REAL-EL

RT – 100

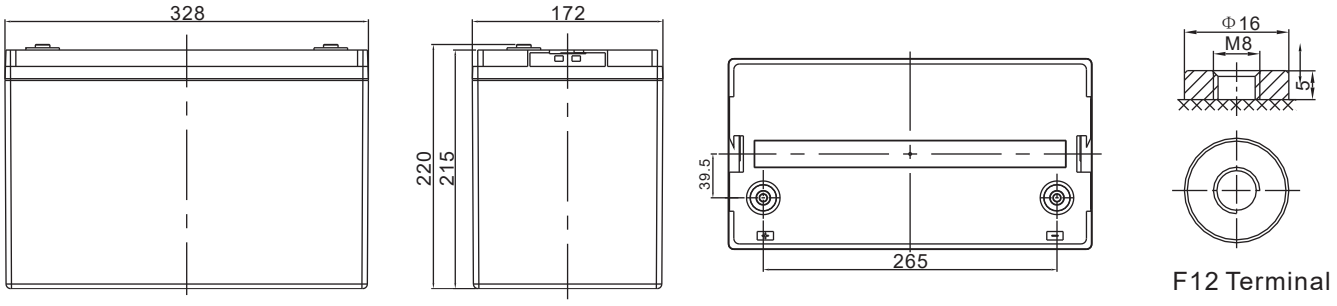
MAINTENANCE FREE SEALED LEAD-ACID BATTERY WITH SAFETY VALVE

- AGM type lead-acid battery
- Hermetic construction
- Does not emit gas during operation
- Reduced self-discharge current
- A system of valves to protect the battery from pressure increase
- Highly efficient lead-calcium electrode grids
- Maintenance-free and able to work in any position
- Suitable for UPS, telecommunications, power grids, medical equipment, emergency lighting and security systems.

Meets the standards IEC, JIS, BS, GB/T i YD/T.

ISO 9001 ISO 14001 ISO 45001 MH 28539 BSTXD2103160085 13EC

Dimensions



Length	328 ± 2 mm	Height	215 ± 2 mm	Terminal	Value
Width	172 ± 2 mm	Total Height	220 ± 2 mm	M8	10~12 Nm

Specifications	
Quantity of cells in the battery	6
Nominal voltage	12 V
Nominal capacity	100 Ah at 10-hour discharge up to 1.80 V per cell at 25˚C
Weight	28,5 kg (tolerance ± 5.0%)
Internal resistance	⩽ 5.5 mΩ (fully charged battery at 25˚C)
Terminal type	F12 (M8)
Maximum discharge current	1000 A (5 c)
Short circuit current	2150 A
The maximum charging current	30 A
Capacity at different discharge modes	C3 75.0 Ah C5 85.0 Ah C10 100.0 Ah C20 106.0 Ah
Voltage in float mode	13.6 V~13.8 V at 25˚C Temperature coefficient: -3 mV/˚C/cell
Voltage in cyclic mode	14.6 V~14.8 V at 25˚C Temperature coefficient: -4 mV/˚C/cell
Operating temperature range Discharge	Discharge: -20˚C ~ 60˚C Charging: 0˚C ~ 50˚C Storage: -20˚C ~ 60˚C
Normal operating temperature range	25˚C ± 5˚C
Self-discharge	REAL-EL Valve Regulated Lead-Acid (VRLA) batteries can be stored for up to 6 months at 25˚C, after which recharging is recommended. The monthly self-discharge rate is less than 3% at 25˚C. Batteries must be charged before use.
Body material	A.B.S. UL94-HB

Constant Current Discharge Characteristics : A (25˚C)

*F.V/Time	10 min.	15 min.	30 min.	1 hr.	2 hr.	3 hr.	4 hr.	5 hr.	8 hr.	10 hr.	20 hr.
1.60V	231.9	185.4	109.5	61.1	36.4	28.2	22.2	18.9	12.7	10.5	5.52
1.65V	219.1	177.3	105.1	59.0	35.2	27.3	21.6	18.4	12.5	10.4	5.43
1.70V	201.7	166.0	100.5	57.1	34.1	26.6	21.0	17.9	12.3	10.3	5.36
1.75V	184.6	154.5	96.0	55.0	32.9	25.8	20.4	17.4	12.2	10.1	5.30
1.80V	167.1	142.7	91.8	52.9	31.7	25.0	19.9	17.0	12.0	10.0	5.25
1.85V	136.6	118.4	79.1	47.4	29.1	23.1	18.5	15.9	11.2	9.41	4.98

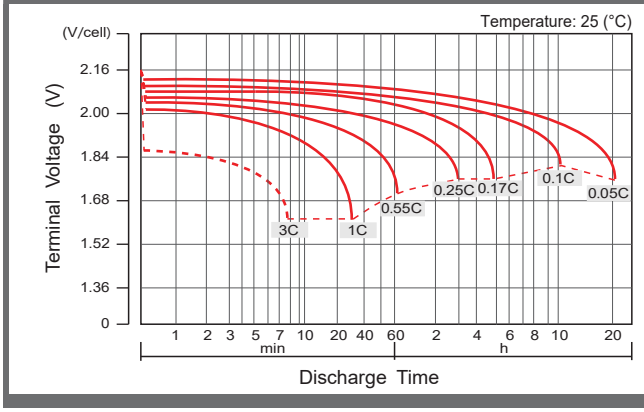
Constant Power Discharge Characteristics: W/Cell (25˚C)

*F.V/Time	10 min.	15 min.	30 min.	1 hr.	2 hr.	3 hr.	4 hr.	5 hr.	8 hr.	10 hr.	20 hr.
1.60V	394.1	324.1	198.9	114.8	69.0	53.9	42.6	36.4	24.8	20.7	10.9
1.65V	379.6	314.5	193.0	111.5	67.1	52.4	41.6	35.6	24.5	20.5	10.7
1.70V	355.9	298.9	186.3	108.6	65.3	51.2	40.6	34.8	24.2	20.2	10.6
1.75V	331.6	282.2	179.9	105.2	63.3	49.9	39.7	34.0	23.9	20.0	10.5
1.80V	305.4	264.3	173.7	101.8	61.3	48.6	38.7	33.2	23.6	19.8	10.4
1.85V	254.1	222.4	151.1	91.9	56.5	45.1	36.1	31.1	22.2	18.6	9.87

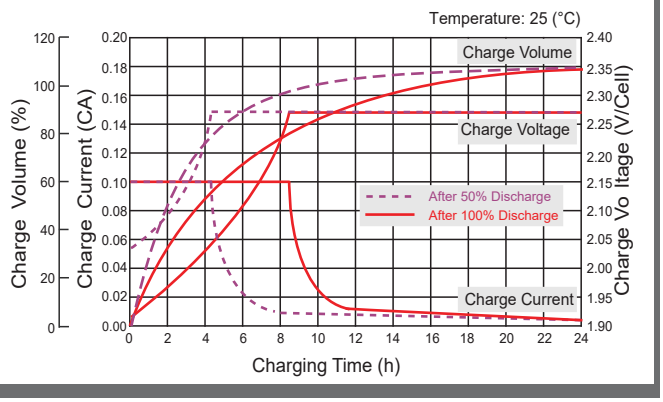
***The final voltage of the element, V**

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.
The battery must be fully charged before the capacity test. The C_{10} should reach 95% after the first cycle and 100% after the third cycle.

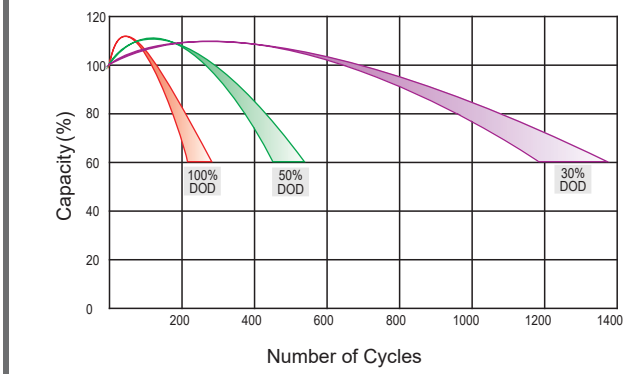
Discharge Characteristics Curve



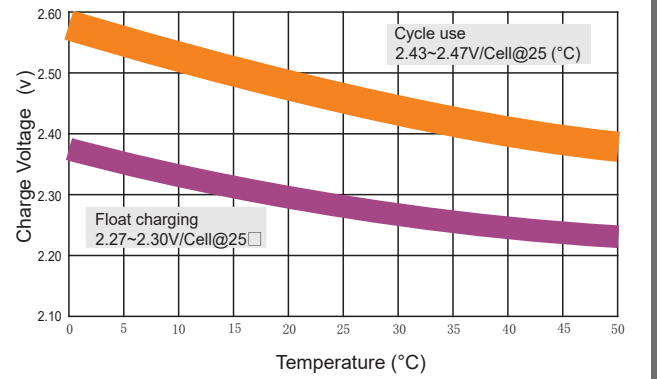
Charge Characteristic Curve For Standby Use(IU)



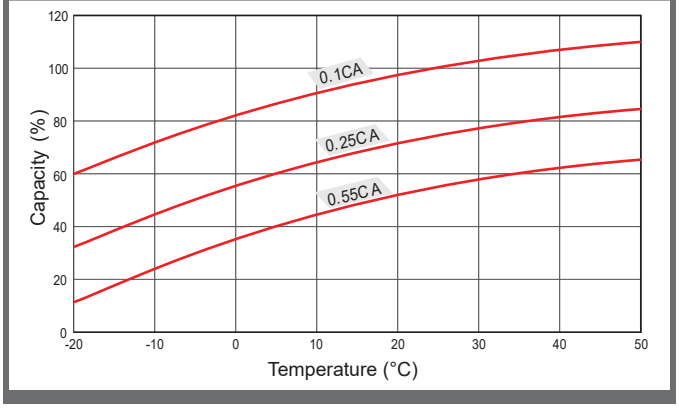
Cycle Life In Relation To Depth Of Discharge



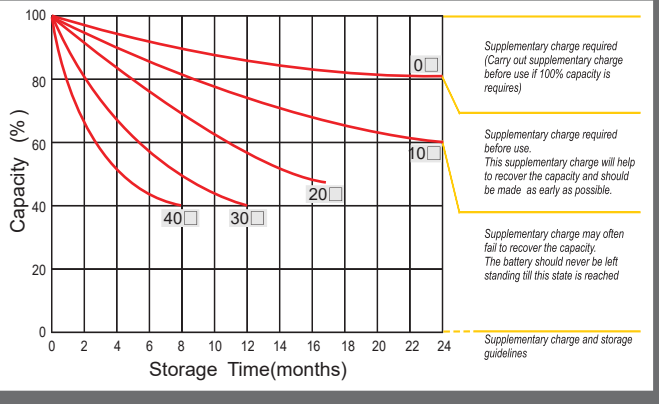
Relationship Between Charging VoltageAnd Temperature



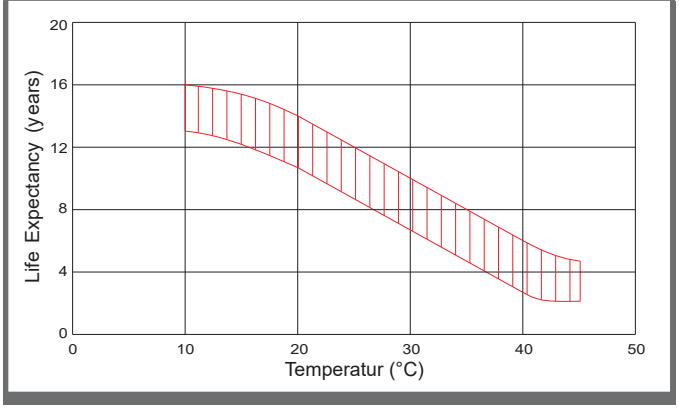
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use