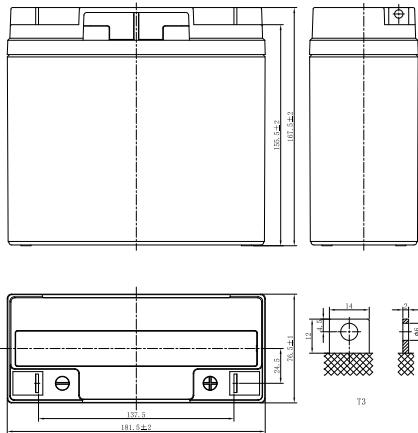


LS 12-18 (12V-18AH) LONG LIFE SERIES



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₂₀ 1.75V/cell	18Ah
Dimension	Length	181.5mm (7.15inches)
	Width	76.5mm (3.01inches)
	Container Height	167.5mm (6.59inches)
	Total Height	167.5mm (6.59inches)
Approx Weight	5.70kg (12.6lbs)	
Terminal	T3	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	504A	
Internal Resistance (25°C)	Approx 16 mΩ (Fully charged)	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max.Charging Current (25°C)	0.3C	
Charge voltage (25°C)	Float Charge	Equalization Charge
	2.25-2.30V/cell	2.35-2.45V/cell
Temp. Coefficient	-3mV/cell/°C	-5mV/cell/°C
	40°C (104°F)	103%
Effect of temp. to Capacity	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C (77°F). LS series batteries may be stored 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.	

DISCHARGE TABLE

Constant Current Discharge (Amperes) at 25°C (77°F)																
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	41.2	36.0	29.0	24.3	18.3	13.6	11.1	7.99	6.43	4.70	3.70	3.08	2.64	2.07	1.67	0.882
1.80V/cell	43.3	37.8	30.1	25.1	18.7	13.8	11.3	8.12	6.53	4.77	3.76	3.12	2.67	2.10	1.69	0.891
1.75V/cell	45.3	39.6	31.2	25.8	19.2	14.1	11.5	8.25	6.63	4.84	3.81	3.16	2.70	2.12	1.71	0.900
1.70V/cell	47.5	41.5	32.3	26.6	19.6	14.4	11.7	8.39	6.73	4.91	3.86	3.21	2.74	2.15	1.73	0.910
1.67V/cell	48.8	42.6	33.0	27.0	19.9	14.5	11.8	8.47	6.80	4.95	3.89	3.23	2.76	2.17	1.74	0.915
1.60V/cell	51.8	45.2	34.5	28.1	20.5	14.9	12.1	8.65	6.93	5.05	3.97	3.29	2.81	2.20	1.77	0.928
Constant Power Discharge (Watts/cell) at 25°C (77°F)																
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	79.1	68.8	55.6	46.8	35.3	26.3	21.6	15.6	12.6	9.23	7.30	6.09	5.22	4.11	3.31	1.76
1.80V/cell	82.7	71.9	57.5	48.0	36.0	26.7	21.9	15.8	12.7	9.35	7.39	6.16	5.28	4.16	3.35	1.78
1.75V/cell	86.3	75.0	59.3	49.2	36.7	27.2	22.2	16.0	12.9	9.47	7.48	6.23	5.34	4.20	3.39	1.80
1.70V/cell	89.8	78.1	61.1	50.4	37.4	27.6	22.5	16.2	13.1	9.59	7.57	6.30	5.40	4.25	3.43	1.82
1.67V/cell	91.9	79.9	62.2	51.2	37.8	27.8	22.7	16.4	13.2	9.66	7.62	6.34	5.44	4.28	3.45	1.83
1.60V/cell	96.8	84.1	64.5	52.8	38.8	28.4	23.1	16.6	13.4	9.82	7.74	6.44	5.52	4.34	3.50	1.86

LS 12-18 (12V-18AH) LONG LIFE



APPLICATIONS

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

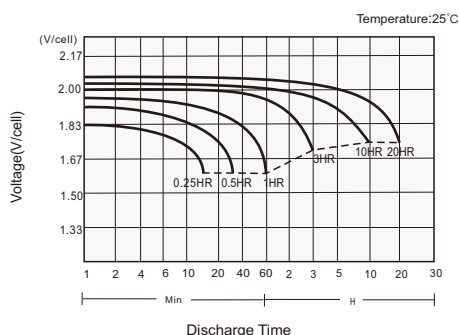
GENERAL FEATURES

- 10~12 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

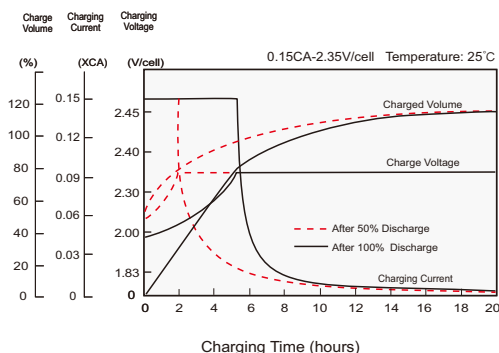
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Approved
- Manufactured in DESA, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

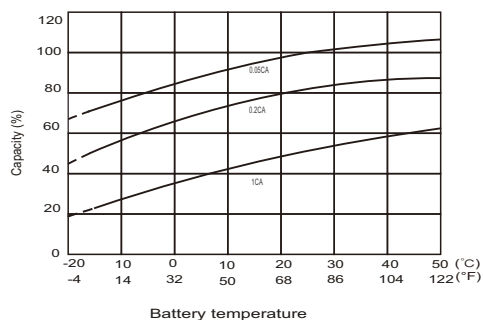
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

