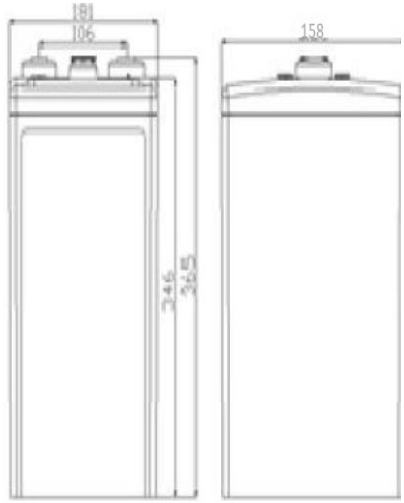
Express Refill Battery/ ERB-400

Express Refill Battery (ERB) is a valve - regulated lead acid batteries with hybrid dual power charging feature which is built specifically for poor grid places. ERB provides excellent back up energy storage for telecommunication mobile stations explicitly in presence of solar or wind power. ERB is one of the fast-charging batteries on the market. The advanced manufacturing using nanotechnology enables us to achieve a 15 years designed life for standby usage.



Technical Features:

- More than 90% of energy efficiency
- Enhanced charging acceptability
- Bear hybrid charging

Attain Certificates:

- ISO9001
- ISO14001
- ISO18001
- CE

TECHNICAL SPECIFICATIONS

Normal Voltage	2V
Capacity	400Ah @ 10hr to 1.80V @ 25°C(77°F)
Weight	24 kg (52.8 lbs)
Dimensions	Length: 181 mm (7.13 in) Width: 158 mm (6.22 in) Height: 346 mm (13.62 in) Total height: 365 mm (14.37 in)
Internal Resistance (full charged)	0.51mΩ
Short- circuit current	4380A
Self-Discharge @25°C(77°F)	Less than 3% after 30 days storage
Operating Temperature Range	Discharge: -40°C ~ 50°C(-40°F ~ 122°F) Charge: -20°C ~ 45°C(-4°F ~ 113°F) Storage: -20°C ~ 40°C(-4°F ~ 104°F)
Recommended Operating Temperature	15°C ~ 25°C (59°F ~ 77°F)
Recommended Charging Current	60A
Charging Voltage @25°C(77°F)	Float: 2.23 V/cell Equalize: 2.35 V/cell
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature	106 % @ 40°C 80 % @ 0°C 60 % @ -20°C
Design life @25°C	15 years

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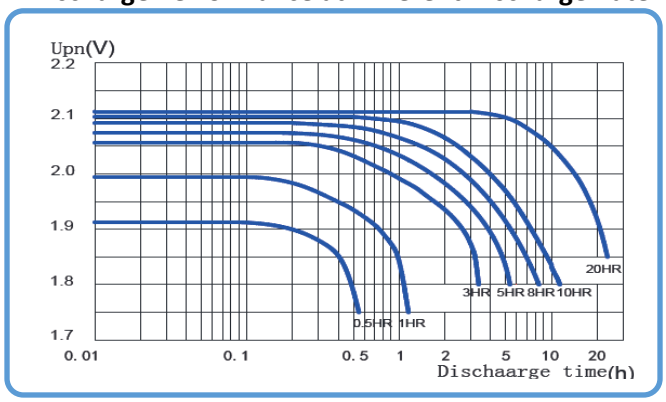
Constant Current Discharge Characteristics Unit: A (25ºC, 77ºF)

F.V/Time	1h	1.5h	2h	3h	4h	5h	6h	8h	10h
1.90V	170	155	109	83	75	57.8	52.2	44.3	18.4
1.85V	186	176	117	91	81	62.2	56.2	47.0	19.9
1.80V	203	181	128	102	84	67.5	61.4	48.3	20.7
1.75V	225	190	141	110	86	72.4	62.6	49.3	21.0
1.70V	252	198	146	112	87	73.4	63.4	49.7	21.2
1.65V	263	202	149	113	88	73.8	63.8	49.9	21.3

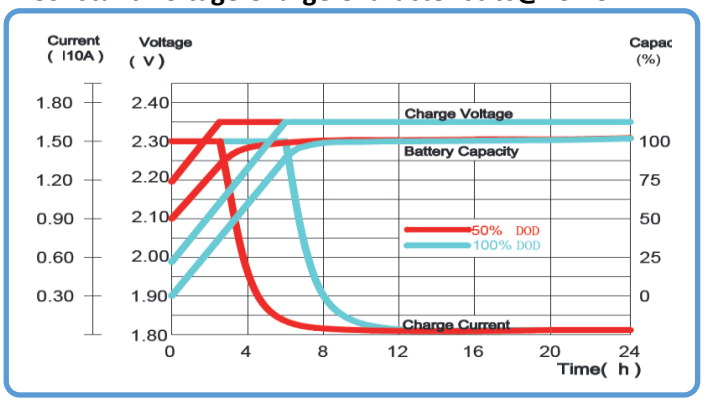
Constant Power Discharge Characteristics Unit: W/cell (25ºC, 77ºF)

F.V/Time	1h	1.5h	2h	3h	4h	5h	6h	8h	10h
1.90V	310	282	228	172.8	146.3	120.1	103.5	88.8	72.7
1.85V	339	317	242	188.3	155.2	129.6	110.8	93.6	78.1
1.80V	398	324	254	198.0	160.2	136.4	120.7	95.9	80.7
1.75V	419	336	264	202.4	162.9	138.6	122.6	97.6	81.6
1.70V	440	348	271	205.4	165.1	140.1	123.8	98.2	82.2
1.65V	452	352	275	206.6	166.2	140.8	124.4	98.5	82.5

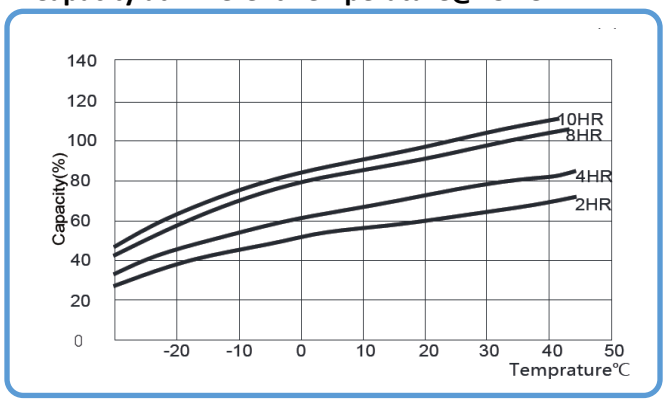
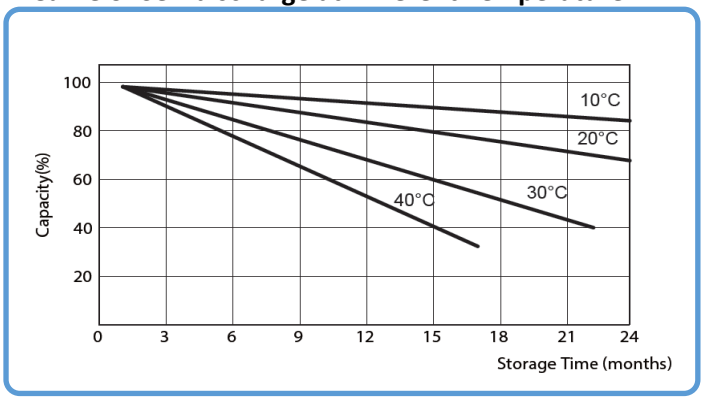
Discharge Performance at Different Discharge Rate



Constant Voltage Charge Characteristics@25 ºC



Capacity at Different Temperature@25 ºC



Curve of Self-discharge at Different Temperature