

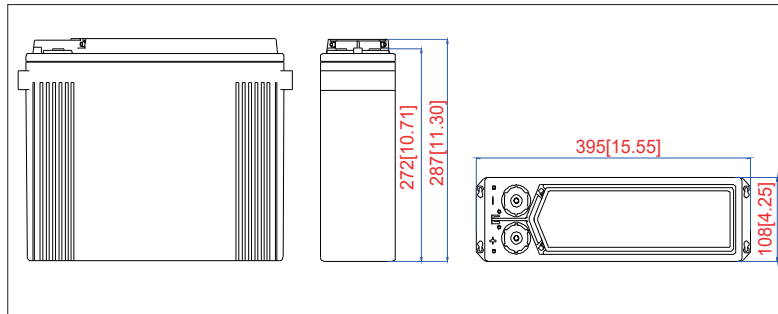
stored energy solutions for a demanding world

Model: **12UDS100**

UDS series

Narada UDS series is a battery designed as Ultra Duration Service battery, which is ideal for stable grid condition at varied temperature. It adopts Thin Plates Pure Lead (TPPL) technology and Continue Casting Punch Plates (CCPP) manufacture method and automatic assembling line. UDS series has extreme long standby service life, its design life is 16 years (20°C).

Dimensions-mm



Specifications

Battery Model	12UDS100
Nominal Voltage	12V
Rated Capacity	100Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	30.0kg
Internal Resistance	Approx 6.06 mΩ
Temperature Ranges	Operation(maximum): -40°C to 60°C(-40°F to 140°F)
	Operation(recommended): 20°C to 40°C(68°F to 104°F)
	Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.25V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	25A
Equalize Voltage	2.35V/cell@25°C(77°F)
Shelf Life	2 years (20°C/68°F)
Terminal	M6 Female
Terminal Hardware Torque	8~10N·m
Container Material	ABS (V0 optional)

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

End voltage per cell	1HR	2HR	3HR	4HR	5HR	8HR	10HR	12HR	20HR
1.67V	63.5	39.8	28.4	22.1	18.3	12.1	10.4	8.81	5.66
1.70V	63.0	39.5	28.2	22.0	18.2	12.0	10.3	8.76	5.65
1.75V	61.9	38.9	27.9	21.8	18.0	11.9	10.2	8.71	5.64
1.80V	59.8	37.7	27.3	21.3	17.6	11.7	10.1	8.62	5.58
1.83V	57.7	36.7	27.2	20.9	17.3	11.5	9.91	8.49	5.54
1.85V	55.8	35.7	26.1	20.4	16.9	11.3	9.82	8.36	5.44

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

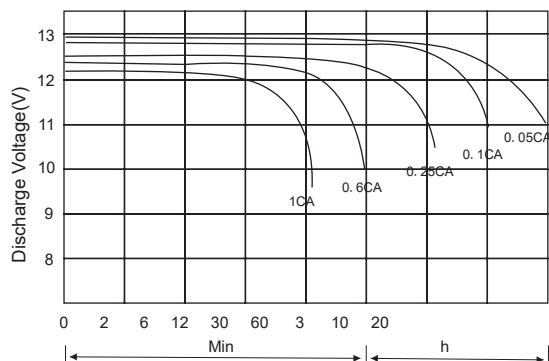
End voltage per cell	1HR	2HR	3HR	4HR	5HR	8HR	10HR	12HR	20HR
1.67V	125.2	79.6	56.3	44.0	36.4	24.1	20.5	17.5	11.2
1.70V	124.2	79.3	56.1	43.8	36.2	24.0	20.4	17.4	11.1
1.75V	123.2	78.6	55.6	43.5	35.9	23.8	20.3	17.2	11.0
1.80V	119.2	76.9	54.5	42.8	35.4	23.4	20.1	17.1	10.8
1.83V	115.1	75.0	53.5	42.0	34.7	23.0	19.8	16.9	10.6
1.85V	112.1	73.2	52.5	41.3	34.1	22.6	19.5	16.6	10.4

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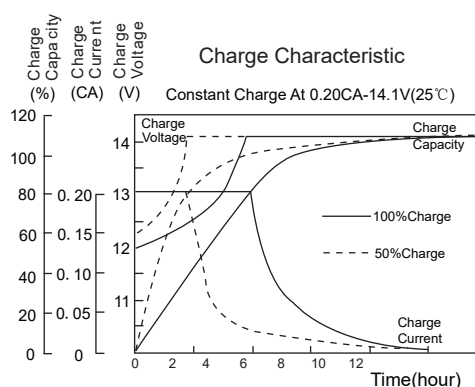
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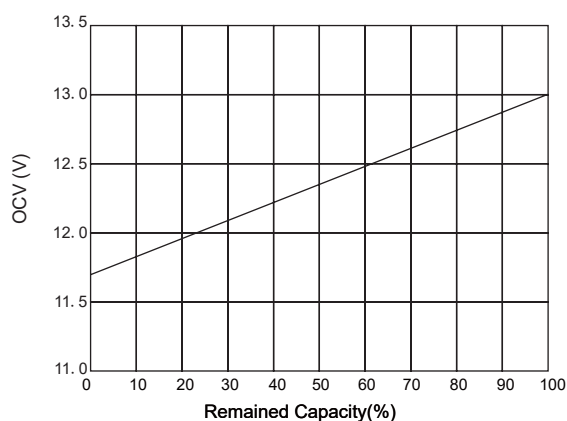
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



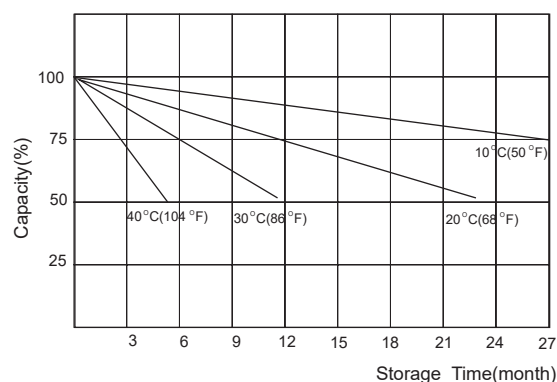
Battery Voltage Vs. Charge Time



Relationship of OCV Vs. State of Charge



Capacity Retention Characteristic



Charging Procedures

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle	25 °C	2.35	2.35~2.40	0.25C
Standby	25 °C	2.25	2.23~2.27	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.80	1.70	1.55	1.30
Discharge Current (A)	0.2C ≥ (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

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