



OPzS Series-Flooded Battery

12V 10PzS50(12V49.6Ah)

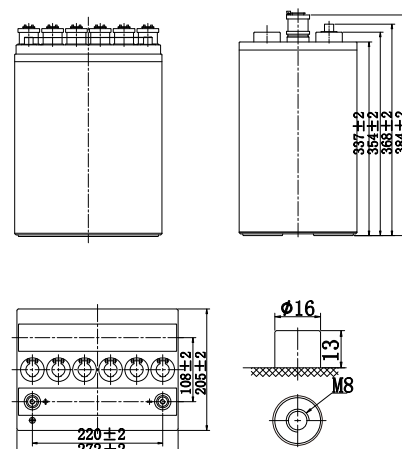


Specifications

Rated Voltage	12V	
Nominal Capacity	C ₈ , 1.75V/cell	49.6Ah
Dimension	Length	272±2mm (10.7 inches)
	Width	205±3mm (8.07 inches)
	Container Height	337±3mm (13.27 inches)
	Total Height	384±3mm (15.12 inches)
Approx Weight	Without Electrolyte	28.23kg (62.2lbs)
	With Electrolyte	39.02 kg (86.0lbs)
Terminal	M8	
Container Material	SAN transparent container	
Rated Capacity (25°C)	51.0 Ah	(10hr, 5.1A, 1.80V/cell)
	49.6Ah	(8hr, 6.2A, 1.75V/cell)
	42.5Ah	(5hr, 8.5A, 1.75V/cell)
	36.3Ah	(3hr, 12.1A, 1.75V/cell)
	27.6 Ah	(1hr, 27.6A, 1.60V/cell)
Max. Discharge Current	440A (5s)	
Internal Resistance (25°C)	Approx 11.0mΩ	
Operating Temp. Range	Discharge	-15 ~ 55°C (5 ~ 131°F)
	Charge	0 ~ 45°C (32 ~ 113°F)
	Storage	-15 ~ 45°C (5 ~ 113°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 0.1CA. Voltage	
	2.35V~2.40V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Standby Use	Initial Charging Current less than 0.1CA. Voltage	
	2.25V~2.30V at 25°C(77°F)Temp. Coefficient -2mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤4% per month at 25°C	



Layout



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

F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	37.7	30.0	21.0	13.6	10.7	8.8	7.6	5.6	4.8	2.56
1.80V/cell	44.5	33.4	22.8	14.8	11.4	9.4	8.1	6.0	5.1	2.75
1.75V/cell	50.8	36.1	24.2	15.7	12.1	9.9	8.5	6.2	5.2	2.78
1.70V/cell	55.4	38.6	25.4	16.3	12.5	10.3	8.8	6.3	5.3	2.82
1.65V/cell	59.2	40.6	26.7	16.8	12.7	10.5	9.0	6.4	5.4	2.85
1.60V/cell	62.5	42.2	27.6	17.3	13.0	10.7	9.1	6.5	5.5	2.88

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

F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	71.4	57.7	40.7	26.7	20.9	17.3	15.1	11.1	9.4	5.0
1.80V/cell	82.5	62.9	43.5	28.5	22.0	18.2	15.8	11.7	9.7	5.1
1.75V/cell	93.0	67.2	45.5	29.7	23.0	18.9	16.2	11.9	9.9	5.2
1.70V/cell	99.9	71.2	47.6	30.8	23.6	19.5	16.7	12.1	10.0	5.3
1.65V/cell	105.5	74.0	49.4	31.4	23.9	19.7	16.9	12.2	10.1	5.4
1.60V/cell	109.4	75.9	50.3	31.9	24.2	19.8	17.0	12.3	10.3	5.5



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Applications

- Telecommunications
- Buoy lighting
- Standby power
- Railway signalling
- Emergency lighting systems
- Alternative power (solar, wind)
- Maritime standby power on ships and ashore

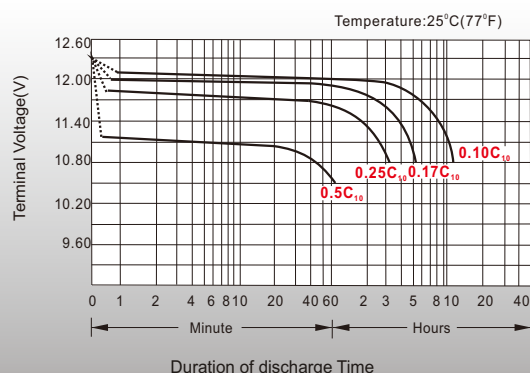
General Features

- 10-12 years design life(25°C)
- Lower self discharge
- Higher thermal capacity, no thermal runaway will occur
- Superior deep cycle performance
- Wide operation temperature range

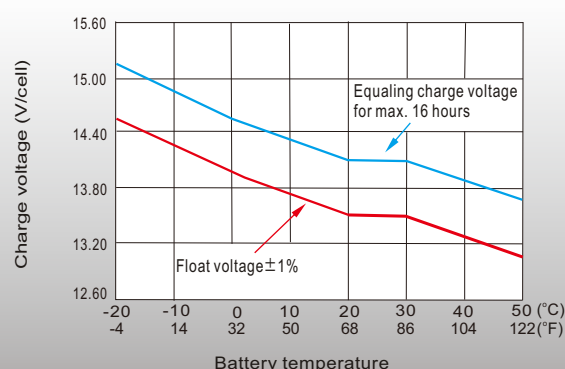
Standards

- Compliance with IEC60896 standards
- Manufactured in Leoch®TS16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

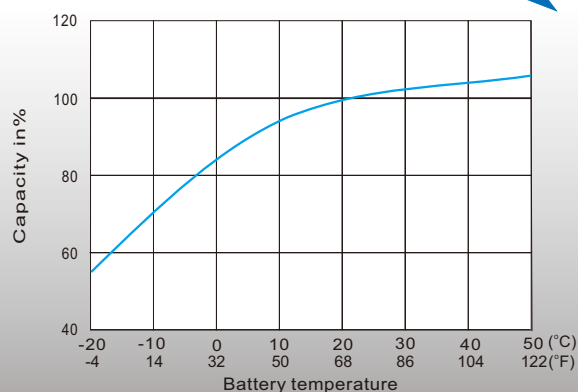
Discharge Characteristics



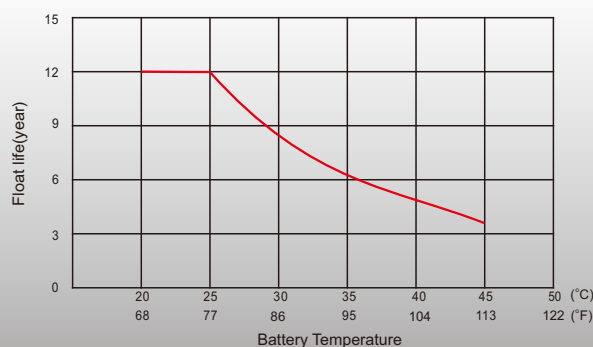
Charge voltage Vs ambient temperature curve



Discharge capacity Vs Ambient temperature curve (I10A)



Float Service Life



Sales Offices Worldwide

China Sales Office

5th Floor, Xinhua Bldg., Nanshai Blvd.,
Nanshan, Shenzhen, China. 518052
Tel: +86-755-86036060 (100 lines)
Fax: +86-755-26067269
E-mail: export@leoch.com

North America Sales Office

19751 Descartes
Foothill Ranch, CA 92610, USA
Tel: 949-588-5853
Fax: 949-588-5966
E-mail: sales@leoch.us

HongKong Sales Office

Workshop C, 33/F, TML Tower, No. 3 Hoi Shing Road,
Tsuen Wan, New Territories, Hong Kong
Tel: +852 35786666
Fax: +44 1452 729428 / 1452 729696
E-mail: sales.hk@leoch.com

UK Sales Office

9B Wheatstone Court, Waterwells, Business Park,
Gloucester, GL2-2AQ, UK United Kingdom
Tel: +44(0) 1452 729428 / 1452 729696
Fax: +44 1452 690125
E-mail: Sales.Europe@leoch.com

Singapore Sales Office

No. 1 Tech Park Crescent,
Singapore 638131
Tel: +65 68636078
Fax: +65 6863 6079
Email: sales.sg@leoch.com

EMEA Sales Office

1 Deligiorgi St., 121 31 Athens,
Greece
Tel: +30 210 5760318 (2 lines)
E-mail: support_EMEA@leoch.com

Australia Sales Office

2/29 Tarlington Place, Smithfield. NSW 2164
Australia
Tel: 02 9756 0950
E-mail: sales.au@leoch.com

India Sales Office

Shed no.A-53(b), 2nd Stage of Peenya Industrial Area,
Bangalore North Taluk, Bangalore-560058, India
Tel: +91-80-23440018/23440019
Fax: +91-80-23440017
E-mail: indiasales@leoch.com



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