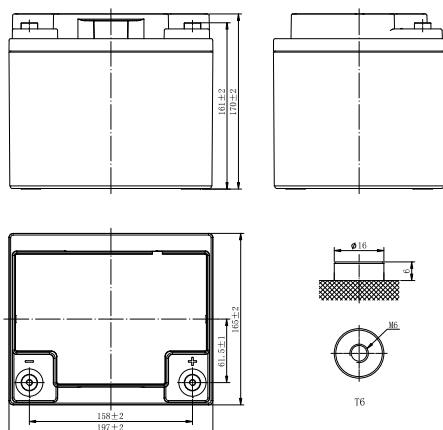


LS 12-40 (12V-40AH) LONG LIFE SERIES



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₁₀ , 1.80V/cell	40Ah
Dimension	Length	197mm (7.76inches)
	Width	165mm (6.50inches)
	Container Height	170mm (6.69inches)
	Total Height	170mm (6.69inches)
Approx Weight	14.5kg (32.0lbs)	
Terminal	T6(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	1000A	
Internal Resistance (25°C)	Approx 9 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	2.35-2.40V/cell
Temp. Coefficient	-3mV/cell/°C	-4mV/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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	56.8	49.3	38.7	37.2	28.8	20.3	12.6	9.30	7.60	6.36	5.12	4.48	3.75	1.97
1.80V/cell	64.5	55.8	43.8	41.6	32.0	22.4	13.8	10.0	8.20	6.84	5.49	4.80	4.00	2.10
1.75V/cell	69.9	60.4	47.3	44.4	33.8	23.2	14.2	10.3	8.40	7.00	5.61	4.89	4.06	2.13
1.70V/cell	74.6	64.2	50.1	46.7	35.4	24.1	14.7	10.7	8.61	7.16	5.72	4.98	4.12	2.17
1.67V/cell	76.9	66.0	51.5	47.4	36.0	24.6	14.8	10.8	8.73	7.24	5.77	5.02	4.16	2.18
1.60V/cell	79.6	68.1	52.8	48.1	36.9	25.7	15.5	11.2	8.98	7.47	5.94	5.15	4.25	2.23
Constant Power Discharge (Watts/cell) at 25°C (77°F)														
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	106.9	93.3	73.7	68.3	56.3	44.3	25.1	19.2	15.2	12.7	10.3	9.04	7.59	3.99
1.80V/cell	119.6	104.3	82.4	76.3	62.4	48.5	27.3	20.7	16.4	13.7	11.0	9.65	8.06	4.23
1.75V/cell	127.6	111.3	88.0	81.4	65.7	50.0	28.1	21.1	16.7	14.0	11.2	9.83	8.18	4.30
1.70V/cell	134.1	117.0	92.5	85.7	68.6	51.4	28.8	21.7	17.1	14.2	11.4	10.0	8.29	4.35
1.67V/cell	136.3	119.0	94.0	87.0	69.6	52.2	29.0	22.0	17.3	14.4	11.6	10.1	8.34	4.38
1.60V/cell	138.2	120.6	95.3	88.3	71.3	54.2	30.0	22.6	17.7	14.7	11.8	10.3	8.48	4.45

LS 12-40 (12V-40AH) LONG LIFE SERIES



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

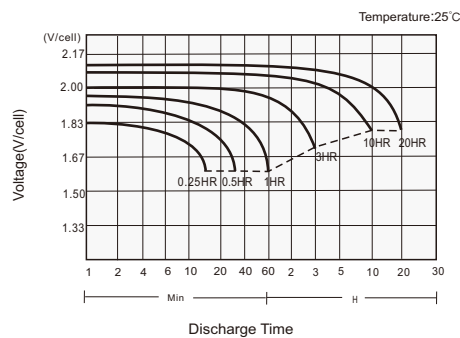
GENERAL FEATURES

- 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

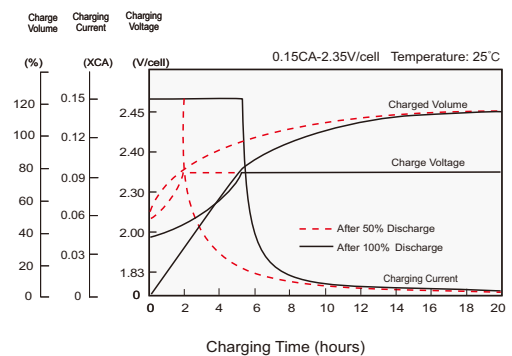
STANDARDS

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

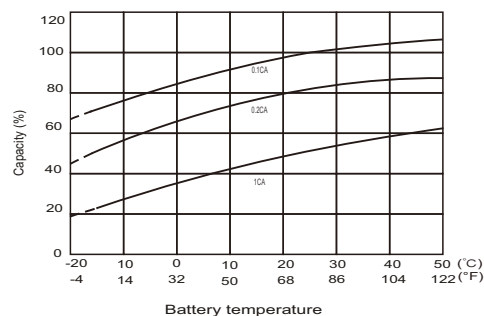
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

