

12ICS100

ICS series Intensive Cycle Service

Narada's ICS series battery designed to provide high cycling and fast charge performance, idea for telecom service where power supply is unstable. With innovative structure design, high quality manufacturing and high quality material, ICS batteries are also capable of PSoC, hybrid, renewable energy storage application and other cycling/standby applications.

ICS series also have true front access terminal and front-access gas collection tubing for fast installation and facilitates maintenance.

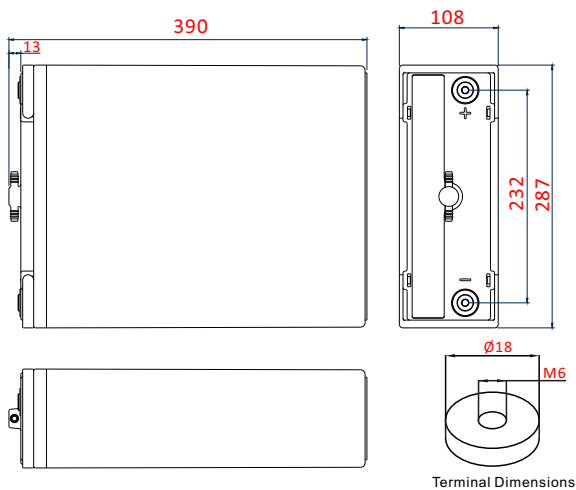


Features & Benefits

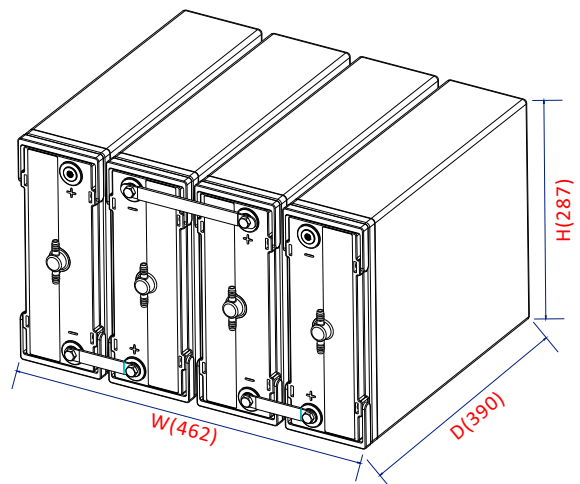
- Extra high cycling and fast charge performance
- Designed for intensive cycle service where unstable grid power supply or no-grid, such as Telecom BTS, hybrid genset, renewable energy storage application
- Suit for 19" or 23" and ETSI power racks/cabinets with front terminal
- Superb security and reliability, more cost effective than nearest equivalent
- 12 years design float life at 25°C
- Wide operating temperature range -40°C to +50°C
- True front-terminal design
 - Not requiring any additional space between the top of the battery and the next shelf
 - Easy paralleling of 48V strings (on 2 or more shelves) or 2x24V strings on one shelf via cost-effective flexible cables running along front surface
 - With rotational symmetry not requiring expensive and long cables when long strings are assembled on multiple
- Easy installation and verification of gas collection tubing via twin front-access gas nipples also with easy connection over several shelves
- Fold-away handles for easy installation and removal from shelves

Drawings

12V monobloc dimensions (in mm)



48V system: Total installation depth 390mm, including connector, bolt, insulation protective cover.



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Technical specifications

Electrical data

| | |
|-----------------------------------|---|
| Nominal voltage | 12 V |
| Number of cells | 6 |
| Rated capacity(25°C) | 100 Ah - 10A for 10h to 1.80V/cell |
| Float voltage | 2.25Vpc at 25°C |
| Cycle and equalize charge voltage | 2.35Vpc at 25°C |
| Internal resistance | 6.15 mΩ (acc. to IEC 60896-21) |
| Short circuit current | 2150 A (acc. to IEC60896-21) |
| Max. charge current | unlimited, otherwise 25A max. if T>25°C |
| Self discharge | less than 3% per month at 25°C |

Mechanical data

| | |
|--------------------------|------------------|
| Weight ready for use | 35 kg (77.2 lbs) |
| Length | 390 mm (15.4 in) |
| Width | 108 mm (4.25 in) |
| Height of monobloc | 287 mm (11.3 in) |
| Total height | 287 mm (11.3 in) |
| Terminal | M6 female |
| Terminal hardware torque | 8±1.0 Nm |

Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End Voltage | 5min | 15min | 45min | 1hr | 2hr | 3hr | 4hr | 5hr | 6hr | 8hr | 10hr | 12hr | 20hr | 24hr |
|-------------|------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.60Vpc | 237 | 161 | 86.7 | 71.2 | 42.4 | 30.4 | 23.8 | 19.5 | 16.6 | 12.8 | 10.4 | 8.73 | 5.35 | 4.48 |
| 1.65Vpc | 235 | 160 | 86.1 | 70.8 | 42.1 | 30.3 | 23.7 | 19.5 | 16.5 | 12.7 | 10.3 | 8.71 | 5.33 | 4.47 |
| 1.67Vpc | 234 | 159 | 85.8 | 70.6 | 42.0 | 30.2 | 23.6 | 19.4 | 16.5 | 12.7 | 10.3 | 8.69 | 5.33 | 4.46 |
| 1.70Vpc | 231 | 158 | 85.1 | 70.0 | 41.8 | 30.0 | 23.5 | 19.4 | 16.5 | 12.7 | 10.3 | 8.68 | 5.32 | 4.46 |
| 1.75Vpc | 223 | 153 | 83.1 | 68.5 | 41.0 | 29.5 | 23.2 | 19.1 | 16.2 | 12.5 | 10.2 | 8.57 | 5.26 | 4.41 |
| 1.80Vpc | 210 | 145 | 79.7 | 65.9 | 39.7 | 28.7 | 22.6 | 18.6 | 15.9 | 12.3 | 10.0 | 8.44 | 5.20 | 4.36 |
| 1.83Vpc | 200 | 138 | 76.3 | 63.2 | 38.3 | 27.8 | 22.0 | 18.2 | 15.5 | 12.0 | 9.80 | 8.28 | 5.12 | 4.30 |
| 1.85Vpc | 194 | 132 | 72.9 | 60.5 | 36.9 | 26.9 | 21.3 | 17.7 | 15.1 | 11.7 | 9.61 | 8.14 | 5.06 | 4.25 |

Constant Power Discharge Data Units: Watts per cell (25°C,77°F)

| End Voltage | 5min | 15min | 45min | 1hr | 2hr | 3hr | 4hr | 5hr | 6hr | 8hr | 10hr | 12hr | 20hr | 24hr |
|-------------|------|-------|-------|-----|------|------|------|------|------|------|------|------|------|------|
| 1.60Vpc | 448 | 296 | 159 | 131 | 79.2 | 57.5 | 45.3 | 37.5 | 32.0 | 24.8 | 20.3 | 17.2 | 10.6 | 8.94 |
| 1.65Vpc | 440 | 293 | 158 | 131 | 79.0 | 57.4 | 45.2 | 37.4 | 32.0 | 24.8 | 20.3 | 17.1 | 10.6 | 8.93 |
| 1.67Vpc | 435 | 291 | 158 | 131 | 79.0 | 57.4 | 45.2 | 37.4 | 32.0 | 24.8 | 20.3 | 17.1 | 10.6 | 8.93 |
| 1.70Vpc | 427 | 288 | 157 | 130 | 78.8 | 57.2 | 45.2 | 37.4 | 31.9 | 24.8 | 20.2 | 17.1 | 10.6 | 8.92 |
| 1.75Vpc | 409 | 280 | 154 | 128 | 77.7 | 56.6 | 44.6 | 37.0 | 31.6 | 24.5 | 20.0 | 16.9 | 10.5 | 8.82 |
| 1.80Vpc | 381 | 267 | 149 | 124 | 75.8 | 55.3 | 43.8 | 36.3 | 31.0 | 24.1 | 19.7 | 16.7 | 10.4 | 8.71 |
| 1.83Vpc | 363 | 256 | 144 | 120 | 73.6 | 53.8 | 42.7 | 35.4 | 30.3 | 23.6 | 19.3 | 16.4 | 10.2 | 8.56 |
| 1.85Vpc | 352 | 246 | 139 | 116 | 71.4 | 52.4 | 41.6 | 34.6 | 29.7 | 23.2 | 19.0 | 16.1 | 10.1 | 8.49 |

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