

SHURIKEN®

AGM RECHARGEABLE BATTERY

SK SERIES-Deep Cycle

SK-BT20(12V20AH)



Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	18.0AH	
Dimension	Length	181.5±2mm (7.16 inches)
	Width	76.5±1mm (3.01 inches)
	Container Height	167.5±2mm (6.59 inches)
	Total Height (with Terminal)	167.5±2mm (6.59 inches)
Approx Weight	Approx 6.0 Kg (13.2lbs)	
Terminal	T3	
Container Material	ABS	
Rated Capacity	19.3 AH/0.965A	(20hr , 1.80V/cell, 25°C/77°F)
	18.0 AH/1.80A	(10hr, 1.80V/cell, 25°C/77°F)
	15.8 AH/3.16A	(5hr, 1.75V/cell, 25°C/77°F)
	14.3 AH/4.77A	(3hr, 1.75V/cell, 25°C/77°F)
	11.6 AH/11.6A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	270A (5s)	
Internal Resistance	Approx 15.0mΩ	
Operating Temp.Range	Discharge : -15~50°C (5~122°F)	
	Charge : 0~40°C (32~104°F)	
	Storage : -15~40°C (5~104°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 5.4A. Voltage	
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	SK series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Applications

- ♦ Electric tools
- ♦ Vehicle in place of walking
- ♦ Lawn mowers
- ♦ Golf trolleys and golf cart
- ♦ Portable apparatus, lights and instruments;
- ♦ Electric toys
- ♦ Illumination light
- ♦ Fire alarms
- ♦ Portable power
- ♦ Wheelchairs
- ♦ Medical equipments.

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	26.4	22.2	19.4	13.9	11.1	8.99	5.58	4.35	3.53	2.87	2.50	2.04	1.70	0.956
1.80V/cell	33.7	26.8	22.9	16.5	12.9	10.1	6.09	4.68	3.77	3.08	2.68	2.16	1.80	0.965
1.75V/cell	37.0	29.3	24.6	17.1	13.4	10.5	6.32	4.77	3.85	3.16	2.75	2.20	1.82	0.974
1.70V/cell	40.3	31.2	25.9	17.8	13.9	10.9	6.57	4.90	3.95	3.24	2.81	2.23	1.84	0.992
1.65V/cell	43.5	33.2	27.5	18.8	14.2	11.2	6.75	5.11	4.09	3.33	2.87	2.27	1.87	1.004
1.60V/cell	47.3	35.5	29.3	19.8	14.9	11.6	6.98	5.27	4.22	3.44	2.94	2.29	1.89	1.010

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	49.2	41.8	36.9	26.8	21.4	17.4	10.9	8.50	6.90	5.63	4.94	4.04	3.37	1.91
1.80V/cell	62.0	49.8	43.0	31.2	24.7	19.4	11.8	9.11	7.34	6.02	5.28	4.27	3.56	1.93
1.75V/cell	67.3	53.8	45.9	32.3	25.5	20.2	12.2	9.25	7.48	6.17	5.41	4.34	3.60	1.94
1.70V/cell	72.3	57.1	47.9	33.5	26.5	20.8	12.7	9.49	7.67	6.31	5.52	4.40	3.63	1.98
1.65V/cell	77.5	60.3	50.7	35.1	27.0	21.5	13.0	9.86	7.91	6.48	5.63	4.47	3.70	2.00
1.60V/cell	82.7	63.7	53.4	36.7	27.9	22.0	13.3	10.1	8.13	6.66	5.74	4.50	3.74	2.01

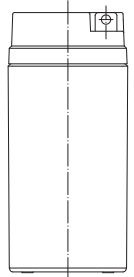
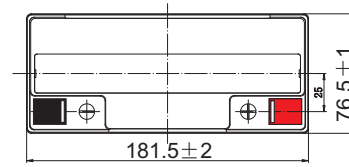
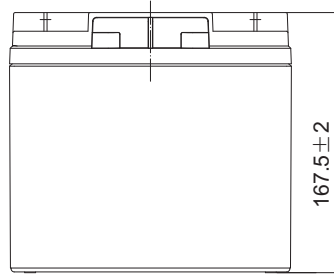
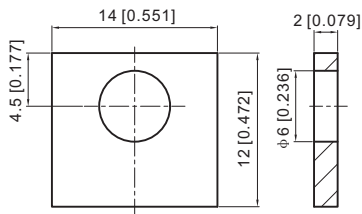
Specifications subject to change without notice.



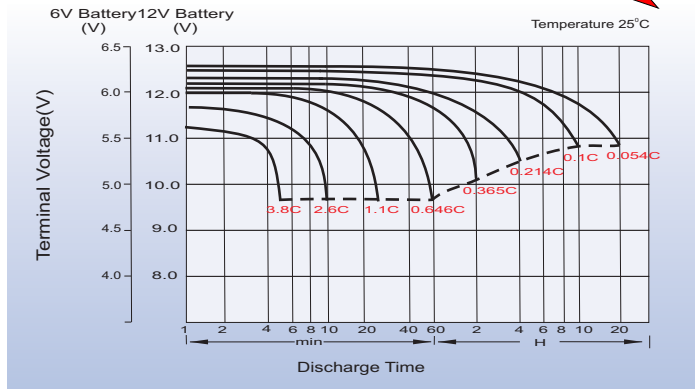
Dimensions

T3 Terminal

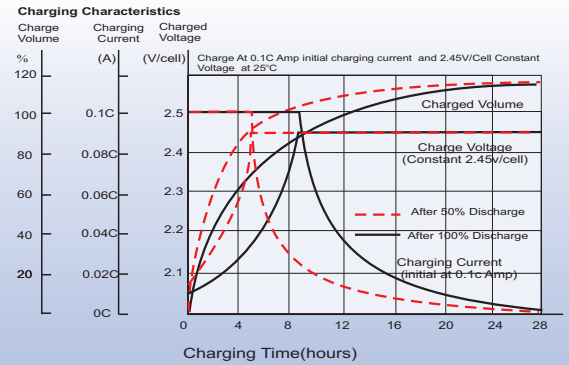
Unit: mm [inches]



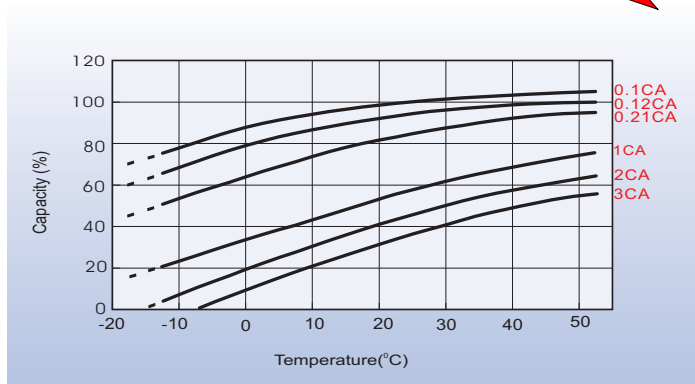
Discharge Characteristics



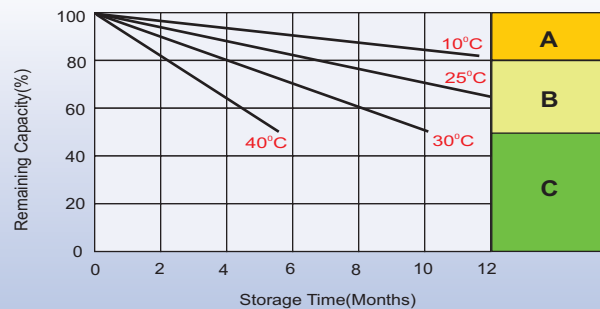
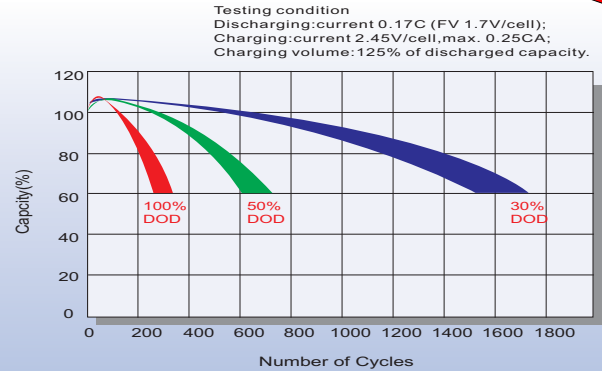
Charging Characteristics (cycle use)



Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8~10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Sales Office

Metra Electronics
460 Walker Street
Holly Hill, FL 32117-2699
386.257.1186
Fax: 800.647.8091

For International Sales:
Maurice.soto@metra-autosound.com
460 Walker Street
Tel: 386-257-1186 ext.2313
Fax: 386.257.9160

For Technical Support:
Techsupport@metra-autosound.com
tel: 386-257-1187