

Product SPECIFICATION SHEET



SY640 (6V 4.0Ah)

Nominal Voltage	6V
Nominal Capacity(20HR)	4.0AH
Dimensions	Length 70 ± 1mm (2.76 inches)
	Width 47 ± 1mm (1.85 inches)
	Container Height 100 ± 2mm (3.94 inches)
	Total Height (with Terminal) 106 ± 2mm (4.17 inches)
	Approx Weight 0.70kg (1.56lbs)
Terminal	F1
Container Material	ABS
Rated Capacity	4.00 AH/0.200A (20hr, 1.80V/cell, 25°C/77°F)
	3.72 AH/0.372A (10hr, 1.80V/cell, 25°C/77°F)
	3.36 AH/0.672A (5hr, 1.75V/cell, 25°C/77°F)
	2.94 AH/0.979A (3hr, 1.75V/cell, 25°C/77°F)
	2.43 AH/2.43A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	60A (5s)
Internal Resistance	Approx 45mΩ
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 1.2A. Voltage 7.2V~7.5V at 25°C(77°F) Temp. Coefficient -15mV/C
	No limit on Initial Charging Current Voltage 6.75V~6.9V at 25°C(77°F) Temp. Coefficient -10mV/C
Standby Use	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Capacity affected by Temperature	
Self Discharge	NP 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

- ◆ All purpose
- ◆ Uninterruptable Power Supply(UPS)
- ◆ Electric Power System(EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus & equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



ISO9001 ISO14001

Constant Current Discharge (Amperes) 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	7.68	5.35	4.42	3.83	3.07	2.36	1.93	1.18	0.899	0.739	0.627	0.543	0.432	0.359	0.198
1.80V/cell	9.44	6.39	5.12	4.33	3.40	2.58	2.08	1.25	0.945	0.777	0.654	0.567	0.448	0.372	0.200
1.75V/cell	11.2	7.22	5.65	4.72	3.63	2.74	2.19	1.31	0.979	0.801	0.672	0.581	0.460	0.379	0.202
1.70V/cell	12.7	7.97	6.11	5.06	3.82	2.84	2.28	1.36	1.01	0.821	0.689	0.595	0.467	0.386	0.206
1.65V/cell	14.0	8.57	6.46	5.32	3.98	2.95	2.38	1.40	1.04	0.838	0.704	0.607	0.475	0.391	0.208
1.60V/cell	14.7	8.93	6.74	5.48	4.09	3.02	2.43	1.45	1.06	0.859	0.718	0.619	0.485	0.398	0.210

Constant Power Discharge (Watts/cell) 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	14.5	10.2	8.49	7.42	5.99	4.63	3.81	2.34	1.79	1.47	1.26	1.09	0.869	0.724	0.400
1.80V/cell	17.6	12.0	9.76	8.33	6.59	5.02	4.07	2.47	1.87	1.54	1.30	1.13	0.896	0.745	0.402
1.75V/cell	20.6	13.5	10.7	9.00	6.99	5.30	4.26	2.56	1.92	1.58	1.33	1.15	0.914	0.755	0.403
1.70V/cell	23.1	14.7	11.4	9.59	7.29	5.47	4.42	2.65	1.97	1.61	1.35	1.17	0.922	0.763	0.408
1.65V/cell	25.1	15.6	12.0	9.96	7.53	5.65	4.57	2.71	2.01	1.63	1.38	1.19	0.933	0.770	0.412
1.60V/cell	26.0	16.1	12.3	10.2	7.67	5.72	4.64	2.78	2.05	1.66	1.40	1.21	0.947	0.779	0.412

Specifications subject to change without prior notice

BRANCH CONTACT DETAILS

Johannesburg	010 202 3300
Germiston	011 418 9600
Cape Town	021 510 0710
Pinetown	031 700 4215
Riverhorse	031 492 4800

NATIONAL CALL CENTRE

Sales 010 202 3400
 Technical 010 202 3500

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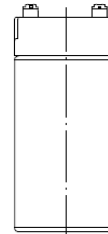
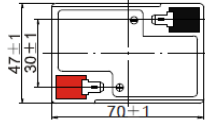
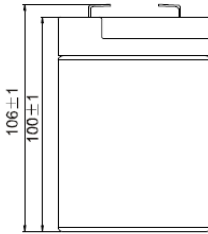
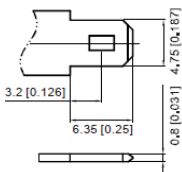


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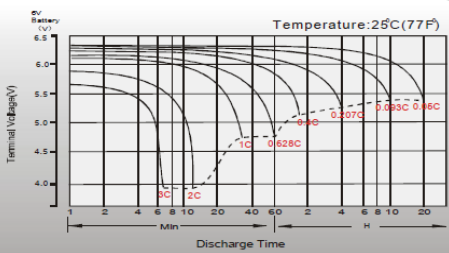


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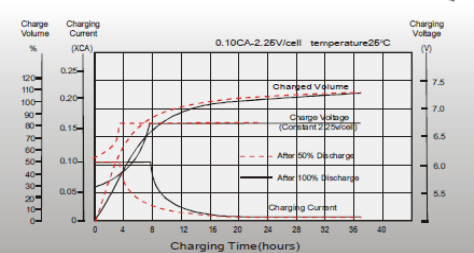
F1 Terminal
Unit: mm [inches]



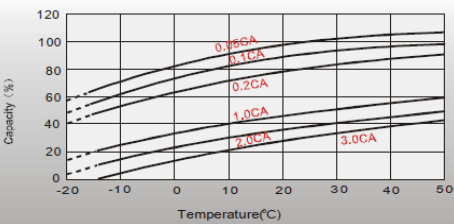
Discharge Characteristics



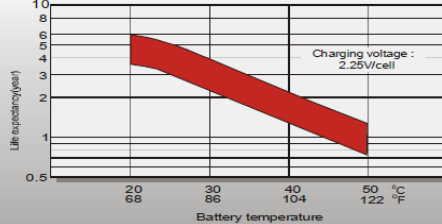
Float Charging Characteristics



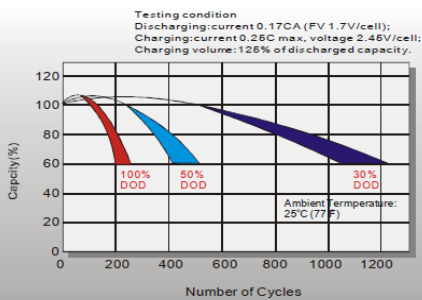
Temperature Effects in Relation to Battery Capacity



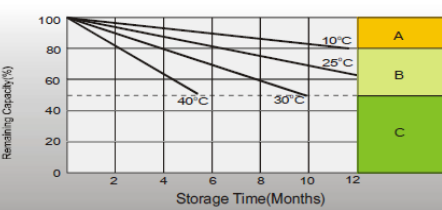
Effect of Temperature on Long Term Float Life



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.

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