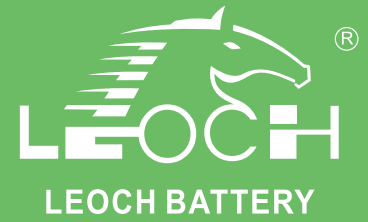




# OPzV Series-Tubular Gel

## 12V 70PzV140(12V140Ah)

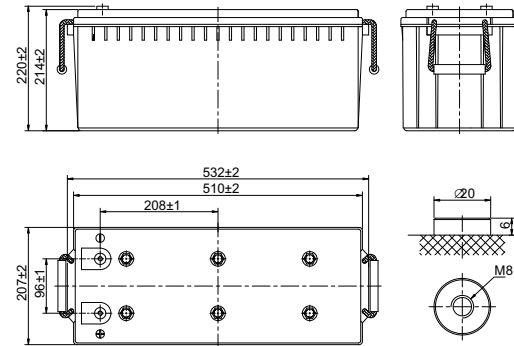


### Specifications

Rated Voltage	12V	
Nominal Capacity	140.0Ah	(C <sub>10</sub> , 1.80V/cell)
Dimension	Length	532mm(20.95in.)
	Width	207mm(8.15in.)
	Container Height	214mm(8.43in.)
	Total Height	220mm(8.66in.)
Approx Weight	54.0Kg (119.1 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	140.0Ah	(10hr, 14.0A, 1.80V/cell)
	123.0Ah	(5hr, 24.6A, 1.75V/cell)
	105.9Ah	(3hr, 35.3A, 1.75V/cell)
	83.0 Ah	(1hr, 83.0A, 1.67V/cell)
Max. Discharge Current (5s)	1120A	
Internal Resistance(25°C)	Approx. 5.1mΩ	
Operating Temp. Range	Discharge	-20°C~55°C (-4°F~131°F)
	Charge	0°C~40°C (32°F~104°F)
	Storage	-20°C~50°C (-4°F~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max. Charging Current(25°C)	35.0A	
Charge voltage(25°C)	Float	13.5V
	Temp. Coefficient	-3mV/cell/°C
	Cycle(Equalization)	14.1~14.4V
Effect of temp. to Capacity	40°C (104°F)	106%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C	



### Layout



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

F. V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	135.1	119.2	89.0	65.1	41.3	31.5	22.5	15.8	13.4	6.90
1.80V/cell	162.5	137.7	100.0	71.4	44.7	33.7	23.7	16.5	14.0	7.21
1.75V/cell	186.4	153.8	107.5	76.0	46.9	35.3	24.6	16.9	14.3	7.36
1.70V/cell	203.5	167.0	115.1	80.4	48.6	36.7	25.2	17.2	14.4	7.42
1.65V/cell	222.5	179.2	120.4	83.0	50.3	37.9	25.8	17.5	14.7	7.57
1.60V/cell	237.5	189.5	124.9	85.3	51.9	38.8	26.3	17.8	15.0	7.73

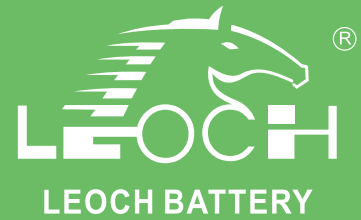
### Constant Power Discharge (Watts/cell) at 25 °C (77 °F)

F. V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	222.3	204.4	170.0	126.7	80.6	61.6	44.4	31.4	26.7	13.8
1.80V/cell	268.8	243.6	190.8	138.3	86.9	65.8	46.5	32.8	27.9	14.4
1.75V/cell	312.5	268.8	203.4	146.4	91.0	68.9	48.2	33.6	28.4	14.6
1.70V/cell	344.4	289.5	215.7	154.0	93.8	71.1	49.3	34.2	28.7	14.8
1.65V/cell	362.9	301.3	223.4	158.2	96.5	73.4	50.3	34.6	29.1	15.0
1.60V/cell	372.4	307.4	229.5	162.1	99.3	74.6	51.2	35.1	29.5	15.2



# OPzV Series-Tubular Gel

## 12V 70PzV140(12V140Ah)



### Applications

- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power stations, Conventional power stations, alternative power (solar, wind)
- Large UPS and computer back-up
- Railway signaling
- Maritime standby power on ships and ashore
- Process and control engineering
- Standby power
- Buoy lighting

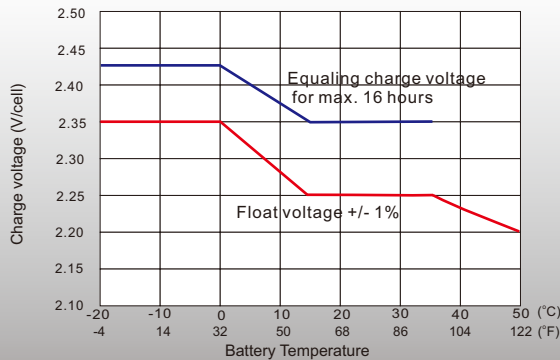
### General Features

- 20 years design life (20°C)
- Better recovery performance
- Wide working temperature range (-20~55°C)
- No electrolyte stratification provides longer service life
- High recombination efficient
- Built in copper core based in lead will carry large current
- Separator imported from AMER-SIL high porosity, PVC-SiO<sub>2</sub> and low resistance
- Pasted negative plate special grid design increase the active material, availability large current discharge and charge ability
- Tubular type positive plate (polyester tube) prevent the active material from falling. Multi metal alloy pressed positive grid increase the anti corrosion ability and service life

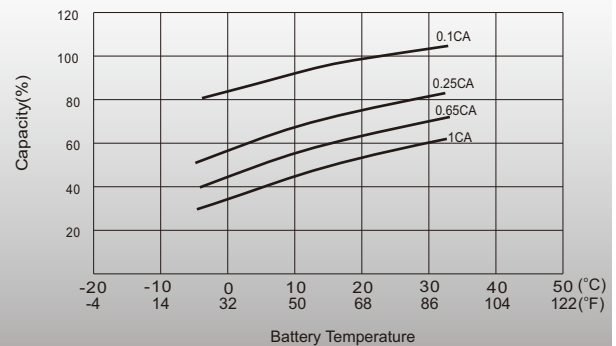
### Standards

- Compliance with IEC 60896, IEC 61427, DIN 40742 standards
- CE Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

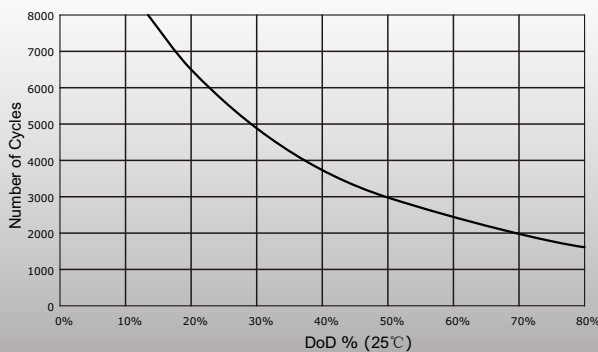
### Charge voltage vs ambient temperature curve



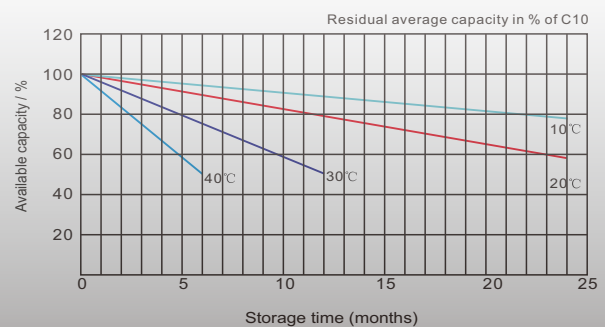
### Temperature effects in relation to battery capacity



### Cycle Life in Relation to DOD



### General Relation of Capacity VS. Storage Time



## Sales Offices Worldwide

#### China Sales Office

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

#### 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 690125  
E-mail: sales.hk@leoch.com

#### Singapore Sales Office

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

#### Australia Sales Office

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

#### 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

#### EMEA Sales Office

1 Deligiorgi St., 121 31 Athens,  
Greece  
Tel: +30 210 5760318 (2 lines)  
E-mail: support\_EMEA@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



[Http://www.leoch.com](http://www.leoch.com)  
[Http://www.leoch.us](http://www.leoch.us)

© 2020 LEOCH. All rights reserved.

Trademarks and logos are the property of LEOCH and its affiliates unless otherwise noted.  
Subject to revisions without prior notice.

Publication No.:LB-12V 70PzV140-PD-EN-V1.2-202005