

Koyosonic

Solar-Power Battery

NPS150-12 [12V150AH]

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	150AH	
Dimensions	Length	484±2mm (19.0 inches)
	Width	171±2mm (6.69 inches)
	Container Height	241±2mm (9.39 inches)
	Total Height (with Terminal)	241±2mm (9.39 inches)
Approx Weight	Approx 44.0 kg (100.5lbs)	
Terminal	T4 (M8X16) / Torque: 6.6 ~ 8.3Nm	
Container Material	ABS	
Rated Capacity	160.0 AH/8.00A	(20hr, 1.80V/cell, 25°C/77°F)
	155.0 AH/15.50A	(10hr, 1.80V/cell, 25°C/77°F)
	129.0 AH/25.8A	(5hr, 1.75V/cell, 25°C/77°F)
	117.0 AH/39.0A	(3hr, 1.75V/cell, 25°C/77°F)
	91.5 AH/91.5A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1500A (5s)	
Internal Resistance	Approx 3.5mΩ	
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 45.0A. 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	NPS series of 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

- ◆ Solar or Wind Power System
- ◆ Stored energy (Photovoltaic)
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply



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	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	15.5	8.00
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	15.6	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	15.8	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	15.9	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	16.0	8.18

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	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

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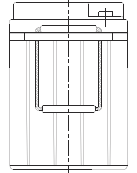
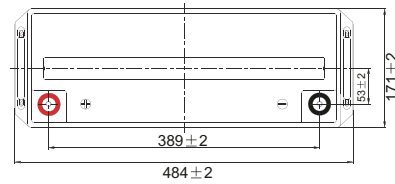
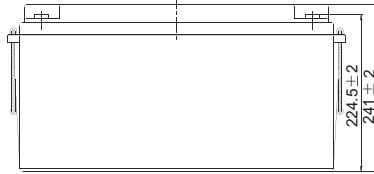
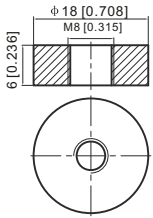
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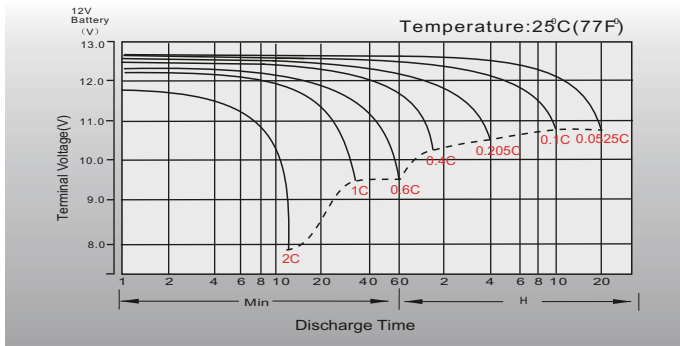
Dimensions

T4 Terminal

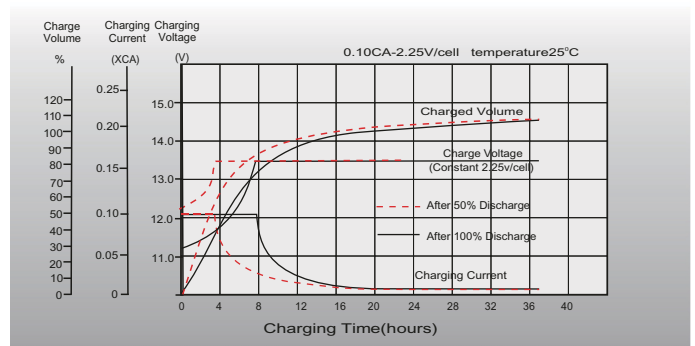
Unit: mm [inches]



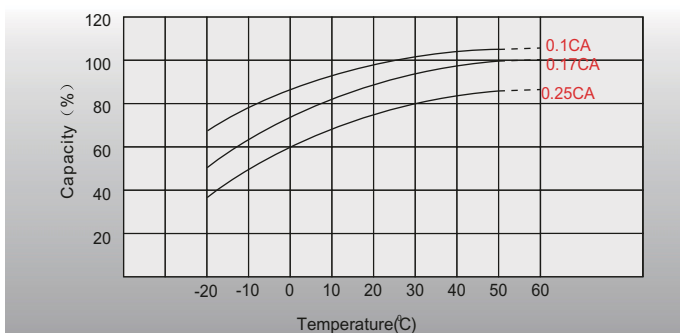
Discharge Characteristics



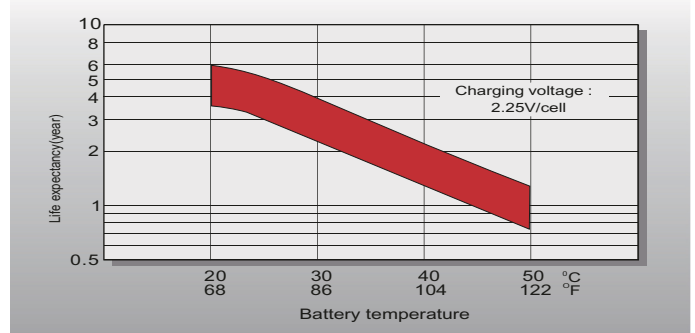
Float Charging Characteristics



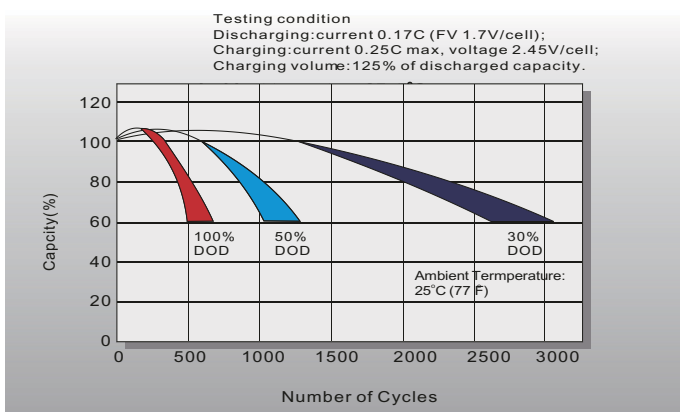
Temperature Effects in Relation to Battery Capacity



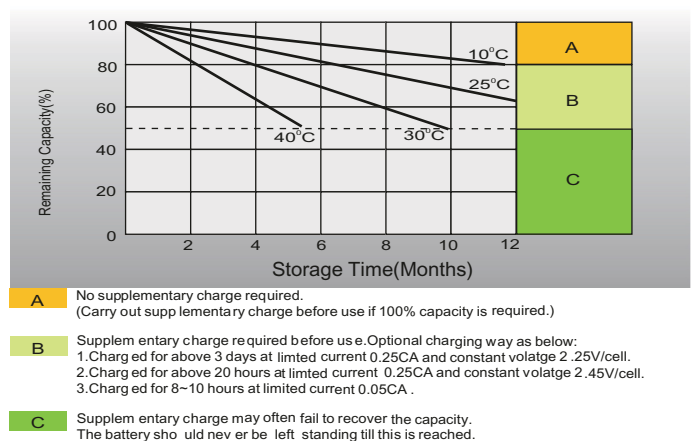
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Specifications subject to change without prior notice.