VOZ
valve regulated lead-acid battery

TF12-28 12V 28AH

VALVE REGULATED LEAD ACID BATTERY

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	28AH	
Dimension	Length	165 ±1mm (6.50 inches)
	Width	125 ±1mm (4.92 inches)
	Container Height	175 ±1mm (6.89 inches)
	Total Height (with Terminal)	182 ±1mm (7.17 inches)
Approx Weight	Approx 7.7kg (17.0lbs)	
Terminal	T3/T10/T12	
Container Material	ABS	
Rated Capacity	28.0 AH/1.20A	(20hr ,1.80V/cell,25℃/77℉)
	26.3 AH/2.23A	(10hr,1.80V/cell,25℃/77℉)
	23.4 AH/4.08A	(5hr,1.75V/cell,25℃/77℉)
	18.4 AH/6.12A	(3hr,1.75V/cell,25℃/77℉)
	15.1 AH/15.1A	(1hr,1.60V/cell,25℃/77℉)
Max. Discharge Current	360A (5s)	
Internal Resistance	Approx 15mΩ	
Operating Temp.Range	Discharge : -15 ~50℃ (5 ~122℉)	
	Charge : 0 ~40℃ (32 ~104℉)	
	Storage : -15 ~40℃ (5 ~104℉)	
Nominal Operating Temp. Range	25±3℃ (77±5℉)	
Cycle Use	Initial Charging Current less than 7.2 A.Voltage	
	14.4V~15.0V at 25℃(77℉)Temp. Coefficient -30mV/℃	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25℃(77℉)Temp. Coefficient -20mV/℃	
Capacity affected by Temperature	40℃ (104 ℉)	103%
	25℃ (77 ℉)	100%
	0℃ (32 ℉)	86%
Self Discharge	Techfine batteries may be stored for up to 6months at 25℃ (77℉) and battery should be recharge before use . For higher temperatures the time interval will be shorter.	

Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply
- Auto controlsystem

ISO 9001 | ISO 14001 | OHSAS 18001 | TLC | CE | RoHS

Constant Current Discharge (Amperes) at 25 ℃ (77℉)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	45.7	35.1	29.1	25.1	19.4	14.32	12.07	7.14	5.58	4.54	3.70	3.21	2.59	2.16	1.19
1.80V/cell	61.3	44.8	35.1	29.7	22.9	16.7	13.52	7.79	6.01	4.85	3.97	3.45	2.75	2.23	1.20
1.75V/cell	69.2	49.3	38.4	32.0	23.8	17.3	14.14	8.08	6.12	4.96	4.08	3.54	2.80	2.29	1.21
1.70V/cell	76.2	53.7	41.0	33.6	24.8	18.0	14.59	8.28	6.29	5.09	4.18	3.61	2.84	2.34	1.23
1.65V/cell	84.0	58.0	43.6	35.7	26.1	18.4	14.93	8.40	6.56	5.26	4.30	3.69	2.88	2.39	1.25
1.60V/cell	92.6	62.9	46.6	38.0	27.6	19.2	15.07	8.76	6.76	5.43	4.44	3.77	2.91	2.41	1.26

Constant Power Discharge (Watts) at 25 ℃ (77℉)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	83.6	64.8	54.3	47.4	37.0	27.5	23.3	13.9	10.9	8.88	7.26	6.32	5.12	4.28	2.35
1.80V/cell	111.0	81.9	64.7	55.2	43.0	31.8	25.9	15.0	11.6	9.43	7.76	6.75	5.41	4.41	2.37
1.75V/cell	122.5	88.5	69.8	58.8	44.3	32.6	27.0	15.5	11.8	9.60	7.93	6.91	5.49	4.52	2.39
1.70V/cell	131.1	94.3	73.4	61.3	45.9	33.8	27.8	15.9	12.1	9.84	8.12	7.04	5.56	4.61	2.44
1.65V/cell	142.5	100.8	77.5	64.7	48.0	34.4	28.2	16.0	12.6	10.1	8.32	7.18	5.64	4.70	2.47
1.60V/cell	153.6	107.0	81.5	68.1	50.3	35.6	28.3	16.6	12.9	10.4	8.56	7.31	5.68	4.74	2.48

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

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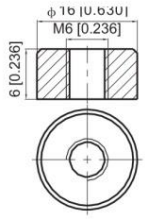
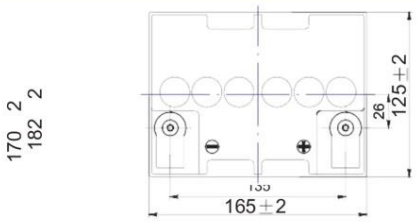
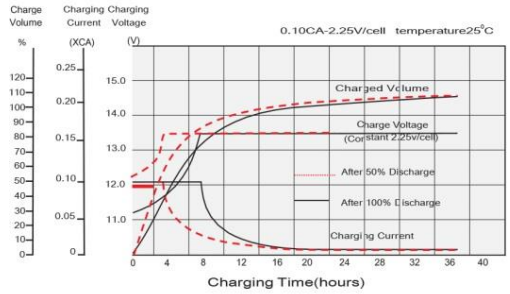
Dimensions

Unit: mm [inches]

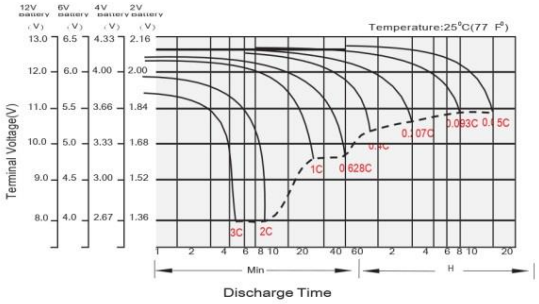




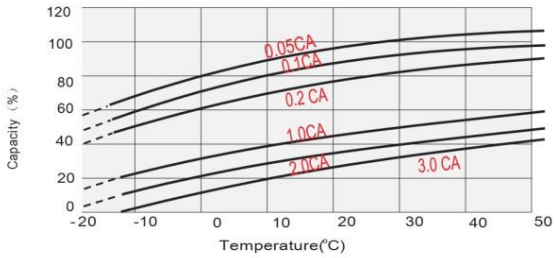
Float Charging Characteristics



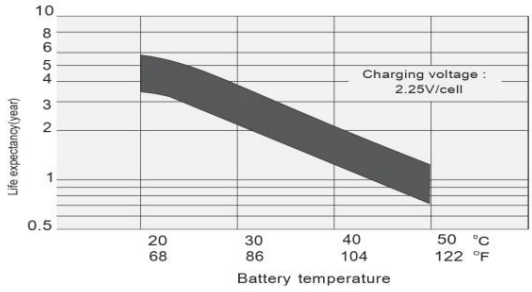
Discharge Characteristics



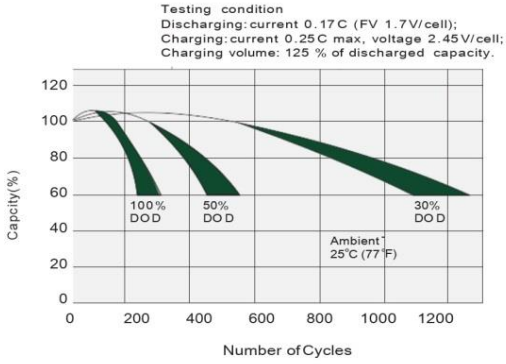
Temperature Effects in Relation to Battery Capacity



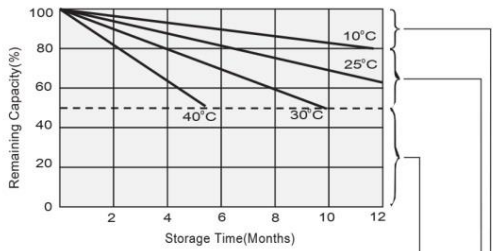
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Supplementary charge required before us e.Optional charging w ay as below:
1.Charged for above 3 days at limited current 0.25CA and constant voltage 2 .25V/cell.
2.Charged for above 20 hours at limited current 0.25CA and constant voltage 2 .45V/cell.
3.Charged for 8～10hours at limited current 0.05CA .

No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)