

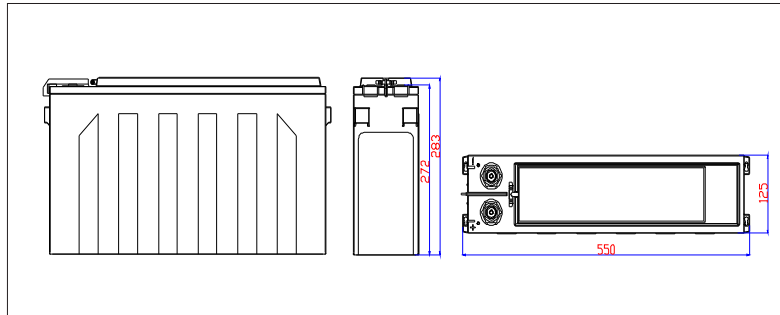
stored energy solutions for a demanding world

Model: **12UDS150**

**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	12UDS150
Nominal Voltage	12V
Rated Capacity	150Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	48.2 kg
Internal Resistance	Approx 5.14mΩ
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	37.5 A
Equalize Voltage	2.35V/cell@25°C(77°F)
Shelf Life	2 years (20°C/68°F)
Terminal	M6 Female
Terminal Hardware Torque	8~10Nm
Container Material	ABS (V0 optional)

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

End voltage per cell	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	91.9	55.4	40.7	33.5	28.0	24.1	19.5	15.8	13.5	9.00	7.79
1.67V	91.7	55.0	40.2	33.1	27.6	23.8	19.1	15.6	13.2	8.81	7.57
1.70V	91.6	54.9	40.1	32.9	27.5	23.7	18.9	15.4	13.2	8.74	7.47
1.75V	90.7	54.8	40.0	32.8	27.3	23.4	18.8	15.2	13.1	8.63	7.33
1.80V	88.2	54.1	39.9	32.5	27.1	23.3	18.6	15.1	13.1	7.76	6.45
1.83V	86.2	54.0	39.4	32.4	27.0	23.2	18.5	14.9	13.0	7.65	6.36
1.85V	83.6	52.7	39.1	32.3	26.9	23.1	18.3	14.7	13.0	7.53	6.25

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

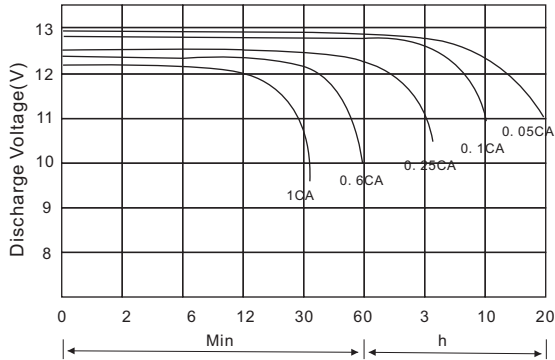
End voltage per cell	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	185	116	83.2	68.3	56.9	48.8	38.1	31.3	26.5	16.8	14.3
1.67V	183	114	82.5	67.7	56.4	48.4	37.8	31.1	26.3	16.5	13.9
1.70V	182	113	81.9	67.3	56.0	48.0	37.6	31.0	26.2	16.3	13.7
1.75V	181	112	81.6	67.2	55.8	47.9	37.3	30.8	26.1	16.2	13.6
1.80V	176	111	81.0	67.1	55.4	47.6	37.2	30.3	25.4	15.5	13.0
1.83V	173	110	80.6	66.4	54.9	47.5	36.7	29.6	25.0	15.3	12.6
1.85V	168	106	78.2	64.4	53.8	46.2	36.1	29.5	24.8	14.5	11.9

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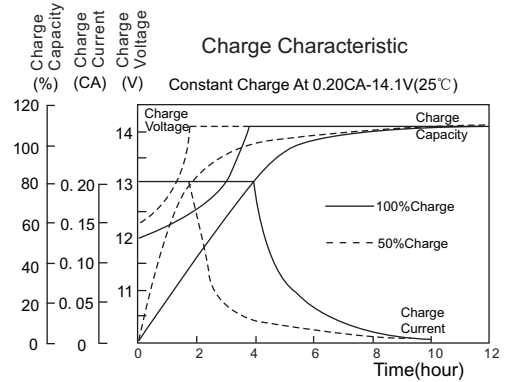
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**UDS series**

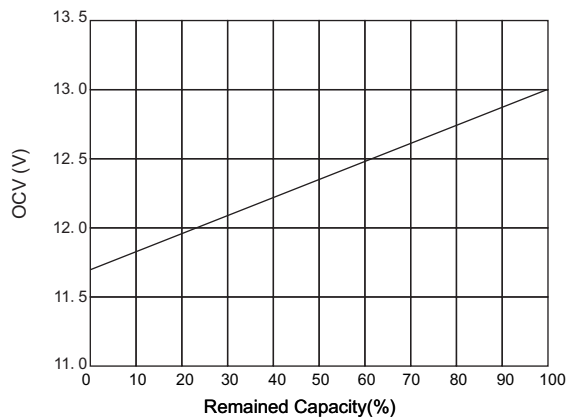
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



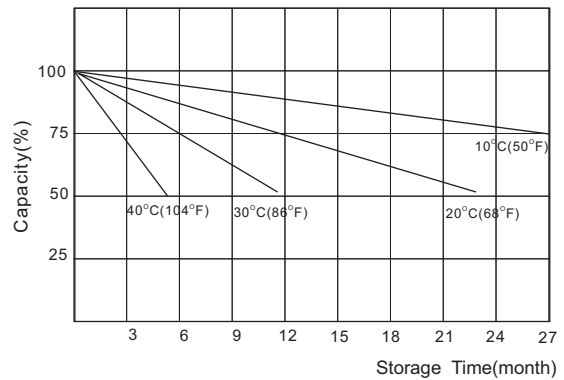
Battery Voltage Vs. Charge Time



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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