

MICROTEX[®]

LIMITLESS[™] TRACTION POWER

In BS & DIN Series

For Electric Forklifts & Material Handling Equipment
Capacities from 42 to 1550 Ampere-Hours



ADVANCED ANTIMONY PLUS TRACTION POWER

Microtex is a leading manufacturer of Industrial Batteries in Bangalore, India. The factory has a covered area of 26700 Sq ft on 5 acres of land, with 300 trained people. Established 50 years ago it is a company well known for its high quality. Microtex produces in house, the specially designed lead alloys, lead oxides, grid castings, pasted plates, injection molded containers, multi-tubular gauntlets, separators and produces the complete battery using state of the art industry standard battery making machinery. The Company started Producing Industrial Batteries in the seventies for applications like Traction, Stationary and Batteries for Indian Railways. Traction batteries were exported to erstwhile USSR for 14 years.

Microtex offers Antimony Plus Traction Power Cells and Batteries in British Standard sizes and DIN sizes in welded and bolton terminals. Batteries are supplied in Factory Charged or Dry uncharged condition, from 42 Ah to 1550 Ah. High performance and long service life batteries sold worldwide in Electric Forklifts Electric Sweepers, mining locomotives and battery locomotives.

Advantages of using Antimony Plus Traction Power Battery.

FEATURES

Higher Efficiency more active material
Thicker Spines for Positive Tubular plates

Superior alloys for the Positive and Negative grids

Flip top vent plug
Specially designed End take-off Battery connectors
Superior insulated Inter cell connectors
Factory charged

Specially designed insulation for steel tray – ensures no earth and voltage leakage
Bolt On Connectors
Auto fill system (optional)

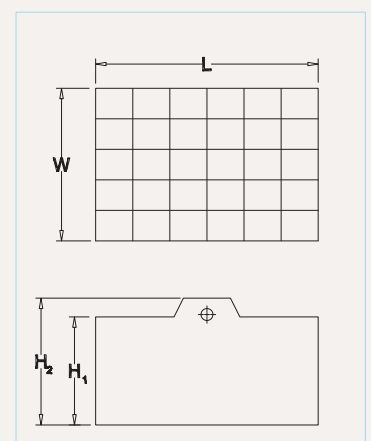
ADVANTAGES

Higher capacity within the same dimensions
Cast at 150 bar ensures better compression and packing of lead ensuring long cycle life
Lower internal resistance. More efficiency during charging and discharging (reduced charging time)
No Spillage of Acid
Firm connection between Battery and Forklift
No short circuit or sparks
100% accuracy charging in the factory results long life and avoids Premature failure.
ensures prevention of forklift electronic controllers failure .

Easy operation and quick replacement at site. Firm Grip between cells.
Prevent lesser or excessive water topping up.

How to order a traction battery?

- Brand and type of the fork-lift truck
- Type of the battery & reference of the cell elements
- Voltage & AH of the battery
- Size of the outer box or of the cell elements: L x W x H in mm
- How much time does one work with the battery in one shift.
- Type of the battery plug



Batteries comply with IS 5154 (Part 1) 2013, IEC 60254 -1:2005, IEC 254-2, EN 60 254-2

The company is ISO 9001:2015 and ISO 14001:2015 Certified

Features of Traction cell

Available in bolted and welded terminal design



Canopy

— Pillar

—**Top cover**

—Plug basket

Group bar

Cell box made out of Polypropylene co-polymer

Positive Plate

Gauntlet with side short protection

_____ Polyethylene
envelop separator

Machine pasted negative plate

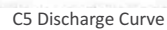
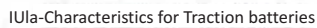
—Pressure die cast spine for positive plate

Grid for Negative plate

Bottom Prism

- Best back-up time

- Best service life



DETAILS OF BS SPECIFICATION TRACTION CELLS (WIDTH 158 MM)

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 21 Ah. Overall Height 231mm, Height upto Lid Top 201 mm					
2 MIPzB 42	42	45	3.2	0.7	4.2
3 MIPzB 63	63	61	4.3	1.0	5.6
4 MIPzB 84	84	77	5.4	1.3	7.1
5 MIPzB 105	105	93	6.5	1.6	8.5
6 MIPzB 126	126	109	7.5	1.9	10.0
7 MIPzB 147	147	125	8.6	2.2	11.4
8 MIPzB 168	168	141	9.7	2.5	12.9
9 MIPzB 189	189	157	11.4	2.7	14.9
10 MIPzB 210	210	173	12.5	3.0	16.4
11 MIPzB 231	231	189	13.6	3.3	17.9
12 MIPzB 252	252	205	14.6	3.6	19.3
13 MIPzB 273	273	221	15.7	3.9	20.7

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 55 Ah. Overall Height 431mm, Height upto Lid Top 401 mm					
2 MIPzB 110	110	45	6	1.6	8.0
3 MIPzB 165	165	61	8.4	2.2	11.2
4 MIPzB 220	220	77	10.9	2.8	14.5
5 MIPzB 275	275	93	13.3	3.4	17.6
6 MIPzB 330	330	109	15.8	4.0	21.0
7 MIPzB 385	385	125	18.2	4.6	24.1
8 MIPzB 440	440	141	20.7	5.3	27.5
9 MIPzB 495	495	157	23.7	5.9	31.2
10 MIPzB 550	550	173	26.1	6.5	34.5
11 MIPzB 605	605	189	28.6	7.1	37.8
12 MIPzB 660	660	205	31.1	7.7	41.0
13 MIPzB 715	715	221	33.5	8.3	44.2

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 86 Ah. Overall Height 597mm, Height upto Lid Top 567 mm					
2 MIPzB 172	172	45	8.7	2.2	11.5
3 MIPzB 258	258	61	12.4	3.0	16.3
4 MIPzB 344	344	77	16.1	3.9	21.1
5 MIPzB 430	430	93	19.8	4.7	25.8
6 MIPzB 516	516	109	23.5	5.6	30.7
7 MIPzB 602	602	125	27.2	6.4	35.5
8 MIPzB 688	688	141	30.9	7.3	40.4
9 MIPzB 774	774	157	35.2	8.1	45.7
10 MIPzB 860	860	173	38.8	9.0	50.4
11 MIPzB 946	946	189	42.6	9.9	55.3
12 MIPzB 1032	1032	205	46.3	10.7	60.1
13 MIPzB 1118	1118	221	50	11.5	64.9

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 32 Ah. Overall Height 290mm, Height upto Lid Top 260 mm					
2 MIPzB 64	64	45	3.9	1.0	5.1
3 MIPzB 96	96	61	5.4	1.3	7.1
4 MIPzB 128	128	77	6.8	1.7	9.0
5 MIPzB 160	160	93	8.3	2.1	11.0
6 MIPzB 192	192	109	9.8	2.5	13.0
7 MIPzB 224	224	125	11.3	2.8	15.0
8 MIPzB 256	256	141	12.8	3.2	17.0
9 MIPzB 288	288	157	14.9	3.6	19.5
10 MIPzB 320	320	173	16.3	4.0	21.4
11 MIPzB 352	352	189	17.8	4.4	23.4
12 MIPzB 384	384	205	19.3	4.7	25.4
13 MIPzB 416	416	221	20.8	5.1	27.4

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 65 Ah. Overall Height 483mm, Height upto Lid Top 453 mm					
2 MIPzB 130	130	45	6.8	1.8	9.1
3 MIPzB 195	195	61	9.7	2.4	12.8
4 MIPzB 260	260	77	12.5	3.1	16.5
5 MIPzB 325	325	93	15.3	3.7	20.1
6 MIPzB 390	390	109	18.2	4.5	24.0
7 MIPzB 455	455	125	21	5.1	27.6
8 MIPzB 520	520	141	23.9	5.9	31.5
9 MIPzB 585	585	157	27.3	6.5	35.7
10 MIPzB 650	650	173	30	7.2	39.3
11 MIPzB 715	715	189	33	7.9	43.2
12 MIPzB 780	780	205	35.8	8.6	46.8
13 MIPzB 845	845	221	38.6	9.2	50.5

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 100 Ah. Overall Height 630mm, Height upto Lid Top 600 mm					
2 MIPzB 200	200	45	9.6	2.4	12.7
3 MIPzB 300	300	61	13.7	3.3	17.9
4 MIPzB 400	400	77	17.8	4.2	23.2
5 MIPzB 500	500	93	21.9	5.0	28.4
6 MIPzB 600	600	109	26	6.0	33.8
7 MIPzB 700	700	125	30.1	6.9	39.0
8 MIPzB 800	800	141	34.3	7.9	44.5
9 MIPzB 900	900	157	38.9	8.8	50.2
10 MIPzB 1000	1000	173	42.9	9.7	55.4
11 MIPzB 1100	1100	189	47.2	10.6	60.9
12 MIPzB 1200	1200	205	51.2	11.5	66.0
13 MIPzB 1300	1300	221	55.4	12.4	71.4

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 42 Ah. Overall Height 353mm, Height upto Lid Top 323 mm					
2 MIPzB 84	84	45	4.8	1.3	6.5
3 MIPzB 126	126	61	6.7	1.8	9.0
4 MIPzB 168	168	77	8.6	2.3	11.6
5 MIPzB 210	210	93	10.5	2.8	14.1
6 MIPzB 252	252	109	12.5	3.3	16.8
7 MIPzB 294	294	125	14.4	3.8	19.3
8 MIPzB 336	336	141	16.3	4.3	21.9
9 MIPzB 378	378	157	18.8	4.8	25.0
10 MIPzB 420	420	173	20.7	5.3	27.5
11 MIPzB 462	462	189	22.7	5.8	30.2
12 MIPzB 504	504	205	24.6	6.3	32.8
13 MIPzB 546	546	221	26.5	6.8	35.3

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 75 Ah. Overall Height 543mm, Height upto Lid Top 513 mm					
2 MIPzB 150	150	45	7.7	2.0	10.2
3 MIPzB 225	225	61	10.9	2.7	14.4
4 MIPzB 300	300	77	14.2	3.5	18.7
5 MIPzB 375	375	93	17.4	4.2	22.8
6 MIPzB 450	450	109	20.6	5.0	27.0
7 MIPzB 525	525	125	23.8	5.7	31.2
8 MIPzB 600	600	141	27.1	6.5	35.5
9 MIPzB 675	675	157	30.9	7.2	40.3
10 MIPzB 750	750	173	34	8.0	44.3
11 MIPzB 825	825	189	37.4	8.8	48.7
12 MIPzB 900	900	205	40.6	9.5	52.9
13 MIPzB 975	975	221	43.8	10.3	57.0

Cell Type	Ah @ C ₁ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 108 Ah. Overall Height 716mm, Height upto Lid Top 686 mm					
2 MIPzB 216	216	45	10.6	2.6	14.0
3 MIPzB 324	324	61	15.2	3.6	19.9
4 MIPzB 432	432	77	19.8	4.7	25.8
5 MIPzB 540	540	93	24.3	5.6	31.5
6 MIPzB 648	648	109	28.9	6.7	37.5
7 MIPzB 756	756	125	33.5	7.6	43.4
8 MIPzB 864	864	141	38.1	8.8	49.4
9 MIPzB 972	972	157	43.3	9.7	55.8
10 MIPzB 1080	1080	173	47.7	10.7	61.5
11 MIPzB 1188	1188	189	52.5	11.8	67.7
12 MIPzB 1296	1296	205	57	12.8	73.5
13 MIPzB 1404	1404	221	61.6	13.7	79.3

Dry weight, Filled weight and acid volume can be within +/-2mm Length and Width can vary within +/-1mm

DETAILS OF DIN SPECIFICATION TRACTION CELLS (WIDTH 198 MM)

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 50 Ah. Overall Height 309mm, Height upto Lid Top 279 mm					
2 MIPzS 100	100	47	5.5	1.2	7.0
3 MIPzS 150	150	65	7.8	1.9	10.2
4 MIPzS 200	200	83	10.1	2.5	13.3
5 MIPzS 250	250	101	12.4	3.0	16.4
6 MIPzS 300	300	119	14.8	3.7	19.5
7 MIPzS 350	350	137	17.1	4.3	22.6
8 MIPzS 400	400	155	19.4	4.9	25.7
9 MIPzS 450	450	173	21.8	5.5	28.9
10 MIPzS 500	500	191	24.1	6.1	31.9

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 90 Ah. Overall Height 495mm, Height upto Lid Top 465 mm					
2 MIPzS 180	180	47	9.2	2.0	11.8
3 MIPzS 270	270	65	13.2	3.1	17.2
4 MIPzS 360	360	83	17.1	4.2	22.5
5 MIPzS 450	450	101	21	5.1	27.6
6 MIPzS 540	540	119	25	6.2	33.0
7 MIPzS 630	630	137	28.9	7.2	38.2
8 MIPzS 720	720	155	32.9	8.2	43.5
9 MIPzS 810	810	173	36.8	9.3	48.8
10 MIPzS 900	900	191	40.7	10.2	53.9

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 125 Ah. Overall Height 600mm, Height upto Lid Top 570 mm					
2 MIPzS 250	250	47	12.2	2.5	15.4
3 MIPzS 375	375	65	17.5	3.9	22.5
4 MIPzS 500	500	83	22.8	5.2	29.5
5 MIPzS 625	625	101	28.1	6.4	36.3
6 MIPzS 750	750	119	33.4	7.8	43.4
7 MIPzS 875	875	137	38.7	9.0	50.3
8 MIPzS 1000	1000	155	44	10.3	57.2
9 MIPzS 1125	1125	173	49.3	11.6	64.3
10 MIPzS 1250	1250	191	54.6	12.8	71.1

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 60 Ah. Overall Height 365mm, Height upto Lid Top 335 mm					
2 MIPzS 120	120	47	6.4	1.4	8.2
3 MIPzS 180	180	65	9.1	2.2	12.0
4 MIPzS 240	240	83	11.7	3.0	15.5
5 MIPzS 300	300	101	14.4	3.6	19.1
6 MIPzS 360	360	119	17	4.4	22.7
7 MIPzS 420	420	137	19.7	5.1	26.3
8 MIPzS 480	480	155	22.4	5.8	29.9
9 MIPzS 540	540	173	25	6.6	33.5
10 MIPzS 600	600	191	27.7	7.3	37.1

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 105 Ah. Overall Height 544mm, Height upto Lid Top 514mm					
2 MIPzS 210	210	47	10.3	2.2	13.2
3 MIPzS 315	315	65	14.8	3.5	19.3
4 MIPzS 420	420	83	19.2	4.6	25.2
5 MIPzS 525	525	101	23.6	5.7	30.9
6 MIPzS 630	630	119	28	6.9	36.9
7 MIPzS 735	735	137	32.5	8.0	42.8
8 MIPzS 840	840	155	36.9	9.1	48.7
9 MIPzS 945	945	173	41.4	10.3	54.7
10 MIPzS 1050	1050	191	45.8	11.4	60.6

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 140 Ah. Overall Height 715mm, Height upto Lid Top 685mm					
2 MIPzS 280	280	47	13.9	3.0	17.8
3 MIPzS 420	420	65	20	4.7	26.1
4 MIPzS 560	560	83	26.1	6.3	34.2
5 MIPzS 700	700	101	32.2	7.7	42.1
6 MIPzS 840	840	119	38.3	9.3	50.3
7 MIPzS 980	980	137	44.4	10.8	58.3
8 MIPzS 1120	1120	155	50.5	12.3	66.4
9 MIPzS 1260	1260	173	56.6	14.0	74.6
10 MIPzS 1400	1400	191	62.7	15.4	82.5

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 80 Ah. Overall Height 428mm, Height upto Lid Top 398 mm					
2 MIPzS 160	160	47	8	1.7	10.2
3 MIPzS 240	240	65	11.5	2.7	15.0
4 MIPzS 320	320	83	14.8	3.6	19.4
5 MIPzS 400	400	101	18.2	4.4	23.9
6 MIPzS 480	480	119	21.6	5.4	28.5
7 MIPzS 560	560	137	25	6.2	33.0
8 MIPzS 640	640	155	28.4	7.1	37.5
9 MIPzS 720	720	173	31.8	8.0	42.1
10 MIPzS 800	800	191	35.2	8.8	46.6

Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 115 Ah. Overall Height 574mm, Height upto Lid Top 544mm					
2 MIPzS 230	230	47	11.4	2.3	14.4
3 MIPzS 345	345	65	16.4	3.7	21.1
4 MIPzS 460	460	83	21.3	4.9	27.6
5 MIPzS 575	575	101	26.3	6.0	34.0
6 MIPzS 690	690	119	31.2	7.3	40.6
7 MIPzS 805	805	137	36.2	8.4	37.0
8 MIPzS 920	920	155	41.1	9.6	53.5
9 MIPzS 1035	1035	173	46.1	10.9	60.1
10 MIPzS 1150	1150	191	51.1	12.0	66.5

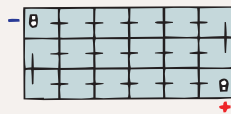
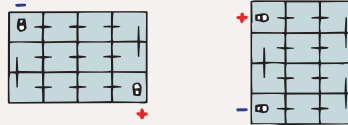
Cell Type	Ah @ C ₂ at 30 Deg C	Length (mm)	Dry Weight (Kg.)	Acid Volume (Ltr.)	Filled Weight (Kg.)
Positive Plate Capacity 155 Ah. Overall Height 745mm, Height upto Lid Top 715mm					
2 MIPzS 310	310	47	14.8	3.2	18.9
3 MIPzS 465	465	65	21.4	4.9	27.8
4 MIPzS 620	620	83	27.8	6.5	36.2
5 MIPzS 775	775	101	34.3	8.1	44.7
6 MIPzS 930	930	119	40.8	9.8	53.4
7 MIPzS 1085	1085	137	47.4	11.3	62.0
8 MIPzS 1240	1240	155	53.9	12.9	70.6
9 MIPzS 1395	1395	173	60.4	14.6	79.3
10 MIPzS 1550	1550	191	66.9	16.1	87.7

Dry weight, Filled weight and acid volume can be within 5% of the nominal value Height of traction cells can be within +/-2mm Length and Width can vary within +/-1mm

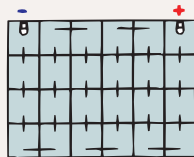
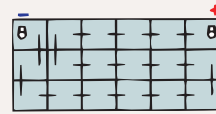
TYPICAL TRACTION BATTERY LAYOUT



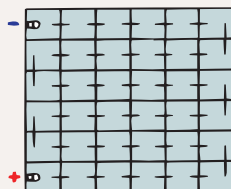
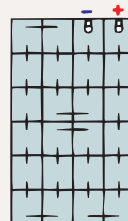
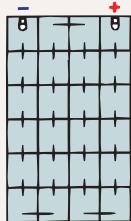
24 VOLTS (12CELLS) BATTERY LAYOUTS



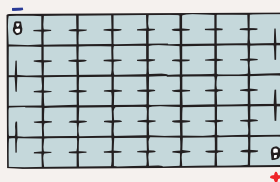
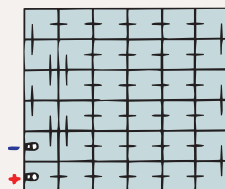
36 VOLTS (18CELLS) BATTERY LAYOUTS



48 VOLTS (24CELLS) BATTERY LAYOUTS



72 VOLTS (36CELLS) BATTERY LAYOUTS



80 VOLTS (40CELLS) BATTERY LAYOUTS



Advanced Antimony Plus[™]

Manufactured by

Microtex Energy P Ltd.

42 & 43, 2nd Main, 2nd Phase, Peenya Industrial Area, Bangalore - 560 058, India

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www.microtexindia.com



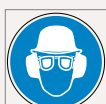
Read instruction
Manual



Completely
recyclable



Hand over to authorised
MOEF recyclers



Protect eyes from
electrolyte



Electrical
Hazard

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