



## S85S

85 Ah | 12 V | 20 h

### Specifications

Voltage	12 V
Nominal Capacity	85 Ah @ 20 hour-rate
Number of Cells	6
Internal Resistance	Approx. 7.0 mΩ
Design Life	12 years (float charging)
Short Circuit Current	1840 A
Self Discharge	Monthly rate < 3% @ 25 °C Recharge after 6 months Charge before using

### Charging & Discharging

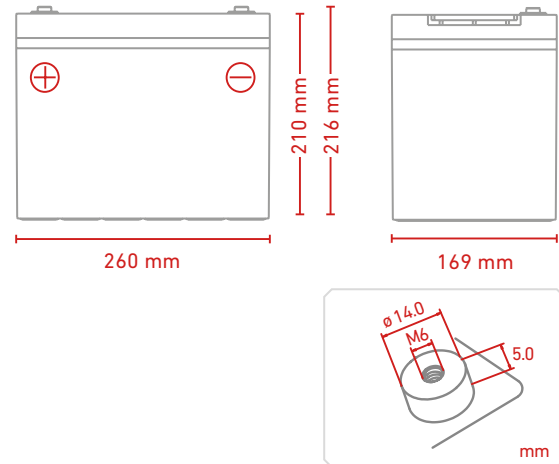
Max. Charging Current	24.0 A
Max. Discharge Current	800 A (5 sec)
Standby Use Voltage	13.6 V to 13.8 V @ 25 °C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V to 14.8 V @ 25 °C Temperature Compensation: -4mV/°C/Cell
Reference Capacity	C3 62 Ah C5 70 Ah C10 80 Ah C20 85 Ah

### Temperature Ranges

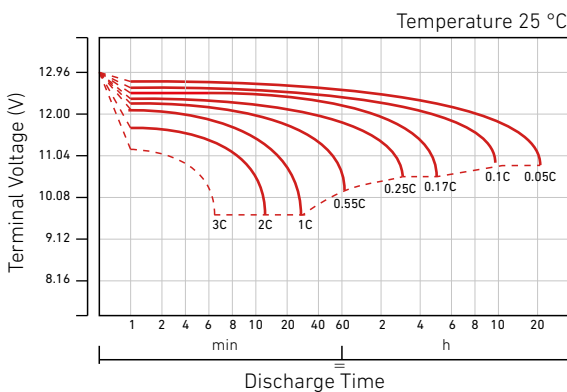
Normal Operation	25 °C ± 5 °C
Discharging	-20 °C to 60 °C
Charging	0 °C to 50 °C
Storage	-20 °C to 60 °C

### Mechanical Specifications

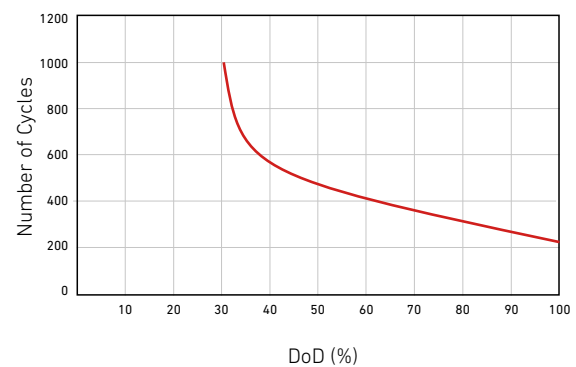
Measurements (L x W x H)	260 x 169 x 210 mm
Weight	Approx. 22.5 kg
Terminals	F11 (M6)
Case material	A.B.S. UL94-HB, UL94-V0 Optional



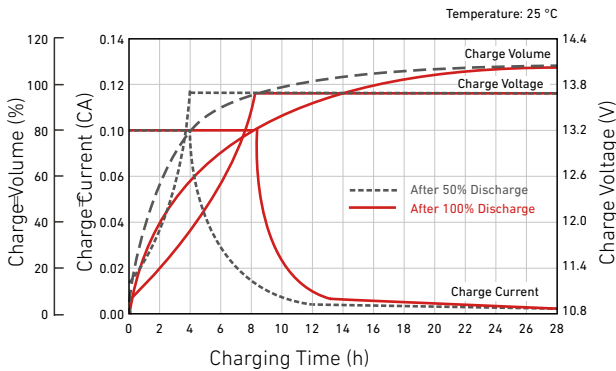
### Discharge Characteristics Curve



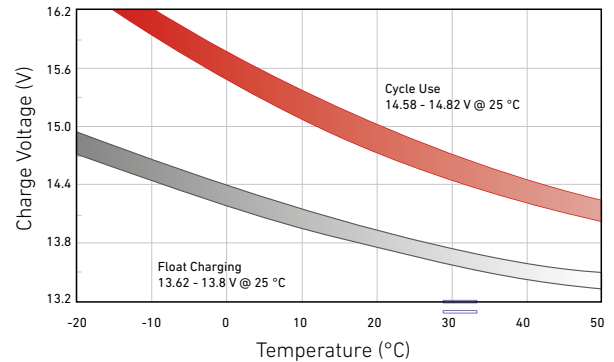
### Cycle Life in Relation to Depth of Discharge



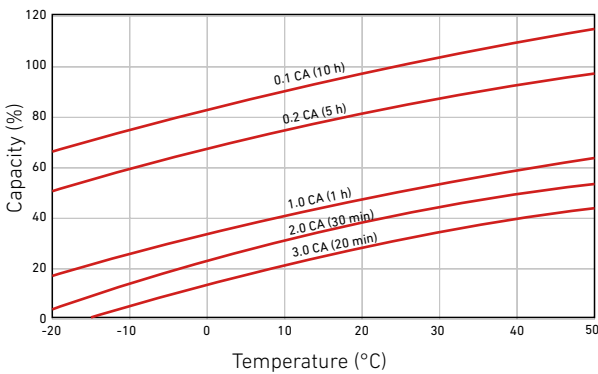
**Discharge Characteristics Curve For Standby Use**



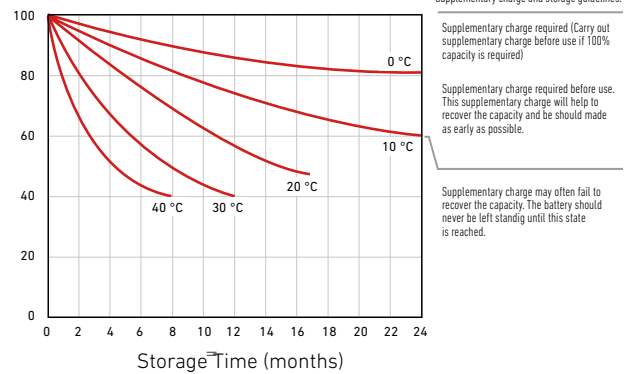
**Relationship Between Charging Voltage and Temperature**



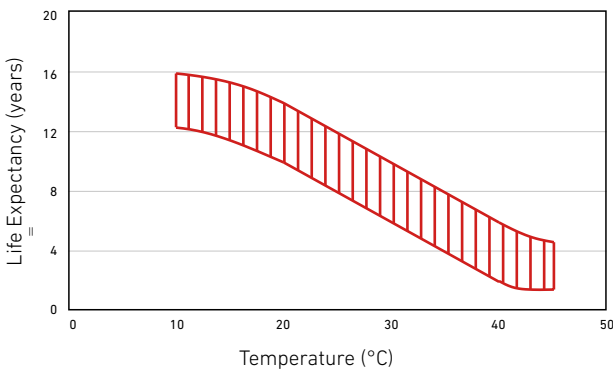
**Temperature Effects on Capacity**



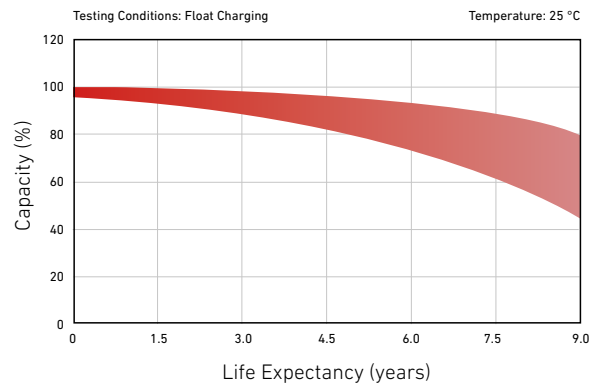
**Storage Characteristics**



**Effect of Temperature on Long-Term Life**



**Life Characteristics of Standby Use**



**Constant Current Discharge Characteristics: A (25 °C)**

F.V	Time										
	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60 V	181,9	138,2	83,3	48,9	29,1	22,6	17,7	15,1	10,1	8,4	4,41
1.65 V	162,8	132,1	80,0	47,2	28,2	21,9	17,3	14,7	10,0	8,3	4,34
1.70 V	149,9	123,7	76,4	45,7	27,3	21,3	16,8	14,3	9,9	8,2	4,29
1.75 V	137,2	115,1	73,1	44,0	26,3	20,6	16,4	14,0	9,7	8,1	4,24
1.80 V	124,2	106,3	69,8	42,3	25,4	20,0	15,9	13,6	9,6	8,0	4,20
1.85 V	101,5	88,2	60,1	38,0	23,2	18,5	14,8	12,7	9,0	7,5	3,99

**Constant Power Discharge Characteristics: WPC (25 °C)**

F.V	Time										
	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60 V	292,8	251,6	154,4	90,9	54,6	42,7	33,7	28,8	19,6	16,4	8,61
1.65 V	282,0	244,1	149,8	88,3	53,2	41,5	32,9	28,2	19,4	16,2	8,48
1.70 V	264,4	232,0	144,6	86,0	51,7	40,6	32,1	27,5	19,2	16,0	8,39
1.75 V	246,4	219,1	139,6	83,3	50,1	39,5	31,4	26,9	18,9	15,8	8,30
1.80 V	226,9	205,1	134,8	80,6	48,6	38,5	30,6	26,3	18,7	15,6	8,22
1.85 V	188,7	172,7	117,3	72,8	44,7	35,7	28,6	24,6	17,6	14,8	7,82