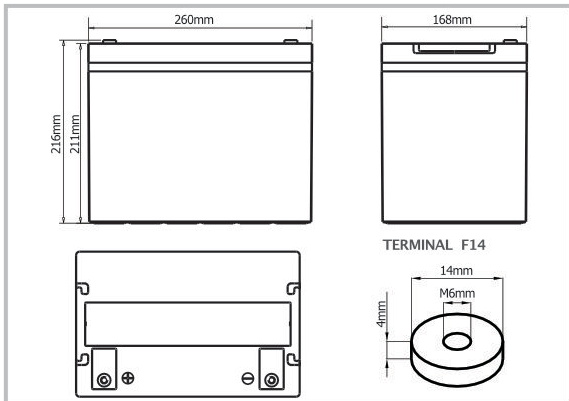


## HX MiddleSize SERIES VRLA BATTERY

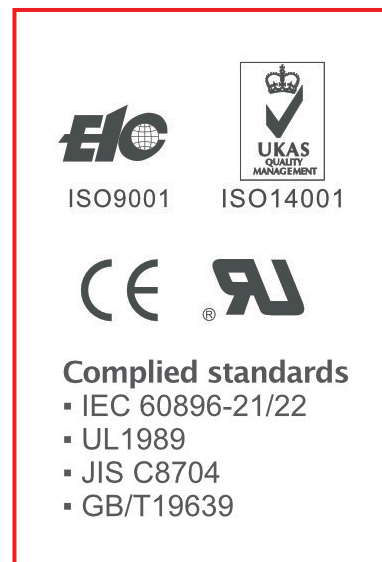
HX Middle Size Series battery is a range of long life batteries, by combining a newly developed corrosion resistance alloy and advanced curing process. The range features top termination and offers 12 years design life. This battery series is highly suited to UPS systems, switchgear, CATV and telecommunication systems applications.

### BATTERY DIMENSIONS



### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	70 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L260mm x W166mm x H216mm
Approx. Weight	21.5 kg (47.4 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~7N.m)
Internal Resistance	Approx. 0.0055 Ohm (fully charged @ 20°C)
Max. Charge Current	21A
Max. Discharge Current (5S)	675 A
Short Circuit Current	2180 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

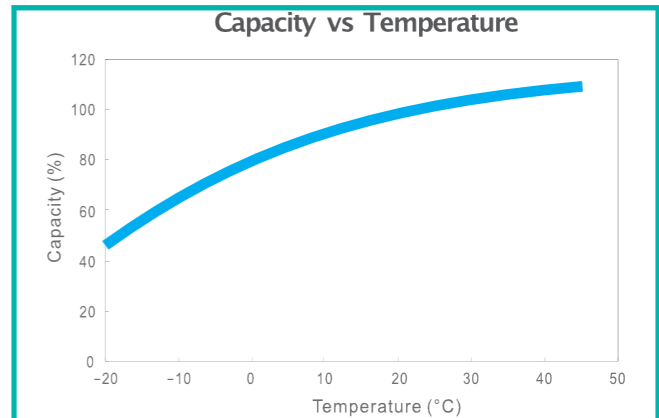
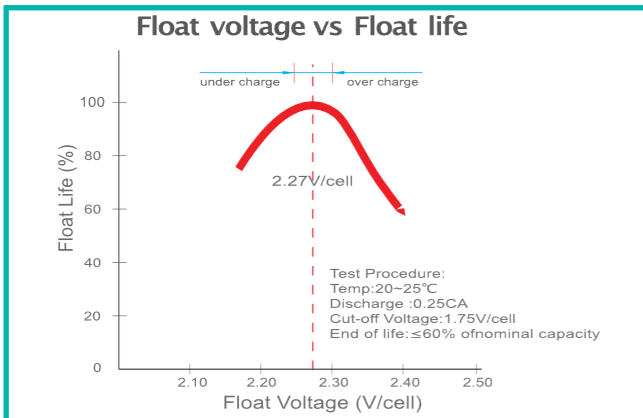
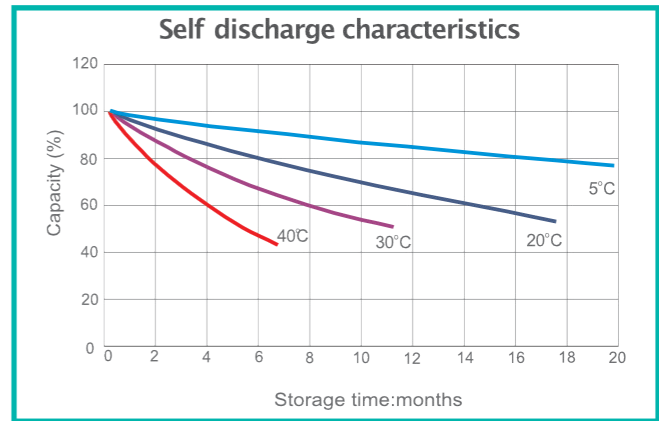
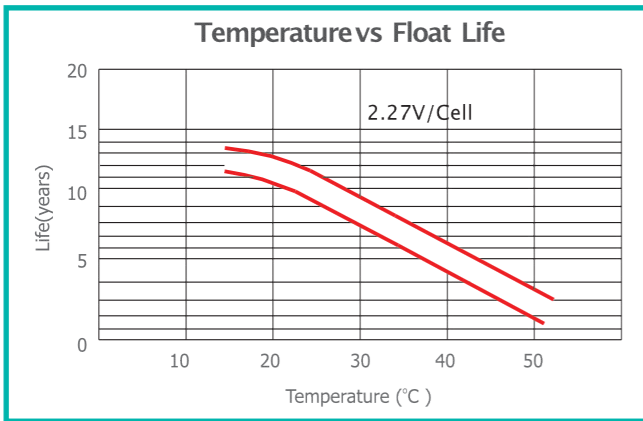
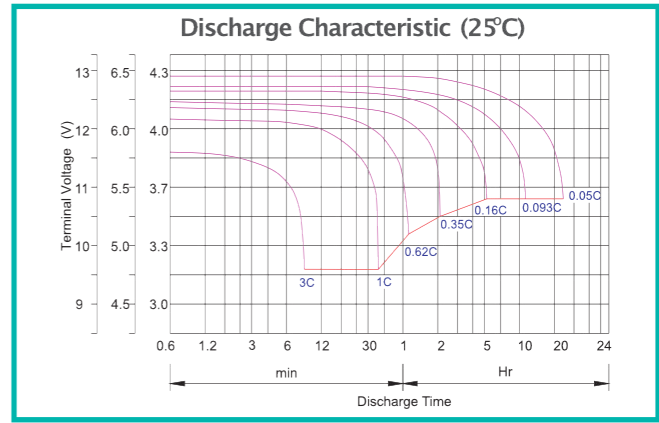
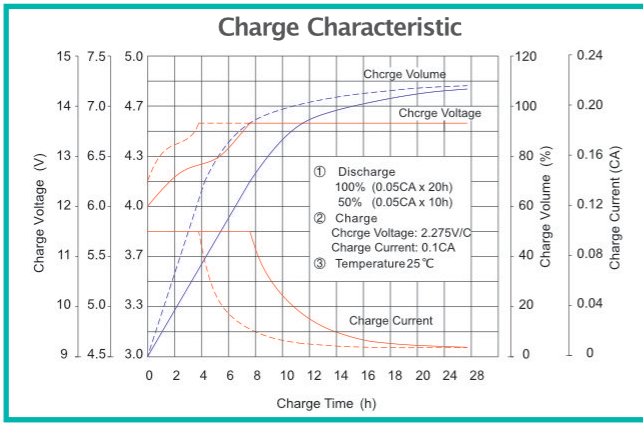


### BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	210	155	128	78.8	47.3	27.5	19.8	15.8	13.2	9.00	7.42	4.00
1.67V	187	143	121	75.3	46.1	27.0	19.6	15.6	13.0	8.88	7.33	3.91
1.70V	167	130	114	72.5	45.0	26.6	19.4	15.4	12.9	8.77	7.24	3.82
1.75V	145	121	106	70.0	44.1	26.2	19.1	15.3	12.7	8.65	7.14	3.75
1.80V	129	110	98.6	66.9	42.6	25.6	18.7	14.9	12.4	8.44	7.00	3.67
1.85V	110	99	89.9	63.1	40.8	24.6	18.1	14.5	12.1	8.26	6.82	3.59

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	370	278	233	146	88.2	51.6	37.4	30.0	25.1	17.3	14.3	7.76
1.67V	334	259	222	140	86.4	51.0	37.2	29.8	24.9	17.2	14.2	7.63
1.70V	302	238	211	136	85.0	50.7	37.1	29.7	24.9	17.1	14.2	7.52
1.75V	266	224	198	132	83.9	50.3	36.8	29.6	24.8	17.0	14.1	7.42
1.80V	238	206	187	127	81.9	49.6	36.4	29.2	24.4	16.7	13.9	7.34
1.85V	207	187	172	122	79.1	48.2	35.5	28.6	24.0	16.5	13.6	7.21

## CHARACTERISTICS



### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

<b>Float Service:</b>
※ Every month, recommend inspection every battery voltage.
※ Every three months, recommend equalization charge for one time.
Equalization charge method:
Discharge: 100% rate capacity discharge.
Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.
※ Effect of temperature on float charge voltage: -3mV/°C/Cell.
※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.