

stored energy solutions for a demanding world

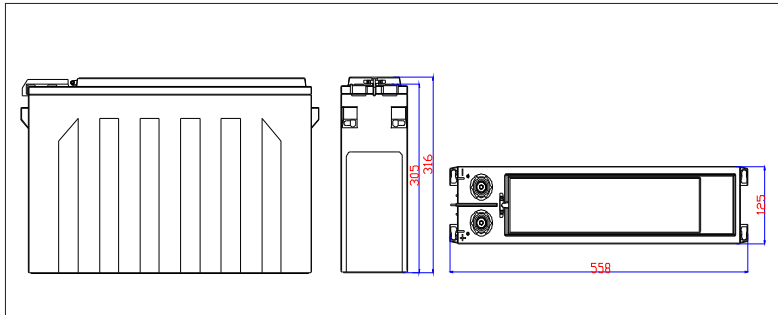
Model: **12UDS200**

**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	12UDS200
Nominal Voltage	12V
Rated Capacity	200Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	59.3 kg
Internal Resistance	Approx 4.25mΩ
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	50.0 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	136	79.4	57.0	44.7	37.0	31.6	25.5	22.0	18.7	13.3	11.4
1.67V	134	78.7	56.4	44.3	36.6	31.4	25.3	21.9	18.7	13.1	11.2
1.70V	133	78.5	56.4	44.3	36.6	31.3	25.2	21.7	18.5	12.9	11.0
1.75V	131	78.3	56.3	44.2	36.5	31.1	25.0	21.0	17.5	11.1	9.03
1.80V	129	78.2	56.2	44.0	36.4	30.9	24.3	20.1	17.2	10.8	8.99
1.83V	124	78.0	55.8	43.8	36.2	30.7	23.8	19.7	17.0	10.4	8.74
1.85V	118	74.8	55.0	43.3	35.6	30.0	23.5	19.6	16.2	9.64	7.93

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

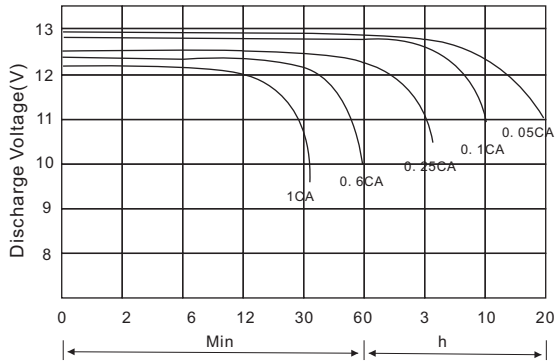
End voltage per cell	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	265	157	114	89.4	75.0	63.5	49.6	44.5	38.1	24.7	21.1
1.67V	262	157	113	89.3	74.9	63.4	49.4	44.2	37.6	23.9	20.4
1.70V	259	156	113	89.2	74.7	63.2	49.4	44.0	37.3	23.4	19.8
1.75V	253	155	113	89.0	74.5	63.1	49.1	43.3	36.3	21.8	18.0
1.80V	248	155	113	88.9	74.3	62.9	48.0	41.5	34.0	19.8	17.1
1.83V	241	155	112	88.7	74.2	62.7	47.4	40.9	33.6	18.5	15.8
1.85V	232	150	111	88.0	72.7	61.6	46.8	40.5	33.4	17.3	14.8

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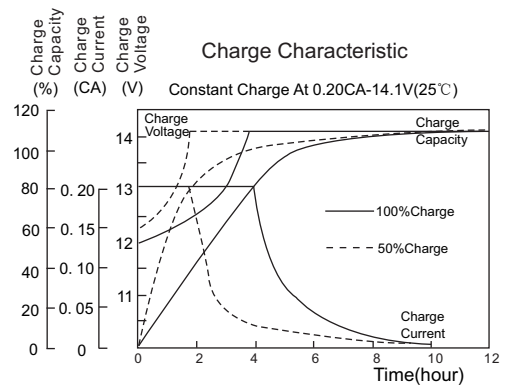
Model: **12UDS200**

**UDS series**

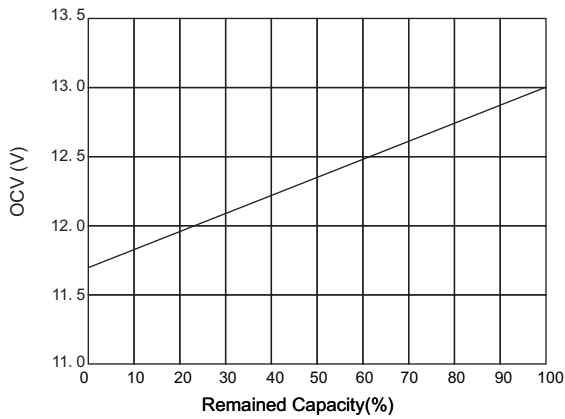
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



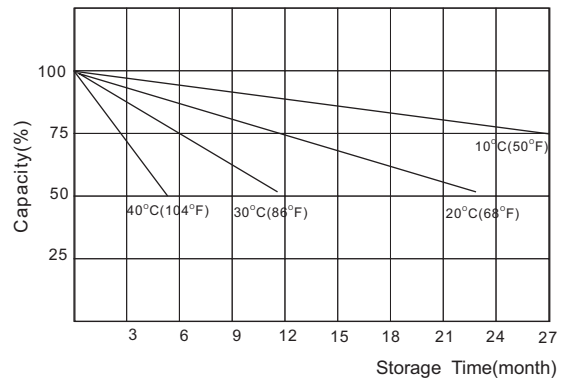
Battery Voltage Vs. Charge Time



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



12UDS200-01-T-EN (Ver.7.0 Aug. 2016) Subject to revision without prior notice. E.&O.E.

