

# FT100

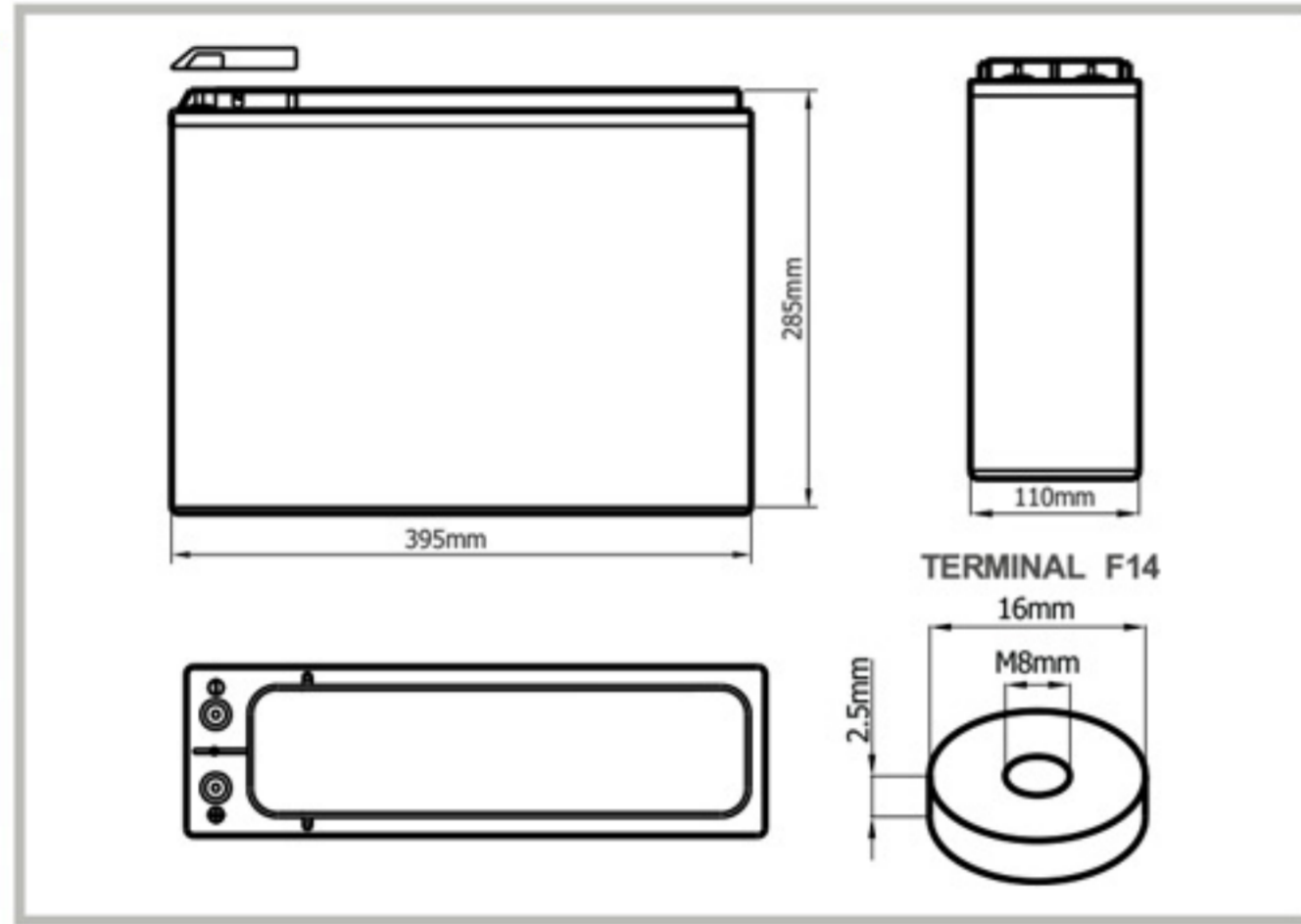
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 100Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### TECHNICAL SPECIFICATIONS





### BATTERY DIMENSIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	100 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L395mm x W110mm x H285mm
Approx. Weight	32.0 kg (70.6 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.0045 Ohm (fully charged @ 20°C)
Max. Charge Current	25A
Max. Discharge Current (5S)	800 A
Short Circuit Current	2600 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)



### BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	270	189	163	102	60.8	35.8	27.5	21.6	17.8	12.8	10.6	5.50
1.67V	241	174	153	97.8	59.2	35.2	27.1	21.2	17.5	12.6	10.5	5.45
1.70V	215	158	145	94.1	57.9	34.7	26.8	21.0	17.4	12.5	10.3	5.40
1.75V	187	147	134	90.8	56.7	34.1	26.4	20.7	17.2	12.3	10.2	5.33
1.80V	165	134	125	86.8	54.0	33.1	25.9	20.2	17.0	12.0	10.0	5.30
1.85V	142	121	114	81.9	52.4	31.8	24.7	19.6	16.2	11.6	9.65	5.00

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	475	340	297	189	113	67.2	51.8	41.0	33.9	24.6	20.5	10.7
1.67V	430	317	281	182	111	66.5	51.6	40.4	33.5	24.4	20.3	10.7
1.70V	388	291	268	176	109	66.1	51.3	40.3	33.7	24.4	20.2	10.6
1.75V	342	273	252	172	108	65.5	50.9	40.2	33.5	24.1	20.1	10.6
1.80V	306	251	237	165	104	64.2	50.4	39.6	33.4	23.8	19.9	10.6
1.85V	267	229	218	158	102	62.2	48.4	38.7	32.1	23.0	19.3	10.1

ISO9001      ISO14001

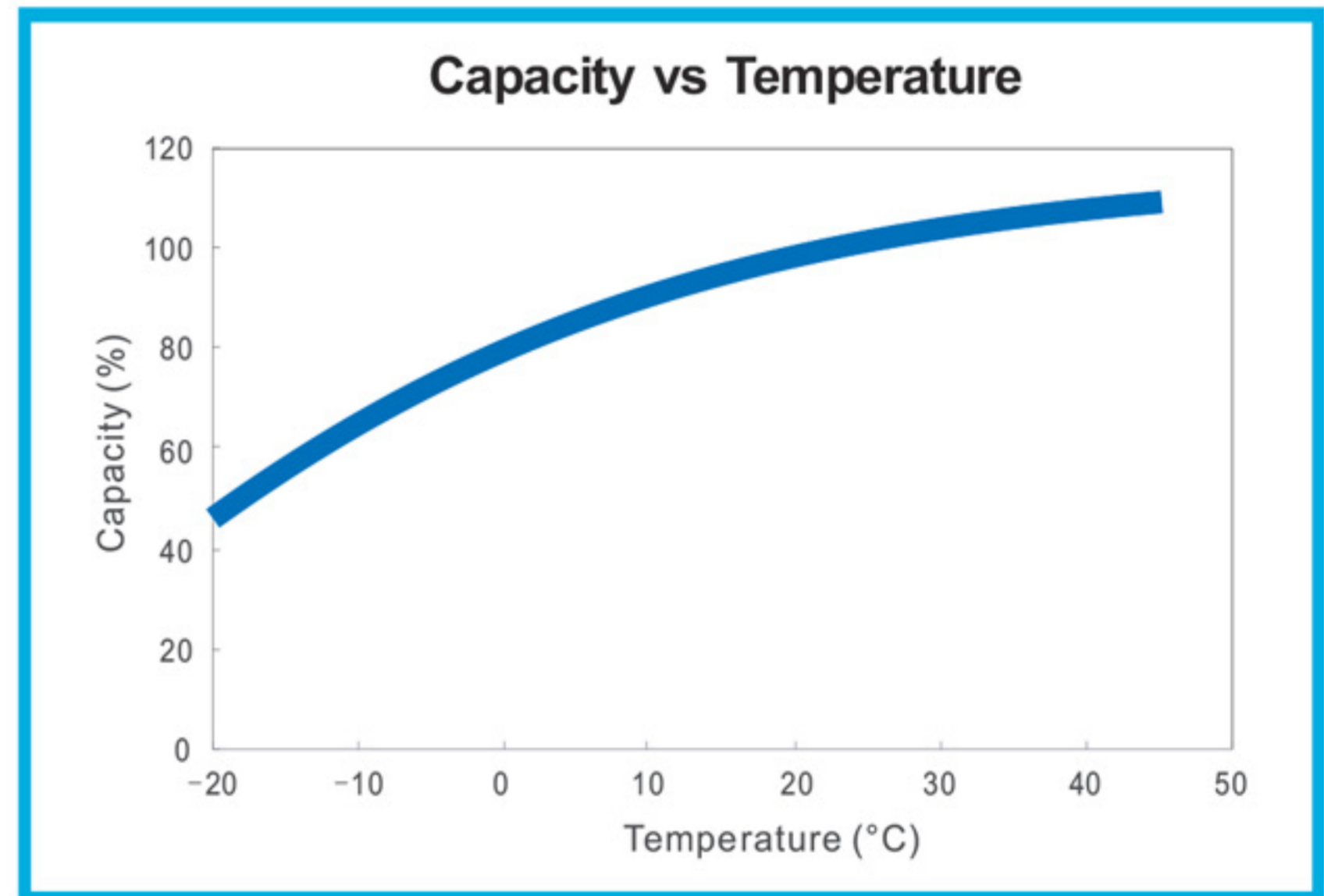
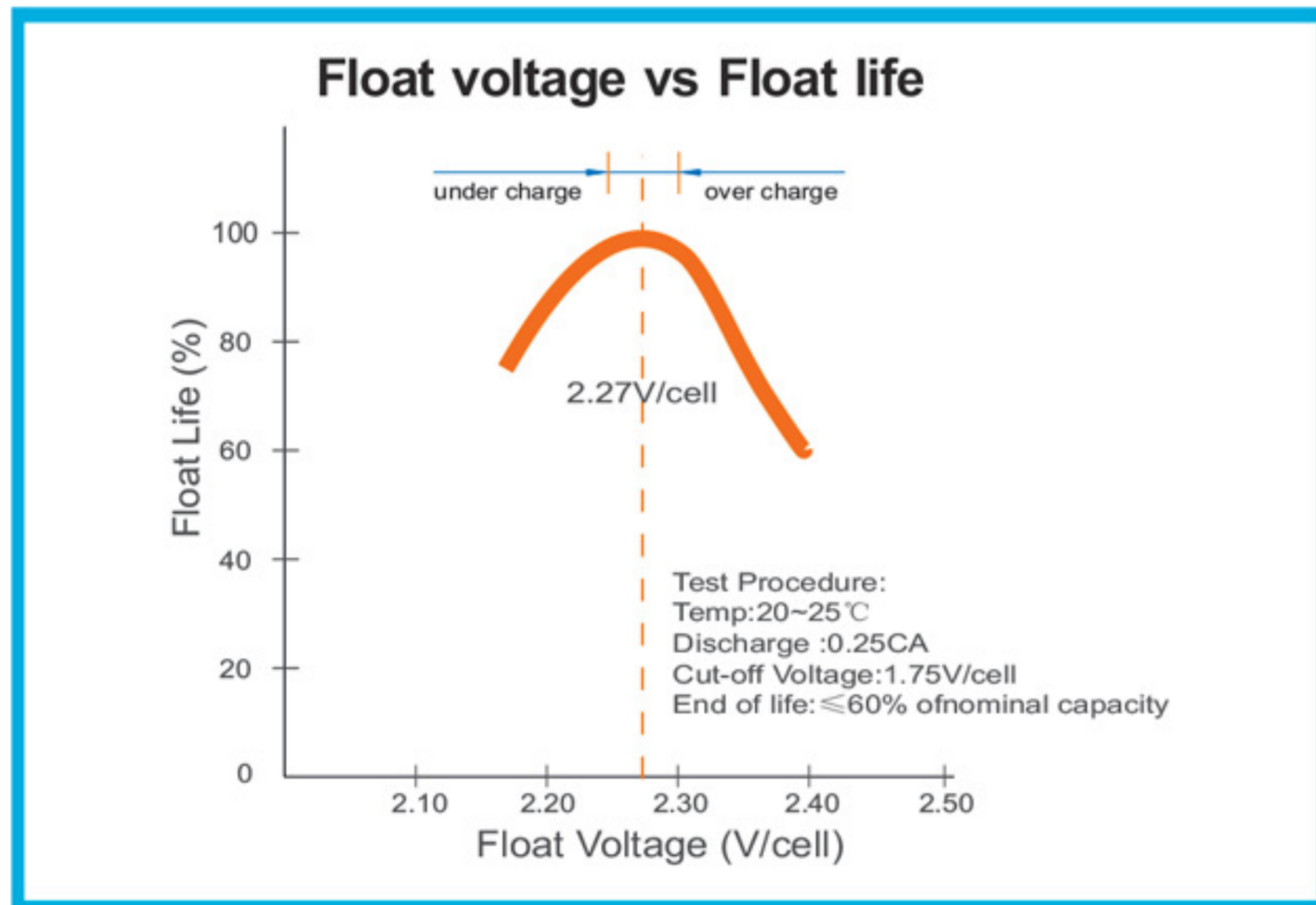
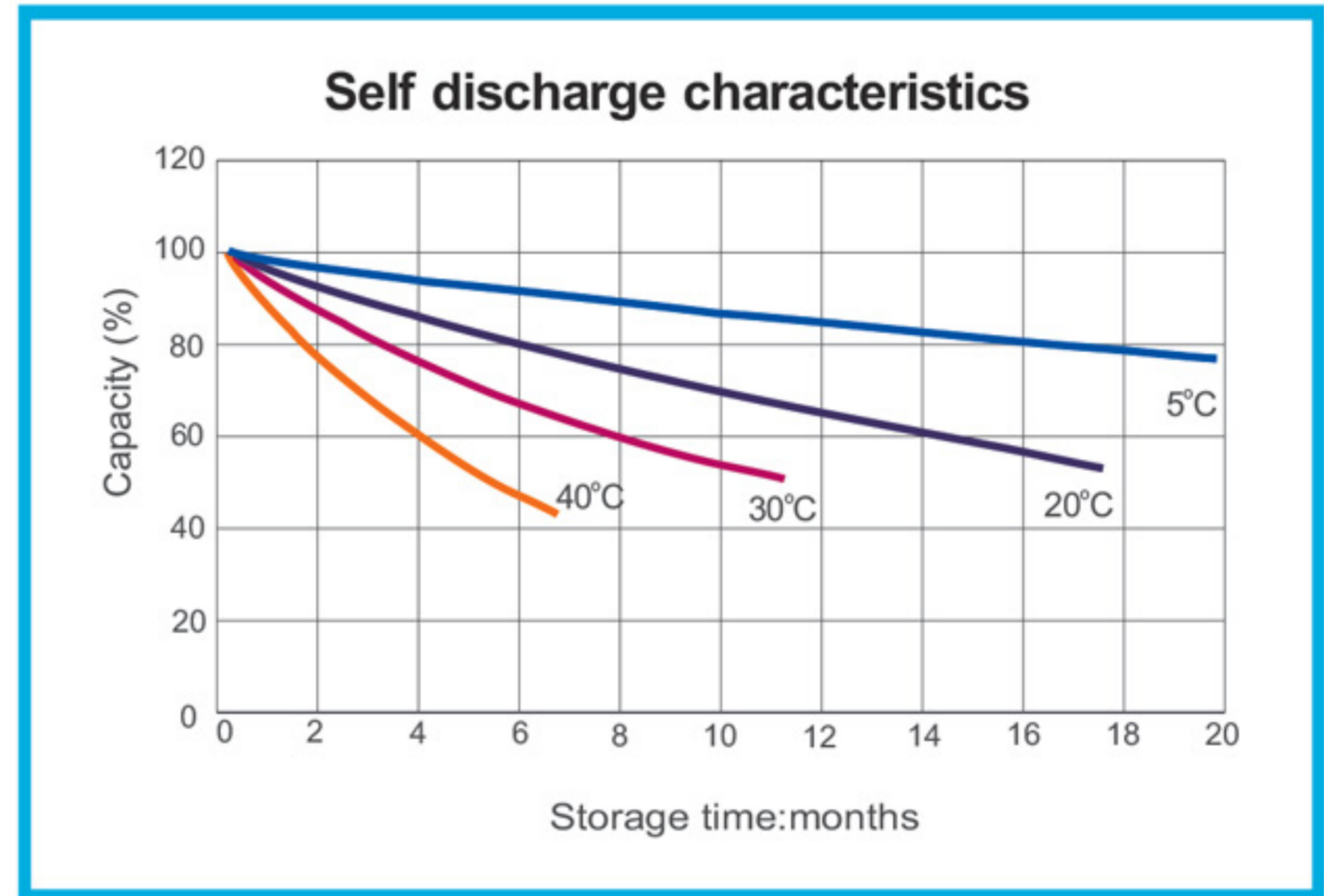
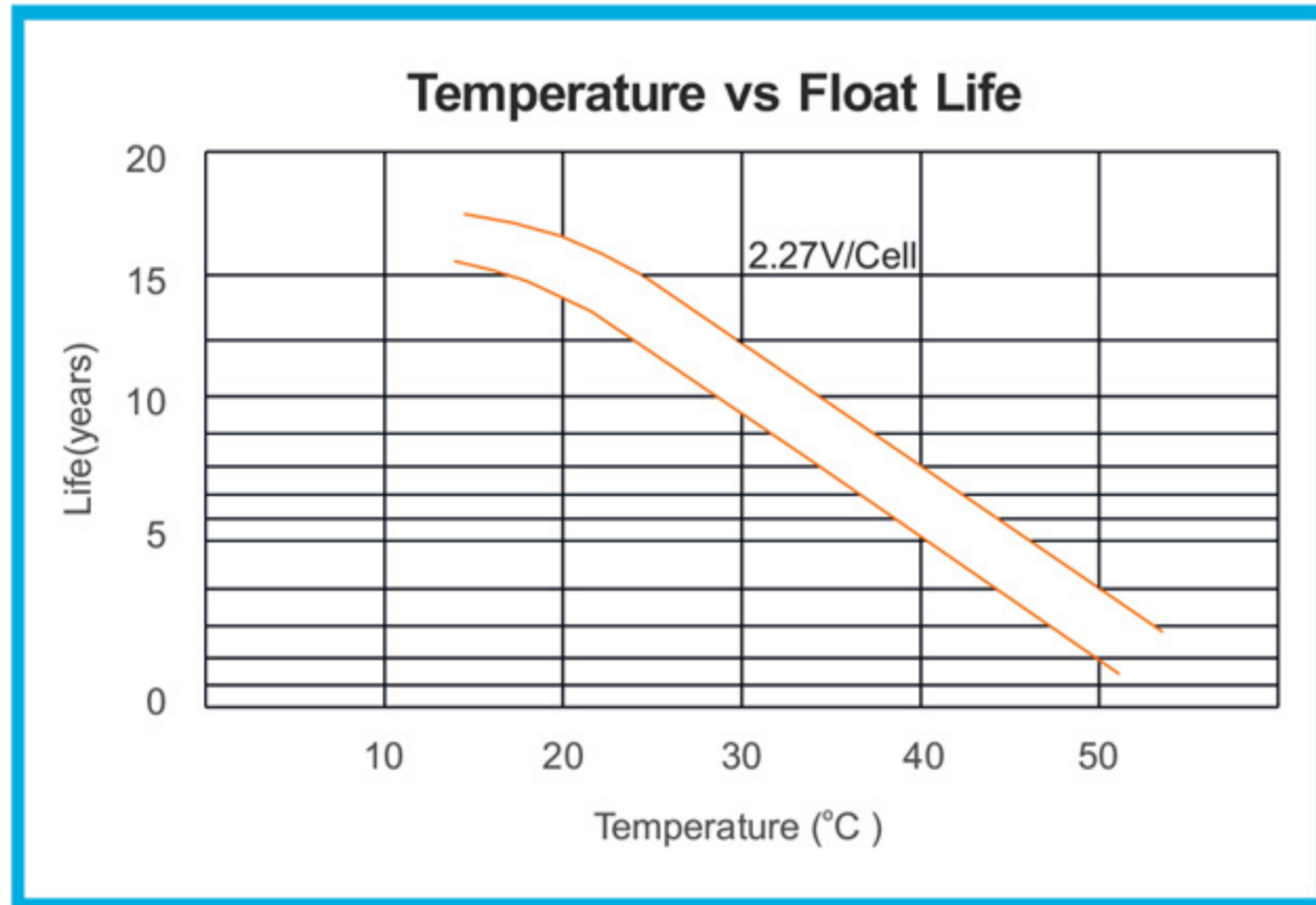
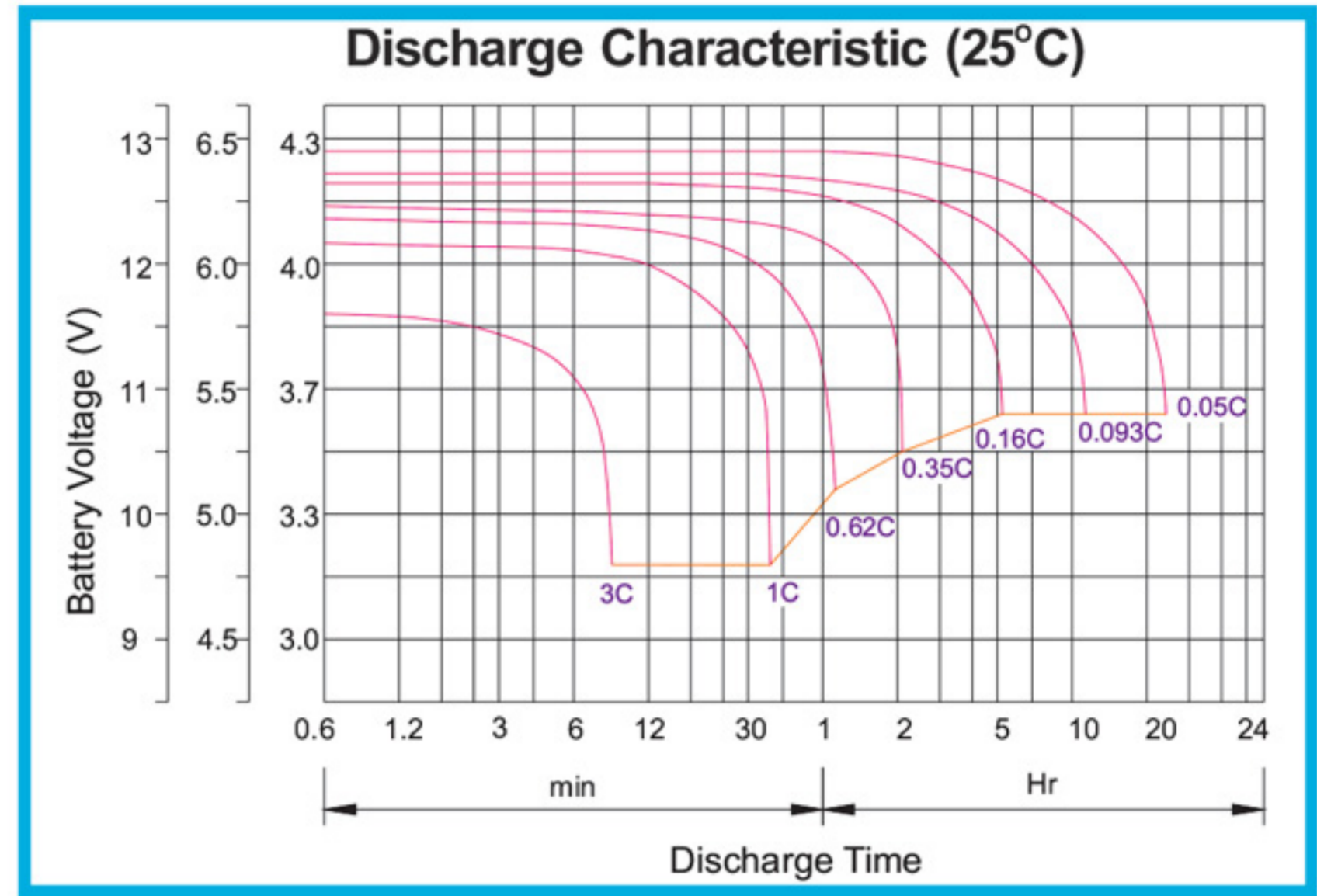
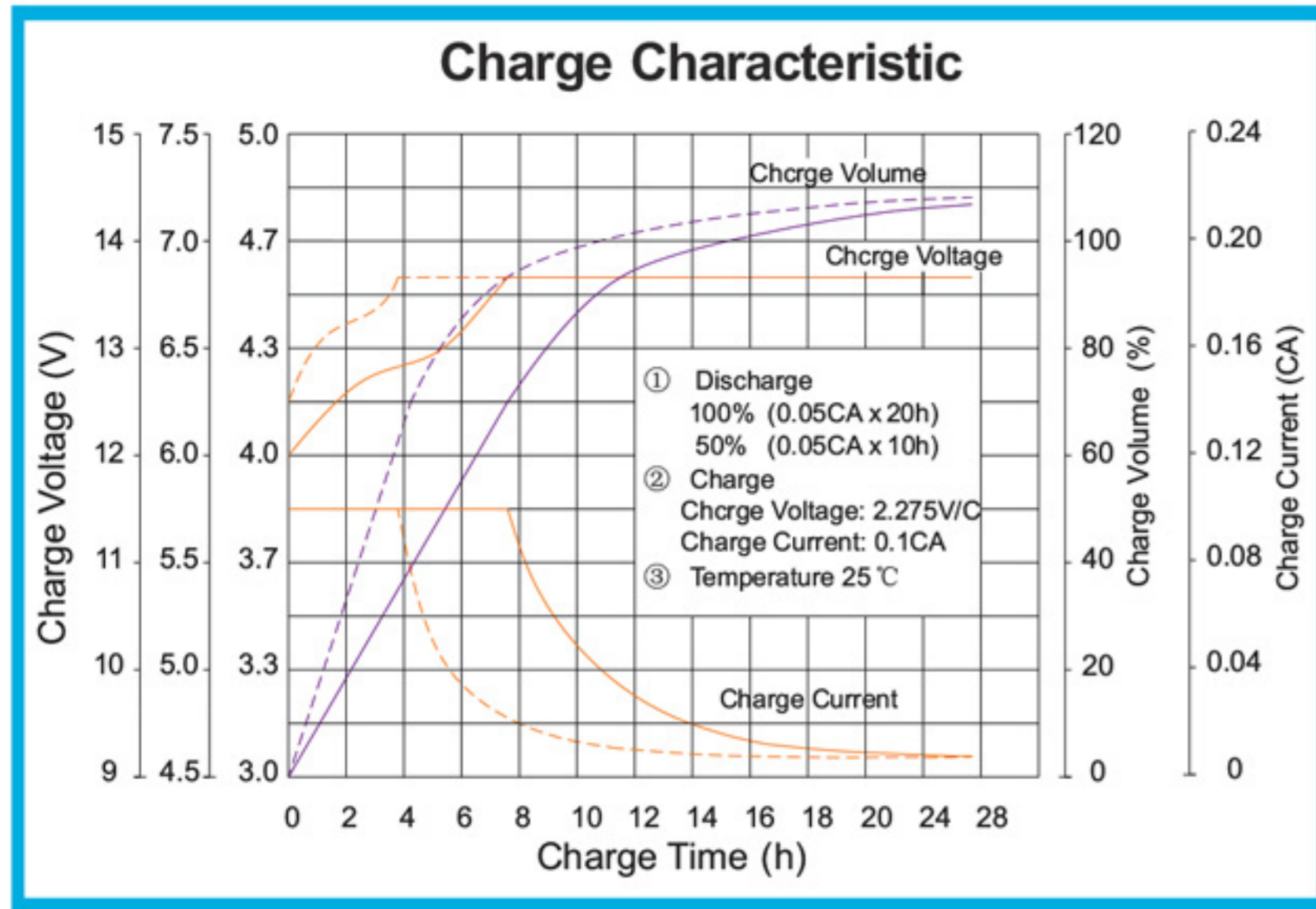
**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

# FT100

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 100Ah

### CHARACTERISTICS



DP Electronics (Deutsche Power Co., Limited)

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I/A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

<b>Cycle service</b>
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.1-1.15 times discharge capacity.
※ Effect of temperature on cycle charge voltage: -5mV/°C/Cell.
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
Generally speaking, the most important factors is depth of discharge.

# FT125

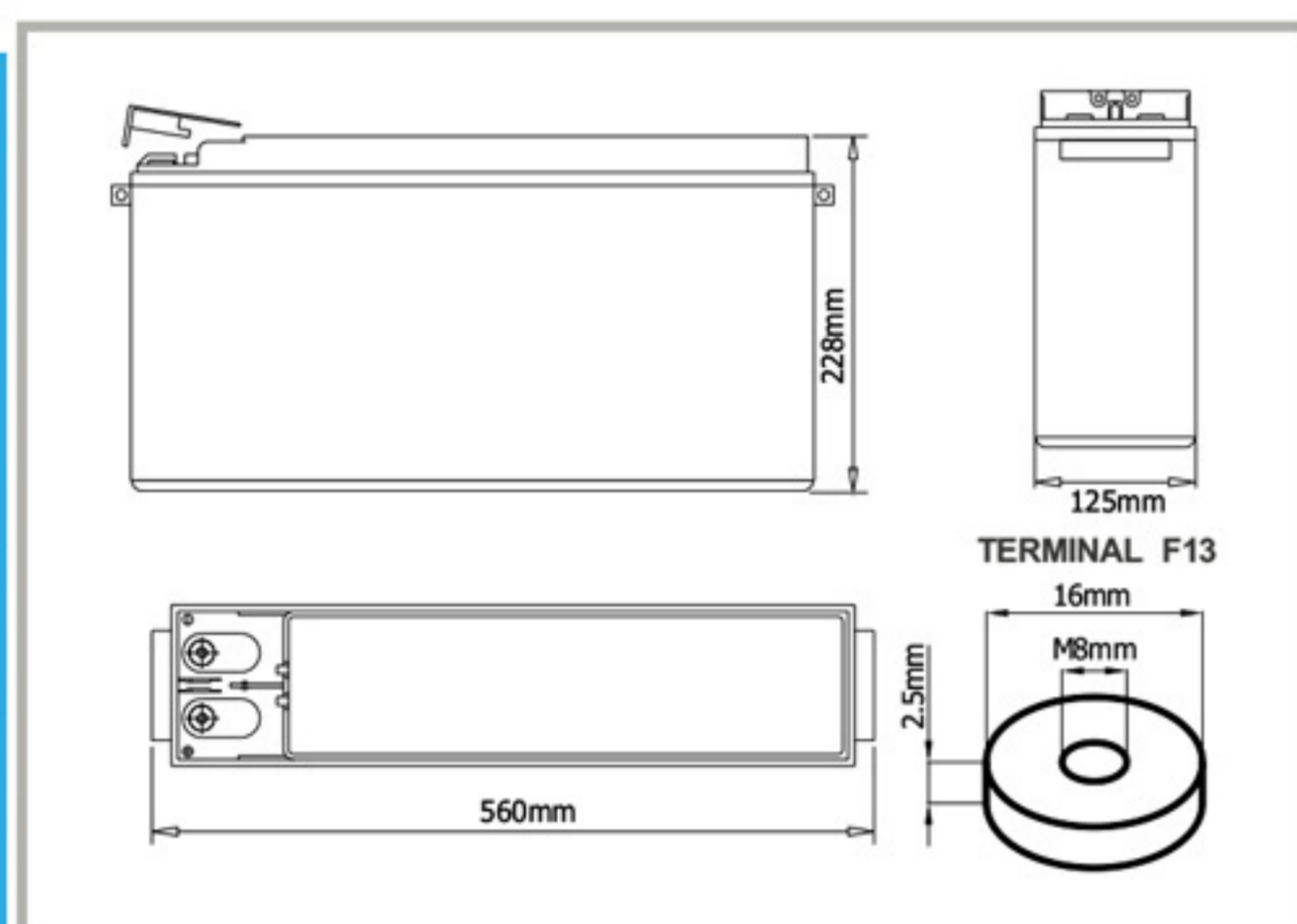
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 125Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### BATTERY DIMENSIONS



### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	125 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L560mm x W125mm x H228mm
Approx. Weight	38.5 kg (84.9 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.0045 Ohm (fully charged @ 20°C)
Max. Charge Current	31A
Max. Discharge Current (5S)	1000 A
Short Circuit Current	2600 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

ISO9001    ISO14001

**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

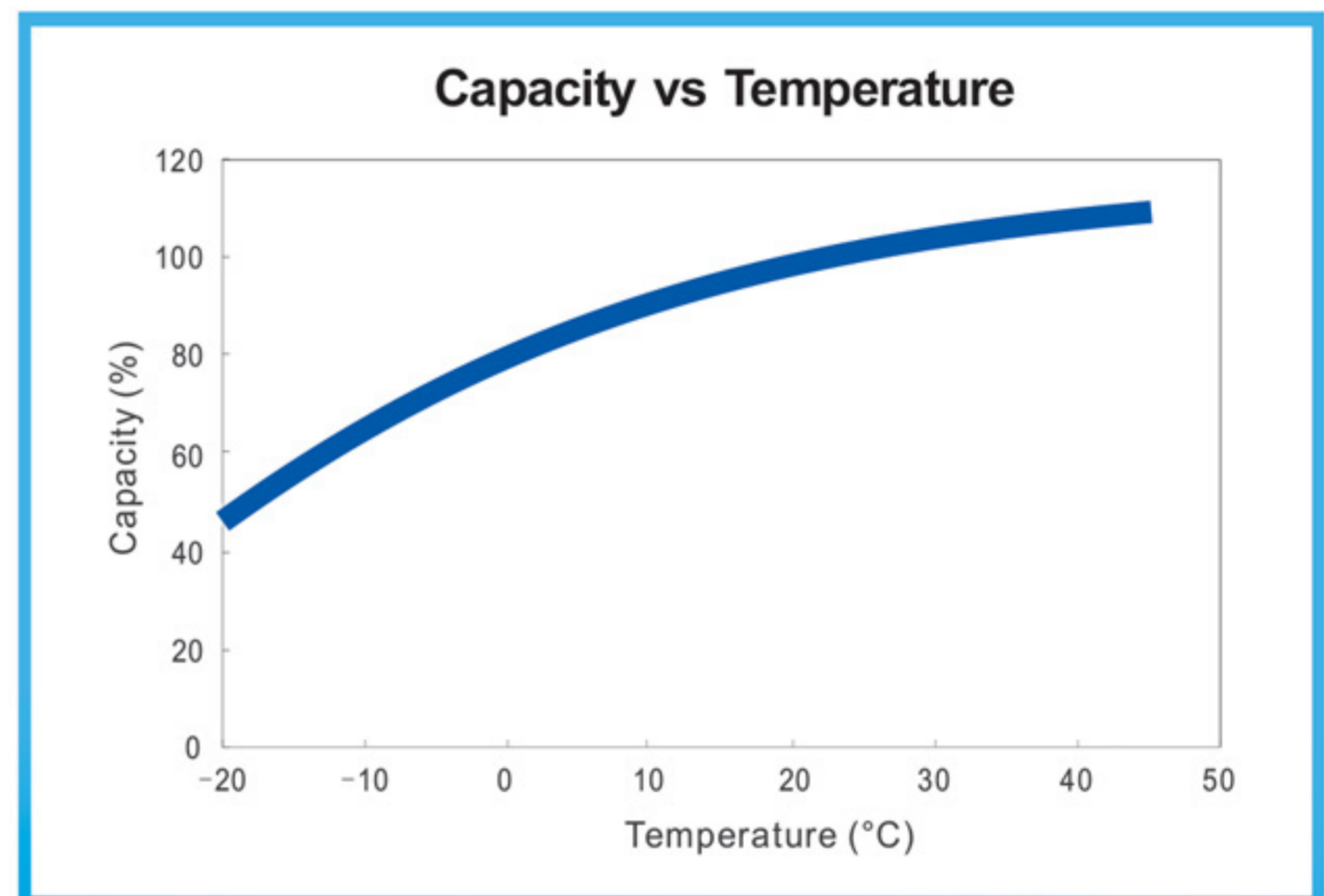
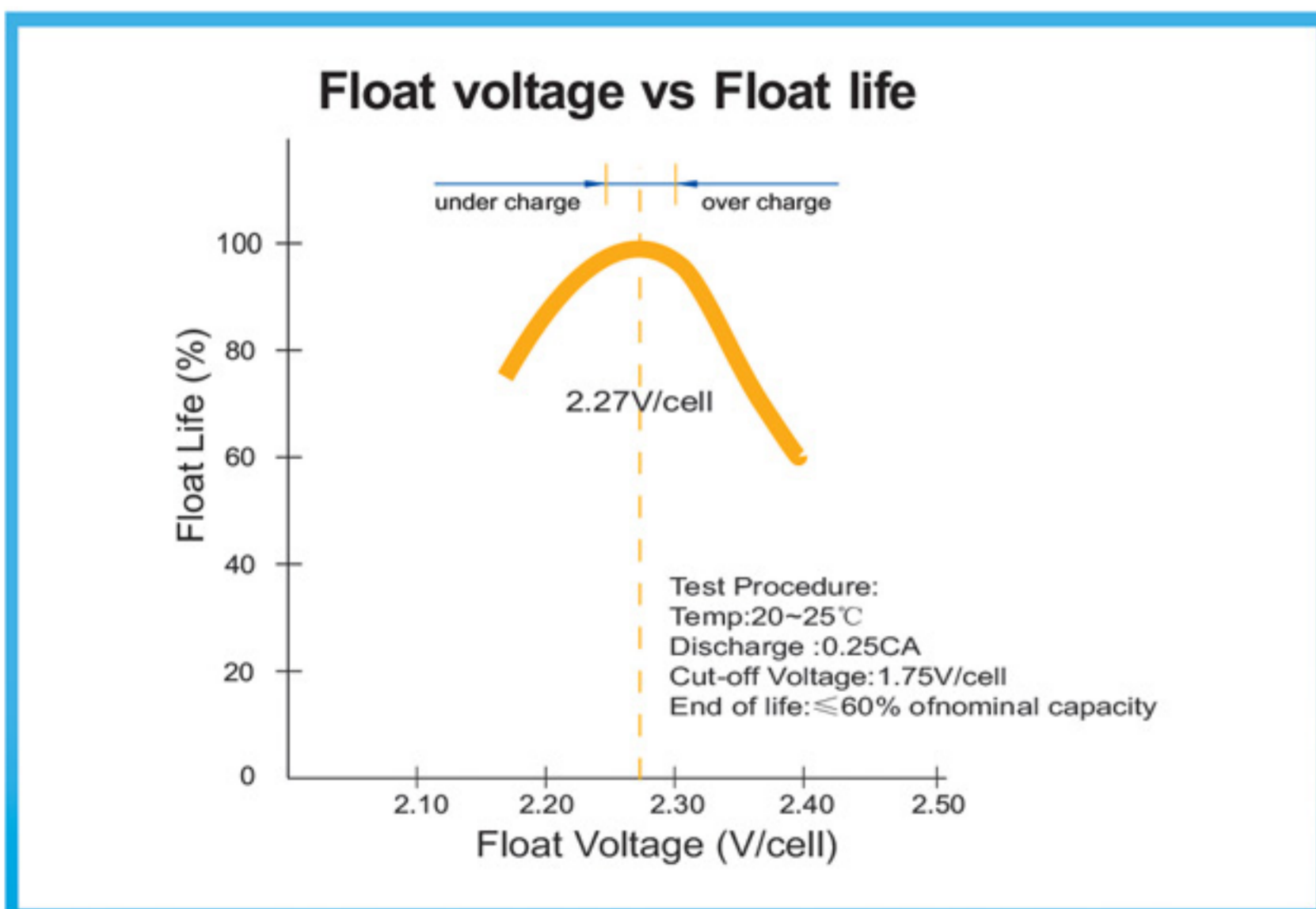
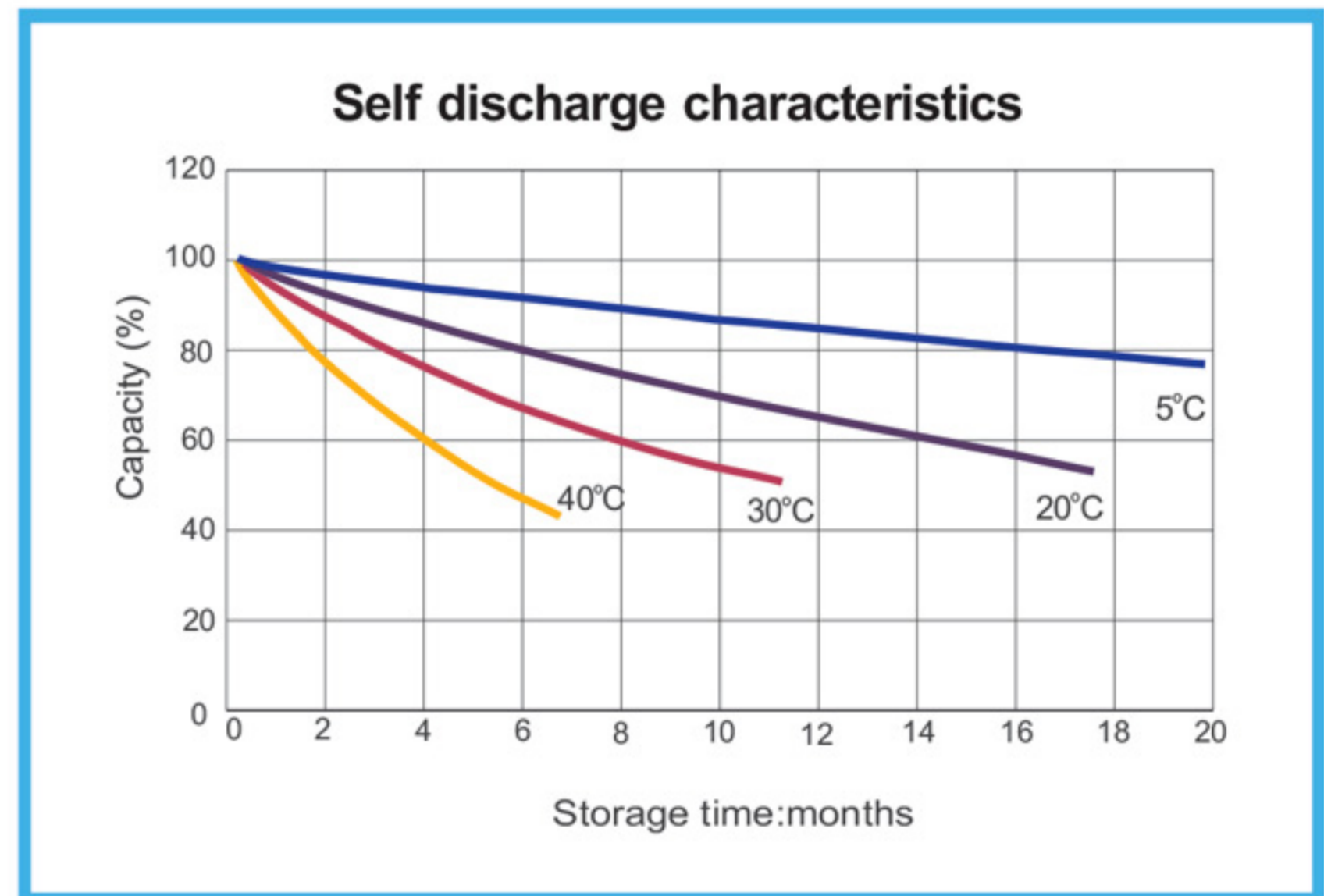
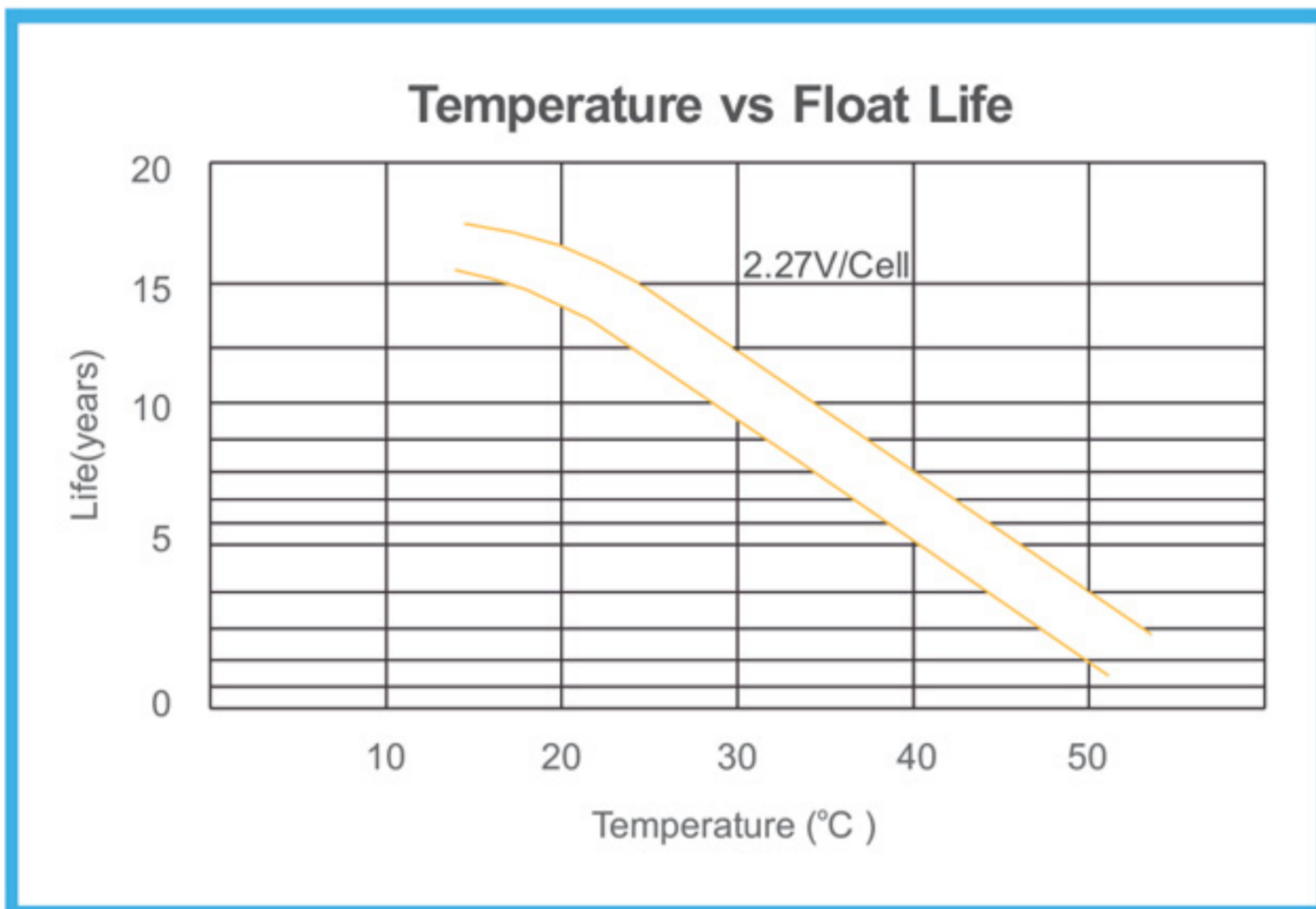
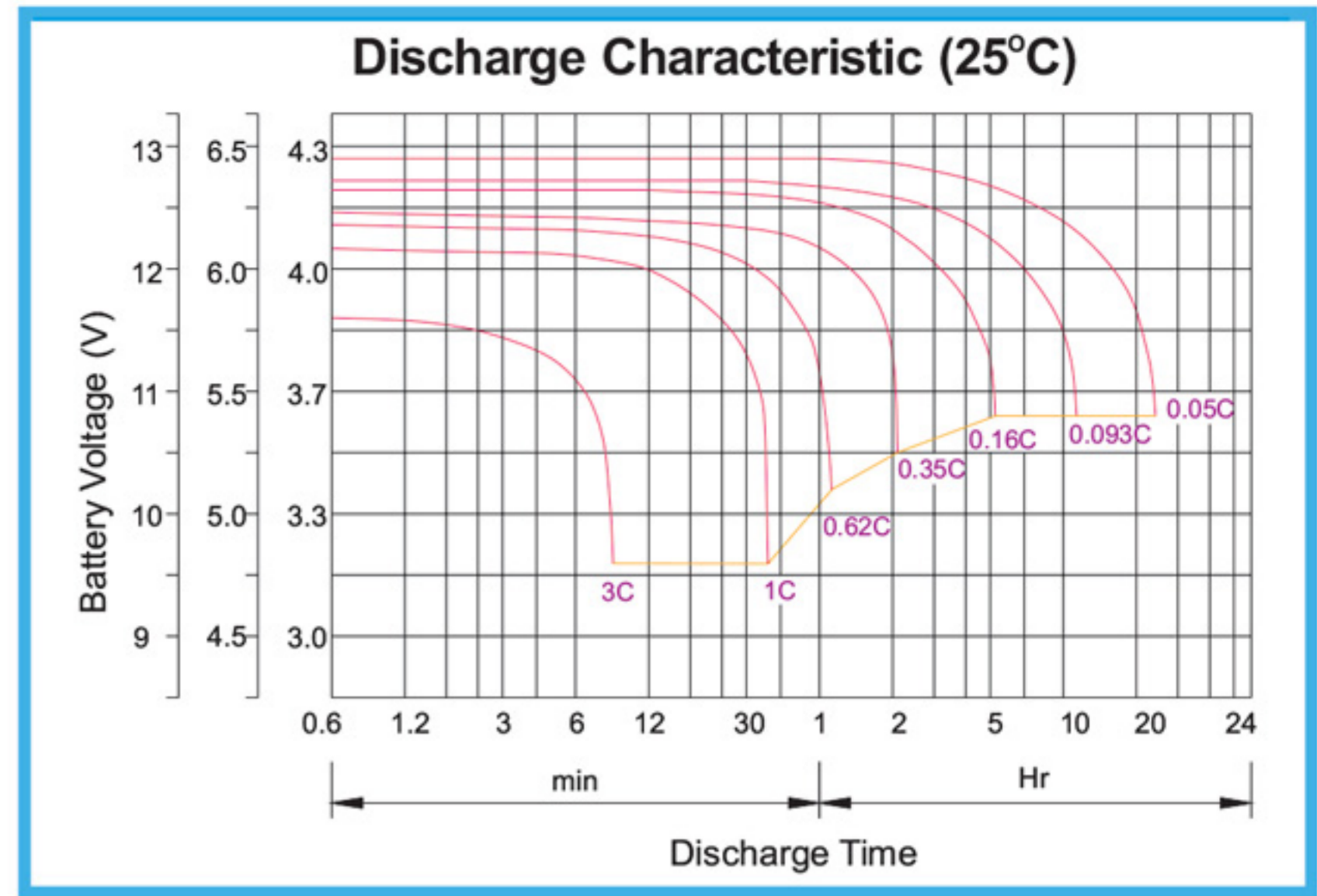
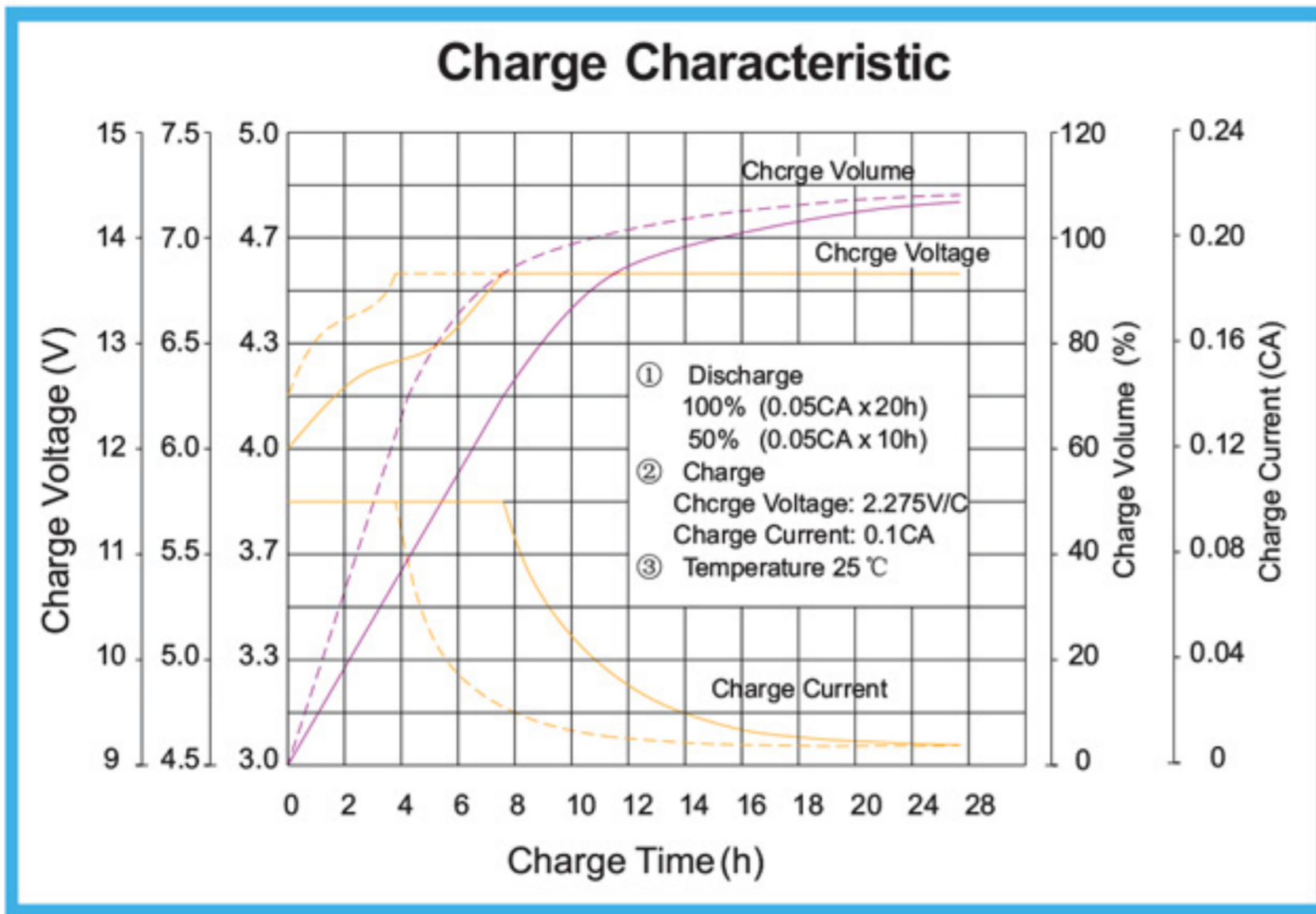
Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	338	237	203	128	76.0	44.7	34.3	27.0	22.3	16.0	13.3	6.88
1.67V	301	218	191	122	74.1	44.0	33.9	26.5	21.9	15.8	13.1	6.81
1.70V	269	198	181	118	72.3	43.4	33.5	26.2	21.8	15.7	12.9	6.75
1.75V	234	184	168	114	70.9	42.6	33.0	25.9	21.5	15.3	12.8	6.66
1.80V	207	167	157	109	67.5	41.4	32.3	25.3	21.3	15.0	12.5	6.63
1.85V	177	151	143	102	65.6	39.8	30.8	24.5	20.3	14.5	12.1	6.25

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	594	425	371	236	142	84.1	64.8	51.2	42.3	30.7	25.6	13.3
1.67V	537	396	352	227	139	83.1	64.4	50.5	41.9	30.5	25.4	13.3
1.70V	485	364	335	220	137	82.6	64.1	50.4	42.1	30.5	25.3	13.3
1.75V	427	342	315	214	135	81.9	63.7	50.2	41.9	30.1	25.1	13.2
1.80V	383	314	296	207	130	80.2	63.0	49.5	41.7	29.7	24.8	13.2
1.85V	333	286	273	197	127	77.8	60.6	48.4	40.1	28.8	24.1	12.6

# FT125

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 125Ah

### CHARACTERISTICS



DP Electronics (Deutsche Power Co., Limited)

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I /A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/ °C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.

# FT150

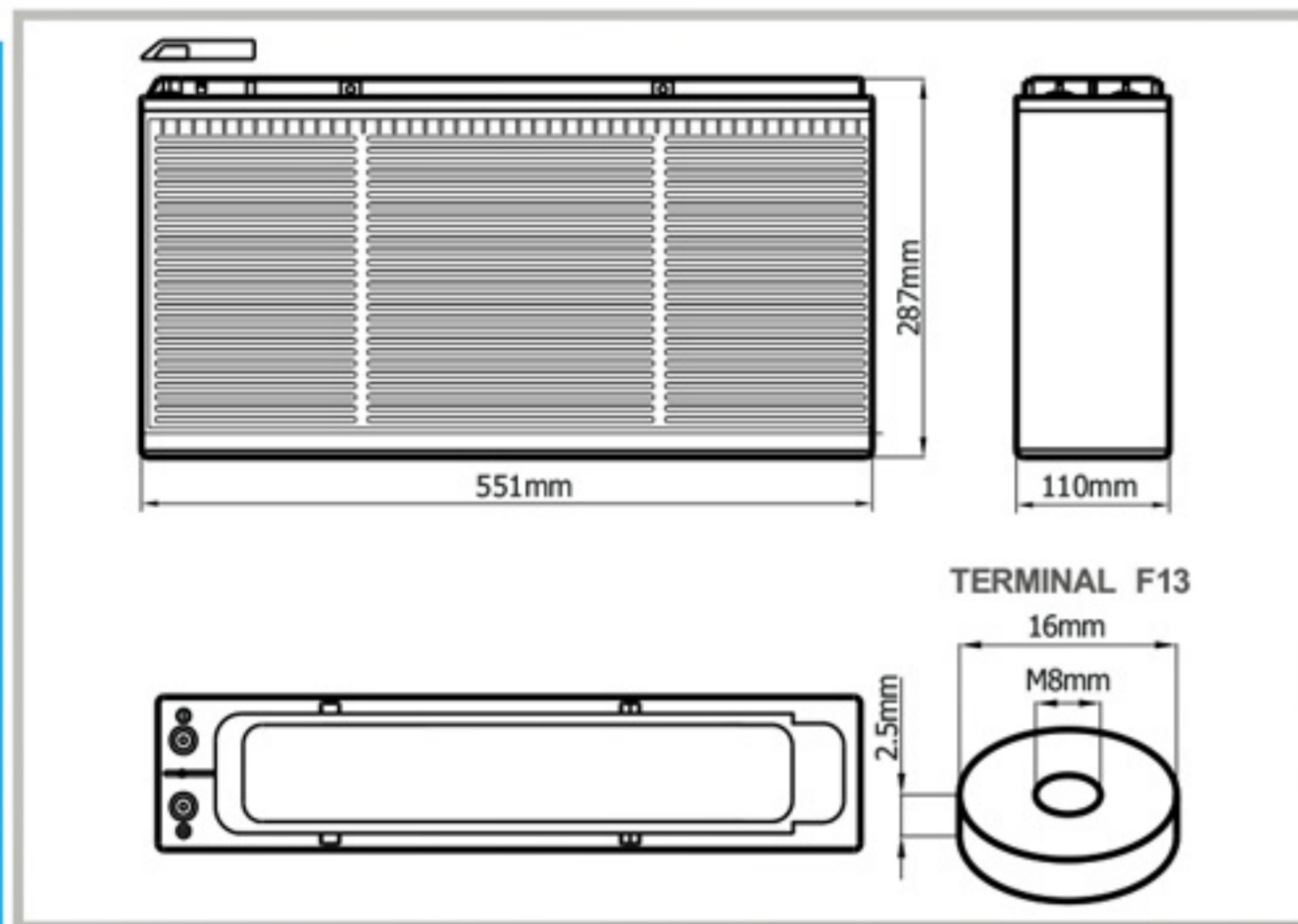
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 150Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### BATTERY DIMENSIONS



### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	150 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L551mm x W110mm x H287mm
Approx. Weight	48.0 kg (105.8 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.005 Ohm (fully charged @ 20°C)
Max. Charge Current	37.5A
Max. Discharge Current (5S)	1000 A
Short Circuit Current	2400 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)




ISO9001      ISO14001




**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

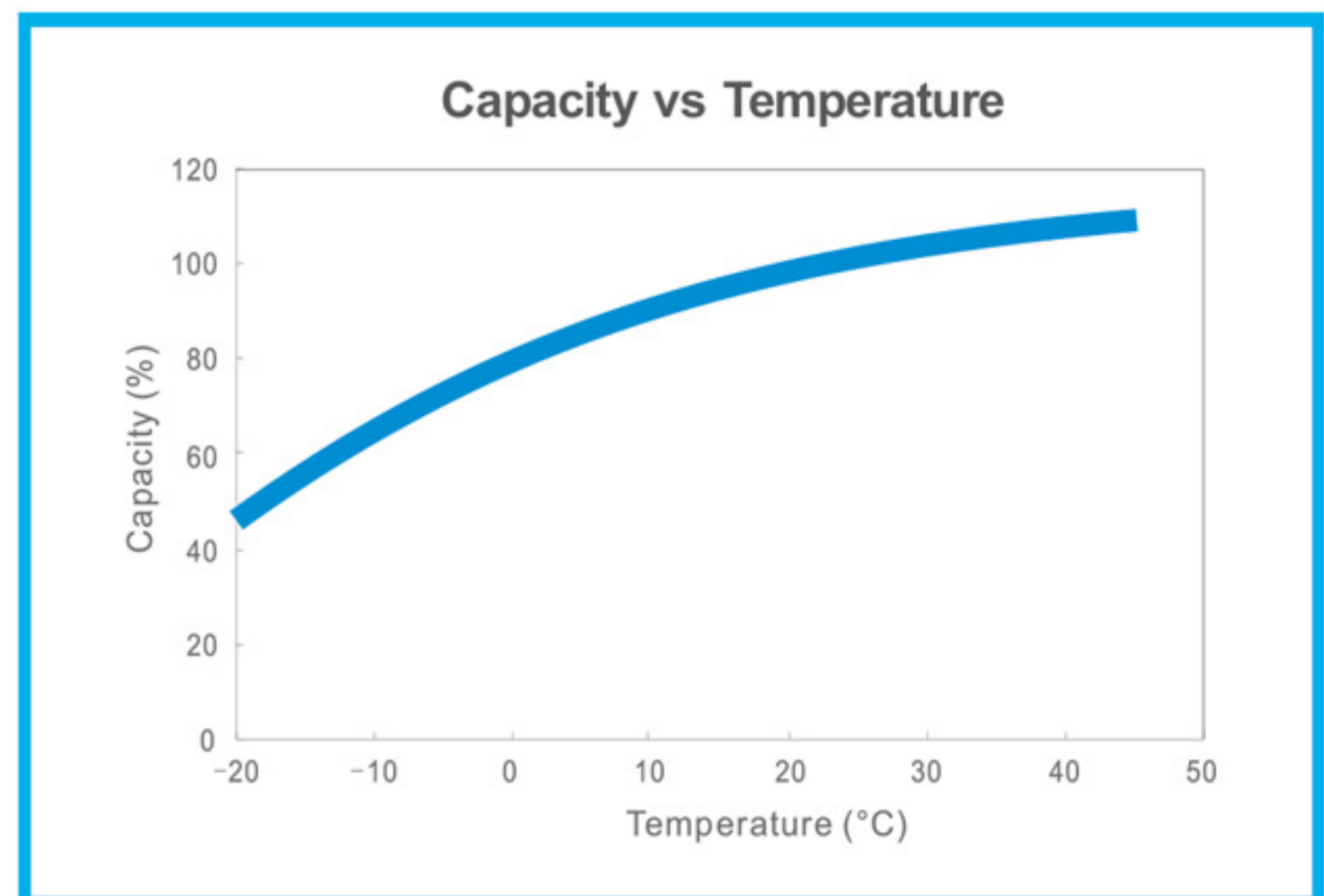
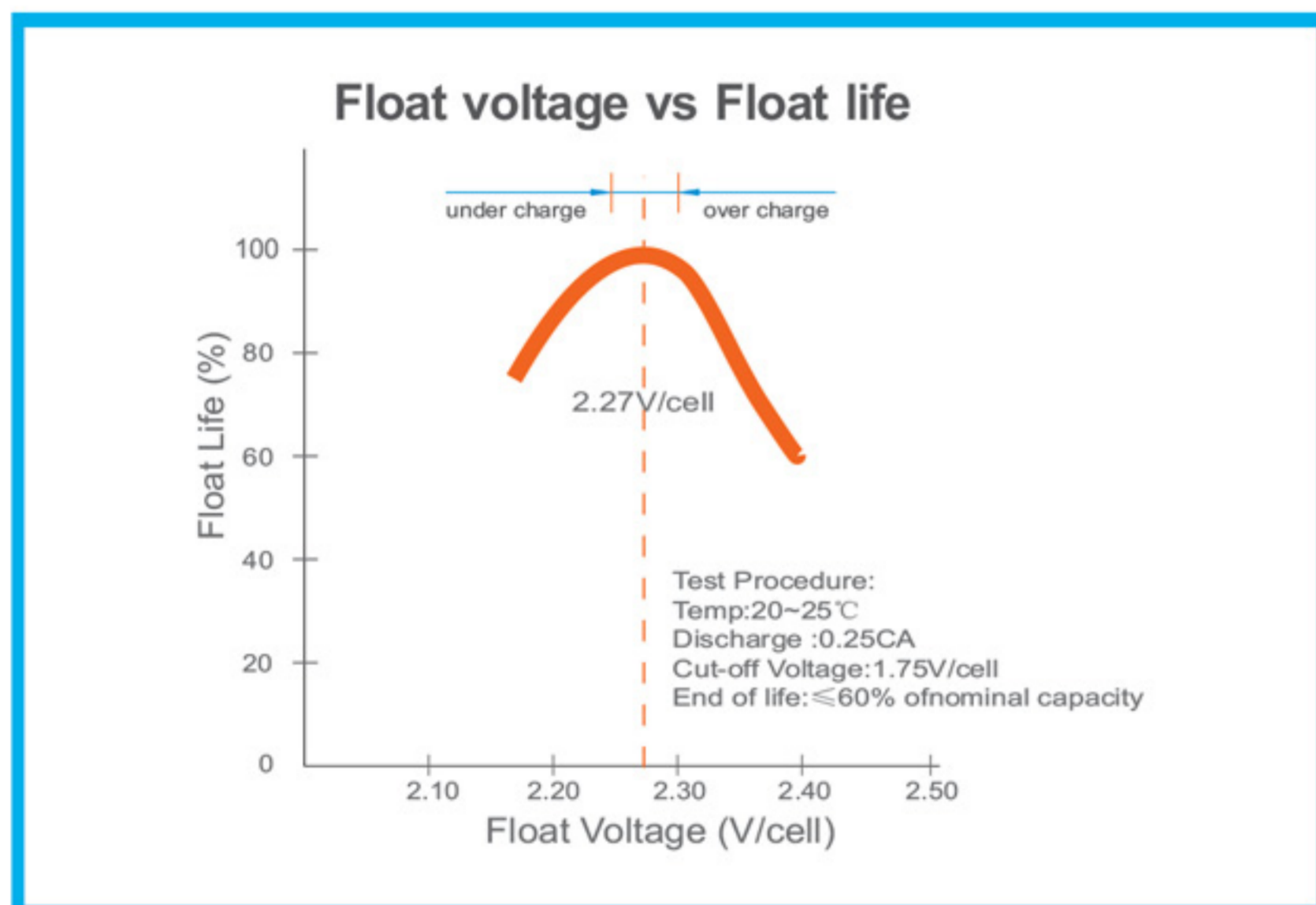
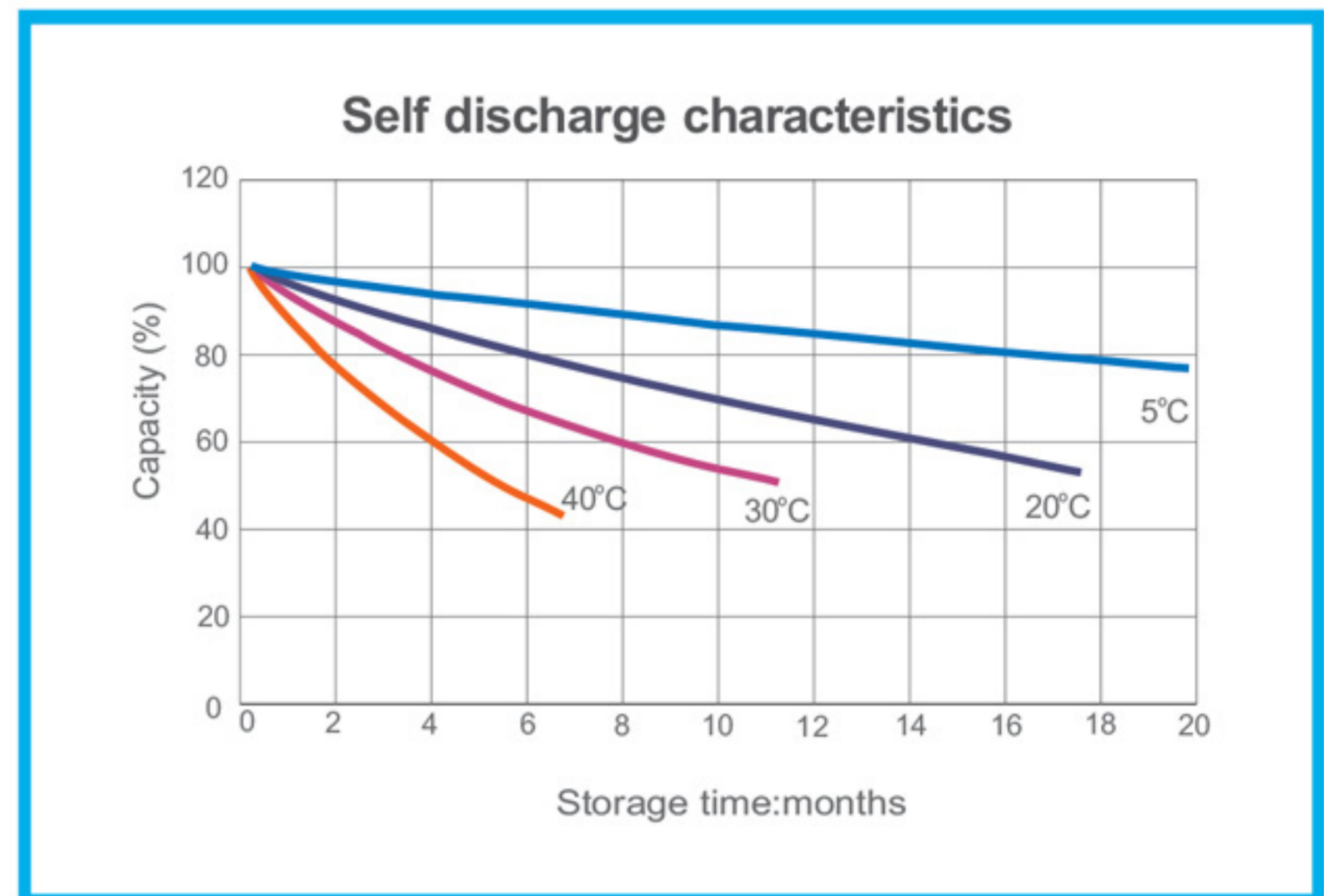
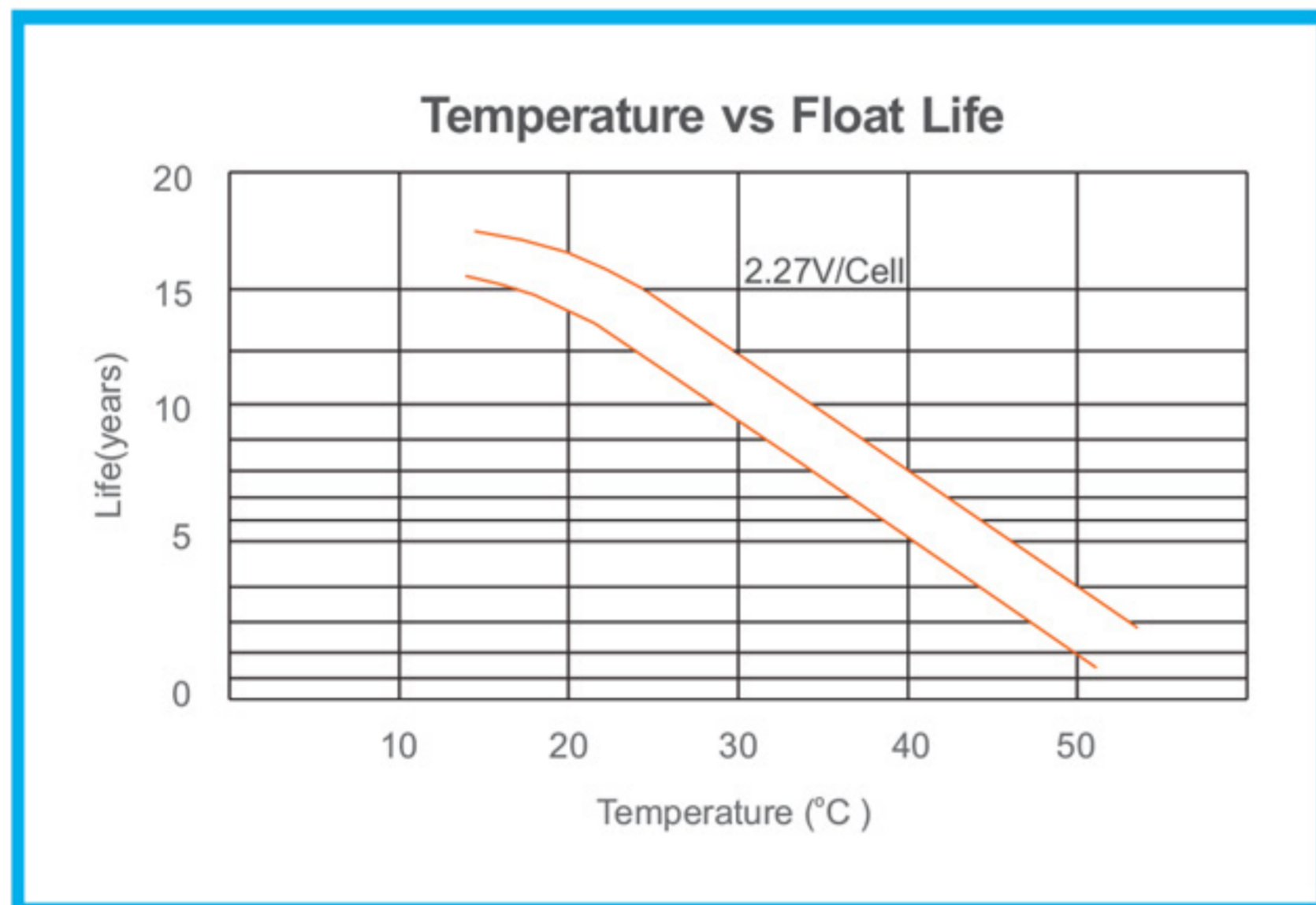
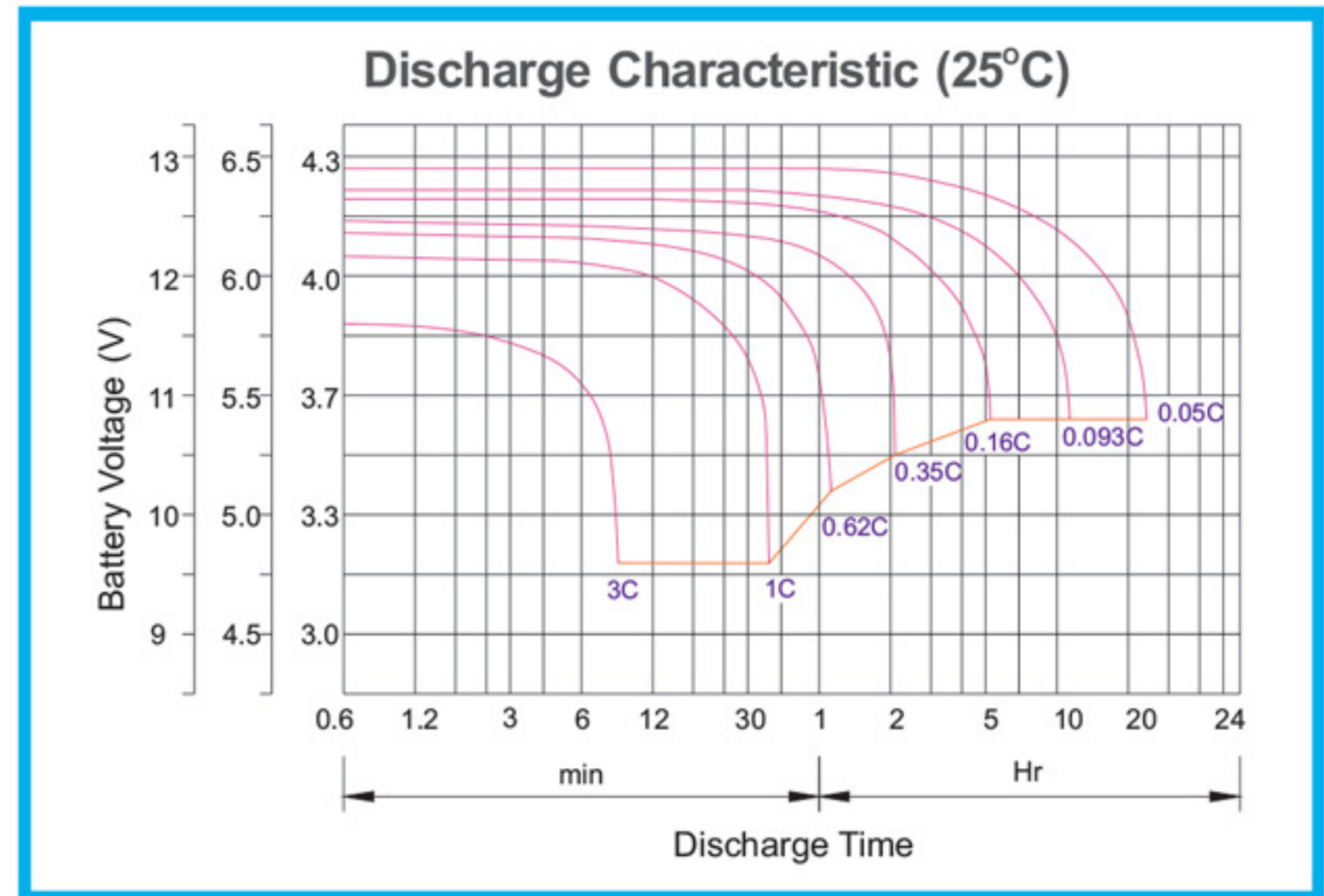
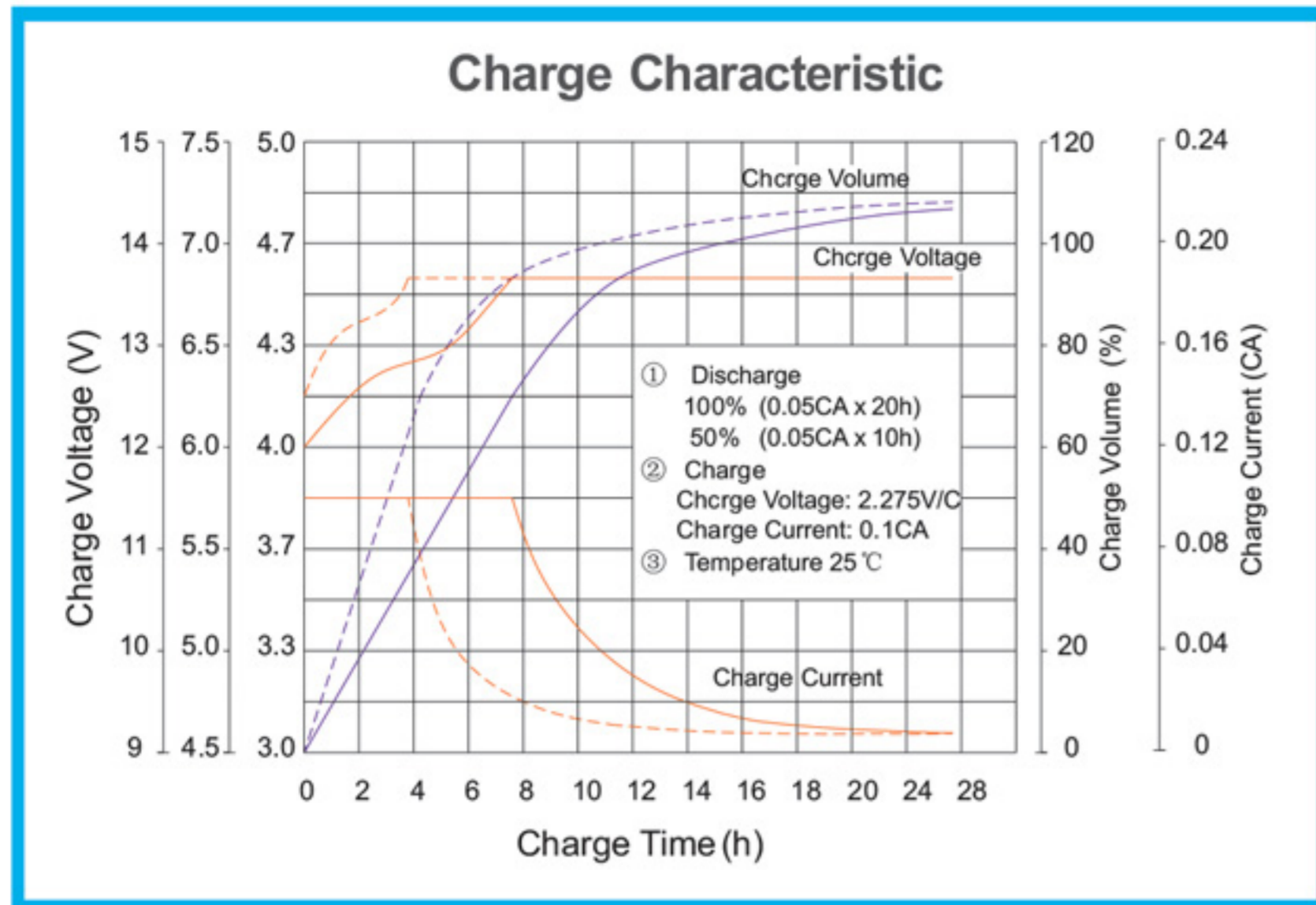
Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	405	284	244	153	91.2	53.7	41.2	32.4	26.7	19.2	15.9	8.25
1.67V	361	262	230	147	88.9	52.8	40.7	31.8	26.3	18.9	15.7	8.18
1.70V	323	238	217	141	86.8	52.1	40.2	31.4	26.2	18.8	15.5	8.10
1.75V	280	221	202	136	85.0	51.2	39.6	31.1	25.8	18.4	15.3	7.99
1.80V	248	201	188	130	81.0	49.7	38.8	30.4	25.5	18.0	15.0	7.95
1.85V	212	181	171	123	78.7	47.7	37.0	29.4	24.3	17.3	14.5	7.50

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	713	510	445	284	170	101	77.8	61.5	50.8	36.8	30.7	16.0
1.67V	645	475	422	272	167	100	77.3	60.6	50.3	36.5	30.5	16.0
1.70V	582	436	402	264	164	99.2	77.0	60.4	50.5	36.6	30.4	16.0
1.75V	513	410	378	257	162	98.3	76.4	60.3	50.2	36.1	30.2	15.8
1.80V	459	377	356	248	156	96.2	75.6	59.4	50.1	35.6	29.8	15.9
1.85V	400	344	327	237	153	93.4	72.7	58.1	48.1	34.6	28.9	15.1

# FT150

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 150Ah

### CHARACTERISTICS



DP Electronics (Deutsche Power Co., Limited)

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I /A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/ °C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.

# FT180

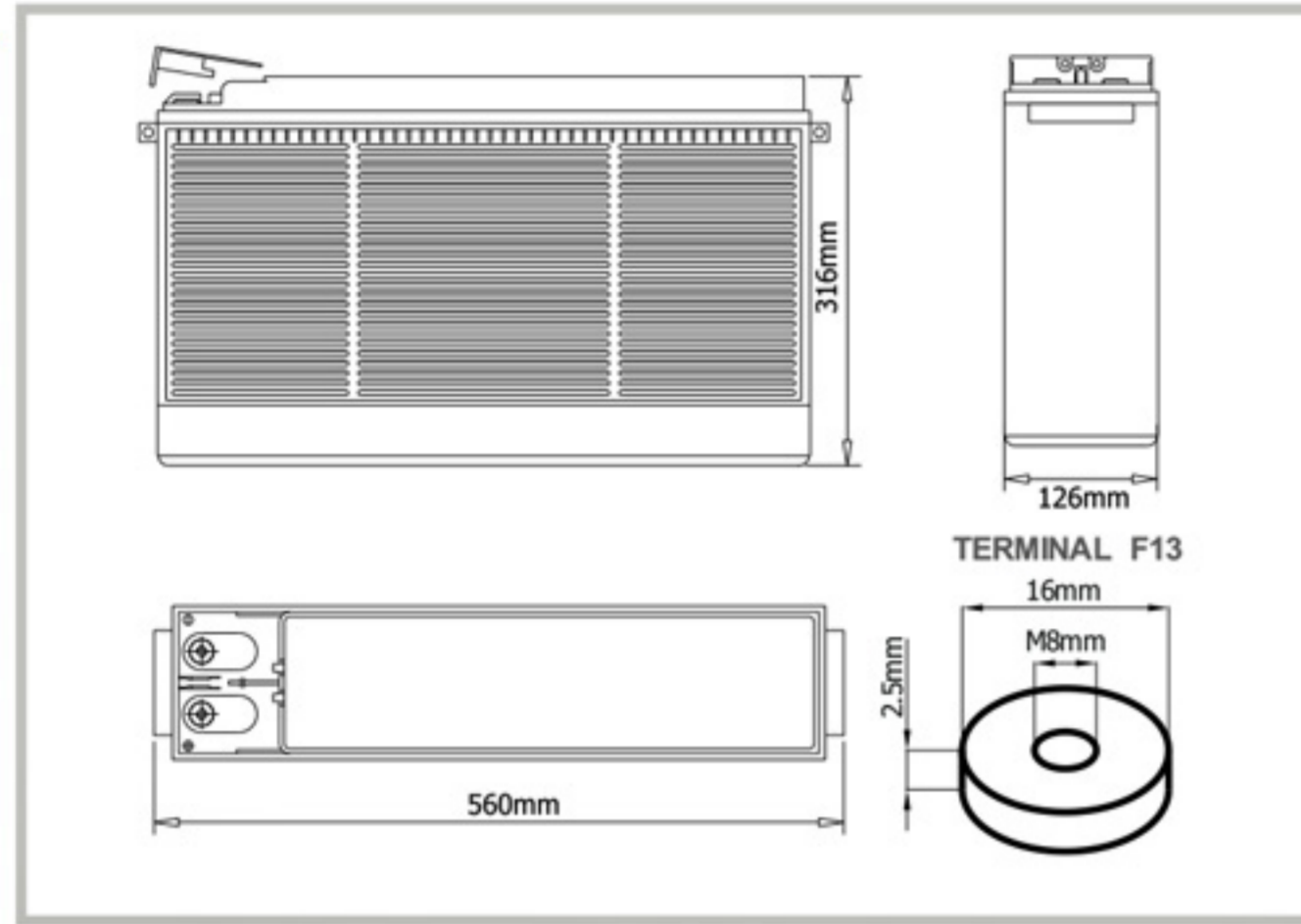
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 180Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### TECHNICAL SPECIFICATIONS



### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	180 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L560mm x W126mm x H316mm
Approx. Weight	53.0 kg (116.9 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.004 Ohm (fully charged @ 20°C)
Max. Charge Current	45A
Max. Discharge Current (5S)	1000 A
Short Circuit Current	2800 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)



ISO9001



ISO14001



### Complied standards

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

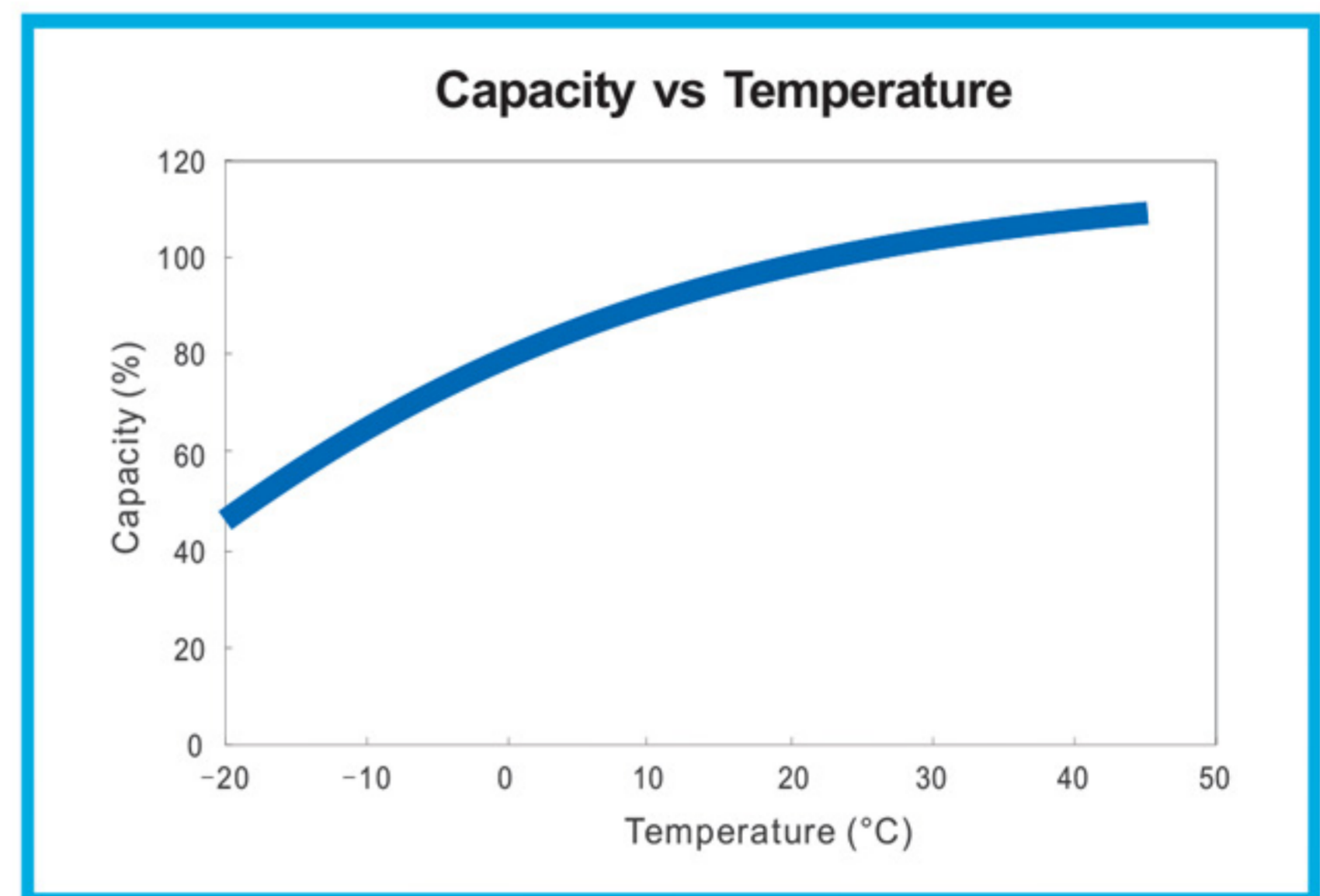
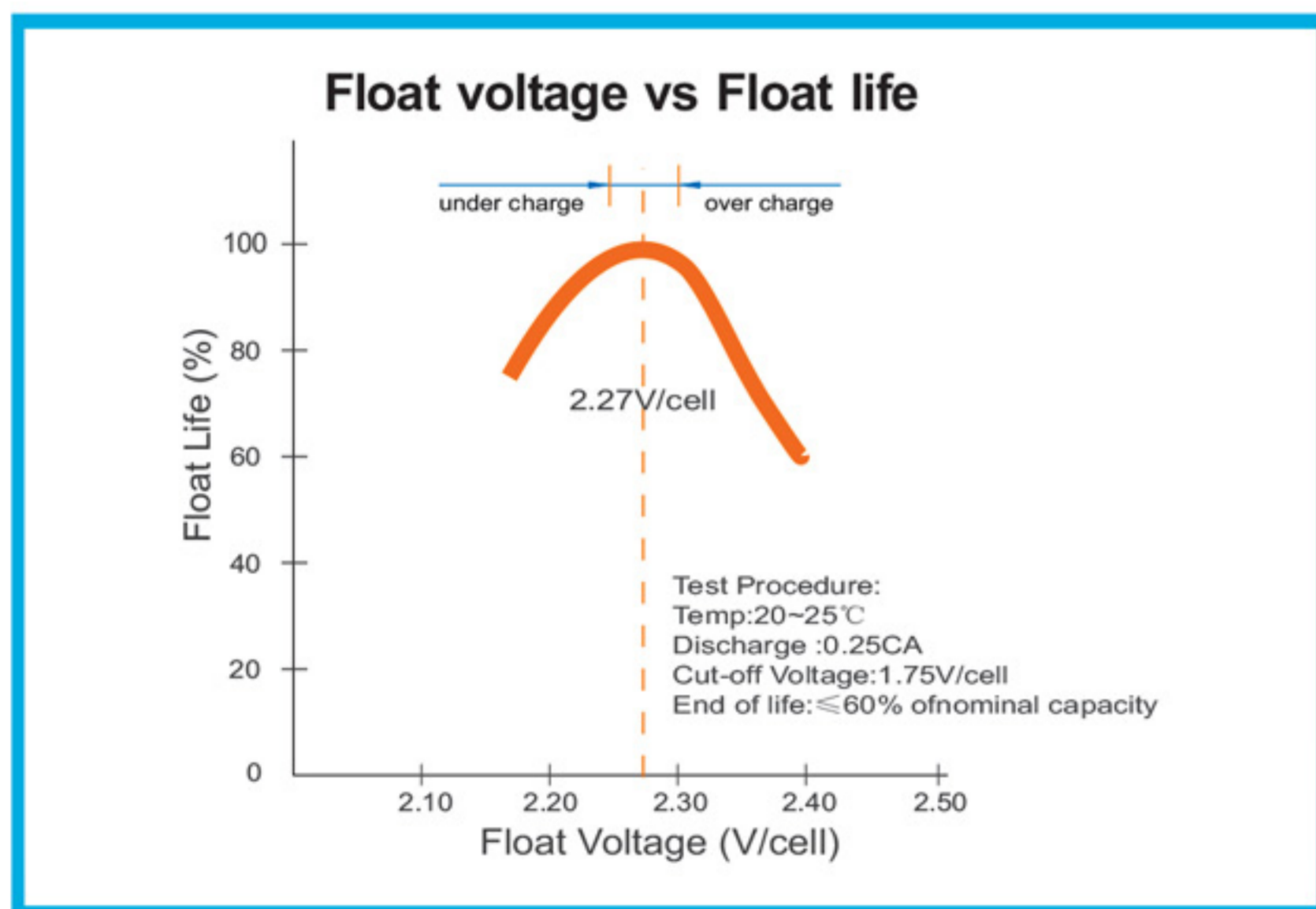
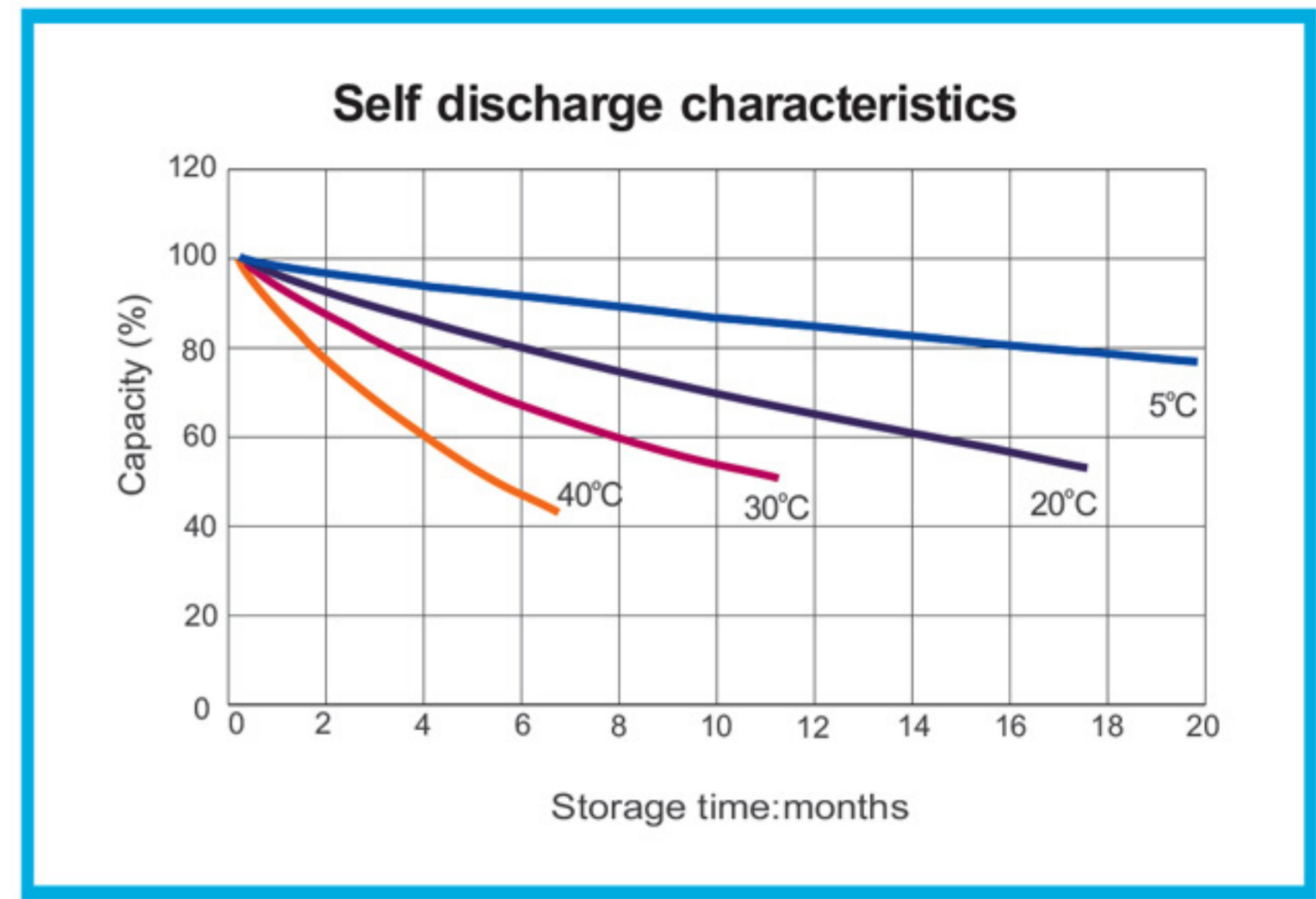
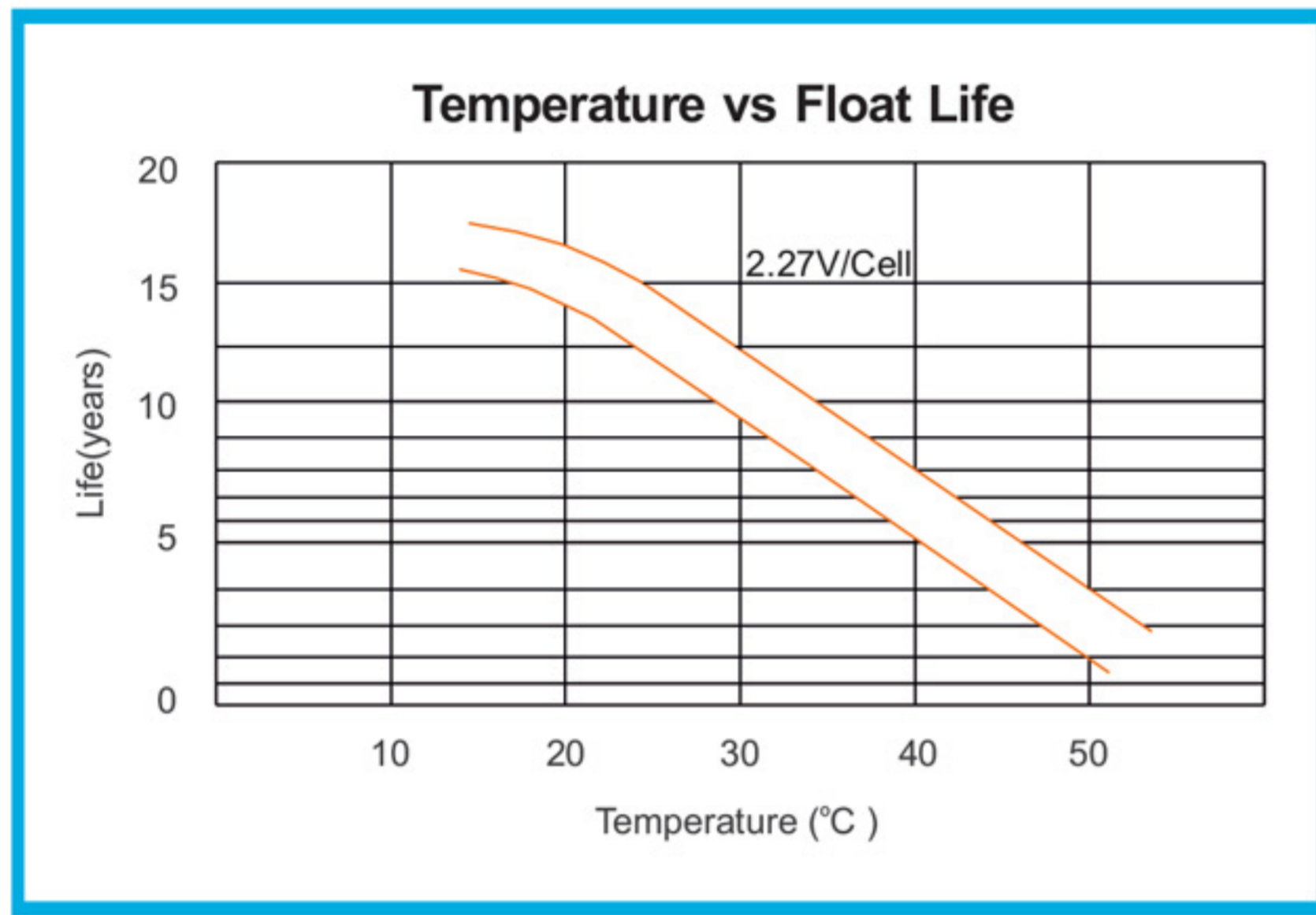
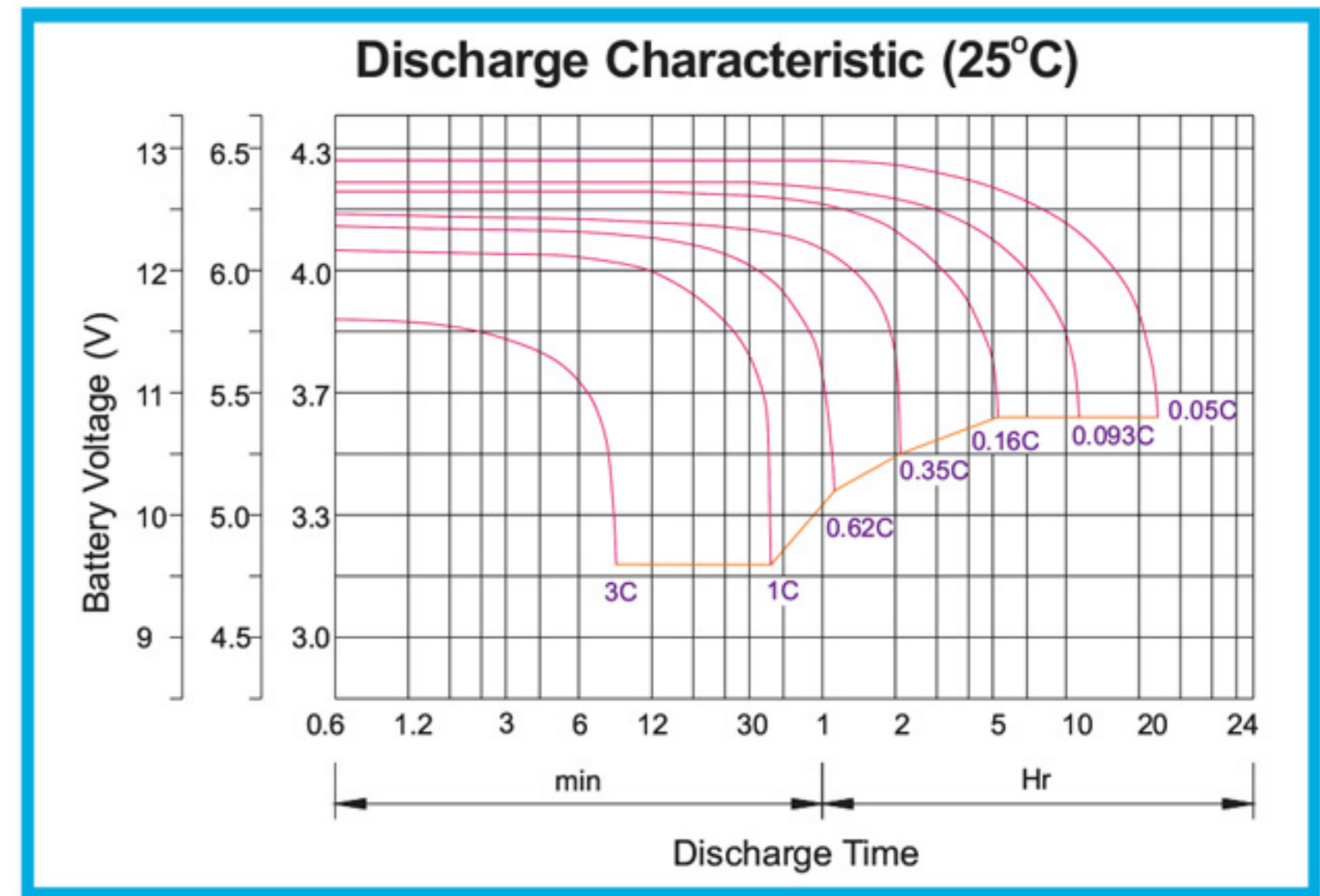
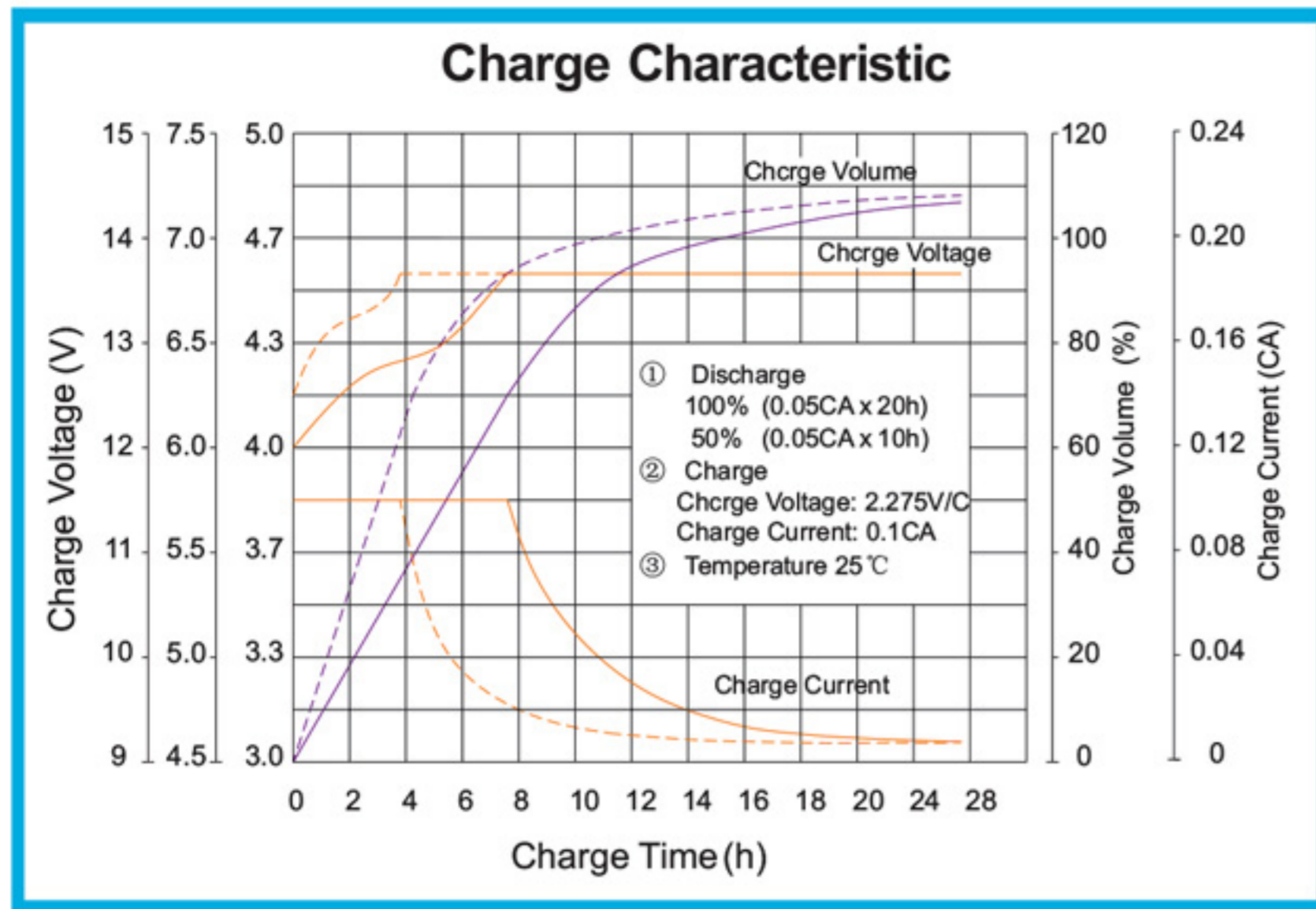
Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	486	341	293	184	109	64.4	49.4	38.9	32.0	23.0	19.1	9.90
1.67V	434	314	276	176	107	63.3	48.8	38.1	31.5	22.7	18.8	9.81
1.70V	387	285	260	169	104	62.5	48.3	37.7	31.4	22.5	18.6	9.72
1.75V	336	265	242	164	102	61.4	47.5	37.3	31.0	22.1	18.4	9.59
1.80V	298	241	226	156	97.2	59.6	46.6	36.4	30.6	21.6	18.0	9.54
1.85V	255	217	206	147	94.4	57.3	44.4	35.3	29.2	20.8	17.4	9.00

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	856	612	534	340	204	121	93.3	73.8	61.0	44.2	36.9	19.2
1.67V	773	570	507	327	200	120	92.8	72.7	60.3	43.9	36.6	19.2
1.70V	699	523	483	317	197	119	92.3	72.5	60.6	43.9	36.4	19.2
1.75V	615	492	453	309	194	118	91.7	72.3	60.3	43.3	36.2	19.0
1.80V	551	452	427	298	187	115	90.7	71.3	60.1	42.8	35.8	19.1
1.85V	480	412	393	284	183	112	87.2	69.7	57.7	41.5	34.7	18.1

# FT180

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 180Ah

### CHARACTERISTICS



### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I /A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.



# FT200

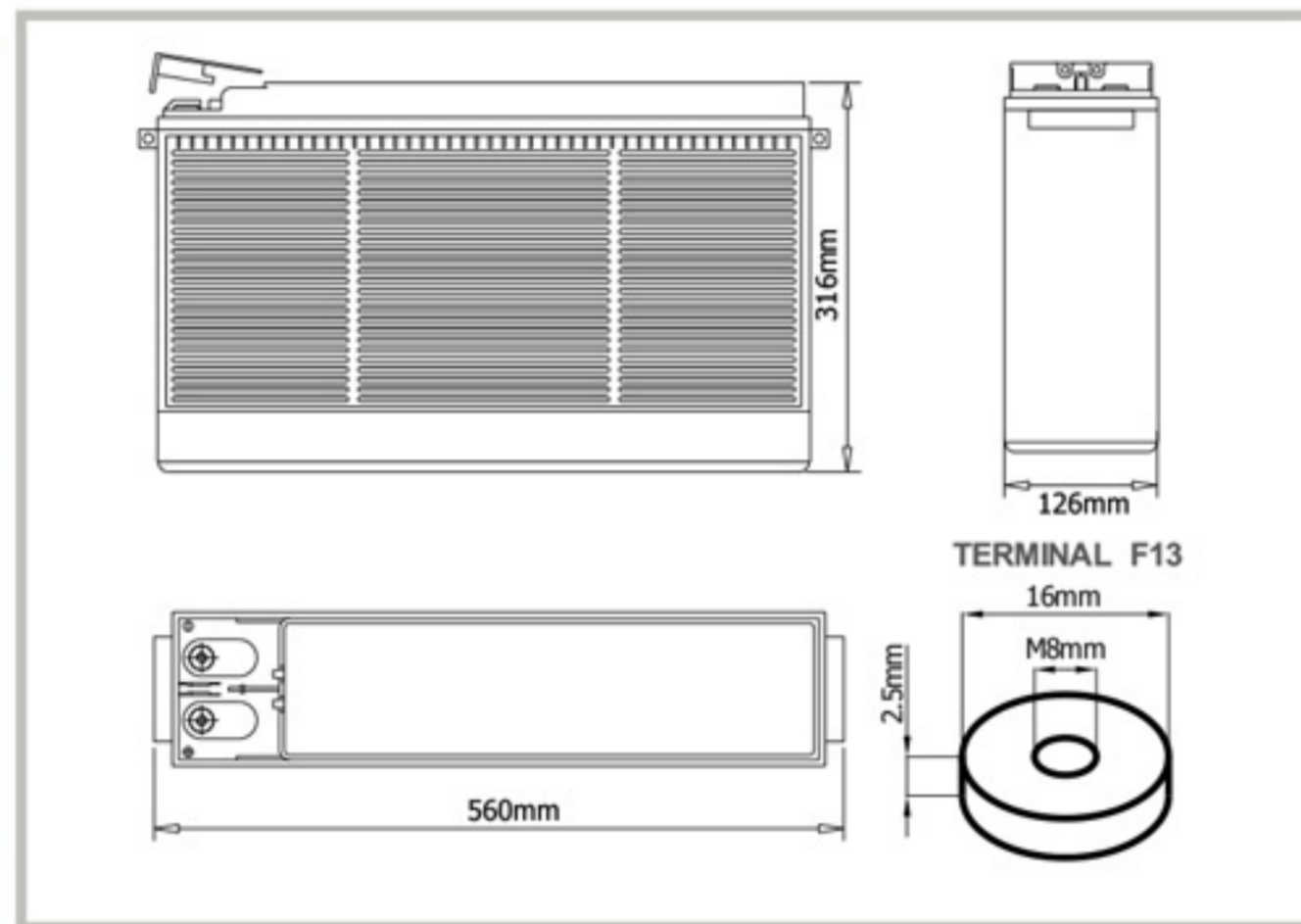
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 180Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### TECHNICAL SPECIFICATIONS



**12V**

**200Ah**

**Front GEL**

**15 years design life**

### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	200 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L560mm x W126mm x H316mm
Approx. Weight	58.0 kg (128.0 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.004 Ohm (fully charged @ 20°C)
Max. Charge Current	50A
Max. Discharge Current (5S)	1500 A
Short Circuit Current	4000 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

ISO9001

ISO14001

**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

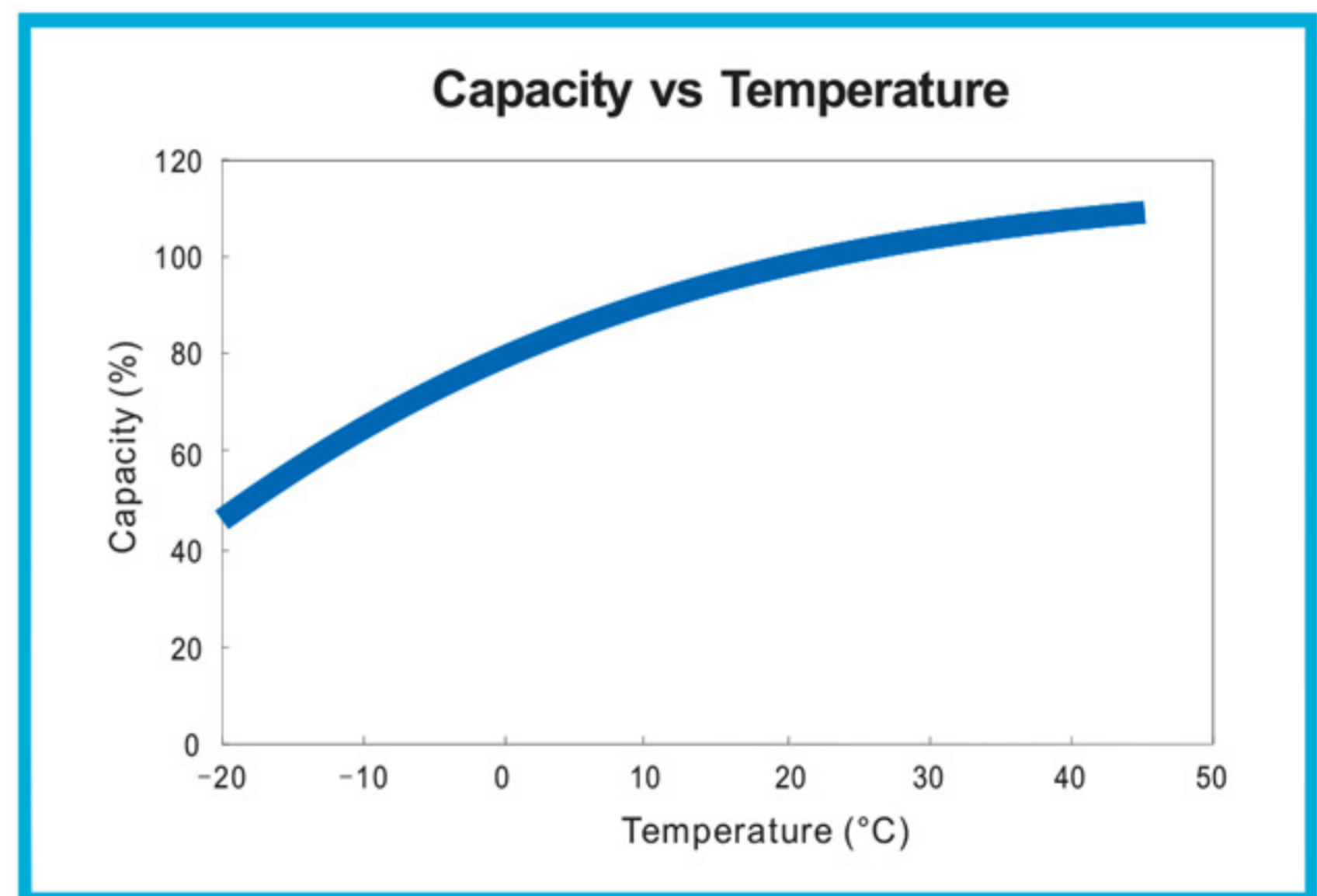
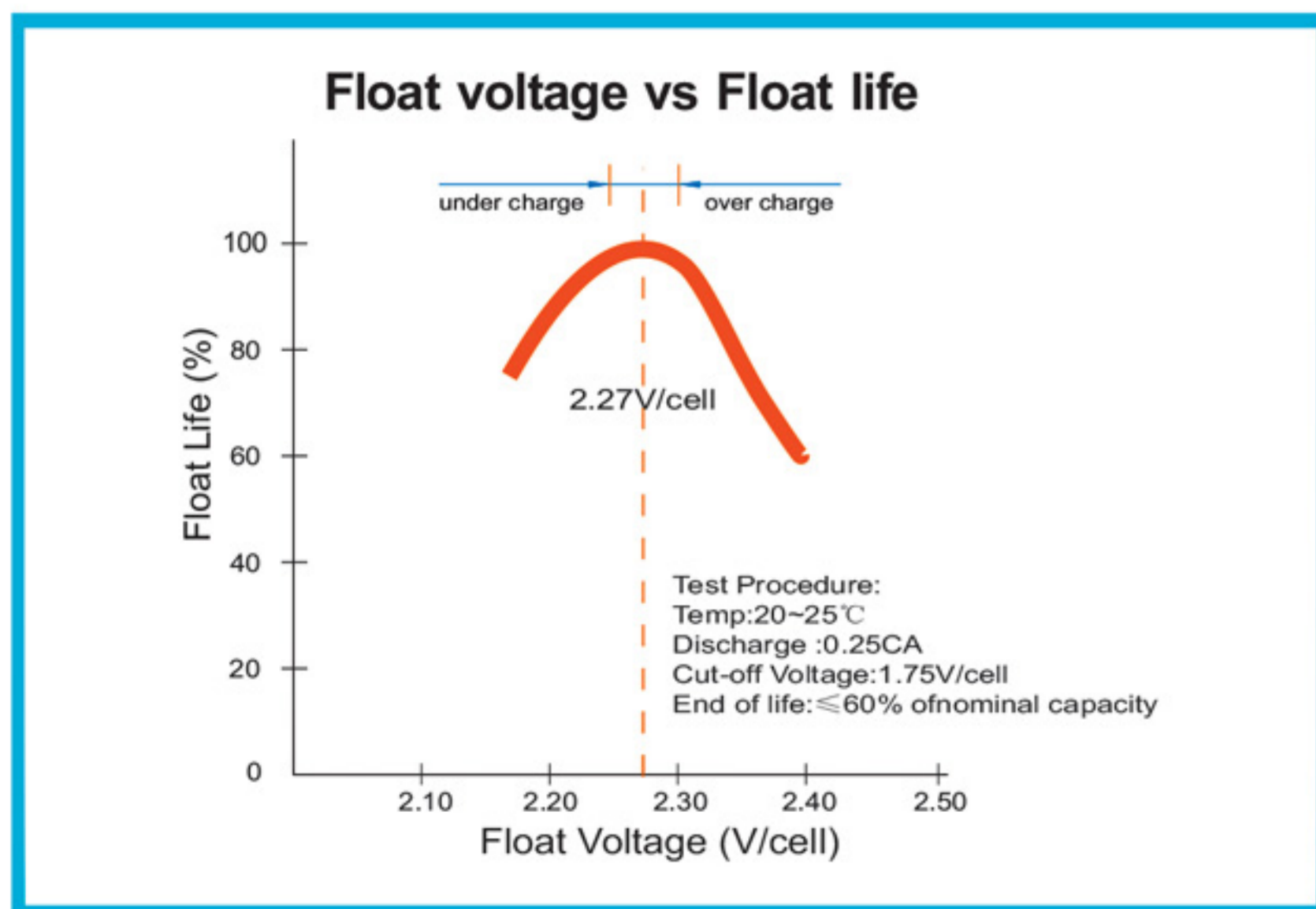
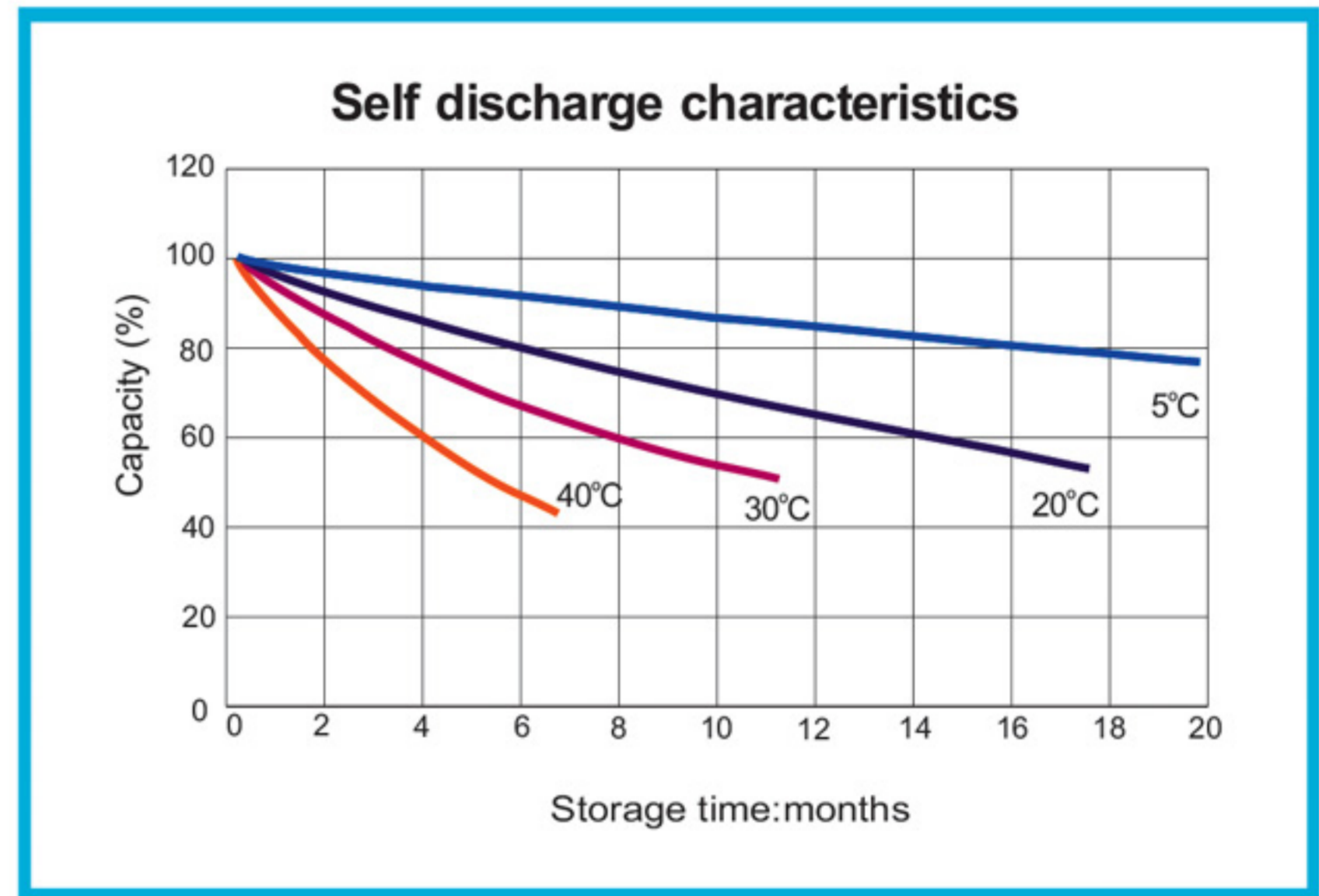
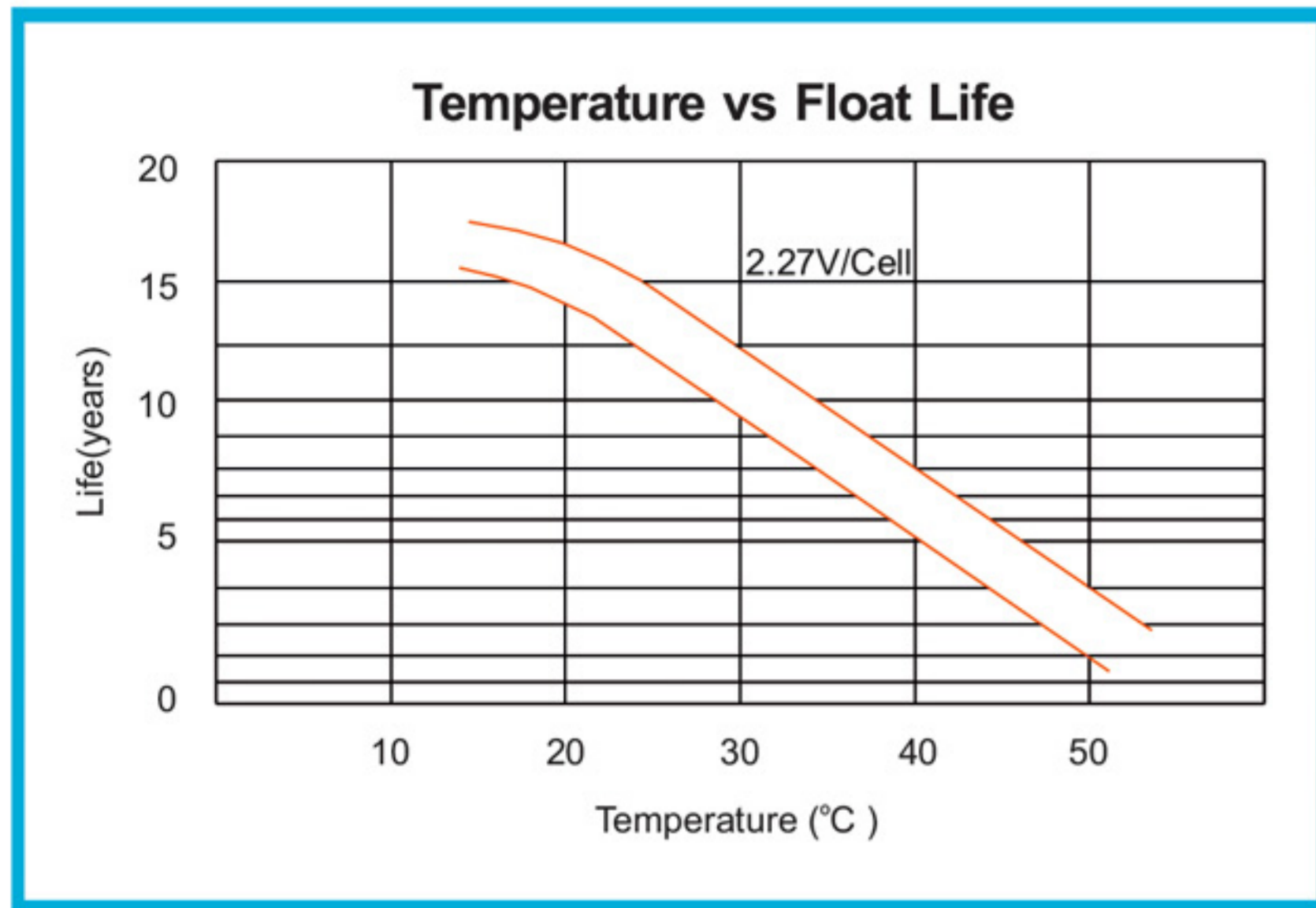
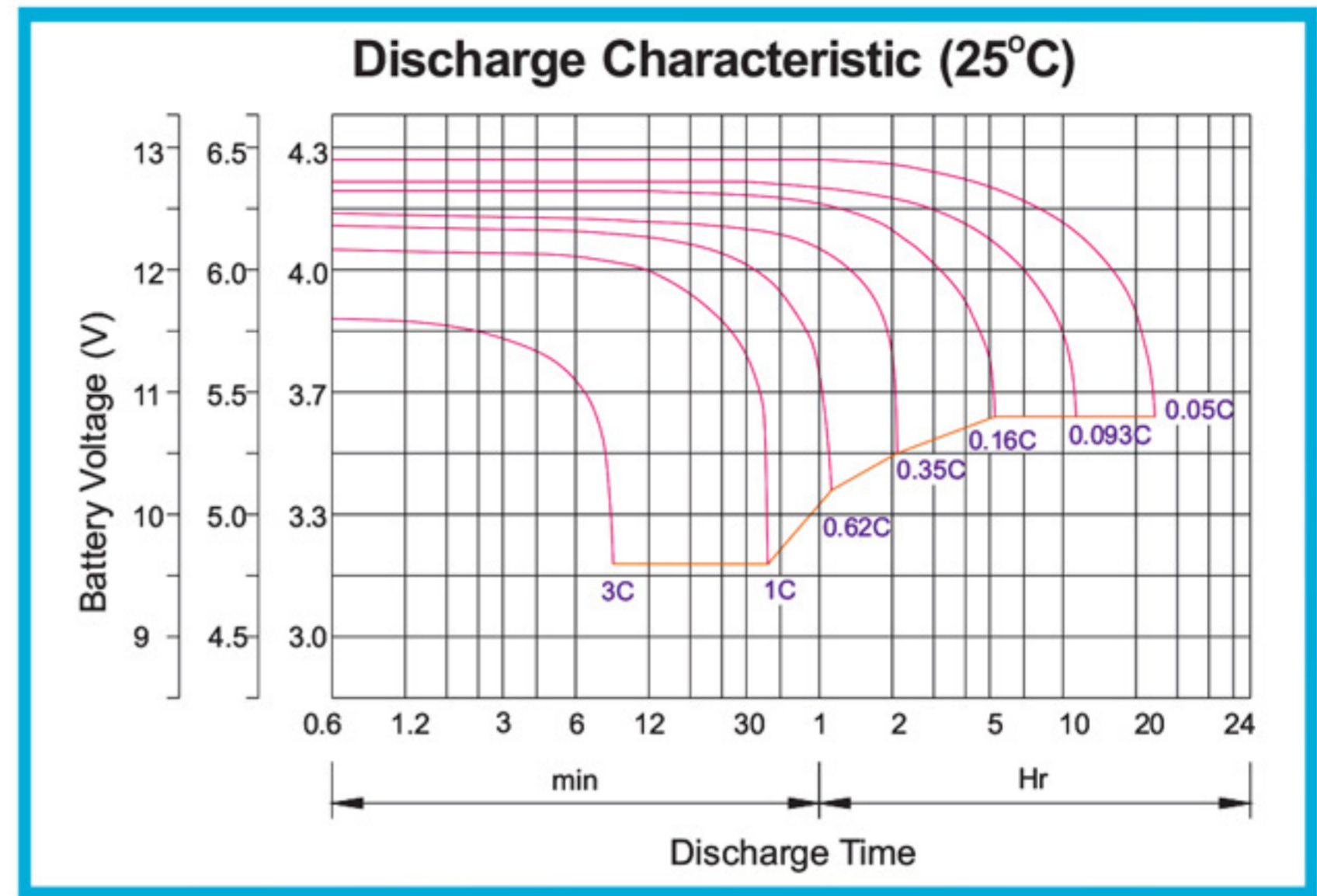
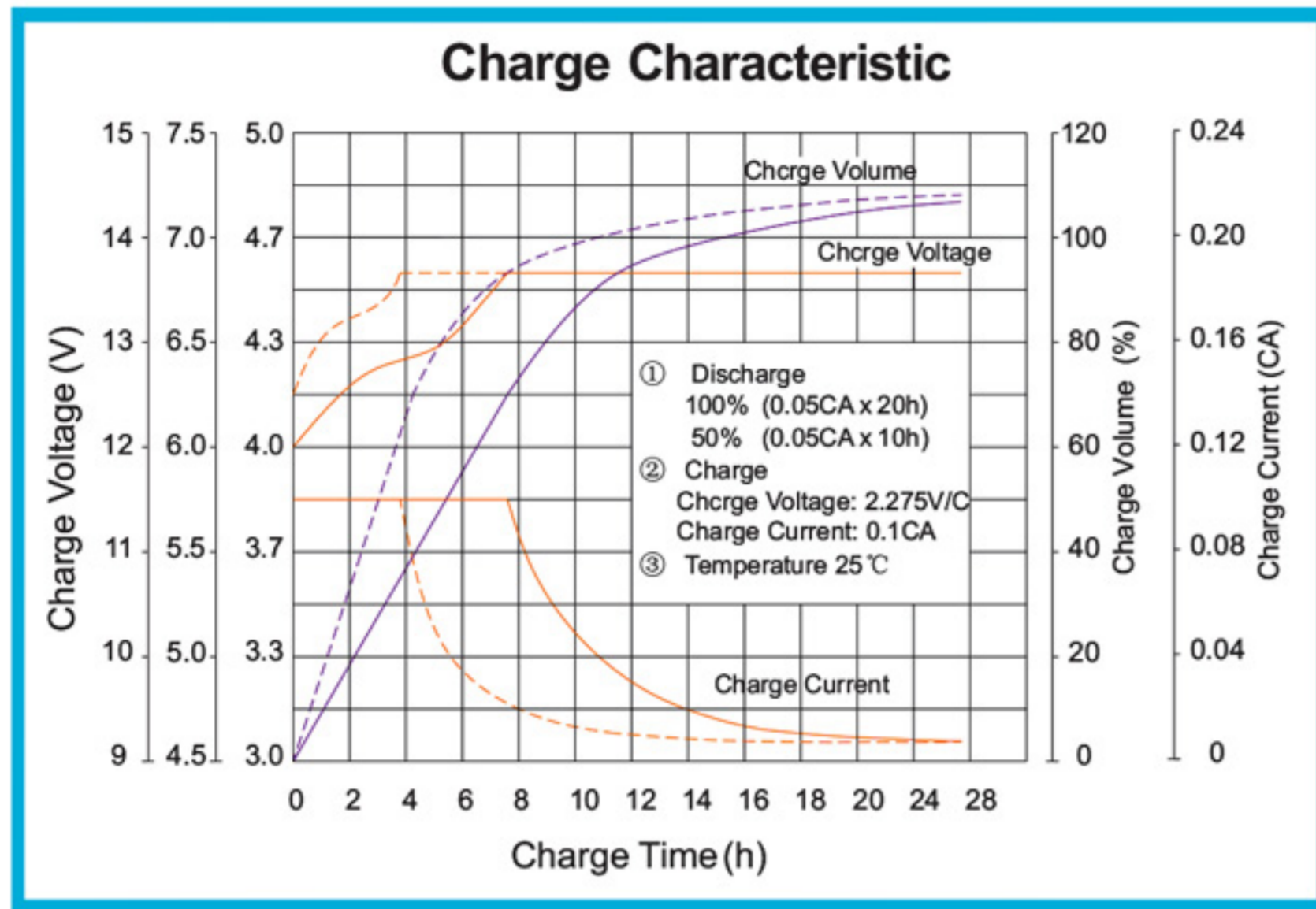
Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	540	378	304	192	121	71.5	54.8	43.2	35.5	25.5	21.2	11.0
1.67V	482	348	297	190	119	70.3	54.2	42.3	34.9	25.2	20.9	10.9
1.70V	430	316	286	187	115	69.4	53.6	41.8	34.8	25.0	20.6	10.8
1.75V	373	294	269	182	113	68.2	52.7	41.4	34.4	24.5	20.4	10.6
1.80V	331	267	251	173	108	66.2	51.7	40.4	34.0	24.0	20.0	10.5
1.85V	283	241	229	163	105	63.6	49.3	39.2	32.4	23.1	19.2	10.0

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	950	679	593	377	226	143	103	81.9	67.8	49.0	41.0	21.3
1.67V	858	633	563	363	222	133	102	80.7	66.9	48.7	40.6	21.3
1.70V	776	581	536	352	213	132	101	80.4	67.3	48.6	40.4	21.3
1.75V	683	546	503	343	215	130	100	80.3	66.9	48.1	40.2	21.2
1.80V	612	502	474	331	207	128	99.8	79.1	66.7	47.5	39.7	21.1
1.85V	533	457	436	315	203	124	96.8	77.4	63.8	46.1	38.5	20.1

# FT200

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 200Ah

### CHARACTERISTICS



### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I/A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.

# FT55

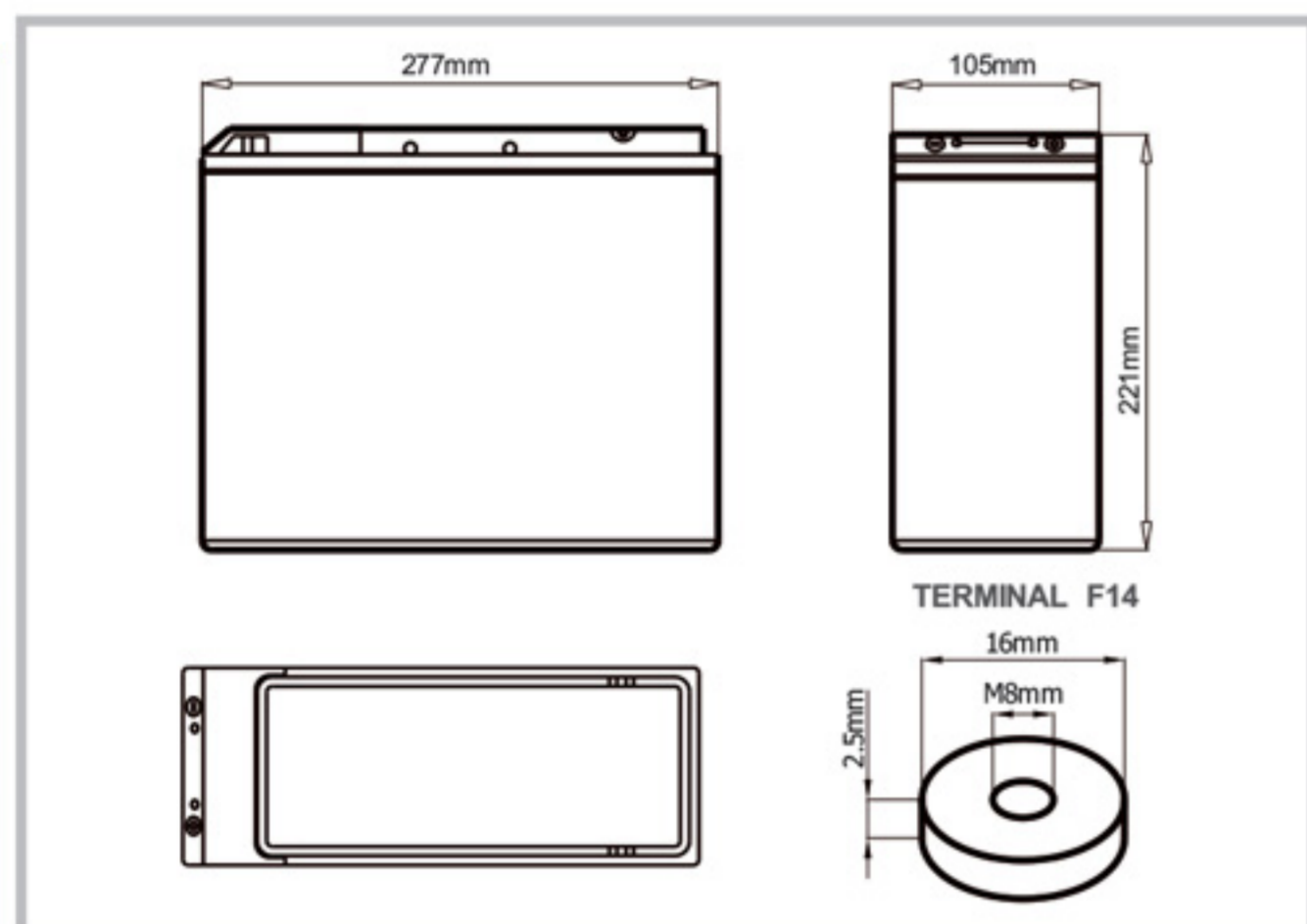
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 55Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.



### TECHNICAL SPECIFICATIONS



**12V**

**55Ah**

**Front GEL**

**15 years design life**

### BATTERY DIMENSIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	55 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L277mm x W106mm x H221mm
Approx. Weight	17.5 kg (38.6 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~8N.m)
Internal Resistance	Approx. 0.007 Ohm (fully charged @ 20°C)
Max. Charge Current	14A
Max. Discharge Current (5S)	440 A
Short Circuit Current	1700 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

ISO9001

ISO14001

**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

#### Constant Current Discharge Characteristics: Amps (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	149	104	89.4	56.3	33.4	19.7	15.1	11.9	9.79	7.03	5.83	3.03
1.67V	133	95.9	84.2	53.8	32.6	19.4	14.9	11.6	9.63	6.93	5.76	3.00
1.70V	118	87.2	79.6	51.8	31.8	19.1	14.7	11.5	9.59	6.89	5.69	2.97
1.75V	103	81.0	73.9	50.0	31.2	18.8	14.5	11.4	9.46	6.74	5.61	2.93
1.80V	90.9	73.6	68.9	47.8	29.7	18.2	14.2	11.1	9.35	6.60	5.50	2.92
1.85V	77.8	66.3	62.8	45.1	28.8	17.5	13.6	10.8	8.91	6.36	5.31	2.75

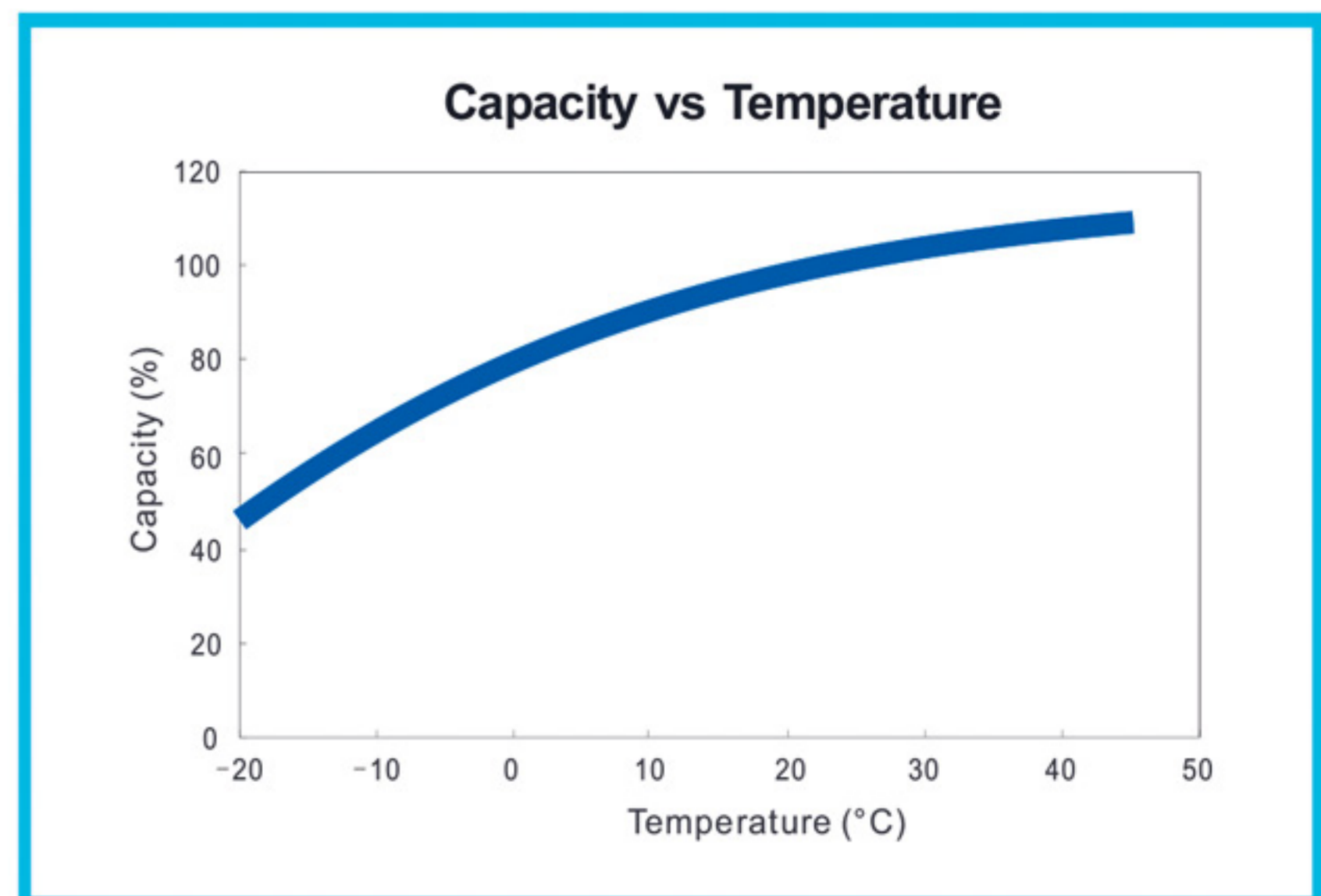
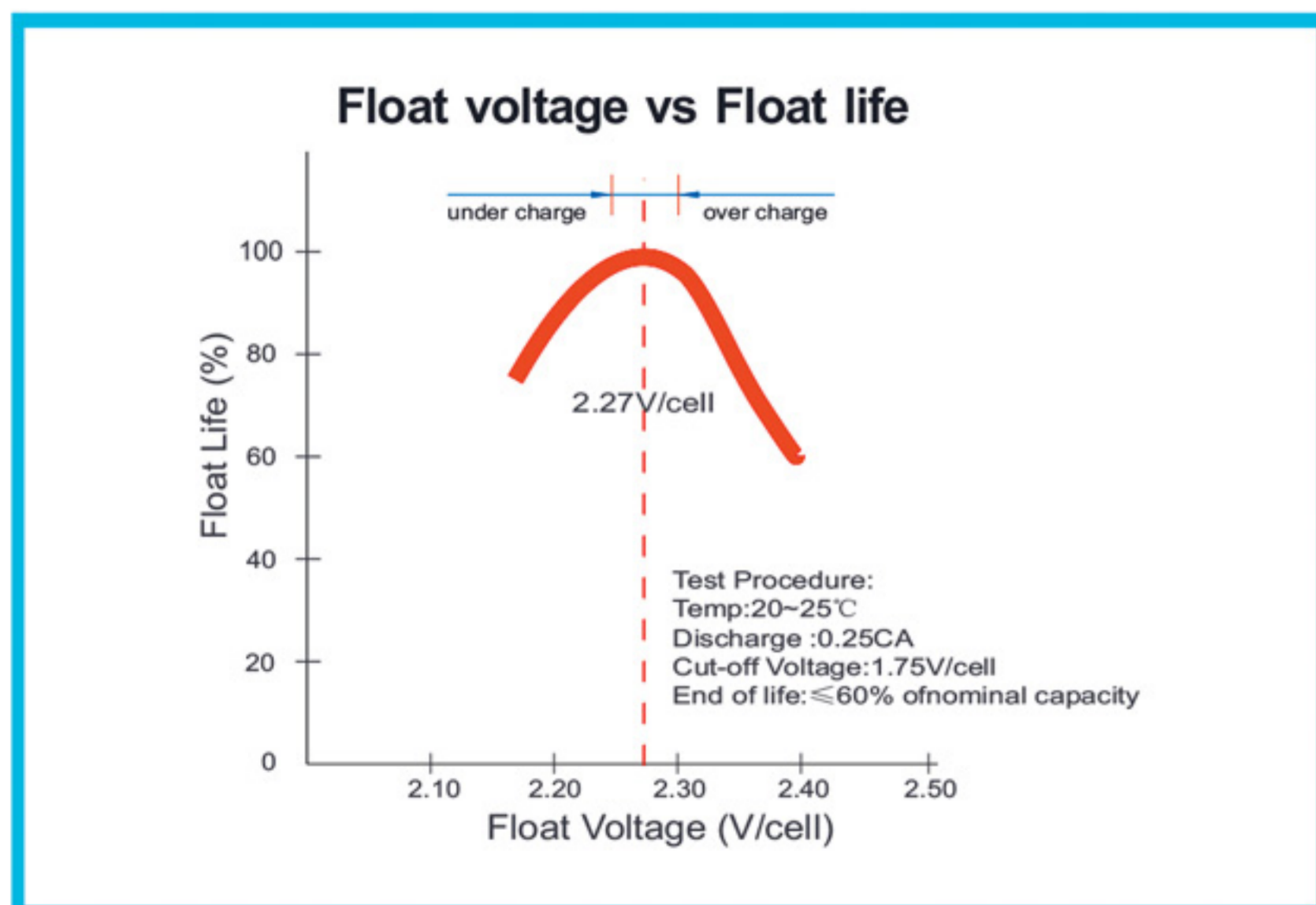
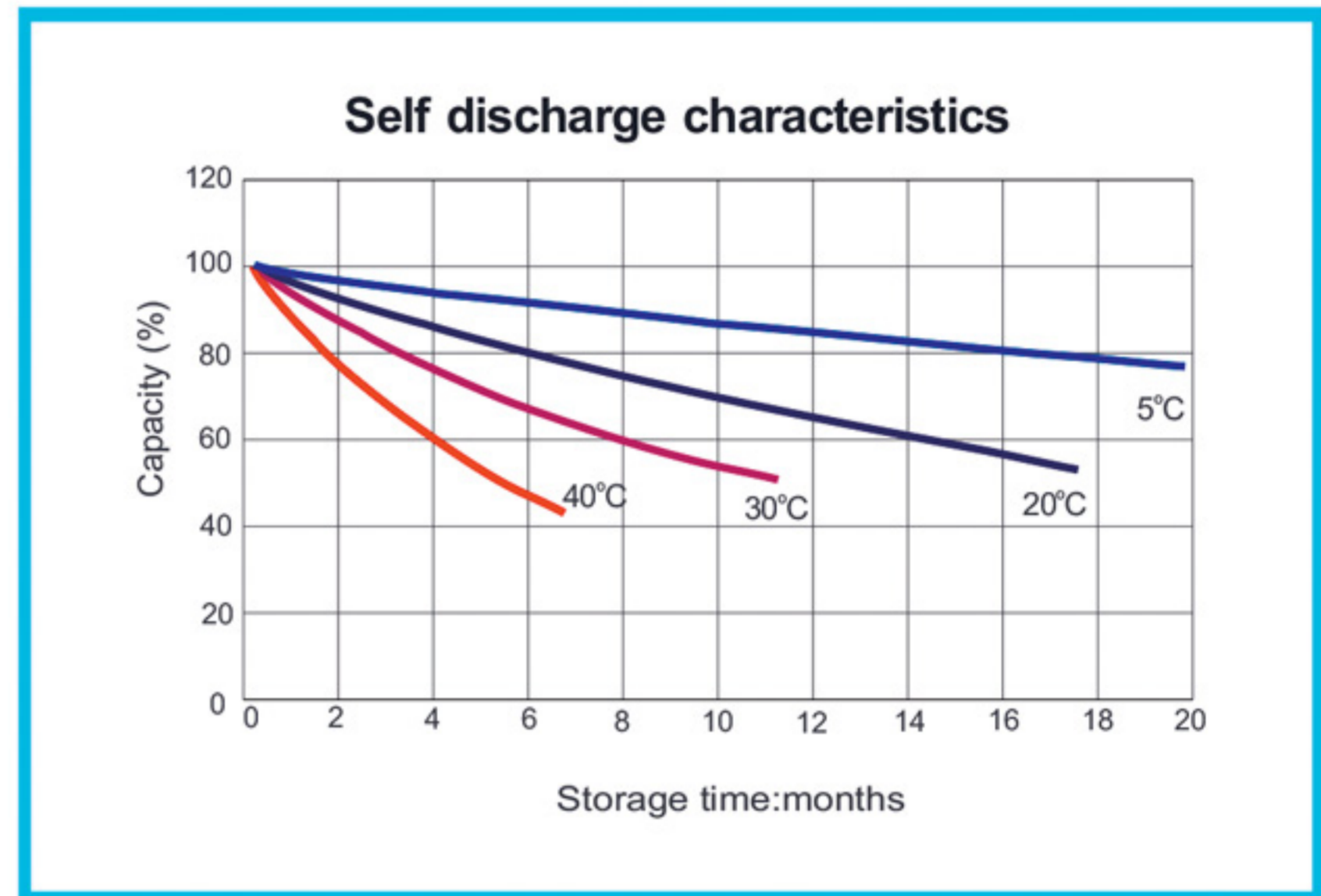
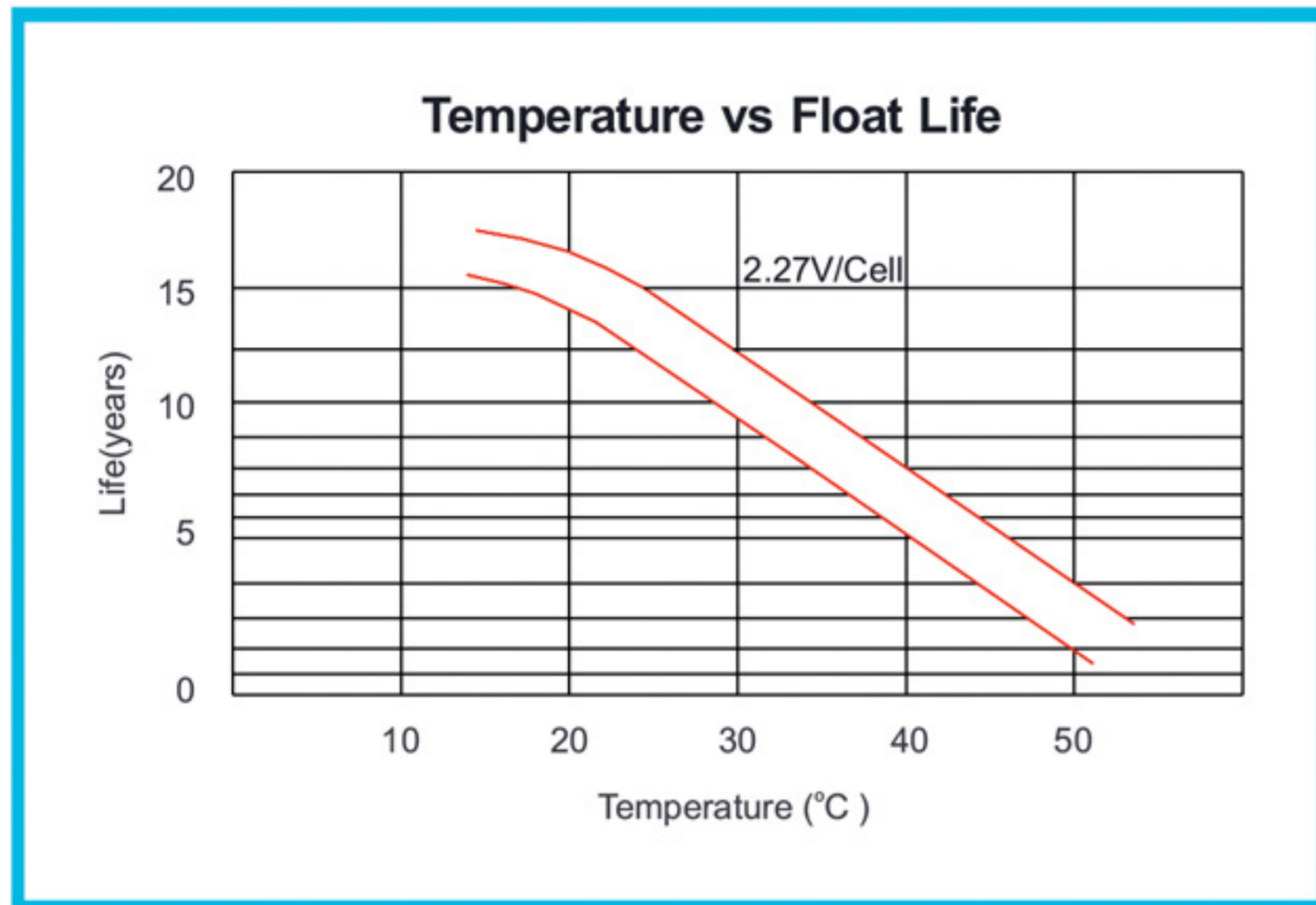
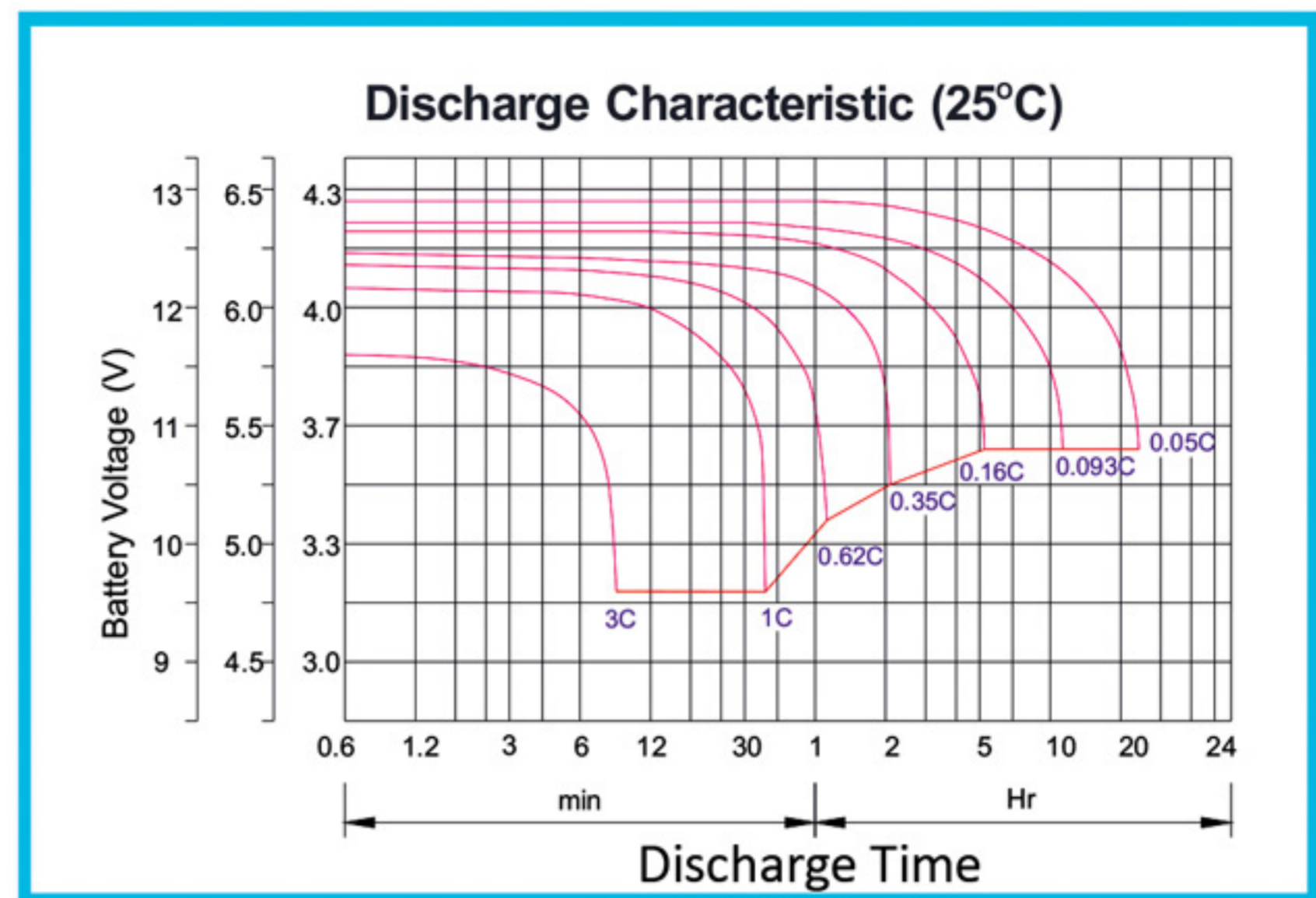
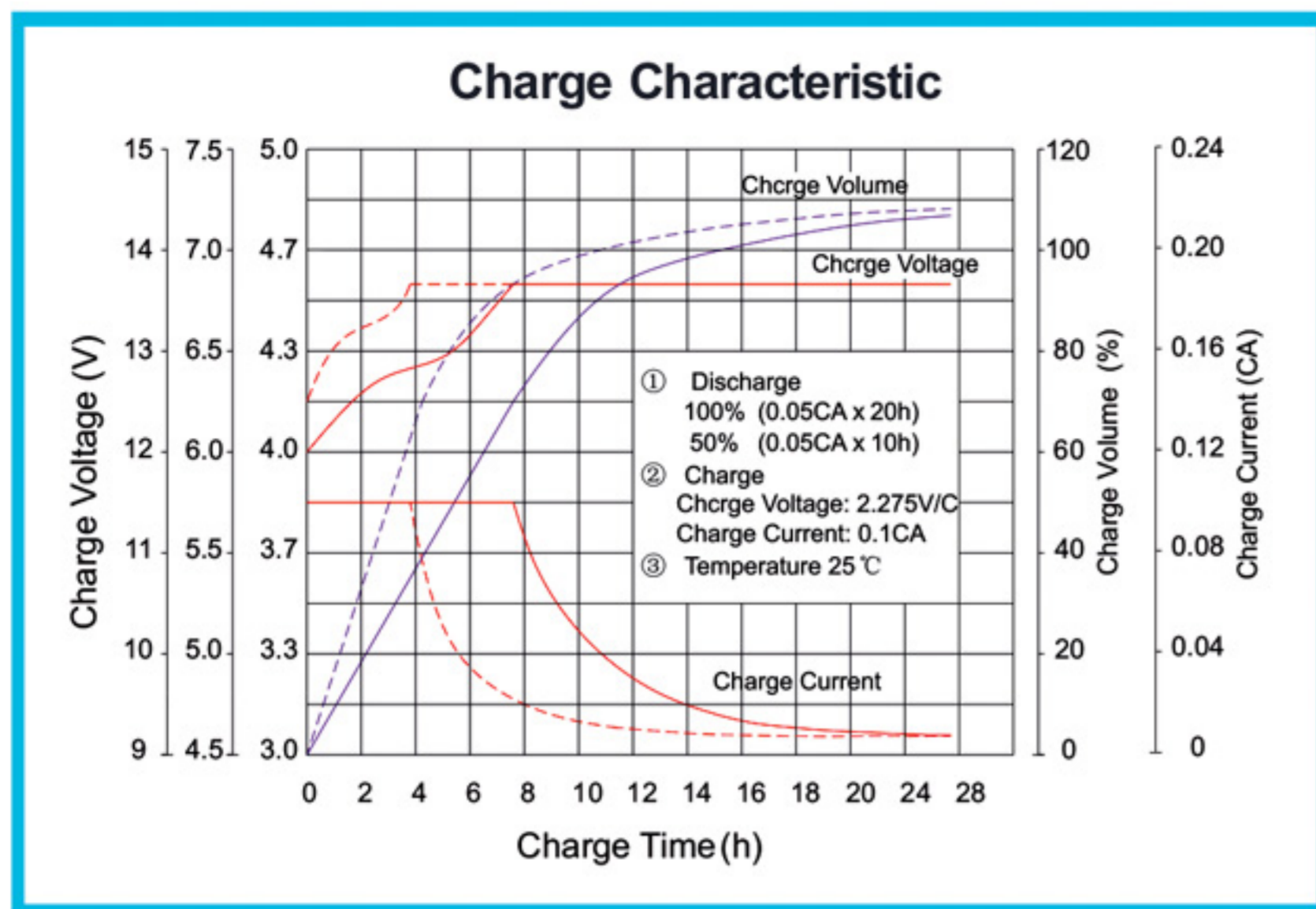
#### Constant Power Discharge Characteristics: W/cell (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	262	187	163	104	62.3	37.0	28.5	22.5	18.6	13.5	11.3	5.87
1.67V	236	174	155	100	61.1	36.6	28.4	22.2	18.4	13.4	11.2	5.86
1.70V	214	160	148	96.9	60.1	36.4	28.2	22.2	18.5	13.4	11.1	5.85
1.75V	188	150	139	94.4	59.3	36.0	28.0	22.1	18.4	13.2	11.1	5.81
1.80V	168	138	130	91.0	57.0	35.3	27.7	21.8	18.4	13.1	10.9	5.82
1.85V	147	126	120	86.8	55.9	34.2	26.6	21.3	17.6	12.7	10.6	5.53

# FT55

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 55Ah

### CHARACTERISTICS



DP Electronics (Deutsche Power Co., Limited)

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I/A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.

# FT80

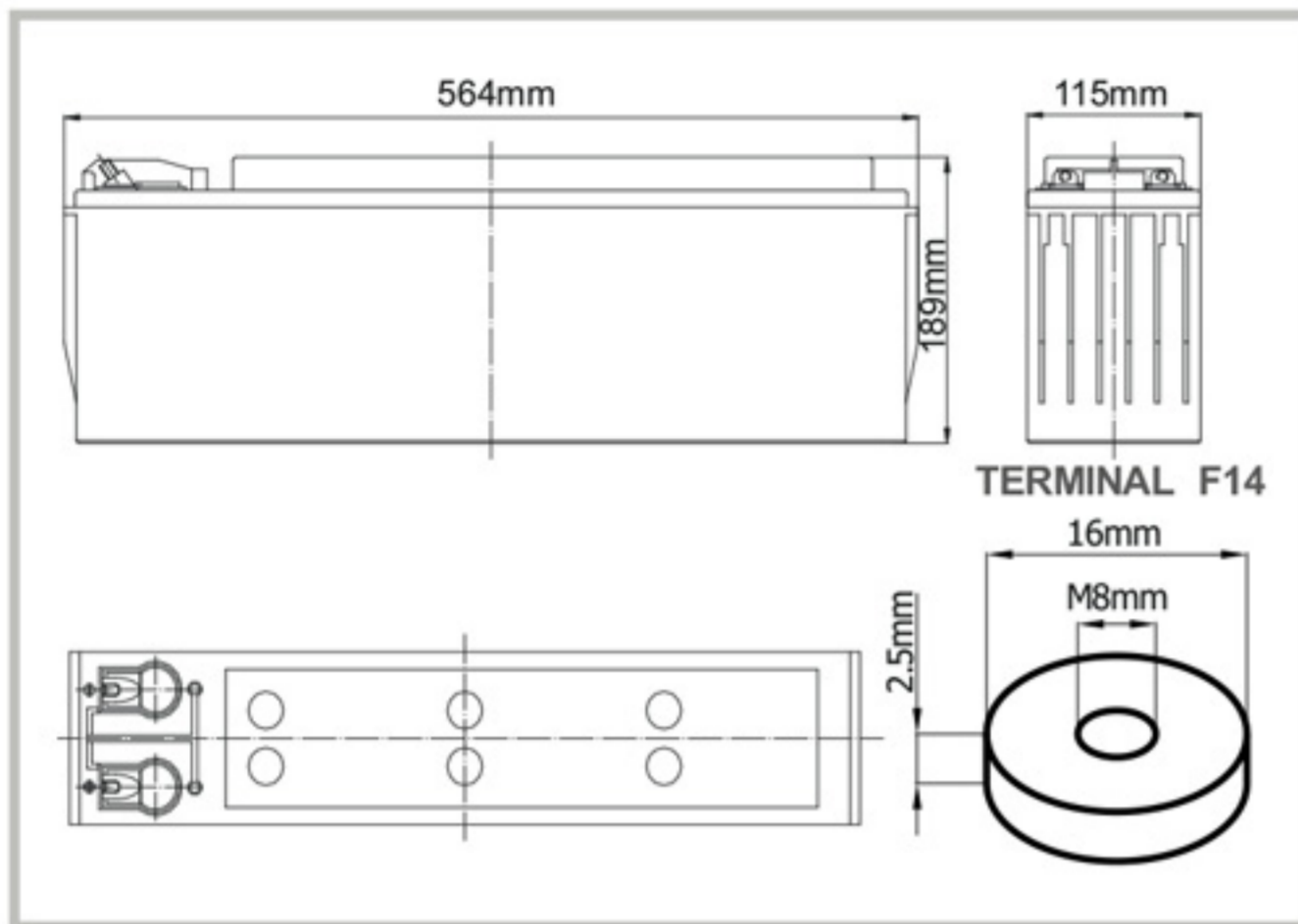
## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 80Ah

### FRONT TERMINAL GEL VRLA BATTERY

By combining the newly developed nano gel electrolyte with up-to-date AGM structures, Deutsche Power created the innovation Front terminal Gel range of batteries. The range features 15 years design life and front access connection for fast, easy installation and maintenance. This range battery is highly suited to telecom outdoor application, renewable energy systems and other harsh environment applications.





### TECHNICAL SPECIFICATIONS





### BATTERY DIMENSIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	15 Years
Nominal Capacity (20°C)	80 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L564mm x W115mm x H189mm
Approx. Weight	27.0 kg (59.5 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.006 Ohm (fully charged @ 20°C)
Max. Charge Current	20A
Max. Discharge Current (5S)	640 A
Short Circuit Current	2000 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

ISO9001      ISO14001

**Complied standards**

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

### BATTERY DISCHARGE TABLE

#### Constant Current Discharge Characteristics: Amps (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	216	151	130	81.8	48.6	28.6	22.0	17.3	14.2	10.2	8.48	4.40
1.67V	193	140	123	78.2	47.4	28.1	21.7	16.9	14.0	10.1	8.38	4.36
1.70V	172	127	116	75.3	46.3	27.8	21.4	16.8	14.0	10.0	8.27	4.32
1.75V	150	118	107	72.7	45.3	27.3	21.1	16.6	13.8	9.80	8.16	4.26
1.80V	132	107	100	69.5	43.2	26.5	20.7	16.2	13.6	9.60	8.00	4.24
1.85V	113	96	91.3	65.6	42.0	25.5	19.7	15.7	13.0	9.25	7.72	4.00

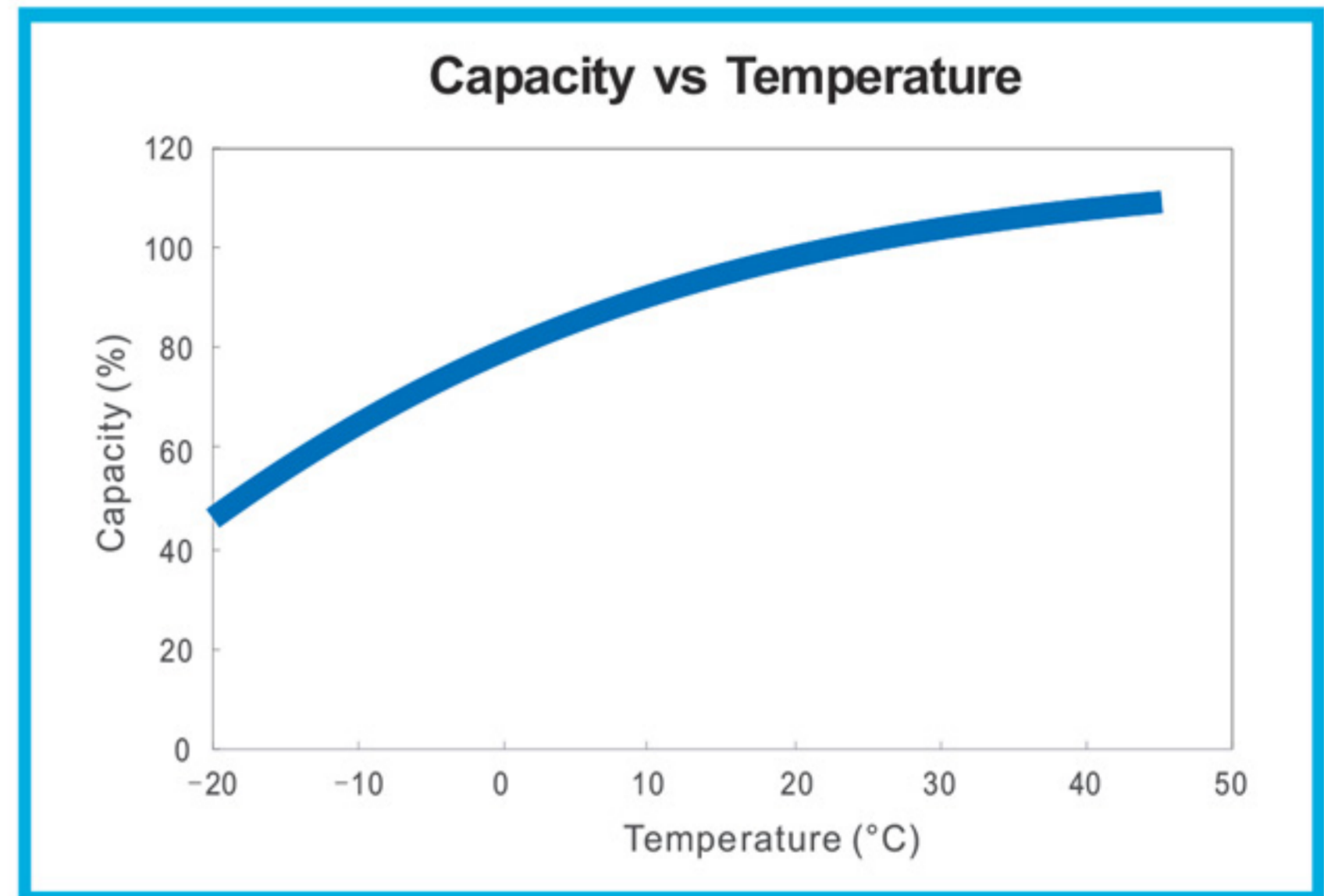
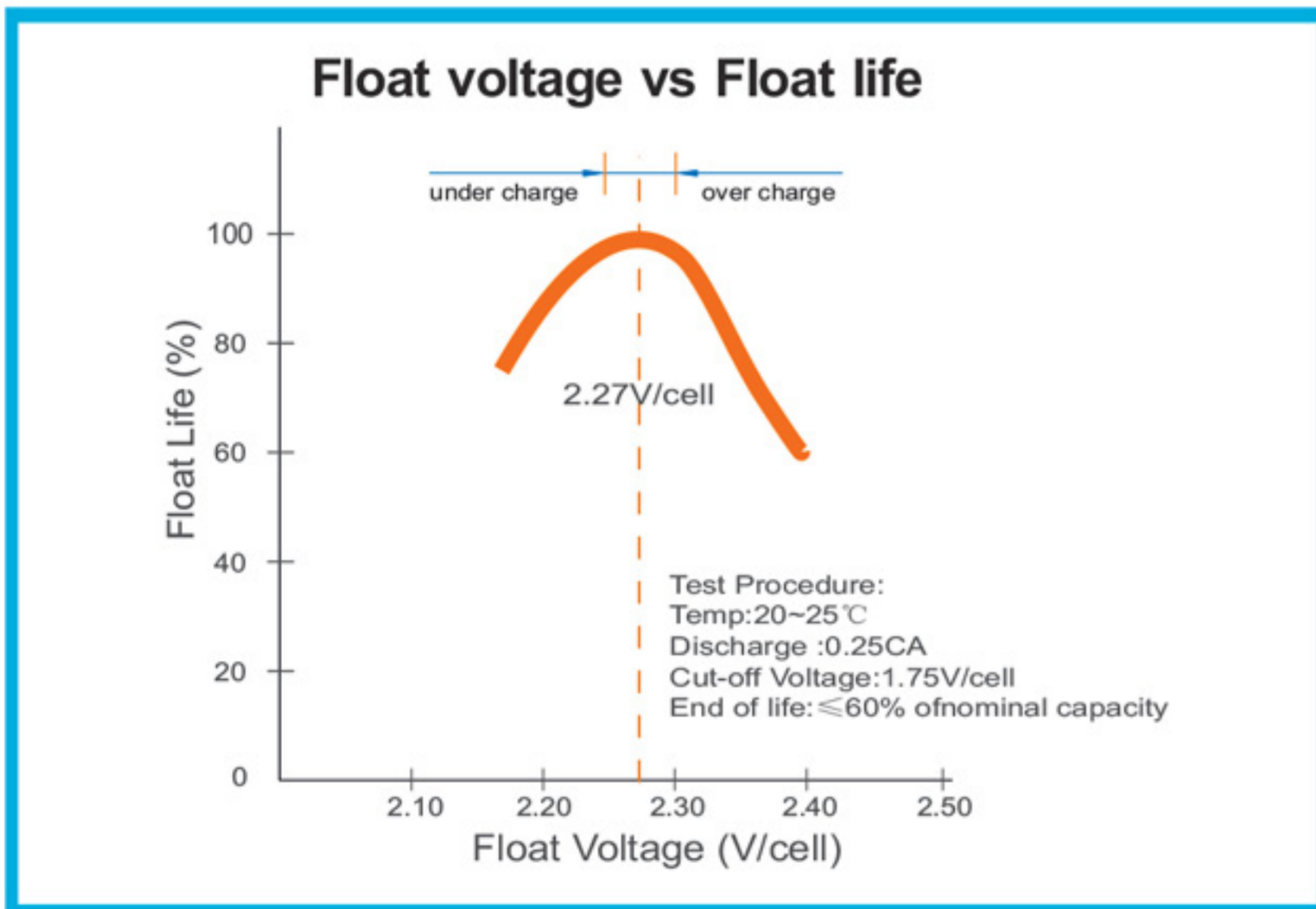
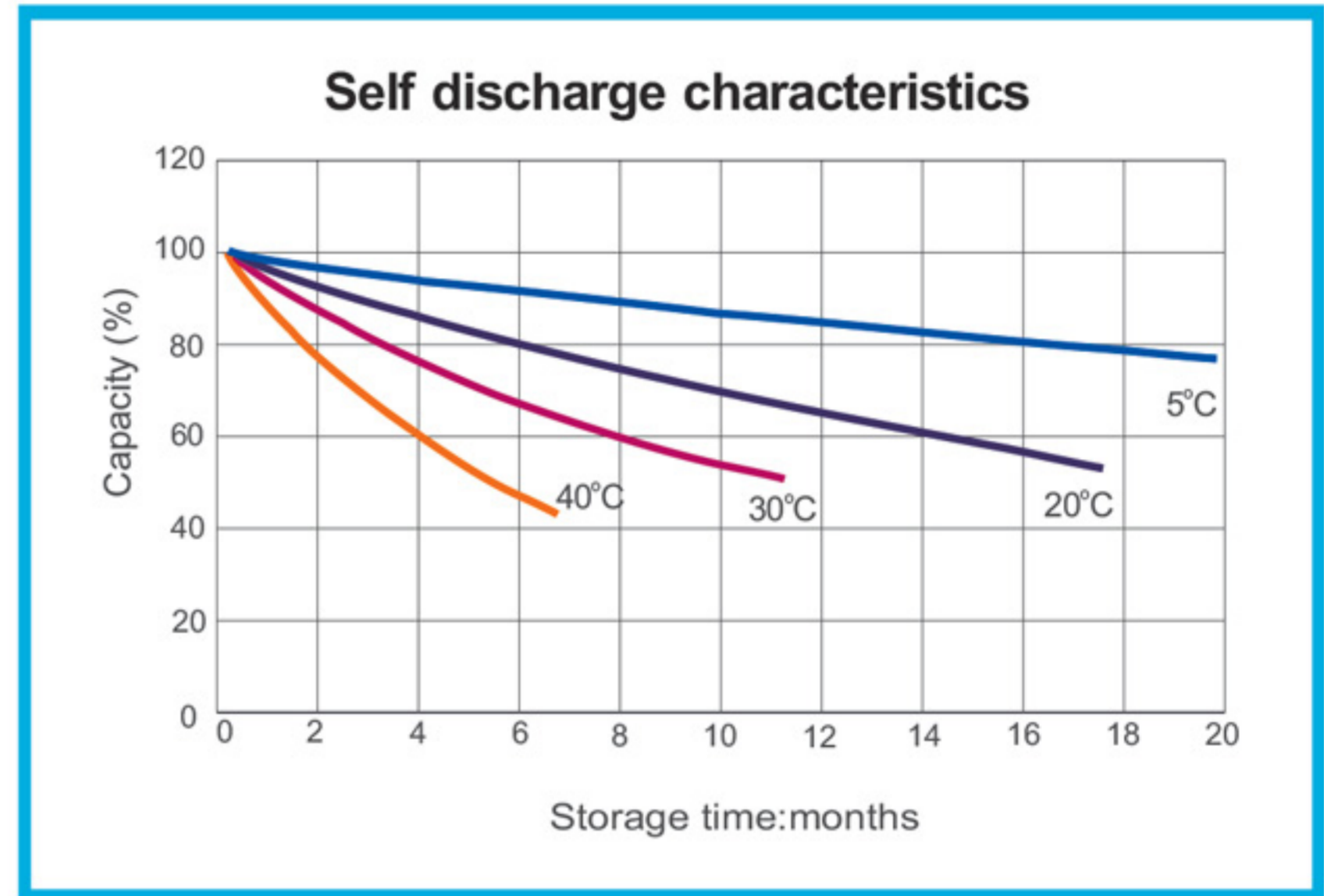
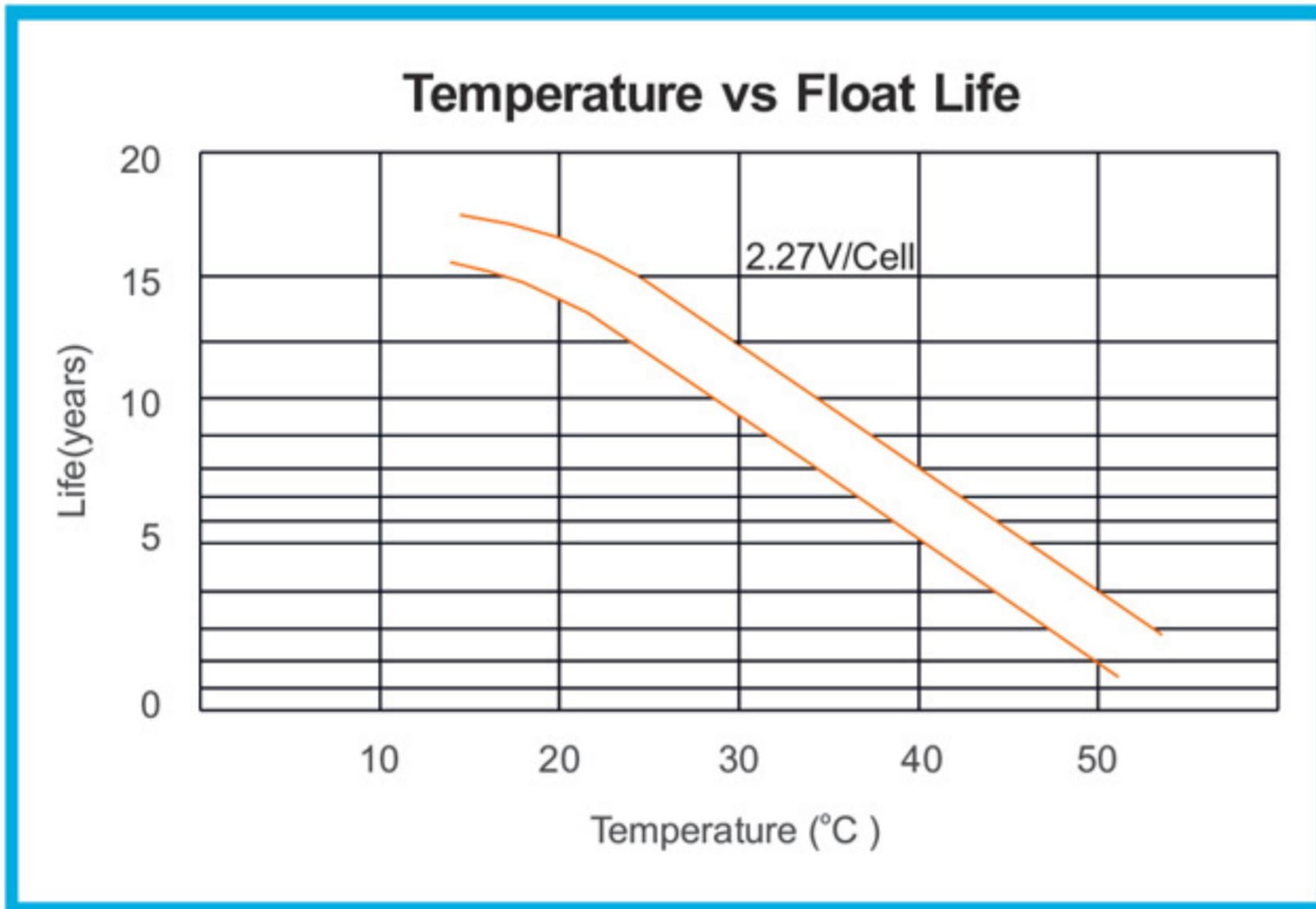
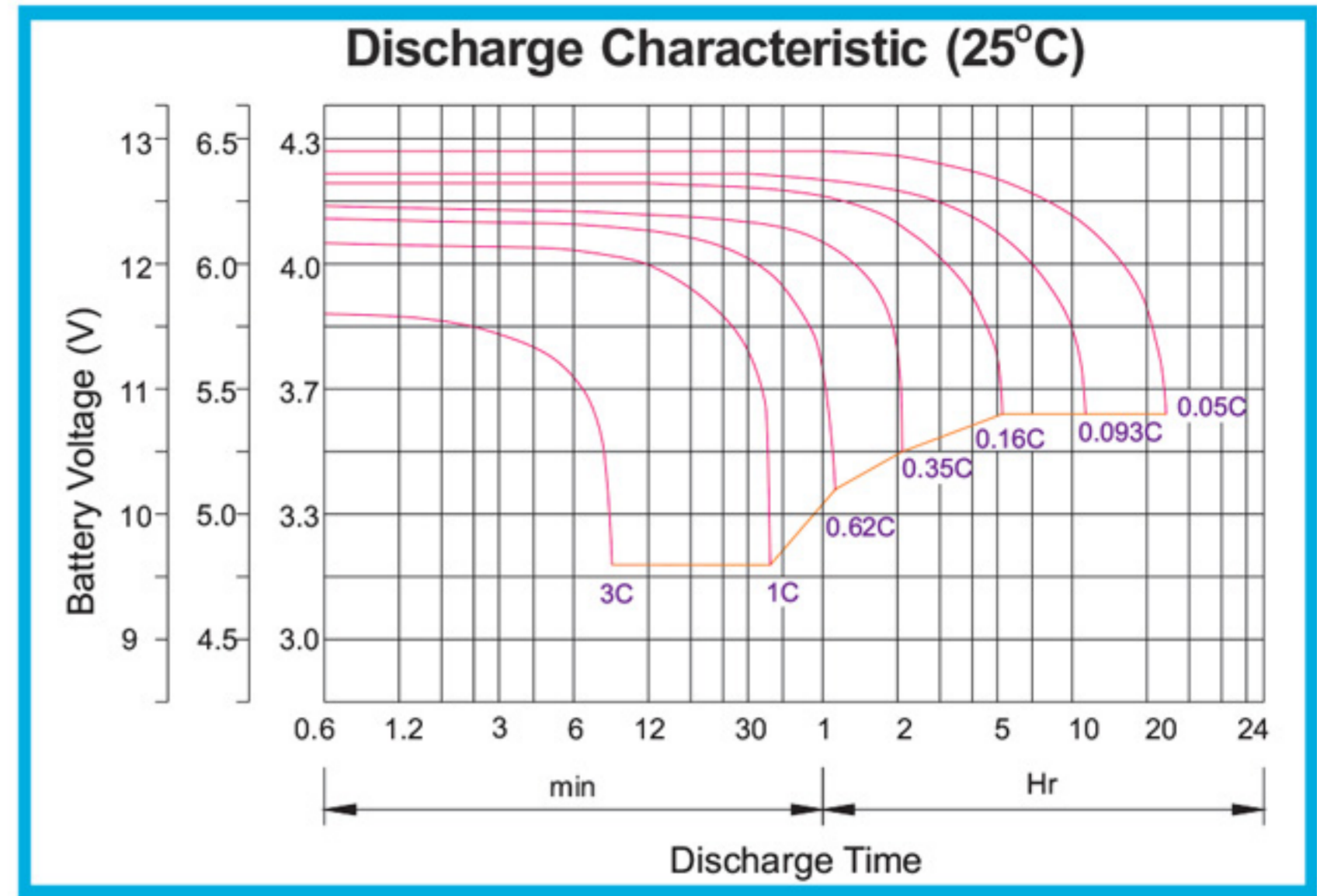
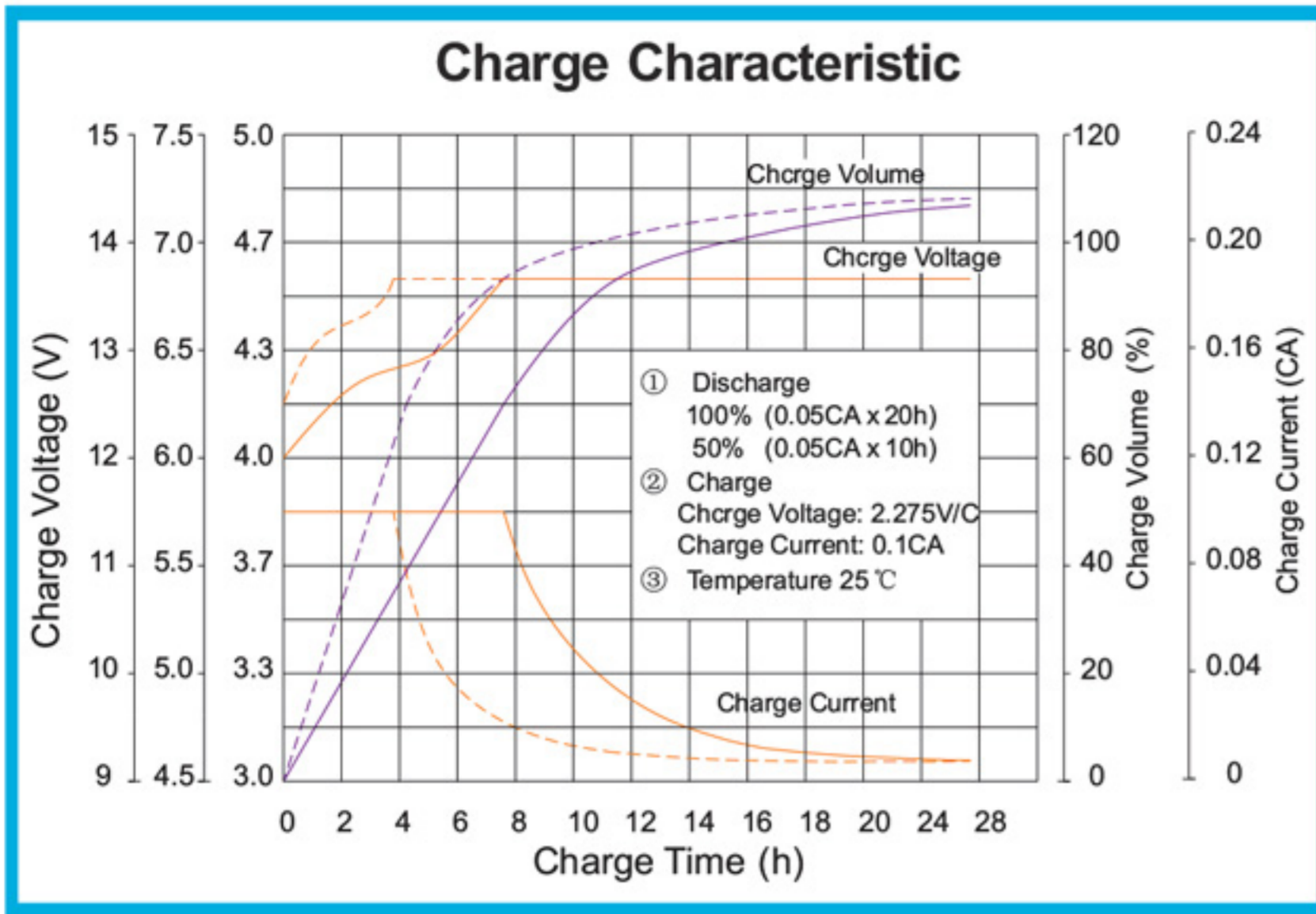
#### Constant Power Discharge Characteristics: W/cell (25°C)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	380	272	237	151	90.7	53.8	41.5	32.8	27.1	19.6	16.4	8.54
1.67V	344	253	225	145	88.9	53.2	41.2	32.3	26.8	19.5	16.3	8.52
1.70V	311	233	215	141	87.4	52.9	41.0	32.2	26.9	19.5	16.2	8.51
1.75V	273	219	201	137	86.3	52.4	40.7	32.1	26.8	19.2	16.1	8.44
1.80V	245	201	190	132	83.0	51.3	40.3	31.7	26.7	19.0	15.9	8.47
1.85V	213	183	175	126	81.4	49.8	38.8	31.0	25.6	18.4	15.4	8.04

# FT80

## FT (Front Terminal) Battery Series Gel VRLA Battery. 12V - 80Ah

### CHARACTERISTICS



DP Electronics (Deutsche Power Co., Limited)

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I / A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

#### Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/ °C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.