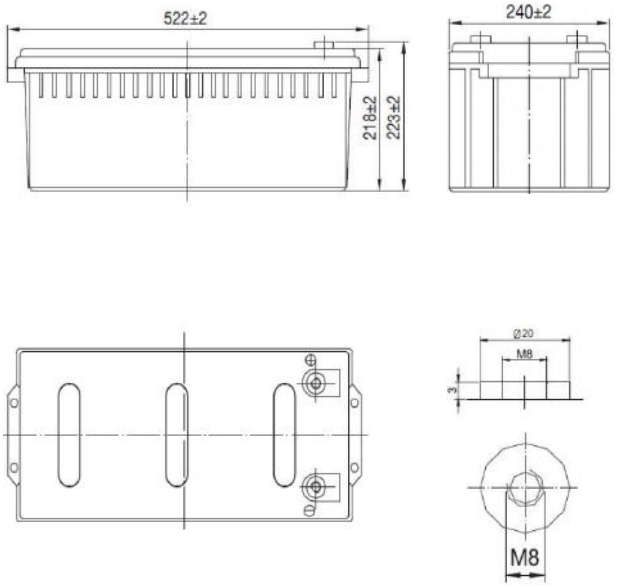
AccuForce S

AccuForce 12V - 230Ah S

AGM VRLA Battery

APPLICATIONS

- Solar / Wind power systems
- Residential installations
- Golf carts and electric powered vehicles
- Marine equipment
- Electric wheelchairs
- Traffic systems (signaling and lighting)
- Remote monitoring and controlling
- Power tools and cleaning machines
- Uninterruptible power supply (UPS)



SPECIFICATIONS

Nominal Voltage		12 V
Number of cells		6
Cycle life		Approx. 800 cycles at 50% DOD
Dimensions	Length	522 mm
	Width	240 mm
	Height	218 mm
	Total Height	223 mm
Weight		57.5 kg
Nominal Capacity (25°C)	120 hours rate (1.85)	236 Ah
	100 hours rate (1.85)	232 Ah
	48 hours rate (1.80)	219 Ah
	10 hours rate (1.80)	202 Ah
Internal Resistance (fully charged, 25°C)		3.00 mOhm
Self Discharge		approx. 3% per month at 25°C
Nominal Operating Temperature		25°C
Operating Temperature range	Discharge	-15°C to 45°C
	Charge	0°C to 40°C
	Storage	-15°C to 40°C
Float Charging Voltage		2.27 to 2.30 V/cell at 25°C
Temperature compensation		-18mV/°C
Cyclic Charging Voltage		2.40 to 2.47 V/cell at 25°C
Temperature compensation		-30mV/°C
Maximum charging current		60.0 A
Maximum discharge current (25°C)		1900 A (5 sec.)
Short Circuit Current (25°C)		2850 A

PERFORMANCE DATA

Discharge Constant Current at 25°C (Amperes)

End Voltage (V/cell)	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h	48h	72h	100h	120h
1.60V	337	204	126	73.7	51.5	42.2	36.1	31.4	24.7	20.6	11.0	----	----	----	----
1.65V	329	200	124	73.3	51.3	42.0	35.8	30.9	24.6	20.5	10.9	----	----	----	----
1.70V	317	194	121	72.7	50.9	41.6	35.6	30.9	24.4	20.4	10.8	4.71	----	----	----
1.75V	305	189	119	71.7	50.5	41.4	35.4	30.7	24.2	20.3	10.7	4.67	3.33	----	----
1.80V	289	182	115	69.9	49.1	40.2	34.3	29.7	23.4	20.2	10.6	4.56	3.08	----	----
1.85V	275	173	109	66.4	46.7	38.2	32.6	28.2	22.2	19.2	10.1	4.42	2.99	2.32	1.97

Discharge Constant Power at 25°C (Watts/Cell)

End Voltage (V/cell)	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h	48h	72h	100h	120h
1.60V	616	378	239	141	100	81.8	70.7	61.3	48.8	41.0	21.8	----	----	----	----
1.65V	601	372	236	141	99.7	81.5	70.0	60.9	48.8	40.8	21.7	----	----	----	----
1.70V	579	361	231	140	99.0	80.8	69.7	60.6	48.5	40.3	21.5	9.38	----	----	----
1.75V	559	353	226	138	98.3	80.5	69.0	60.0	48.2	40.3	21.3	9.30	6.25	----	----
1.80V	530	341	220	135	95.7	78.8	67.7	58.6	46.5	40.0	21.2	9.12	6.15	----	----
1.85V	504	324	209	128	90.8	74.8	64.3	55.8	44.2	38.0	20.2	8.78	5.92	4.62	3.92

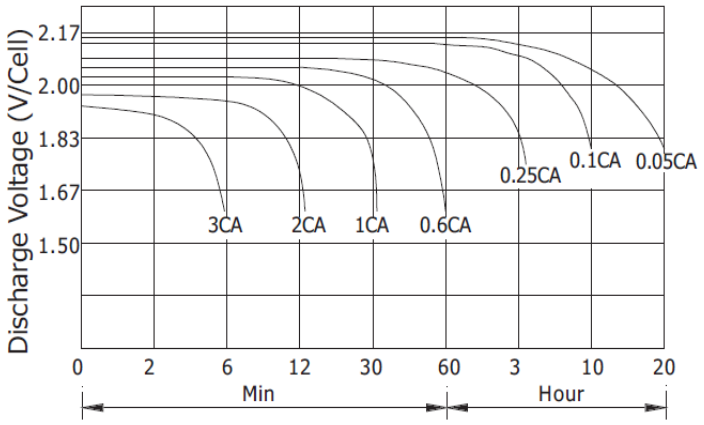
Note: The above characteristics data can be obtained within three charge/discharge cycles.

AccuForce S

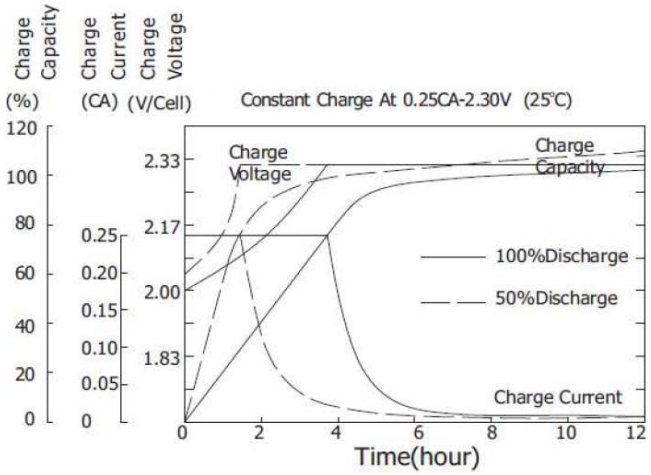
AccuForce 12V - 230Ah S

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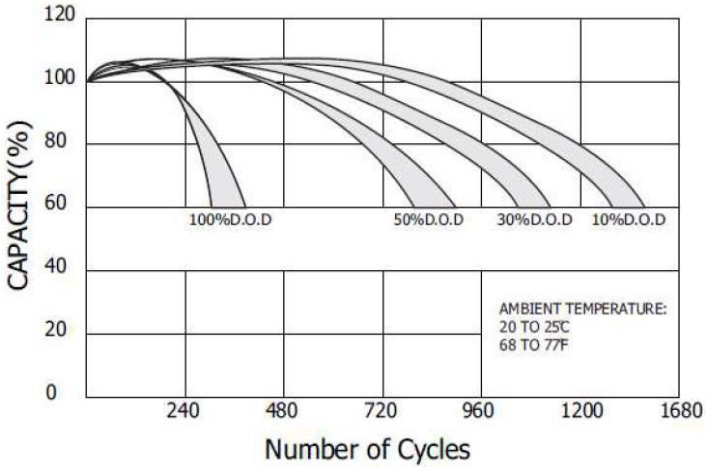
Discharge Characteristics (25°C)



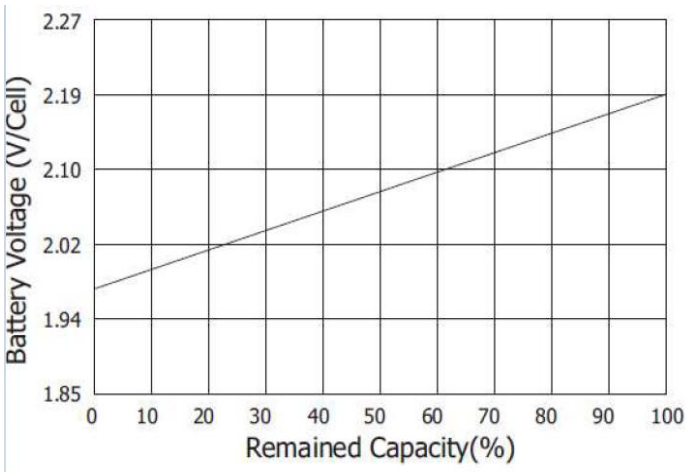
Charging Characteristics (25°C)



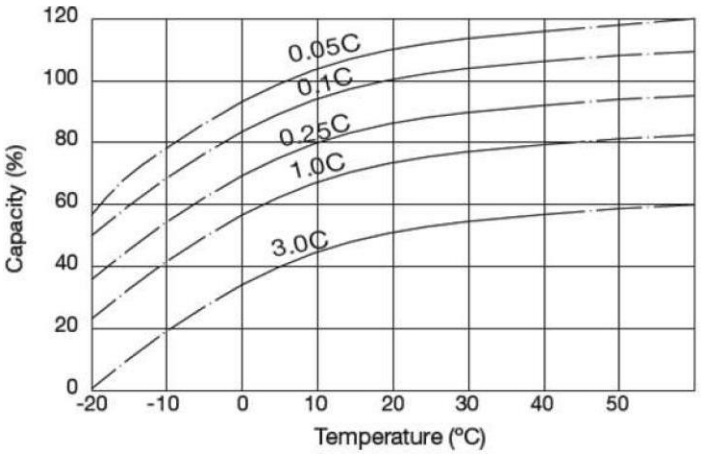
Cycle Service Life in Relation to Depth of Discharge



Relationship Between OCV and Residual Capacity (25°C)



Temperature Effects on Capacity



Self Discharge characteristics

