

# ICS12V100

## 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.

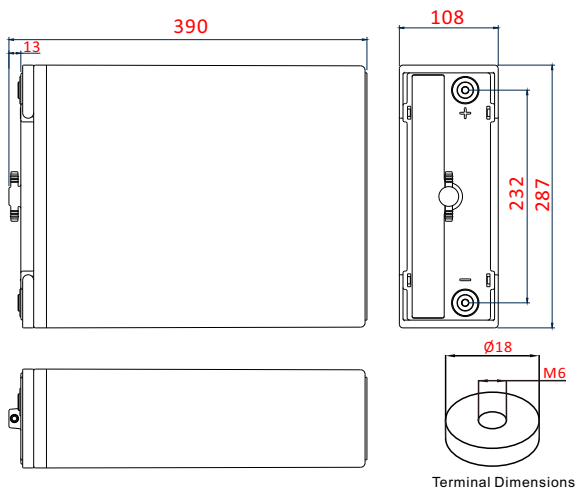


### Features & Benefits

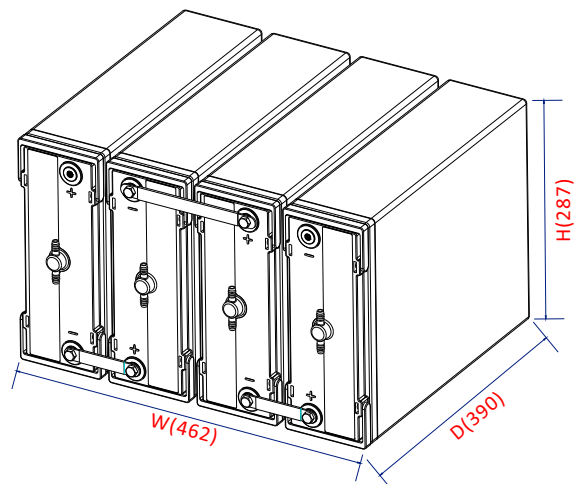
- Extra high cycling and fast charge performance
- Designed for intensive cycle service where unstable grid power supply or no-grid, such as Telecom BTS, hybrid genset, renewable energy storage application
- Suit for 19" or 23" and ETSI power racks/cabinets with front terminal
- Superb security and reliability, 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	Time (minutes)				Time (hours)											
	5	15	30	45	1	2	3	4	5	6	8	10	12	20	24	
1.60V	315	175	106	76.7	62.0	35.6	27.9	21.4	19.2	16.2	12.5	10.4	8.75	5.44	4.54	
1.67V	300	169	104	76.2	61.7	35.4	27.4	21.3	19.0	16.1	12.4	10.3	8.67	5.39	4.53	
1.70V	292	166	103	75.6	61.2	35.1	27.2	21.1	18.8	16.0	12.2	10.2	8.58	5.38	4.52	
1.75V	278	160	101	75.1	60.3	34.2	26.9	20.9	18.6	15.9	12.1	10.1	8.54	5.37	4.50	
1.80V	249	150	97.0	72.0	58.7	33.9	26.7	20.6	18.1	15.6	12.0	10.0	8.51	5.31	4.49	
1.83V	238	137	95.0	69.6	56.2	33.5	25.8	19.9	17.5	15.1	11.9	9.63	8.17	5.30	4.42	
1.85V	223	133	89.0	66.8	54.4	32.2	25.1	19.6	17.1	14.7	11.5	9.55	8.12	5.20	4.38	

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

End Voltage	Time (minutes)				Time (hours)											
	5	15	30	45	1	2	3	4	5	6	8	10	12	20	24	
1.60V	543	307	191	144	117	67.1	53.0	41.2	36.8	31.1	24.3	20.2	16.9	10.8	9.02	
1.67V	523	301	190	143	116	67.0	52.3	41.0	36.6	31.0	24.0	20.1	16.8	10.7	9.02	
1.70V	520	298	189	142	115	66.7	52.0	40.8	36.3	30.9	23.8	19.7	16.7	10.7	9.01	
1.75V	485	296	186	140	113	66.3	51.7	40.6	36.1	30.8	23.5	19.6	16.6	10.6	9.00	
1.80V	453	280	185	139	112	66.1	51.6	40.3	35.3	30.6	23.4	19.4	16.4	10.6	8.96	
1.83V	437	256	182	135	109	65.3	50.4	39.2	34.5	29.7	23.5	19.1	16.3	10.5	8.92	
1.85V	414	250	169	130	106	63.2	49.0	38.6	33.7	29.1	22.8	18.9	16.2	10.5	8.85	

**NARADA POWER SOURCE CO.,LTD.**  
 9F, Building A, No. 50 Zijinghua Road, Hangzhou, China  
 Tel:+86-571-56975980 / 56975956 Fax:+86-571-56975955  
 Website: www.naradapower.com E-mail: intl@narada.biz

