

Product Information

VARTA TP Nickel Cadmium batteries are used in power supply systems where the load duration is between 1 and 10 hours. They are suitable for battery operation mode (charger disconnected during discharge), response mode (battery switched into circuit at power failure) and standby mode (battery permanently connected to the charging source and load). They are robust and resistant to deep discharge and mechanical stress. Main areas of application are power stations, substations, UPS and industrial systems, traffic control and emergency power supply systems.



VARTA
TP

TP 10 ... TP 380

Construction

Positive Electrode

Pocket plate

Negative Electrode

Pocket plate

Separation

Perforated separator

Casing Material

Polystyrene, impact resistant

Electrolyte

Potassium hydroxide $d = 1.19 \text{ kg/l}$

Terminal Design

Solid nickel-plated steel posts, bolted connection

Pole Screw

Metric threaded, nickel-plated steel screw

Connectors

Solid nickel-plated copper connector

Vent Plugs

Gas drying vent plug

Charging

Float charge voltage: 1.40 V/c

Boost charge voltage: 1.55 - 1.65 V/c

Recommended Range of Operation

-20°C to +45°C (preferred value 20°C)

Product Standard

DIN 40771

TP cells correspond with KPM-P type cells according to EN 60623 resp. IEC 60623

Features

- Single cells, 1.2 V nominal voltage
- High power performance during discharge
- High energy output at low temperature



Technical data

Type Designation	Capacity (Ah) acc. to DIN 40771	Capacity (Ah)					Internal resistance (with connectors, charged) (mOhm/cell)	Short circuit current (with connectors, charged) (A)	Dimensions (mm)			Weight (kg) cell		Poles	Type Designation
		C_{10}	C_8	C_5	C_3	C_1			L	W	H*	w. e. lyte	e. lyte		
TP 10	10	10.5	10.4	10.3	9.9	8.2	14.01	85	46	85	187	1.03	0.32	2 x M 10	TP 10
TP 18	18	19.0	18.6	18.5	17.8	14.8	7.79	154	46	85	257	1.41	0.49	2 x M 10	TP 18
TP 24	24	25.5	25.1	25.0	24.0	20.0	5.84	205	46	85	257	1.51	0.39	2 x M 10	TP 24
TP 30	30	32.0	31.7	31.5	30.2	25.2	4.68	256	46	85	257	1.64	0.37	2 x M 10	TP 30
TP 40	40	42.5	42.2	42.0	40.3	33.6	3.52	340	85	85	257	2.68	0.88	2 x M 10	TP 40
TP 55	55	58.0	57.8	57.5	55.2	46.0	2.57	466	85	85	257	2.97	0.67	2 x M 10	TP 55
TP 65	65	69.0	68.3	68.0	65.3	54.4	2.24	534	53	134	400	5.01	1.29	2 x M 20	TP 65
TP 75	75	79.5	78.9	78.5	75.4	62.8	1.96	610	53	134	400	5.16	1.22	2 x M 20	TP 75
TP 90	90	95.5	95.0	94.5	90.7	75.6	1.57	763	69	134	400	6.34	1.82	2 x M 20	TP 90
TP 110	110	117	116	116	111	92.4	1.28	936	69	134	400	6.67	1.57	2 x M 20	TP 110
TP 125	125	133	132	131	126	105	1.13	1059	70	164	400	7.83	2.06	2 x M 20	TP 125
TP 140	140	148	148	147	141	118	1.01	1185	70	164	400	8.00	1.80	2 x M 20	TP 140
TP 165	165	175	173	173	166	138	0.86	1382	108	164	400	10.70	3.69	2 x M 20	TP 165
TP 185	185	196	195	194	186	155	0.77	1542	108	164	400	11.10	3.41	2 x M 20	TP 185
TP 200	200	212	211	210	202	168	0.71	1671	108	164	400	11.30	2.90	2 x M 20	TP 200
TP 230	230	243	242	242	231	193	0.62	1910	108	164	400	11.80	2.80	2 x M 20	TP 230
TP 275	275	291	289	289	277	230	0.53	2232	164	158	402	16.40	5.20	2 x M 20	TP 275
TP 315	315	333	332	331	317	264	0.44	2676	164	158	402	18.20	4.80	4 x M 20	TP 315
TP 380	380	402	400	399	381	317	0.37	3214	164	158	402	20.10	3.80	4 x M 20	TP 380

The electrical values shown in the table relate to loadings from fully charged condition at ambient temperature of +20°C.

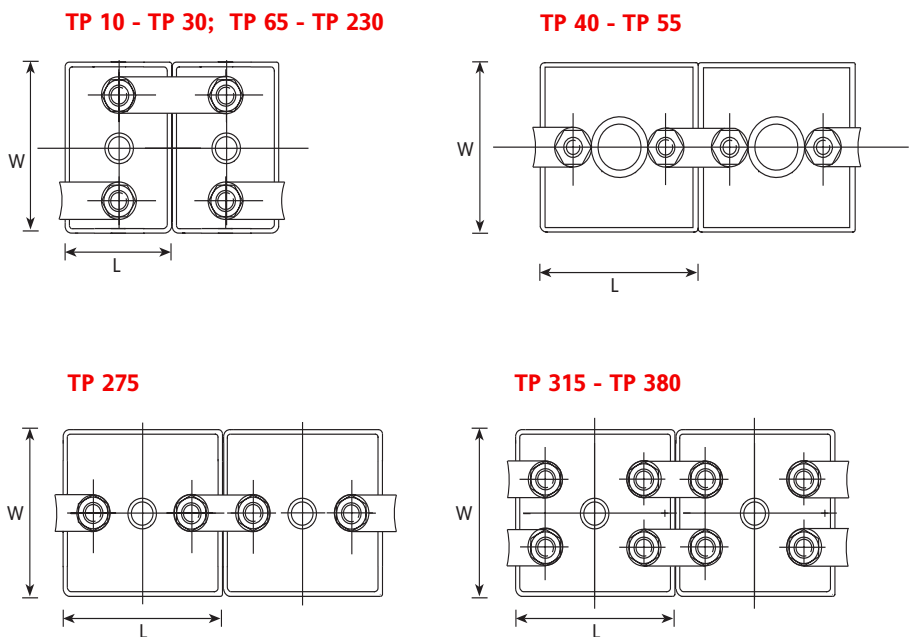
* Height includes connectors.

Installation

VARTA TP cells are suitable for installation on racks or in cabinets.

The batteries can be assembled in crates for mobile use or for special applications. For use in earthquake zones special racks are available.

The cells must be operated in accordance with the safety requirements stated in EN 50272-2.



All dimensions and weights shown are subject to the usual manufacturing tolerances. Electrical values are approximate. The right is reserved to make alterations with a view to technically improved execution without prior notice.

Certified
DIN EN ISO
9001