



# Product Data Sheet

## IM Series: IM-12280NB (UT-12280)

### 12 Volt, 28 Amp. Hour

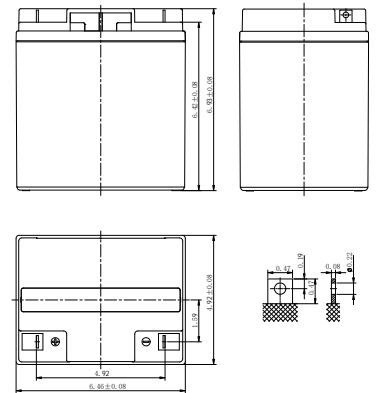
#### Specifications

Rated Voltage	12V	
Nominal Capacity	28Ah	(C <sub>20</sub> , 1.75V/cell, 20hr)
Dimensions	Length	6.46 inches (164mm)
	Width	4.92 inches (125mm)
	Container Height	6.93 inches (176mm)
	Total Height	6.93 inches (176mm)
Approx Weight	20.1lbs. (9.10kg)	
Terminal	NB 3-A	
Container Material	ABS	
Rated Capacity (25°C)	28.0Ah	(20hr, 1.40A, 1.75V/cell)
	26.0Ah	(10hr, 2.60A, 1.75V/cell)
	23.8Ah	(5hr, 4.76A, 1.75V/cell)
	21.4Ah	(3hr, 7.14A, 1.75V/cell)
	17.6Ah	(1hr, 17.6A, 1.60V/cell)
Max. Discharge Current	420A (5s)	
Internal Resistance (25°C)	Approx 14.0mΩ	
Operating Temp. Range	Discharge	5 ~ 122°F (-15 ~ 50°C)
	Charge	-4 ~ 104°F (-20 ~ 40°C)
	Storage	5 ~ 104°F (-15 ~ 40°C)
Nominal Operating Temp. Range	77±5°F (25±3°C)	
Standby/Float Use	Initial Charging Current less than 8.4A. Voltage 13.5V~13.8V at 77°F (25°C) Temp. Coefficient -10mV/°F	
	104°F (40°C)	103%
Temperature Effect on Capacity	77°F (25°C)	100%
	32°F (0°C)	86%

Self Discharge  
IM series batteries may be stored for up to 6 months at 77°F (25°C) and then a freshening charge is required. For higher temperatures- time interval will be shorter.



#### Layout



NB 3-A

#### Constant Current Discharge (Amperes) at 77°F (25°C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	75.3	55.0	45.7	38.4	28.4	20.1	15.9	12.0	9.18	6.91	5.62	4.63	4.02	3.13	2.54	1.37
1.80V/cell	80.9	58.3	48.0	39.9	29.3	20.6	16.3	12.2	9.35	7.03	5.70	4.70	4.08	3.18	2.57	1.38
1.75V/cell	85.3	60.7	49.6	41.1	30.0	21.0	16.6	12.5	9.52	7.14	5.78	4.76	4.13	3.21	2.60	1.40
1.70V/cell	89.3	63.1	51.2	42.2	30.8	21.5	17.0	12.7	9.66	7.24	5.86	4.83	4.18	3.24	2.63	1.41
1.67V/cell	92.4	64.9	52.5	43.1	31.4	21.9	17.2	12.8	9.77	7.31	5.92	4.87	4.22	3.27	2.65	1.42
1.60V/cell	98.0	67.6	54.3	44.4	32.2	22.4	17.6	13.1	9.96	7.45	6.02	4.94	4.28	3.31	2.68	1.44

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV.

#### Constant Power Discharge (Watts/cell) at 77°F (25°C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	142.4	104.7	87.6	74.0	54.9	38.9	31.0	23.4	18.0	13.6	11.1	9.15	7.95	6.21	5.05	2.74
1.80V/cell	151.6	110.2	91.3	76.5	56.4	39.8	31.6	23.8	18.3	13.8	11.2	9.27	8.07	6.29	5.11	2.77
1.75V/cell	158.0	113.8	93.8	78.2	57.6	40.5	32.2	24.2	18.5	14.0	11.4	9.37	8.15	6.35	5.16	2.80
1.70V/cell	163.8	117.5	96.3	80.1	58.8	41.3	32.6	24.5	18.8	14.1	11.5	9.49	8.23	6.41	5.21	2.82
1.67V/cell	168.1	120.2	98.4	81.5	59.7	41.8	33.1	24.8	18.9	14.3	11.6	9.56	8.30	6.46	5.24	2.84
1.60V/cell	174.9	123.7	101.1	83.5	61.0	42.6	33.7	25.2	19.3	14.5	11.8	9.69	8.40	6.54	5.31	2.88

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV.



# Product Data Sheet

## IM Series: IM-12280NB (UT-12280)

### 12 Volt, 28 Amp. Hour

#### Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

#### General Features

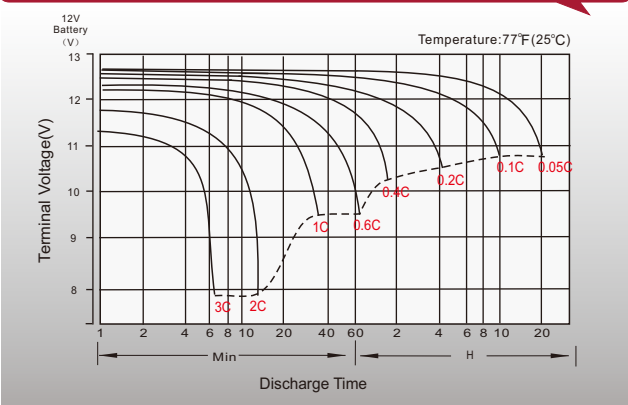
- 5 years design life (77°F)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- High purity PbCaSn raw material alloy is used for plate grids, assuring less gassing and low self-discharging rate
- High quality AGM separator extends cycle life and prevents micro short circuit

#### Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

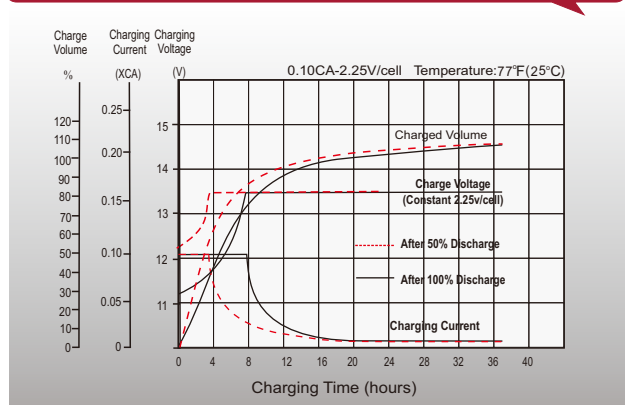


#### Discharge Characteristics

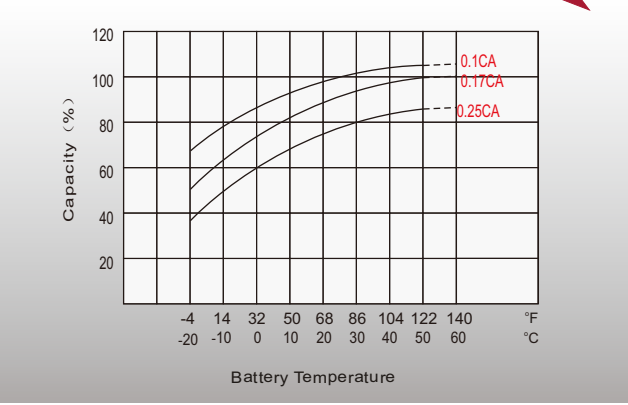


Curves represent Constant Current draw (Amp.)  
 1C curve = 1 x Nominal capacity = 7.5amp. constant draw    0.05C curve = 0.05 x Nominal capacity = 0.375amp. draw

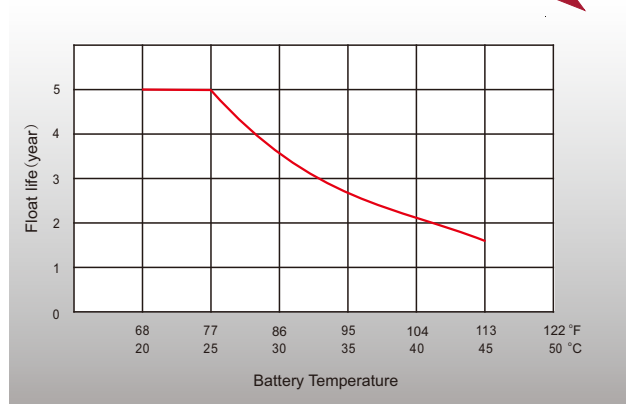
#### Standby/Float Charging Characteristics



#### Temperature Effects on Battery Capacity



#### Temperature Effects on Long-Term Float Life



#### Sales Offices

Sales: 1.800.233.6261  
 Website: [www.adiglobaldistribution.us](http://www.adiglobaldistribution.us)  
[www.adiglobaldistribution.ca](http://www.adiglobaldistribution.ca)