



TANDHAN
POWER
LIVE LIFE NON-STOP



TANDHAN GROUP

Tandhan Group, with a legacy of more than 4 decades, has always taken on challenges, and being robust, courageous along with using deep customer insights has constantly developed innovative technology. Our greatest strength has been our investment in people and channel partners, enabling us to learn while we worked, building on relationship and collaborations with channel partners based on trust and respect for each other.

- We at Tandhan take great pride in deliverables
- We at Tandhan constantly elevate the level aggressively with pioneering research and development programmes
- We at Tandhan assure highest quality products and services, catering to clients and patrons across the globe

Our Other Verticals

- Tandhan Polyplast Private Limited
- Tandhan Power
- Dhaka Power Traders (**BANGLADESH**)
- San Taing Kyaw Company Limited (**MYANMAR**)
- Global Power Traders (**SUDAN**)
- NX Hotels Private Limited
- Tandhan Impex Private Limited
- FMJ Sarees Private Limited
- Jalan Sarees Private Limited
- Tandhan Fashions Private Limited
- Tandhan Exim Private Limited
- Tandhan Cotton Mills Private Limited

Our Newest Venture

- Power Global General Trading LLC (**DUBAI**)

INVERTER BATTERIES

Tandhan Power has 4 models of Tall Tubular Batteries namely: TPTT400, TPTT500, TPTT750 and TPTT850. These next generation tubular batteries, are designed to work smoothly even in high cyclical applications involving frequent and prolonged power outages. Tall Tubular has proved itself under tough conditions, thus earning itself the moniker of - The ultimate inverter battery.

Technological Glimpse

- Ironclad tubular technology
- Thick tubular plates ensuring long battery life
- Inter-cell connections ensure better voltage profile on discharge
- More electrolyte per ampere-hour
- Deep cycle design
- Tower type design efficiency
- Common side venting
- Level indicators to check electrolyte

Application

Stores power through Torr Tubular Technology that is customised exclusively for UPS and inverter applications. They have rugged internal elements suited for withstanding frequent and long power outages.

Advantages

- Long life – 1200 cycles @80% DOD
- Due to their toughness and durability, Tandhan Tall Tubular can operate at extreme temperatures
- Electrolyte volume per ampere-hour is 30% more than that of other ordinary batteries
- User friendly with almost no maintenance cost over the life of the battery
- Environmental friendly
- Robust quality
- Manages overcharge efficiently

SPECIFICATION CHART

Battery Type	Nominal Voltage (V)	Rated Capacity at 27°C (1.280 sq.gr) (Ah)	Dimensions (in mm)			Weight (Kg)+/- 5%		Volume of Electrolyte (Litres)	Initial Charge Minimum Input (Ah)	Initial Charge at Constant Current (A)		Constant Potential Limiting Current (Amps)	Trickle Charge (Current in mA)	
		C20 up to 1.75 Vpc	Overall Height +/-5	'L' +/-3	'W' +/-3	Dry	Filled			Start (up to 2.36 vpc)	Finish (up to 2.75 vpc)		Min	Max
TPTT 400	12	115	416	500	187	29.00	53.80	20.28	450	12.0	6.0	25	100	400
TPTT 500	12	150	416	500	187	33.77	59.81	20.58	540	14.4	7.2	30	120	480
TPTT 750	12	200	416	500	187	41.44	66.66	19.80	810	21.6	10.8	45	190	720
TPTT 850	12	230	416	500	187	51.20	75.42	21.00	900	24.0	12.0	45	200	800

*The height mentioned is up to terminal top.

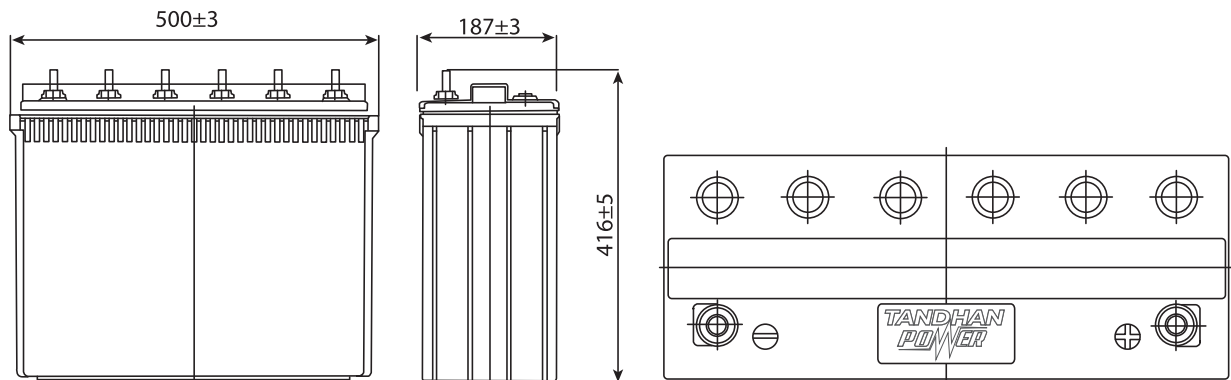
INITIAL CHARGING INSTRUCTIONS

1. Filling in Specific Gravity 1.220 +/- 0.005 at 27°C	However in both cases, minimum Ah input to be given. Under no circumstances, battery temperature should exceed 50°C. In case the temperature exceeds 50°C, adequate rest to be given till the electrolyte temperature comes to ambient temperature charging to be continued. 5. Conditions of fully charged a) 3 consecutive hourly readings of specific gravity and voltage become constant b) Top of charge voltage will be around 16.2V - 16.5V c) All cells should gas freely d) Minimum Ah has been given 6. Specific Gravity at fully charged condition
2. Rest Period 12 hrs.	
3. Minimum Ah Input 450Ah for TPTT 400, 540Ah for TPTT 500 and 810Ah for TPTT 750	
4. In order to reduce the charging time, the following routine may be adopted. For TPTT400 the initial charging current may be 12A up to 2.36 vpc followed by 6A up to 2.75 vpc. For TPTT500, the initial charging current may be 14.4A up to 2.36 upc followed by 7.2A upto 2.75 vpc. For TPTT750, the initial charging current may be 21.6A up to 2.36 vpc followed by 10.8A up to 2.75 vpc.	

NORMAL RECHARGING INSTRUCTIONS

Recharging through inverter at constant potential mode of 14.4V with limited current as specified. After battery potential reaches 14.4V, the battery should continue in trickle charge mode at constant potential of 13.5V.

BATTERY OUTLINE



DISCHARGE DATA AMPS AT 27° C

ECV	TPTT 400										
	1H	2H	3H	4H	5H	6H	7H	8H	9H	10H	20H
1.70	47.0	31.0	23.6	19.0	16.4	14.7	13.4	12.0	11.0	10.2	5.8
1.75	45.6	30.4	23.1	18.8	16.1	14.5	13.2	11.8	10.9	10.0	5.7
1.80	39.7	27.8	21.5	17.9	15.4	13.9	12.6	11.4	10.5	9.5	5.4
1.85	32.1	23.8	19.2	16.4	14.2	12.6	11.3	10.6	9.8	9.1	5.1

ECV	TPTT 500										
	1H	2H	3H	4H	5H	6H	7H	8H	9H	10H	20H
1.70	56.4	37.2	30.4	22.8	19.7	17.7	16.0	14.4	13.2	12.2	7.6
1.75	54.7	36.5	27.8	22.5	19.1	17.4	15.9	14.2	13.1	12.0	7.5
1.80	47.6	33.4	25.8	21.5	18.5	16.7	15.1	13.7	12.6	11.4	7.1
1.85	38.5	30.5	23.0	19.7	17.0	15.1	13.6	12.7	11.8	10.9	6.8

ECV	TPTT 750										
	1H	2H	3H	4H	5H	6H	7H	8H	9H	10H	20H
1.70	84.6	55.8	42.5	34.2	29.5	26.6	24.1	21.5	19.8	18.4	10.2
1.75	82.1	54.7	41.7	33.8	29.0	26.1	23.8	21.3	19.7	18.0	10.0
1.80	71.4	50.0	38.7	32.2	27.7	25.1	22.7	20.5	19.0	17.1	9.5
1.85	57.8	40.8	34.5	29.5	25.5	22.6	20.4	19.0	17.7	16.4	9.1

PRODUCT DETAILS

Ampere-hour Efficiency	> 90%
Watt-hour Efficiency	> 75%
Operating Temperature Range	- 5° C to 45° C
Self Discharge/Month at 27° C	Self discharge rate of the battery when kept in open circuit condition for 28 days would be <10% of its initial capacity.
Type of Plates	Positive Plates: Tubular Material: Lead - Antimony Alloy Negative Plates: Flat Pasted Material: Lead - Antimony Alloy
Separators	Micro Porous Polyethelyene (PE)
Type of Vent and Filling Plugs	Micro Porous Ceramic Vent Plug
Material of Container and Lid	PPCP
Type of Sealing	Heat Sealing
Terminal	Take off type

BATTERY SELECTION CHART

NOTE: If the limit current of one battery is 'A' amp, for 'N' no. batteries in parallel, the limit current for charging of inverter should be Axamp. Otherwise there will be problem during charging in parallel connection. This point should be taken in consideration before putting batteries in parallel combination.

S- Series connection; P- Parallel connection.

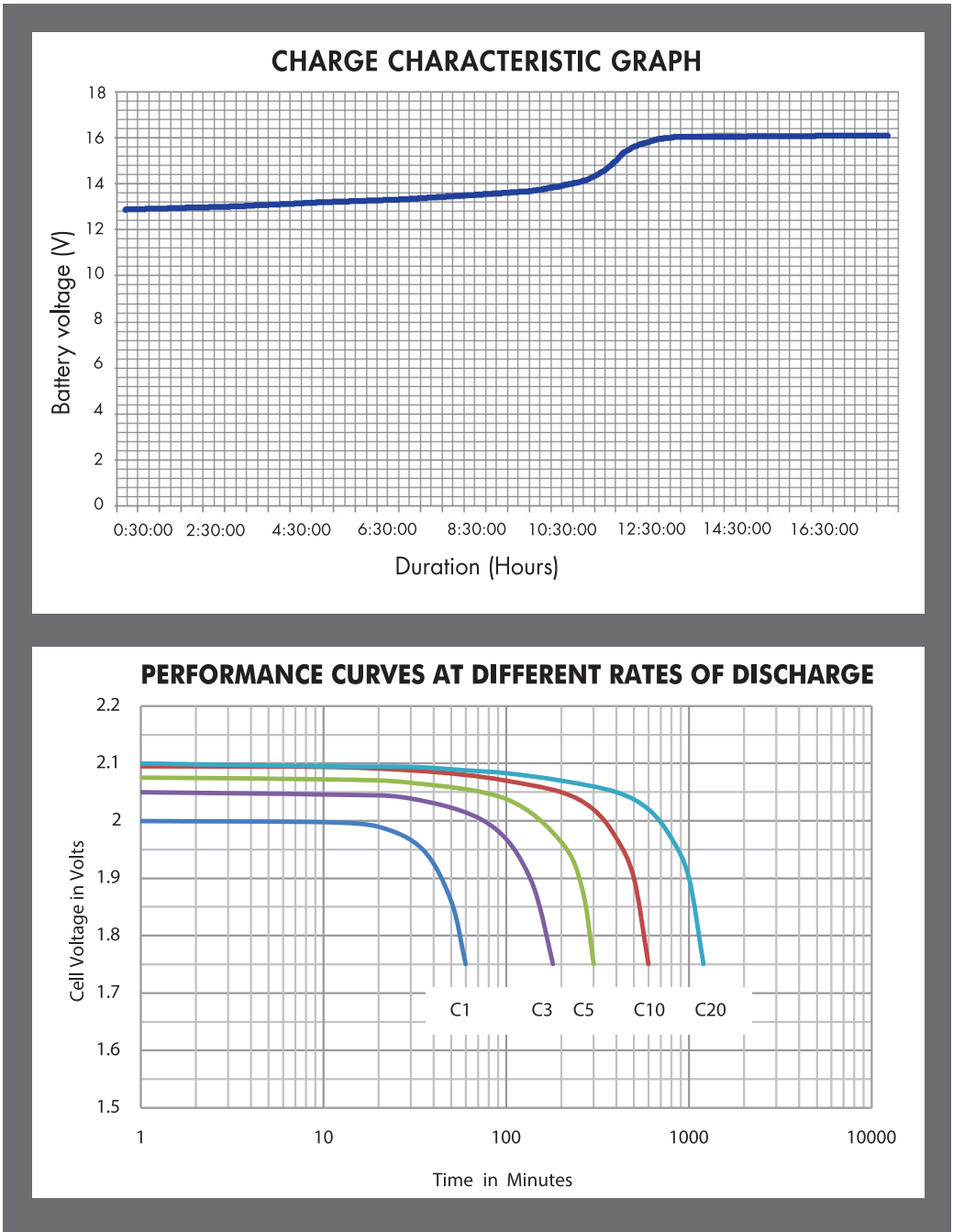
25 X 3P = A string containing 2 nos. batteries in series and 3 nos. such strings in parallel.

Statutory notice:

All batteries contain lead, which is harmful for humans and environment. As per statutory requirements, the used battery must be returned to the authorised dealer, manufacturer or to the designated collection centres.

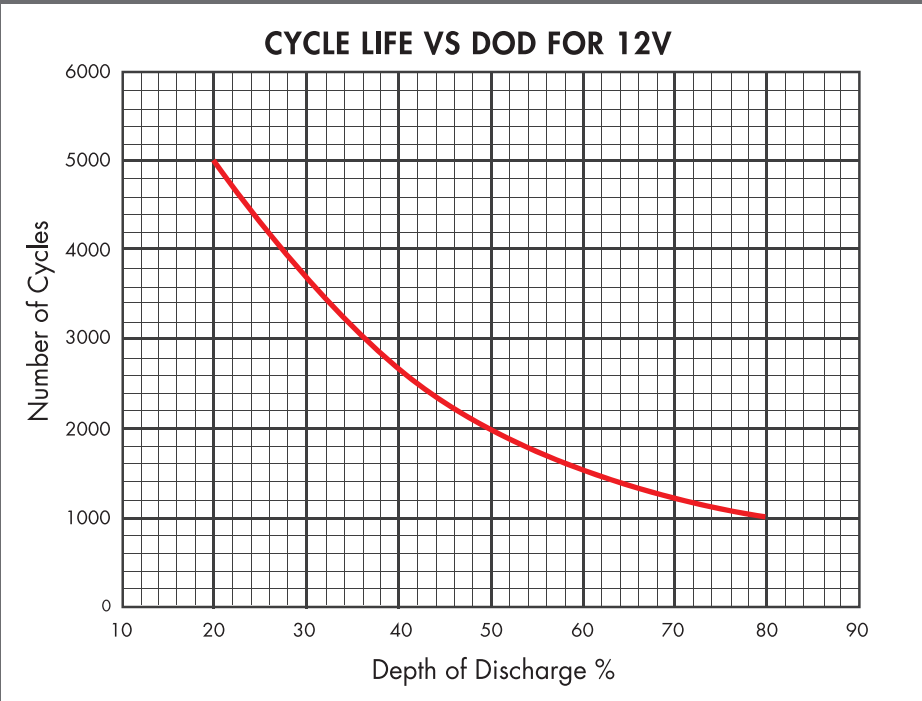
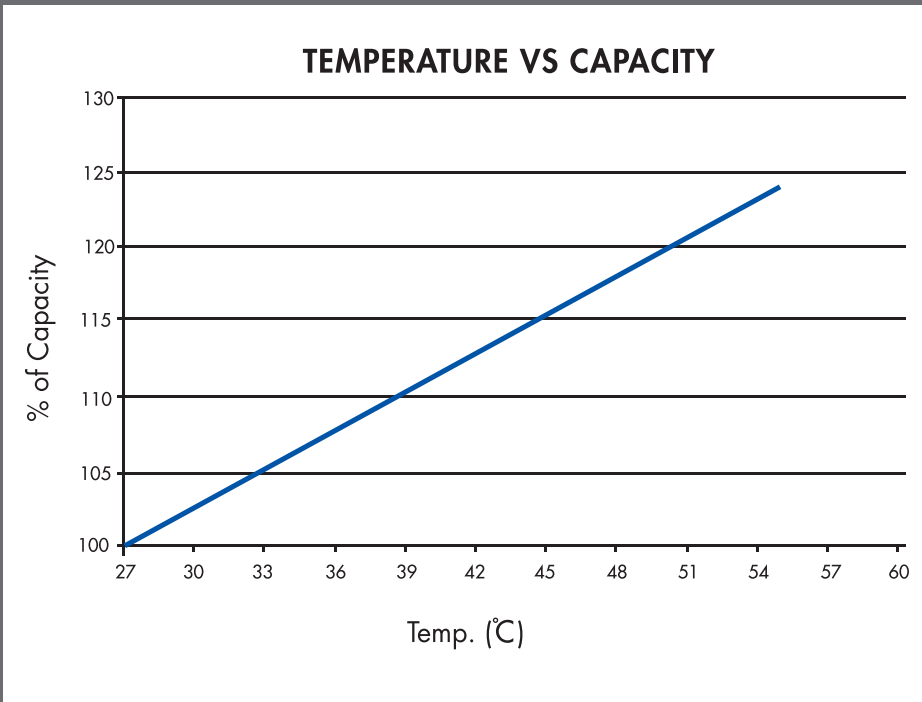
Electrical Load	System Voltage	Reco. Inverter Rating	Recommended Battery for Different Back-up time				
			5hrs	4hrs	3hrs	2hrs	1hr
4 Tubes + 4 Fans	12	650 VA	2P TPTT750	2P TPTT500	2P TPTT400	TPTT750	TPTT400
4 Tubes + 4 Fans + 1 TV	12	850 VA	3P TPTT750	2P TPTT750	2P TPTT750	2TPTT7500	TPTT750
4 Tubes + 9 Fans 1 TV	24	1450 VA	25x2P TPTT750	25x2P TPTT750	25x2P TPTT500	2S TPTT750	2S TPTT500

CHARACTERISTIC CURVES



Technical specifications are subject to change without prior notice

CHARACTERISTIC CURVES



Battery image shown is indicative and may vary from the actual

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