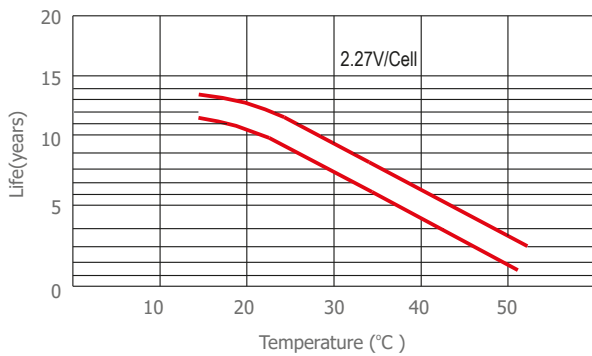
### Charge Characteristic



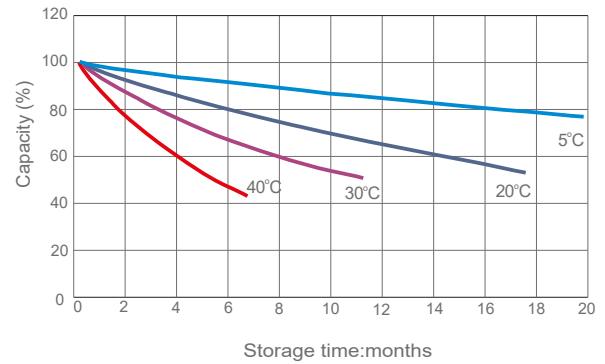
### Discharge Characteristic (20°C)



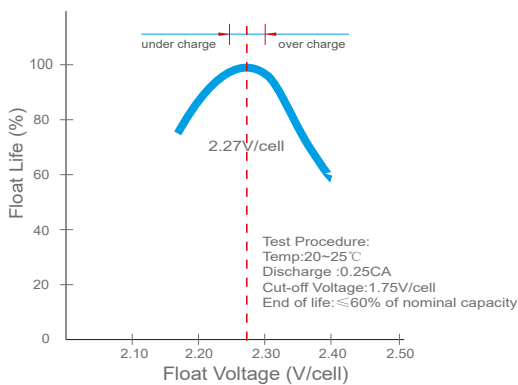
### Temperature vs Float Life



### Self Discharge Characteristics



### Float Voltage vs Float Life



### Capacity vs Temperature

