



TLSA40-12

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

| | | | | |
|--------------|-------|----|---------|---------|
| 20 hour rate | (2A | to | 10.50V) | 40Ah |
| 10 hour rate | (3.8A | to | 10.50V) | 38Ah |
| 5 hour rate | (6.8A | to | 10.20V) | 34Ah |
| 1 C | (40A | to | 9.60V) | 22.67Ah |
| 3 C | (120A | to | 9.60V) | 16Ah |

Weight Approx. 13.1kg(28.82Lbs.)

Internal Resistance (at 1KHz) Approx. 7 mΩ

Maximum Discharge Current for

5 seconds: 480A

Charging Methods at 25 (77)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mv/ /cell

Maximum Charging Current : 12A

Standby use:

Float Charging Voltage 13.50 to 13.80V

Coefficient -3.0mv/ /cell

Operating Temperature Range

Charge -15 (5) to 40 (104)

Discharge -15 (5) to 50 (122)

Storage -15 (5) to 40 (104)

Charge Retention (shelf life) at 20 (68)

1 month 92%

3 month 90%

6 month 80%

Case Material

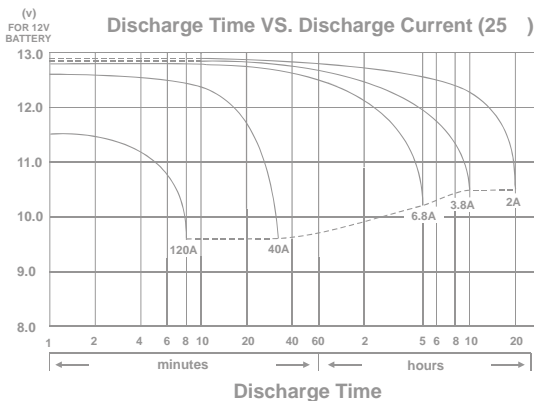
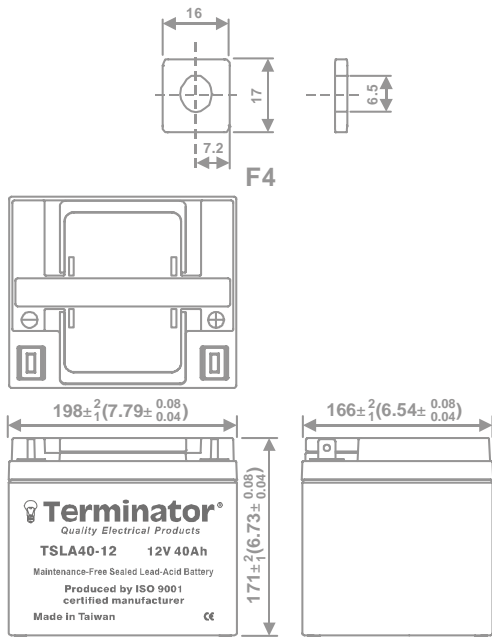
ABS

(UL94 HB)

Terminal

F4

Dimensions mm(inch)



TSLA40-12

- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 1243 | 1509 | 1701 | 1825 | 1857 | 1893 | 1928 |
| 10 | min | 741 | 914 | 1038 | 1117 | 1136 | 1160 | 1183 |
| 15 | min | 617 | 734 | 815 | 867 | 881 | 896 | 918 |
| 30 | min | 354 | 416 | 459 | 487 | 494 | 502 | 510 |
| 60 | min | 263 | 272 | 279 | 284 | 286 | 288 | 291 |
| 120 | min | 155 | 161 | 164 | 167 | 168 | 170 | 172 |
| 180 | min | 113 | 117 | 120 | 122 | 123 | 124 | 126 |
| 240 | min | 89.1 | 91.6 | 93.4 | 95.0 | 95.5 | 96.1 | 97.2 |
| 300 | min | 81.4 | 83.6 | 85.2 | 86.6 | 87.2 | 87.8 | 88.7 |
| 600 | min | 41.6 | 42.9 | 44.1 | 45.3 | 45.8 | 46.4 | 47.2 |
| 1200 | min | 21.3 | 22.5 | 23.6 | 24.5 | 24.9 | 25.4 | 26.1 |

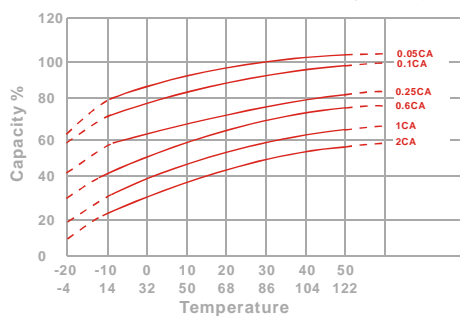
- Discharge Rates in Amperes to Various End Voltages at 25 (77)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 116 | 140 | 157 | 168 | 171 | 174 | 178 |
| 10 | min | 74.1 | 89.0 | 99.2 | 105 | 107 | 109 | 111 |
| 15 | min | 56.5 | 66.4 | 73.3 | 77.8 | 79.1 | 80.2 | 81.4 |
| 30 | min | 30.7 | 34.9 | 38.7 | 40.0 | 40.9 | 42.2 | 42.9 |
| 60 | min | 22.7 | 23.4 | 23.8 | 24.2 | 24.4 | 24.6 | 24.9 |
| 120 | min | 12.6 | 13.1 | 13.5 | 13.8 | 13.9 | 14.1 | 14.3 |
| 180 | min | 9.27 | 9.62 | 9.84 | 10.0 | 10.1 | 10.20 | 10.4 |
| 240 | min | 7.34 | 7.63 | 7.88 | 8.06 | 8.09 | 8.13 | 8.21 |
| 300 | min | 6.43 | 6.68 | 6.84 | 6.98 | 7.02 | 7.05 | 7.13 |
| 600 | min | 3.52 | 3.70 | 3.87 | 3.98 | 4.02 | 4.07 | 4.12 |
| 1200 | min | 1.87 | 1.95 | 2.03 | 2.07 | 2.09 | 2.12 | 2.14 |

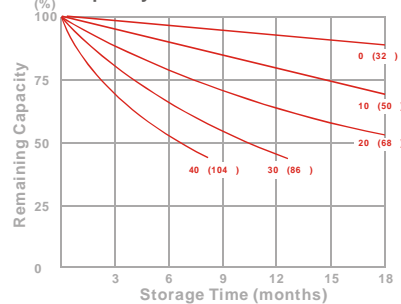
All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min X<10min(+12%~-12%),10min X < 60min(+8% ~-8%), X 60min(+5%~-5%)

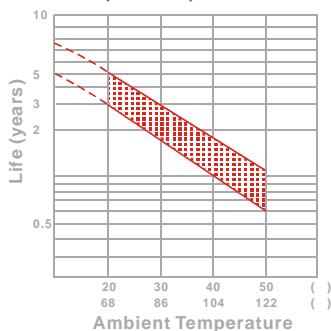
Effect of Temperature on Capacity 25 (77)



Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life

