



HIYOTA BATTERY



MFNS60L

Capacity 45 Ah

Dimension 237x129x231 mm

ourCCA 450

Weight 9,9 Kg

Polarity (- +)

Terminal type B

Hold down NO

Specifications		HB
Terminal type	Standard terminal	BOLT & NUT TYPE
	Optional terminal	
Content material	Standard terminal	ABS
	Flame retardant option	ABS (UL94:VO available)
Discharge current	1400A (5s)	
Internal resistance	Approx 2.9mΩ	
Download Features	Operating temperature range	Download: -15 ~ 50°C (5 ~ 122°F) Load: 0 ~ 40°C (32 ~ 104°F) Storage: -15 ~ 40°C (5 ~ 104°F)
	Rated operating temperature range	25 ± 3°C (77 ± 5°F)
	Rated operating temperature range	Initial charging current less than 45A Voltage
	Standby use	No limit on initial charging current 13.5V ~ 13.8V at 25°C (77°F) Temp
	Capacity affected by temperature	40°C (104°F) 103%
		25°C (77°F) 100%
		0°C (32°F) 86%
Float life design	20°C	4 ~ 6
Self discharge	HB batteries can be stored for up to 6 months at 25°C (°77F), then a recharge will be necessary. For higher temperatures, the time interval to carry out this recharge will be less.	



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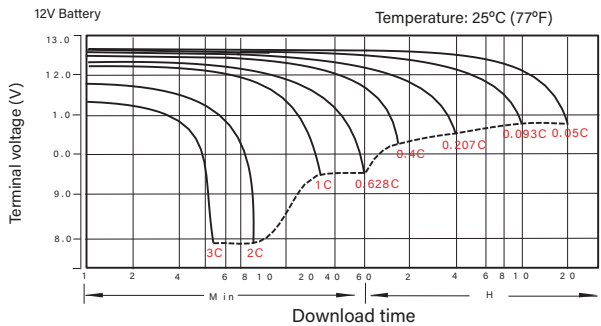
Constant Current Discharge (Amps) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	256.7	201.8	171.6	143.6	114.1	86.4	70.7	45.0	35.6	29.1	23.5	20.4	16.6	14.2	7.73
1.80V/cell	344.6	257.9	207.4	169.7	134.6	100.4	79.2	49.2	38.3	31.1	25.2	21.9	17.6	15.0	7.80
1.75V/cell	388.5	283.4	226.5	182.6	139.8	104.2	82.9	51.0	39.0	31.8	25.8	22.5	17.9	15.1	7.88
1.70V/cell	427.9	308.9	241.8	191.9	145.5	108.4	85.5	53.0	40.1	32.6	26.5	23.0	18.1	15.3	8.03
1.65V/cell	471.8	333.3	257.2	203.8	153.5	111.1	88.4	54.5	41.8	33.7	27.2	23.5	18.4	15.6	8.13
1.60V/cell	\	361.9	275.0	217.1	162.0	115.8	91.5	56.3	43.1	34.8	28.1	24.0	18.6	15.8	8.18

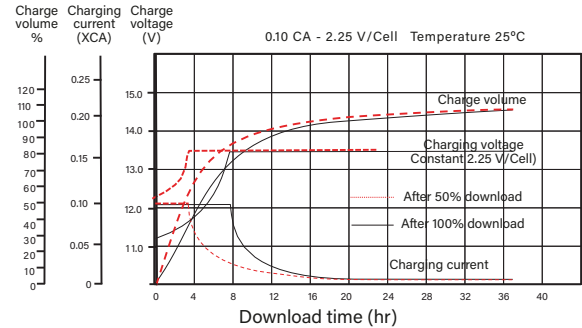
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	469.4	372.8	320.3	270.6	217.5	166.0	136.4	87.5	69.4	56.9	46.0	40.1	32.7	28.0	15.3
1.80V/cell	623.4	470.8	381.8	315.2	252.7	191.6	152.0	94.8	74.3	60.4	49.1	42.9	34.6	29.6	15.4
1.75V/cell	687.9	509.0	411.9	335.8	260.2	196.9	158.3	98.0	75.4	61.5	50.3	43.9	35.1	29.9	15.6
1.70V/cell	736.5	542.2	433.6	350.3	269.3	204.0	162.7	101.7	77.3	63.0	51.4	44.8	35.6	30.2	15.8
1.65V/cell	800.6	579.8	457.5	369.3	281.8	207.2	167.0	103.9	80.2	65.0	52.7	45.6	36.1	30.7	16.0
1.60V/cell	\	615.1	481.2	389.2	295.4	214.8	172.0	106.9	82.3	66.8	54.2	46.5	36.3	31.0	16.1

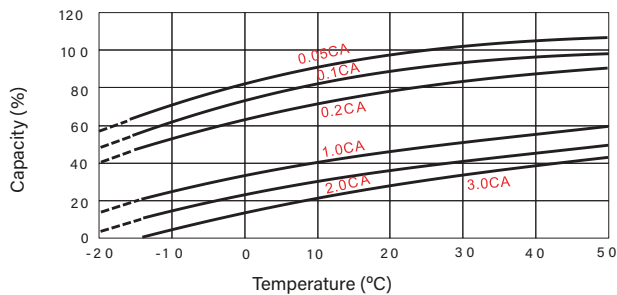
Download Features



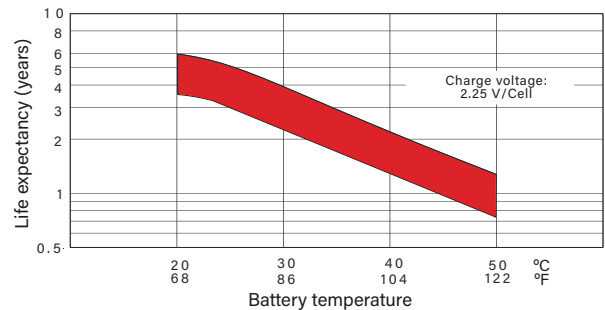
Float charge characteristics



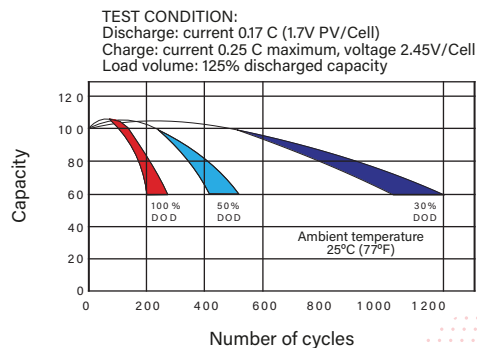
Temperature effects in relation to battery capacity



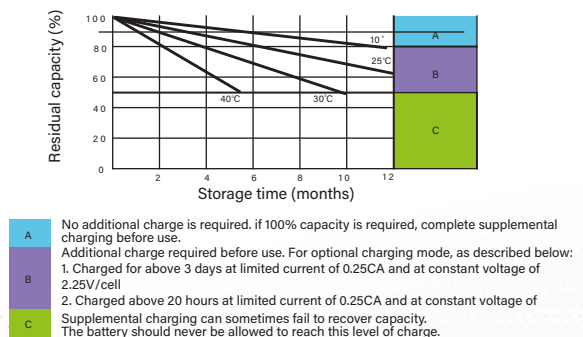
Temperature effects on long periods of float life



Life cycle in relation to deep discharge



Self-discharge features



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