

# STARMAX

The world's leading battery brand



## TELECOMMUNICATION **BATTERIES**

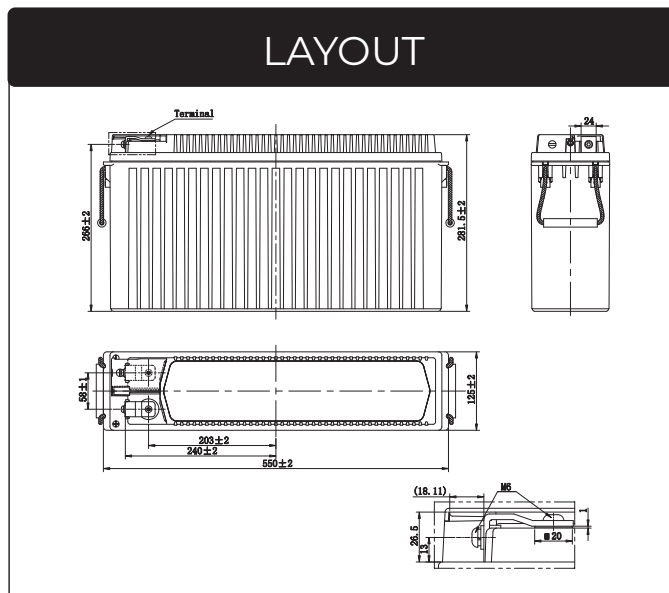
STFG12-180 (12V 160Ah)



[www.starmaxbatteries.com](http://www.starmaxbatteries.com)

# FT SERIES - FRONT TERMINAL

## STFG12-180



## General Features

- ✓ Front terminals make the installation, maintenance and supervision easy
- ✓ Shield designs protect terminals from short circuit and show good appearance
- ✓ High thermal capacity can be used in bad environment
- ✓ Long time discharge

## Applications

- ✓ Communication system
- ✓ Power system of special network or local area network
- ✓ UPS, standby power supply
- ✓ Power station systems
- ✓ Marine systems

## Standards

- ✓ IEC 60896 Certified
- ✓ Classified as "Very Long Life" according to Eurobat
- ✓ UL, CE Certified
- ✓ Manufactured in Starmax® IATF 16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities



# SPECIFICATIONS

Rated Voltage	12V	
Nominal Capacity	160.0Ah	(C <sub>20</sub> ,1.80V/cell)
Dimensions	Length	550±2mm (21.7 inches)
	Width	125±2mm (4.92 inches)
	Container height	281.5±2mm (11.1 inches)
	Total height	281.5±2mm (11.1 inches)
Approx. weight	51.8 Kg (114.2 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	160.0 Ah	(20hr,8.00A,1.80V/cell)
	150.0 Ah	(10hr,15.0A,1.80V/cell)
	130.0 Ah	(5hr,26.0A,1.75V/cell)
	115.8 Ah	(3hr,38.6A,1.75V/cell)
	91.4 Ah	(1hr,91.4A,1.65V/cell)
Max. discharge current	1500A (5s)	
Internal resistance (25°C)	Approx 5.5mΩ	
Operating temp. range	Discharge	-20~60°C ( -4~140°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-20~500°C (-4~122°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 37.5A. Voltage 14.4V~15.0V at 25°C (77°F)Temp. Coefficient -30mV/°C	
Equalization Use	Initial Charging Current less than 37.5A.Voltage 13.38V~13.62V at 25°C (77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C ( 77°F)	100%
	0°C ( 32°F)	86%
Self discharge	STFG 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.	

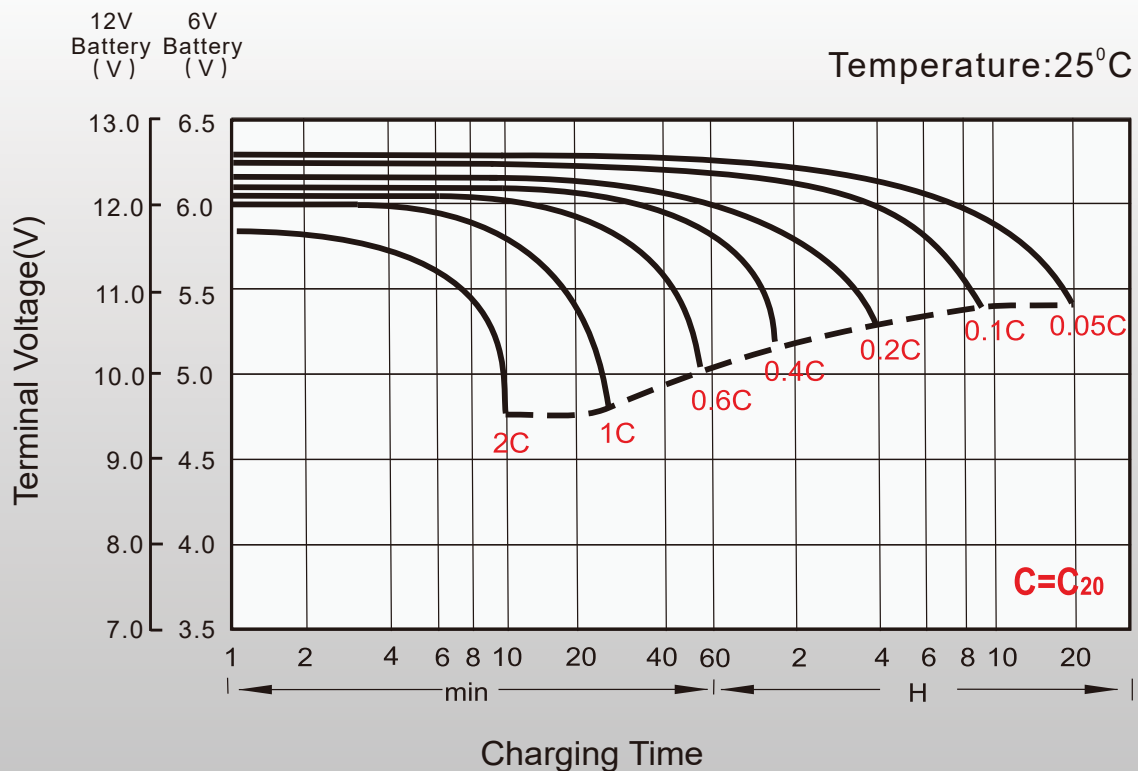
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h
1.85V/cell	107.5	74.4	47.7	34.6	27.6	23.2	20.2	16.9	14.7	12.4	7.60
1.80V/cell	120.3	83.0	52.6	37.8	30.1	25.8	22.6	18.0	15.0	12.8	8.00
1.75V/cell	131.9	86.3	54.5	38.6	30.6	26.0	22.7	18.3	15.1	12.9	8.08
1.65V/cell	145.3	91.4	57.5	40.4	31.9	26.6	22.9	18.7	15.3	12.9	8.25
1.60V/cell	150.0	95.8	59.8	42.2	33.2	27.6	23.7	19.0	15.4	13.0	8.41

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

F.V/Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h
1.85V/cell	200.7	144.7	93.3	67.9	54.3	45.7	39.7	33.5	29.1	24.5	15.1
1.80V/cell	224.6	160.2	101.3	73.8	58.9	50.6	43.9	35.5	29.6	25.1	15.9
1.75V/cell	257.3	165.4	104.4	75.1	59.7	50.9	44.3	36.0	29.8	25.2	16.0
1.65V/cell	264.0	173.1	109.5	78.0	61.9	51.8	44.7	36.7	30.1	25.3	16.3
1.60V/cell	271.2	179.9	113.8	81.0	64.0	53.5	46.1	37.2	30.2	25.4	16.7

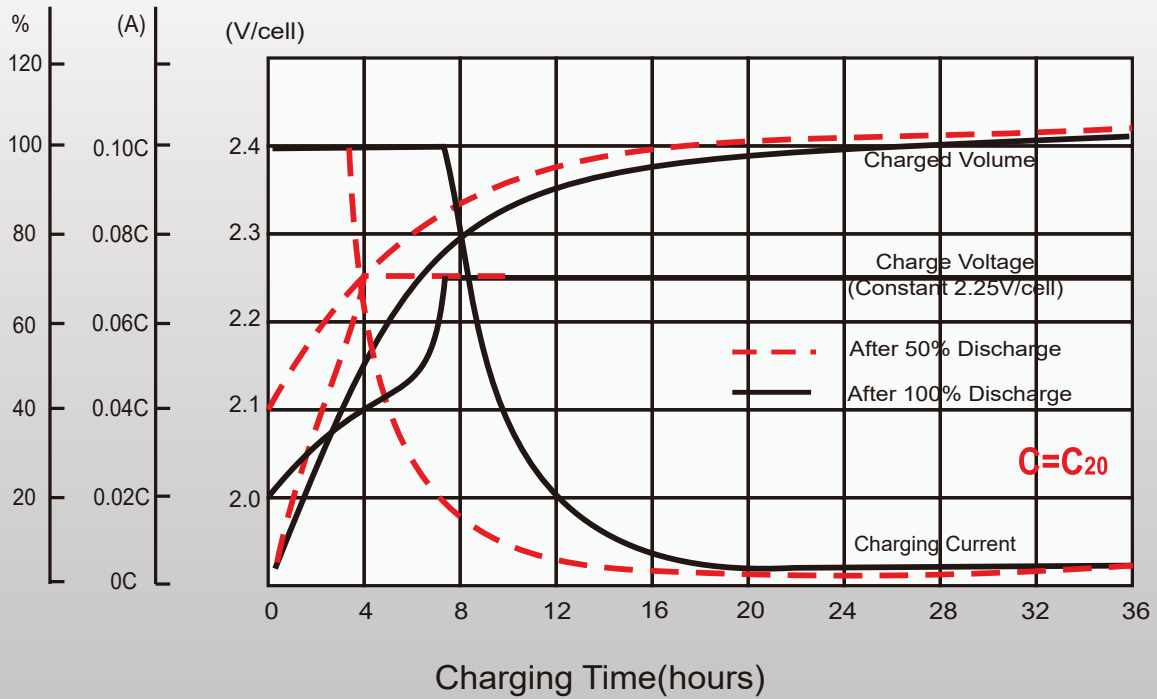
## Discharge Characteristics





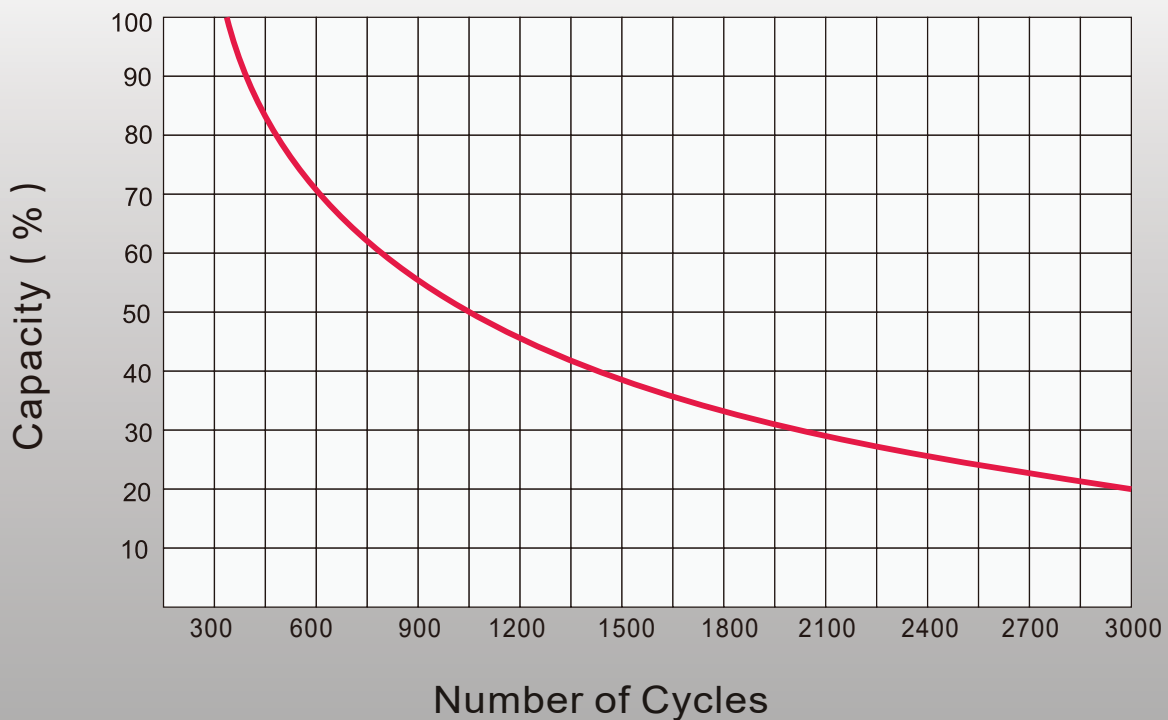
# Float Charging Characteristics

Charge Volume    Charging Current    Charging Voltage    0.1CA-2.25V/cell    Temperature: 25°C

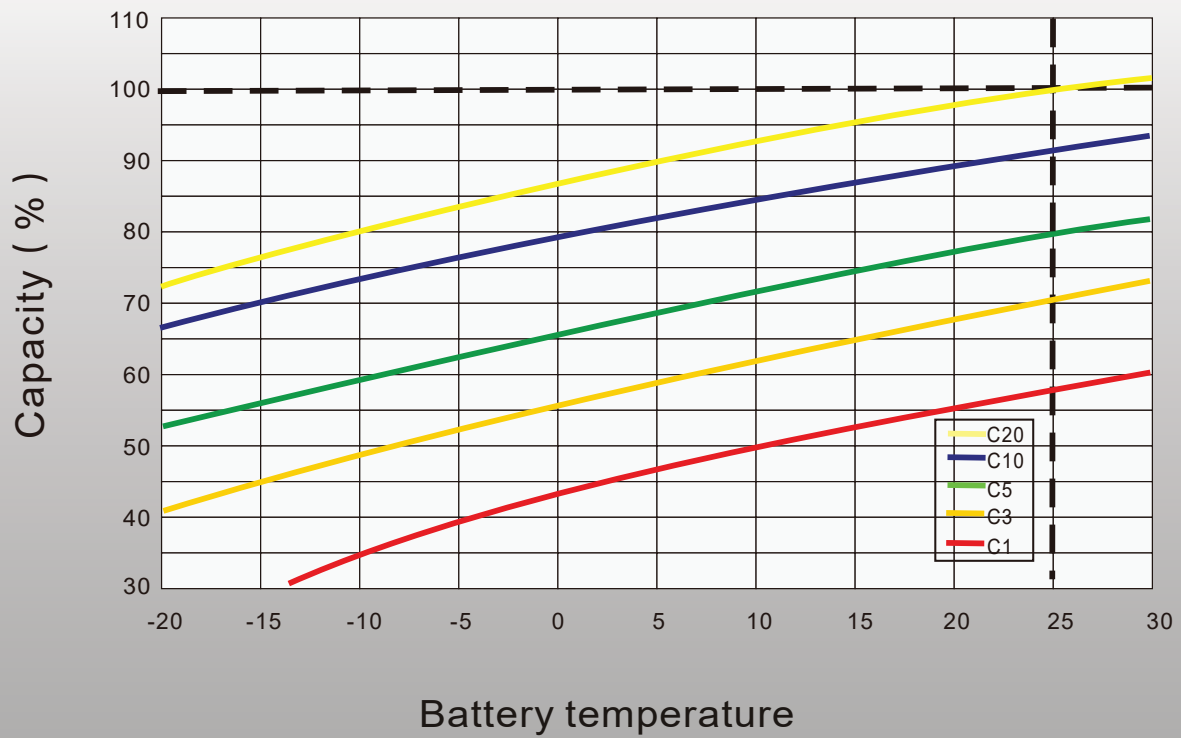


# Cycle Life in Relation to Depth of Discharge

Acc.to IEC 896-2 (25 °C / 77°F)



# Temperature Effects in Relation to Battery Capacity





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