

INNOVATION TECHNOLOGY

# TOTAL SOLUTION UNIKOR BATTERY

## CHALLENGE THE LIMITS

WE WILL BE FULLY COMMITTED TO SATISFYING OUR CUSTOMERS BY FOCUSING ON  
PRODUCTION OF HIGH QUALITY & INNOVATIVE BATTERIES



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# CHALLENGE THE LIMITS

## PROLOGUE

Since established in 1995, UKB has been involved in manufacturing and exporting a wide range of industrial batteries for UPS & Telecommunications, Solar Power System and traction batteries for golf cars, forklifts, sweepers & electric vehicles to approximately 40 countries around the world.

With official JQA & JIS certifications, UKB is the only one battery maker which has successfully supplied to well-known Japanese electric power companies such as Tokyo, Kyushu and Kansai Electric Power Company among Korean & Chinese battery makers.

UKB's core product, tubular type deep cycle batteries are currently exported to 40 countries including Japan after completion of its development in 2006.

In particular, the tubular type batteries which have been applied to traction batteries for the first time in Asia have superior performance in terms of its excellent power and longevity for cost reduction. These advantages brought highly favorable reactions in Japanese & Korean traction battery markets and this is expected to contribute substantially to the company's growth in the near future.

In addition, UKB still maintains a battery plant project team. The team has transferred cutting-edge advanced technologies and know-how for manufacturing batteries & its plants to Iran, India, China, Vietnam & Nigeria and has gained a high reputation as a forerunner of the battery technology. We assure you that our skilled and experienced engineers are always ready to help you with the production of the state-of-the-art batteries wherever you are in the world.

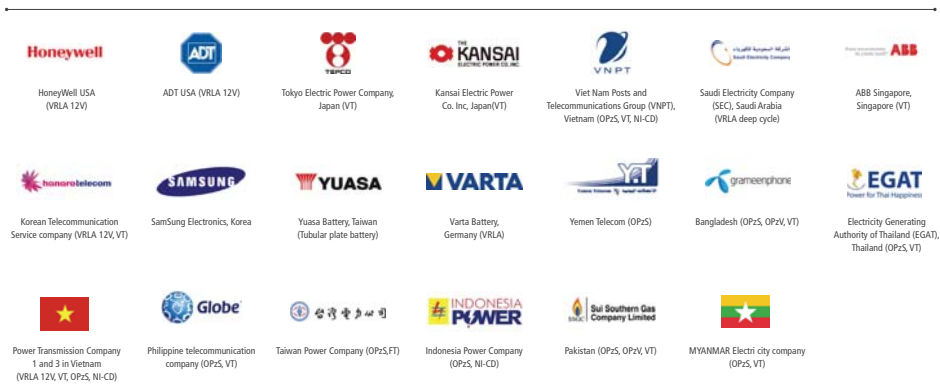
As a highly specialized battery company, we will be fully committed to satisfying our customers by focusing on production of high quality & innovative batteries.

For the details of our UKB products, please feel free to contact us at [ukb@ukbkorea.com](mailto:ukb@ukbkorea.com) or visit us at [www.ukbkorea.com](http://www.ukbkorea.com).

# CERTIFICATES & PATENTS



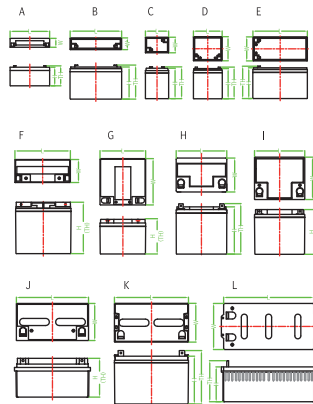
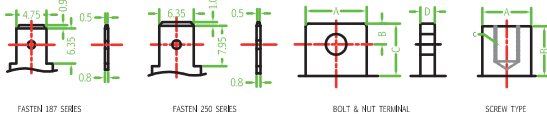
# WORLDWIDE MAJOR CUSTOMERS



# Sealed Valve Regulated Lead Acid VT series Battery

BATTERY MODEL	NOMINAL VOLTAGE (V)	RATED CAPACITY 25°C / 77°F(Ah)		DIMENSIONS				WEIGHT (approx.) (kg/lb)		TERMINAL TYPE	EXTERNAL SHAPE				
		20HR 1.75V / CELL	10HR 1.75V / CELL	LENGHT (±1) (mm/inch)	WIDTH (±1) (mm/inch)	HEIGHT (±2) (mm/inch)	TOTAL HEIGHT (±2) (mm/inch)								
VT6012	6V	1.2AH	1.1	97	3.81	24.5	0.96	52	2.05	58	2.28	0.31	0.68	FASTEN	A
VT604	6V	4AH	3.7	70	2.76	47	1.85	101	3.98	106	4.17	0.73	1.61	FASTEN	C
VT607	6V	7AH	6.5	151	5.94	34	1.34	94	3.70	101	3.98	1.18	2.60	FASTEN	B
VT610	6V	10AH	9.3	151	5.94	51	2.01	94	3.70	99	3.90	1.65	3.64	FASTEN	E
VT12012	12V	12AH	1.1	97	3.82	43	1.69	52	2.05	59	2.32	0.36	0.79	FASTEN	B
VT1202	12V	2AH	1.8	178	7.01	34	1.34	60	2.36	66	2.60	0.95	2.09	FASTEN	E
VT12033	12V	3.3AH	3.0	134	5.28	67	2.64	61	2.40	66	2.60	1.32	2.91	FASTEN	D
VT1204	12V	4AH	3.7	89	3.50	70	2.76	101	3.98	107	4.21	1.40	3.09	FASTEN	E
VT1205	12V	5AH	4.6	89	3.50	70	2.76	101	3.98	107	4.21	1.55	3.42	FASTEN	E
VT1207	12V	7AH	6.5	151	5.94	65	2.56	94	3.70	99	3.90	2.03	4.48	FASTEN	E
VT1210	12V	10AH	9.3	151	5.94	96	3.78	94	3.70	99	3.90	3.15	6.94	FASTEN	E
VT1212	12V	12AH	11.0	151	5.94	99	3.90	94	3.70	99	3.90	3.72	8.20	FASTEN	E
VT1218	12V	18AH	16.6	181	7.13	76	2.99	170	6.69	170	6.69	5.70	12.57	BOLT&NUT	F
VT1224	12V	24AH	22.0	168	6.61	177	6.97	125	4.92	125	4.92	7.80	17.20	BOLT&NUT	G
VT1228	12V	28AH	25.4	165	6.50	126	4.96	175	6.89	175	6.89	9.00	19.84	BOLT&NUT	G

BATTERY MODEL	NOMINAL VOLTAGE (V)	RATED CAPACITY 25°C / 77°F(Ah)		DIMENSIONS				WEIGHT (approx.) (kg/lb)		TERMINAL TYPE	EXTERNAL SHAPE				
		10HR 1.80V / CELL	1HR 1.60V / CELL	LENGHT (±1) (mm/inch)	WIDTH (±1) (mm/inch)	HEIGHT (±2) (mm/inch)	TOTAL HEIGHT (±2) (mm/inch)								
VT1233	12V	33AH	21.4	196	7.72	166	6.54	175	6.89	175	6.89	10.2	22.49	BOLT/SCREW	H
VT1242	12V	42AH	26.8	196	7.72	166	6.54	175	6.89	175	6.89	13.7	30.20	BOLT/SCREW	I
VT1265	12V	65AH	42.3	350	13.78	166	6.54	175	6.89	175	6.89	21.2	46.74	BOLT/SCREW	J
VT1270	12V	70AH	45.5	260	10.24	167	6.57	209	8.23	209	8.23	21.8	48.06	BOLT/SCREW	J
VT1280	12V	80AH	52.0	260	10.24	167	6.57	209	8.23	239	9.41	23.6	52.03	BOLT/SCREW	K
VT1290	12V	90AH	58.5	307	12.09	169	6.65	209	8.23	239	9.41	28.0	61.73	BOLT/SCREW	K
VT12100	12V	100AH	65.0	329	12.95	172	6.77	215	8.46	215	8.46	30.2	66.58	BOLT/SCREW	K
VT12120	12V	120AH	78.0	407	16.02	174	6.85	209	8.23	233	9.17	36.0	79.37	BOLT/SCREW	K
VT12150	12V	150AH	97.5	484	19.06	171	6.73	228	8.98	242	9.53	42.5	93.70	BOLT/SCREW	L
VT12200	12V	200AH	130.0	522	20.55	240	9.45	216	8.50	244	9.61	60.0	132.28	BOLT/SCREW	L
VT12250	12V	250AH	163.0	520	20.47	268	10.55	220	8.66	225	8.86	70.0	154.32	BOLT/SCREW	L



# Sealed Valve Regulated Lead Acid VT series Battery

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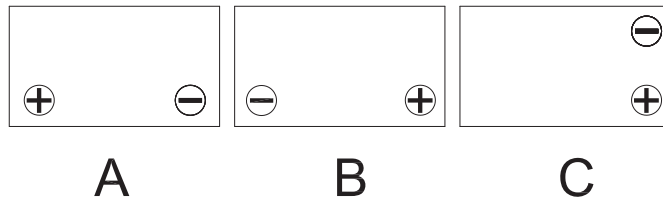
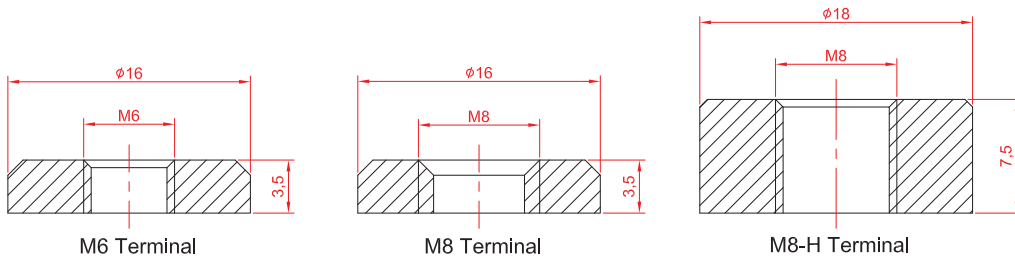


# VRLA Sealed Maintenance Free GEL Battery

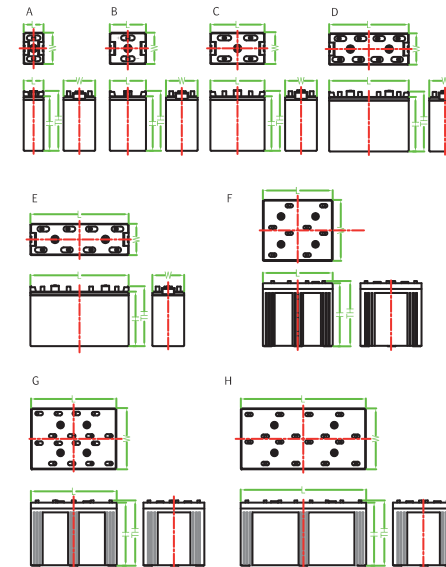
# Long Life Valve Regulated Stationary Battery

BATTERY MODEL	NOMINAL VOLTAGE (V)	RATED CAPACITY 25°C / 77°F(Ah)		DIMENSIONS						WEIGHT (approx.) (kg/lb)		TERMINAL	EXTERNAL SHAPE	
		10HR 1.80V / CELL		LENGTH (±1) (mm/inch)	WIDTH (±1) (mm/inch)	HEIGHT (±2) (mm/inch)	TOTAL HEIGHT (±2) (mm/inch)							
VTG1233	12V	33AH	198	7.80	166	6.54	170	6.69	170	6.69	14.00	30.86	M6	B
VTG1250		50AH	276	10.87	174	6.85	170	6.69	198	7.80	21.00	46.30	M8	B
VTG1265		65AH	310	12.20	174	6.85	209	8.23	236	9.29	30.00	66.14	M8	B
VTG1285		85AH	414	16.30	174	6.85	218	8.58	228	8.98	37.00	81.57	M8	A
VTG12100		100AH	513	20.20	163	6.42	218	8.58	228	8.98	44.00	97.00	M8	C
VTG12120		120AH	513	20.20	232	9.13	218	8.58	228	8.98	52.30	115.30	M8	C
VTG12150		150AH	513	20.20	232	9.13	218	8.58	228	8.98	63.80	140.65	M8	C
VTG12200		200AH	513	20.20	297	11.69	218	8.58	228	8.98	82.80	182.54	M8-H	C

VTG is GEL electrolyte VRLA sealed battery which is produced under advanced GEL battery technics. Thanks to the latest GEL technics and thick grid plate,VTG offers 15 years good floating design life and good deep discharge performance 1,800 cycles at D.O.D. 50%. VTG has wide application to use in Telecommunication station, Electric power station, Solar power system, ESS system and UPS & EPS.



BATTERY MODEL	NOMINAL VOLTAGE (V)	RATED CAPACITY 25°C / 77°F(Ah)		DIMENSIONS				WEIGHT (approx.) (kg/lb)		TERMINAL EXTERNAL TYPE SHAPE					
		10HR 1.80V/CELL	1HR 1.60V/CELL	LENGTH (±2) (mm/inch)	WIDTH (±2) (mm/inch)	HEIGHT (±3) (mm/inch)	TOTAL HEIGHT (±3) (mm/inch)								
VT2100	2V	100AH	65	75	2.95	172	6.77	206	8.11	232	9.13	6.20	13.67	SCREW	A
VT2150	2V	150AH	97.5	107	4.21	172	6.77	328	12.91	350	13.78	9.30	20.50		A
VT2200	2V	200AH	130	107	4.21	171	6.73	334	13.15	344	13.54	13.50	29.76		A
VT2300	2V	300AH	195	155	6.10	175	6.89	350	13.78	368	14.49	19.50	42.99	SCREW	B
VT2400	2V	400AH	260	211	8.31	175	6.89	334	13.15	344	13.54	25.50	56.22	SCREW	C
VT2500	2V	500AH	325	243	9.57	174	6.85	334	13.15	344	13.54	31.0	68.34		C
VT2600	2V	600AH	390	302	11.89	177	6.97	334	13.15	344	13.54	37.5	82.67		C
VT2800	2V	800AH	520	410	16.14	175	6.89	334	13.15	344	13.54	52.50	115.74	BOLT&NUT	D
VT2900	2V	900AH	585	475	18.70	175	6.89	328	12.91	341	13.43	59.50	131.17	BOLT&NUT	E
VT21000	2V	1000AH	650	478	18.82	175	6.89	334	13.15	344	13.54	63.50	139.99		E
VT21500	2V	1500AH	975	401	15.79	351	13.82	340	13.39	350	13.78	97	213.85	BOLT&NUT	F
VT22000	2V	2000AH	1300	490	19.29	350	13.78	340	13.39	350	13.78	122.5	270.06		G
VT23000	2V	3000AH	1950	710	27.95	353	13.9	340	13.39	350	13.78	187	412.26		H



# VRLA Sealed Maintenance Free Carbon Battery

BATTERY MODEL	NOMINAL VOLTAGE (v)	RATED CAPACITY		DIMENSIONS				WEIGHT (approx.) (kg)	TERMINAL TYPE
		25°C	77°F (AH)	L	W	H	TH		
		10HR 1.80V/CELL	1HR 1.60V/CELL	(±1) mm/inch	(±1) mm/inch	(±2) mm/inch	(±2) mm/inch		
VT1240	12V	40AH	26	197/ 7.76	166/6.54	175/6.89	175/6.89	15.8	BULNUT
VT1265	12V	65AH	42.3	350/13.78	166/6.54	174/6.85	174/6.85	22.8	BULNUT
VT1270	12V	70AH	45.5	350/13.78	168/6.54	174/6.85	174/6.85	22.8	BULNUT
VT1280	12V	80AH	52	332/13.07	174/6.85	214/8.43	224/9.41	30	BULNUT
VT1290	12V	90AH	58.5	332/13.07	174/6.85	214/8.43	224/9.41	31	BULNUT
VT12100	12V	100AH	65	332/13.07	174/6.85	214/8.43	224/9.41	33	BULNUT
VT12120	12V	120AH	78	332/13.07	174/6.85	214/8.43	224/9.41	34	BULNUT
VT12150	12V	150AH	97.5	513/20.19	250/9.84	210/8.27	228/9.57	63	BULNUT
VT12200	12V	200AH	130	513/20.19	250/9.84	210/8.27	228/9.57	69	BULNUT

BATTERY MODEL	NOMINAL VOLTAGE (v)	RATED CAPACITY		DIMENSIONS				WEIGHT (approx.) (kg)
		25°C	77°F (AH)	L	W	H	TH	
		10HR 1.80V/CELL	1HR 1.60V/CELL	(±1) mm/inch	(±1) mm/inch	(±2) mm/inch	(±2) mm/inch	
VT2200	2V	200AH	130	107/4.21	172/6.77	328/12.91	350/13.78	33
VT2250	2V	250AH	162.5	151/5.94	172/6.77	328/12.91	346/14.78	40
VT2300	2V	300AH	195	151/5.94	172/6.77	328/12.91	346/14.78	47.8
VT2400	2V	400AH	260	211/8.31	174/6.85	328/12.91	346/14.78	63
VT2500	2V	500AH	325	241/9.49	174/6.85	328/12.91	346/14.78	78
VT2600	2V	600AH	390	241/9.49	174/6.85	328/12.91	346/14.78	88
VT2700	2V	700AH	455	409/16.10	174/6.85	328/12.91	361/14.78	102
VT2800	2V	800AH	520	409/16.10	174/6.85	328/12.91	361/14.78	127
VT2900	2V	900AH	585	475/18.70	175/6.89	328/12.91	362/14.78	142
VT21000	2V	1000AH	585	475/18.70	175/6.89	328/12.91	362/14.78	159

## Carbon-Enhanced VRLA Batteries

Adding carbon to a VRLA battery improves its performance and cycle lifetime compared to conventional VRLA technology, which cycle at a high electrical current while remaining in a partially state of charge operation (PSoC), Improve charge acceptance ability and Reduce the negative plate sulfation.

### Product Features

- Super long cycle lifetime.
- Excellent charge acceptance ability.
- High-low temperature performance good
- Minimal self-discharge
- Reduce sulfation in the negative plate in PSoC conditions
- Improved charge acceptance
- High-performance energy storage solution

### Application

- Solar energy system
- Wind power energy system
- Energy storage system (ESS)
- Solar telecom network system
- Smart grid power system
- DIN 43539-T5:1984
- KS C 8518

### Technical Features

- Rated voltage: 2V and 12V series
- Range of C10 capacity: 12V - 31Ah to 200Ah, 2V – 200Ah to 2000Ah
- Self-discharge: ≤2% per month @25°C
- Life Expectancy @25°C: 50% DOD 2300 / 80% DOD 1200 / 100% DOD 650 cycles
- Recommended equalizing charge voltage: 2.33V per cell @25°C
- Max charge current limitation: 0.25C10 at PSoC
- Operation temperature: -20 to 55°C

### Technical Standards

- IEC 60896-21 / 22: 2004
- IEC 61427-2005



# VRLA Sealed Maintenance Free Carbon Battery

**UKB Co.,Ltd.**  
Unikor Battery co., Ltd.



# Front Access Terminal VRLA Battery

BATTERY MODEL	NORMINAL VOLTAGE (V)	RATED CAPACITY 25°C / 77°F(Ah)		DIMENSIONS								WEIGHT (approx.) (kg/lb)	
		10HR 1.80V / CELL	1 HR 1.75V/CELL	LENGTH (±1) (mm/inch)		WIDTH (±1) (mm/inch)		HEIGHT (±2) (mm/inch)		TOTAL HEIGHT (±2) (mm/inch)			
UFT1255	12	55	33.3	277	10.9	106	4.2	222	8.8	222	8.8		
UFT1280		80	49.2	395	15.6	110	4.3	288	11.3	288	11.3	28	60.6
UFT1295		95	62.8	395	15.6	105	4.1	270	10.6	270	10.6	29	62.8
UFT12100		100	46.6	395	15.6	110	4.3	288	11.3	288	11.3	35	76.1
UFT12100S		100	46.6	395	15.6	110	4.3	288	11.3	288	11.3	33	73.1
UFT12105		105	64.6	508	20.0	110	4.3	238	9.4	238	9.4	35	78.0
UFT12125		125	77.1	551	21.7	110	4.3	288	11.3	288	11.3	40	87.1
UFT12150		150	92.7	551	21.7	110	4.3	288	11.3	288	11.3	48	106.5
UFT12150S		150	88.9	551	21.7	110	4.3	288	11.3	288	11.3	46	101.4
UFT12165		165	99	551	21.7	110	4.3	288	11.3	288	11.3	49	108.0
HFT12100		100	61.5	558	22.0	125	4.9	230	9.1	230	9.1	39	83.8
HFT12100S		100	70	558	22.0	125	4.9	230	9.1	230	9.1	36	80.0
HFT12105		100	73	558	22.0	125	4.9	230	9.1	230	9.1	37	80.5
HFT12110		100	73.5	558	22.0	125	4.9	230	9.1	230	9.1	37	80.5
HFT12125		125	80.7	558	22.0	125	4.9	270	10.6	270	10.6	45	99.6
HFT12150		150	105.2	558	22.0	125	4.9	311	12.2	311	12.2	55	120.2
HFT12150S		150	105.2	546	21.5	125	4.9	311	12.2	311	12.2	55	120.2
HFT12160		160	100	558	22.0	125	4.9	311	12.2	311	12.2	55	121.3
HFT12180		180	113.4	558	22.0	125	4.9	311	12.2	311	12.2	55	121.3

FT series batteries are special designed front terminal battery for 23' and 19' power supply cabinet, high Sn low Ca alloy, AGM valve regulated technics, high efficiency recombination theory are adopted, succeeded in battery sealing and free maintenance, the battery has long service life, including two types FTA and FTB.

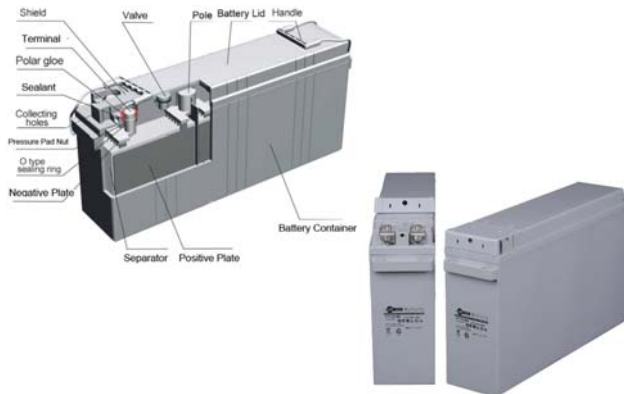
Usually, 4 pcs batteries compose 48V system, positive and negative terminal and vent hole are on front. It is convenient for installation, maintenance and measurement, saving space, central exhaust system could make battery internal gas vented to outdoor enhance the system safety and reliability.

### Product Features

- Capacity range : 55Ah~180Ah
- Voltage class : 12V
- Low self-discharge rate : ≤ 1.5%/month
- Good discharge performance at high discharge rate
- Long design life (25°C) : 12 years for FTA 10 years for FTB
- High sealed reaction efficiency : ≥98%
- Wide operation temperature range : -15oC~50oC

### Compliant Standards

- ICE60896-21/22:2004,
- BS 6290-4:1997,
- YD/T799-2002,
- Passed ISO9001, ISO14001, OHSAS18001, UL, CE certificate



# Front Access Terminal VRLA Battery

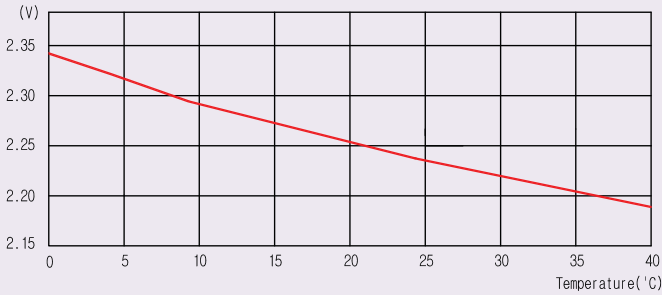
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Unikor Battery co., Ltd.



# VRLA Tubular Maintenance Free Gel Battery

BATTERY MODEL	Voltage	Rated Capacity (Ah)			Dimension (mm)				NOs. OF POST	WEIGHT (Kg)
		10HR	5HR	1HR	Final Voltage (V)					
		1.80	1.70	1.60	L	W	H	TH		
OPzV 150	2	150	121	98	104	207	356	385	2	15.2
OPzV 200		200	162	130	104					18.3
OPzV 250		250	202	163	125					22.2
OPzV 300		300	243	195	146					25.7
OPzV 350		350	283	228	125					28.5
OPzV 420		420	340	273	146					34.0
OPzV 490		490	396	319	167	38.0				
OPzV 600		600	486	390	146	47.0				
OPzV 800		800	648	520	192	63.0				
OPzV 1000		1000	810	650	234	77.8				
OPzV 1200		1200	972	780	276	91.5				
OPzV 1500		1500	1215	975	276	112.0				
OPzV 2000		2000	1620	1300	400	154.0				
OPzV 2500		2500	2025	1625	488	188.0				
OPzV 3000		3000	2430	1950	577	223.0				

## FLOATING CHARGE VOLTAGE

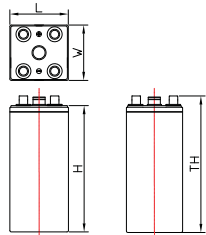


## APPLICATION

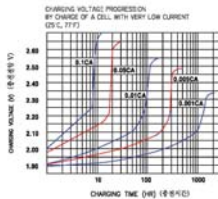
Including TELECOM STATION, RAILWAY STATION, POWER PLANT, UPS, SOLAR AND WIND POWERED SYSTEM, VT series VRLA stationary GEL battery designed to supply electric power, standby power supplying and renewable energy storage as well.

## FEATURES OF GEL BATTERY

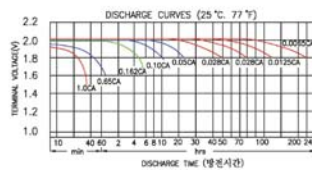
- The service life is expected to be 12~15 years at 25°C temperature.
- With no specific gravity difference depend on battery height position (bottom part and upper part), the GEL electrolyte improves electro-chemical specific character of battery and it makes longer durability of battery composition.
- Through using GEL electrolyte, battery could be minimized various difficulties including electrolyte leakage which it may possible to be happened during sealed operation and storing.
- Thanks to extremely low electrolyte concentration, it has faint erosive effects on plates and longer battery.



### TYPICAL CHARGING VOLTAGE PROGRESSION



### TYPICAL DISCHARGE CHARACTERISTIC VALUES



# VRLA Tubular Maintenance Free Gel Battery

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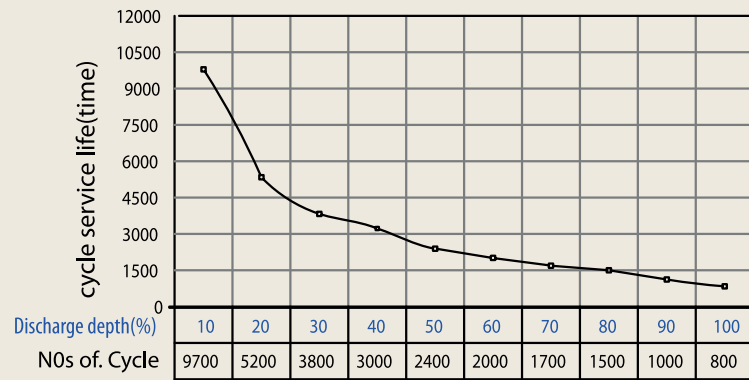
# Vented Tubular Stationery OPzS Battery

Model	Voltage	10HR Capacity		Dimension (mm)				Weight (Kg)	
		(Ah) FV. 1.80V	L	W	H	TH	Dry	Wet	
4-OPzS-200	2	200	103	206	354	409	13.2	17.2	
5-OPzS-250		250	124	206	354	409	16.2	20.8	
6-OPzS-300		300	145	206	354	409	19.2	24.3	
5-OPzS-350		350	124	206	470	525	19.4	26.9	
6-OPzS-420		420	145	206	470	525	23.4	31.5	
7-OPzS-490		490	166	206	470	525	27.4	36.1	
6-OPzS-600		600	145	206	645	700	33.9	44.8	
8-OPzS-800		800	191	210	645	700	45.3	61.3	
10-OPzS-1000		1000	233	210	645	700	55.5	74.6	
12-OPzS-1200		1200	275	210	645	700	65.8	88.0	
12-OPzS-1500		1500	275	210	795	850	87.0	114.3	
16-OPzS-2000		2000	399	214	771	826	123	116	
20-OPzS-2500		2500	487	212	771	826	152	204	
24-OPzS-3000		3000	576	212	771	826	179	242	

# Vented Tubular Stationery OPzS Battery

**UKB Co.,Ltd.**  
Unikor Battery co., Ltd.

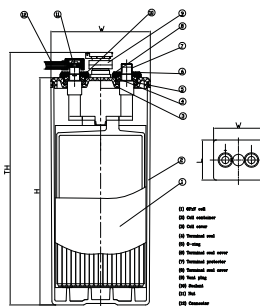
Relation curve between discharge depth and cycle service life



This battery is tubular type in which the active material is packed into parallel microporous tubes containing a central lead-antimony alloy spine. This construction gives high active material efficiency and long cycle life.

## APPLICATION

- TELECOM STATION
- WIND & SOLAR POWER STATION
- POWER STATION, SUB STATION, NUCLEAR POWER PLANT
- LIGHTHOUSE, RAILWAY STATION



Type of 20V size plate: 55Ah, 70Ah, 100Ah, 125Ah. HYUN 07.05.18



ADDRESS: A 701-1 Digital Empire, 387 Simin-Daero, Dongan-Gu, Anyang-Si, Gyeonggi-Do, Korea #431-804 TEL: (+82-31) 8086-7610/1 FAX: (+82-31) 8086-7612 E-Mail:ukb@ukbkorea.com Homepage: www.ukbkorea.com



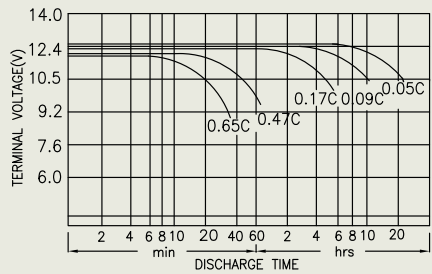


# Tubular MF Solar Power Battery

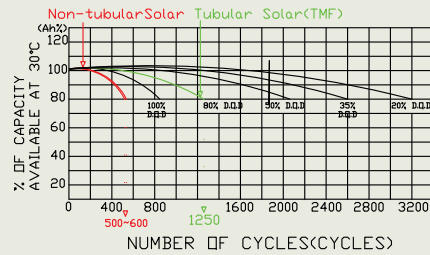
Flooded electrolyte maintenance free

TYPE	RATED VOLTAGE (V)	RATED VOLTAGE (V)			OVERALL DIMENSION (mm)				TYPE OF TERMINAL	WEIGHT (Kg)
		20AH	5HR	1HR	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT		
		FINAL VOLTAGE (V)								
1.75	1.70	1.60								
TMF1250	12	50	42	30	229	178	182	220	B&N	15
TMF1270	12	70	57	42	259	176	202	220	B&N	22
TMF12100	12	100	82	60	404	171	199	220	B&N	31
TMF12120	12	120	102	72	506	180	208	231	B&N	40
TMF12150	12	150	127	90	506	221	210	233	B&N	48
TMF12200	12	200	170	120	515	265	215	238	B&N	62
TMF12250	12	250	213	150	527	282	225	260	B&N	64

DISCHARGE CURVES (30°C, 86°F)



CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



## RELATION BETWEEN DOD AND LIFE SPAN

Depth of DCHG. (%)	Nos. of Cycle	Life Span (Year)
100	800	2.7
90	1050	3.5
80	1250	4.2
70	1450	4.8
60	1700	5.7
50	2050	6.8
35	2600	8.7
20	3200	10.7

## SOLAR SYSTEM CONTROL WITH BATTERY

*Charging Voltage Control	
Boost Charging Voltage	14.8V
Equalizing Chrg. Voltage	14.4V
Float Charging Voltage	13.6
*Allow Load Control Voltage	
Load Disconnected	11.0V
Load Reconnected	12.6V



# Tubular MF Solar Power Battery

Flooded electrolyte maintenance free

**UKB Co.,Ltd.**  
Unikor Battery co., Ltd.



# Tubular MF Positive Monoblock (EB EG ES) Deep Cycle Bttery

## TUBULAR POSITIVE MONOBLOCK DEEP CYCLE SERIES

### APPLICATION(적용)

UNIKOR'S advanced technology of tubular plates and new construction method ensures you longer service life of your Electric Traction and Solar Power System.

### Where to use(용도)

Golf Car, Golf Cart, Electric Vehicles, Small Traction Vehicle.  
Life-car, Electric Car, Electric Wheel-chair, Sweeper, Aerial Work Platform, Recreational Vehicle, etc.

### CONSTRUCTION FEATURES (튜브식 축전지의 구조적 특징)



Tubular Positive Plate

### Product Features

- Capacity range : 55Ah~180Ah
- Voltage class : 12V
- Low self-discharge rate : ≤ 1.5%/month
- Good discharge performance at high discharge rate
- Long design life (25°C) : 12 years for FTA 10 years for FTB
- High sealed reaction efficiency : ≥98%
- Wide operation temperature range : -15°C ~50°C

### BATTERY PLATE (극판)

Positive plates are of the tubular type in which the active material is packed into parallel micro-porous tubes containing a central Lead-antimony alloy spine. This construction gives material efficiency and long life.

### SEPARATOR (격리판)

Low resistant porous synthetics rubber separator and micro-fiber glass-mat application.

### CONTAINER (전조)

Containers are made of high heat resistance PP plastic for light weight, extra durability and visibility of electrolyte level.

### VENT PLUG (주액마개)

Vent plug contains a porous PP filter to prevent acid spray and to protect the battery from external spark and flames.

- AUTO WATER FILLING SYSTEM (자동 주액장치)

## EB Series (Traction) Battery – 전기차 배터리

BATTERY	TYPE	VOLT AGE (V)	CAPACITY (AH) 5HR 1.70VPC	OVERALL DIMENSION (mm)				WEIGHT (kg)		CHRG CURRENT(A)		TERMINAL	
				L (±3mm)	W (±3mm)	H (±3mm)	TH (±3mm)	WET	DRY	INITIAL	FINAL	TYPE	LAYOUT
1225EB	EB25	12	25	197	129	202	227	10	7.5	6	2	T	A
1235EB	EB35	12	35	238	129	202	227	13	9.3	8	2	T	A
1250EB	EB50	12	50	260	173	202	234	20	17	11	3	T,L	B,C
1265EB	EB65	12	65	305	173	205	236	22.5	18	15	4	T,L	B,C
1290EB	EB90	12	90	409	173	212	244	31	23.5	20	5	T,L	B,C
12100EB	EB100	12	100	409	173	212	244	33.5	24.5	23	6	T,L	B,C
12120EB	EB120	12	120	504	182	212	258	40	28	27	7	T,L	D,E
12130EB	EB130	12	130	504	182	212	258	42.5	32	29	8	T,L	D,E
12145EB	EB145	12	145	508	223	213	259	48.5	34.5	33	9	T,L	D,E
12160EB	EB160	12	160	508	223	213	259	51	35.5	36	10	T,L	D,E
12250EB	EB250	12	250	527	282	225	260	82	63	61	15	T,L	D,E

# Tubular MF Positive Monoblock (EB EG ES) Deep Cycle Bttery

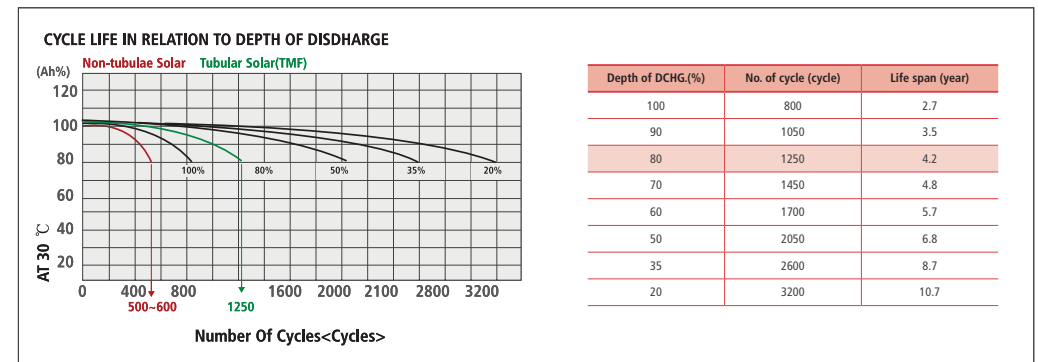
## EG(EBC) GOLF CAR BATTERY – 골프카용 배터리

BATTERY	TYPE	VOLT AGE (V)	CAPACITY (AH)		OVERALL DIMENSION (mm)				WEIGHT (kg)		TERMINAL	
			5HR 1.70V	20HR 1.75V	L	W	H	TH	WET	DRY	TYPE	LAYOUT
EG6195	GC-160	6	160	195	259	182	247	289	29	22	V	A
EG6220		6	180	220	259	182	247	289	30	22.5	L	B
EG6225	GC2-105	6	185	225	245	188	250	285	31	23	L	B
EG6240	GC2-125	6	200	240	259	182	265	306	34	26	L	B
EG6250		6	210	250	247	192	252	288	34	26	L	B
EG6260	GC215	6	220	260	247	192	282	318	36	27	L	B
EG6300		6	245	300	362	172	252	310	39	31	L	B
EG8180		8	160	180	262	182	246	290	32	26	V,L	D
EG8240A		8	200	240	262	182	295	336	33.5	27.5	V,L	C
EG8240B		8	200	240	262	182	280	320	33.5	27.5	V,L	C
EG1268		12	56	68	387	116	206	235	33.5	27.5	M	D
EG1285	EC-FV1268	12	70	85	387	116	225	255	24	18	M	D
EG12105	EC-FV0890	12	85	105	326	174	226	255	31	24	L	E
EG12120		12	100	120	362	172	222	258	33.5	28	L	E
EG12150	Trojan 1275	12	120	150	362	172	249	284	39	33	L	E

## ES Series (SOLAR P.V & IPS) BATTERY – 쉐라 시스템용 배터리

Type of Battery	Nominal Voltage (V)	Capacity(Ah)		Overall Dimension (mm)				Weight With Liquid (kg)
		20HR. 1.75V/cell	5HR 1.70V/cell	Length (L)	Width (W)	Height (H)	Total Height (TH)	
1226ES	12	26	22	185	117	172	212	10
1236ES		36	31	198	128	205	234	12
1245ES		45	38	259	169	198	230	15
1270ES		70	60	306	170	205	235	23
1290ES		90	76	356	170	217	252	27
2120ES		120	102	356	170	217	276	40.5
12150ES		150	127	513	269	201	223	45
12200ES		200	170	514	265	220	245	62

## LIFE CYCLE SERVICE – 수명 특성



# Nickel Cadmium Alkaline Battery

## UNIKOR VT SERIES Ni-Cd BATTERY

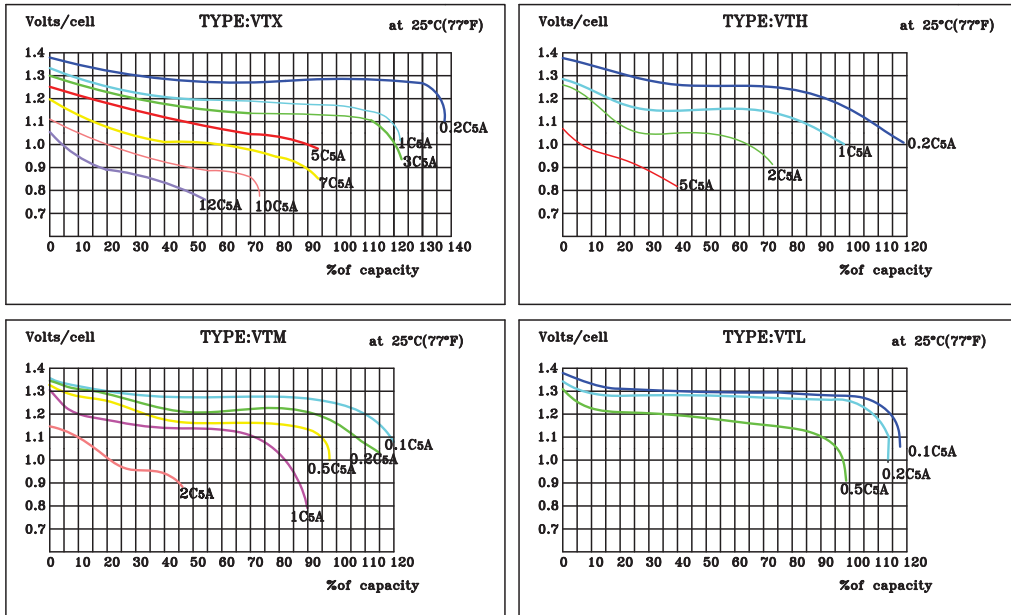
BATTERY MODEL	NORMINAL Voltage (V)	NORMINAL CAPACITY (AH)	CELL DIMENSIONS (mm)			Thread of pole	CELL WEIGHT (Filled) (Kg)	ELECTROLYTE VOLUME (L)	Container Material
			L	W	H				
VTM10	1.2	10	82	43	258	M10	1.0	0.5	MBS
VTM20	1.2	20	135	54	265	M10	1.9	0.6	MBS/PP
VTM20-(2)	1.2	20	114	52	266	M10	2.1	0.7	MBS
VTM30	1.2	30	135	54	265	M10	2.4	0.6	MBS/PP
VTM40	1.2	40	141	71	295	M10	3.6	1.0	PP
VTM40-(2)	1.2	40	143	76	275	M10	3.4	0.9	MBS
VTM45	1.2	45	86	86	273	M10	3.2	0.7	PP
VTM50	1.2	50	139	79	295	M10	5.0	1.3	MBS
VTM50-(2)	1.2	50	143	76	275	M10	4.3	0.9	PP
VTM50-(3)	1.2	50	141	71	295	M10	5.0	1.3	MBS
VTM60	1.2	60	142	80	370	M10	6.0	1.8	MBS
VTM60-(2)	1.2	60	141	71	295	M10	4.4	1.0	PP
VTM60-(3)	1.2	60	143	76	275	M10	4.6	1.1	MBS
VTM70	1.2	70	139	79	295	M10	6.3	1.7	MBS
VTM70-(3)	1.2	70	143	76	275	M10	4.9	1.0	MBS
VTM75	1.2	75	139	79	362	M16	6.5	1.4	MBS/PP
VTM80	1.2	80	139	79	362	M16	6.6	1.4	MBS/PP
VTM100	1.2	100	164	106	346	M10	9.0	2.1	MBS
VTM120	1.2	120	164	106	346	M10	9.5	2.1	MBS
VTM150	1.2	150	167	165	346	M10	13.0	3.7	MBS
VTM200	1.2	200	167	165	346	M10	14.5	3.3	MBS
VTM250	1.2	250	282	170	348	M20X1.5	16.0	3.3	MBS
VTM250-(2)	1.2	250	176	161	540	M16	16.0	3.3	MBS
VTM300	1.2	300	282	170	348	M20X1.5	26.0	6.0	MBS
VTM300-(2)	1.2	300	176	161	540	M20X1.5	22.6	5.0	MBS
VTM400	1.2	400	278	139	490	M10	27.0	4.2	MBS
VTM500	1.2	500	292	176	510	M10	40.0	9.1	MBS
VTM600	1.2	600	292	176	510	M10	42.0	8.3	MBS
VTM700	1.2	700	395	185	560	M20X1.5	55.0	11.5	MBS
VTM800	1.2	800	395	186	185	M20X1.5	60.0	16.0	MBS
VTM900	1.2	900	395	186	185	M20X1.5	64.0	14.7	MBS
VTM1000	1.2	1000	395	186	185	M20X1.5	65.0	13.0	MBS
VTM1100	1.2	1100	395	186	185	M20X1.5	65.0	13.0	MBS
VTM1200	1.2	1200	395	186	185	M20X1.5	65.0	13.0	MBS

# Nickel Cadmium Alkaline Battery

## UNIKOR VT SERIES Ni-Cd BATTERY

**UKB Co.,Ltd.**  
Unikor Battery co., Ltd.

Discharging Curves Nominal Voltage: 1.2V/Cell



# Nickel Cadmium Alkaline Battery

## UNIKOR VT SERIES Ni-Cd BATTERY

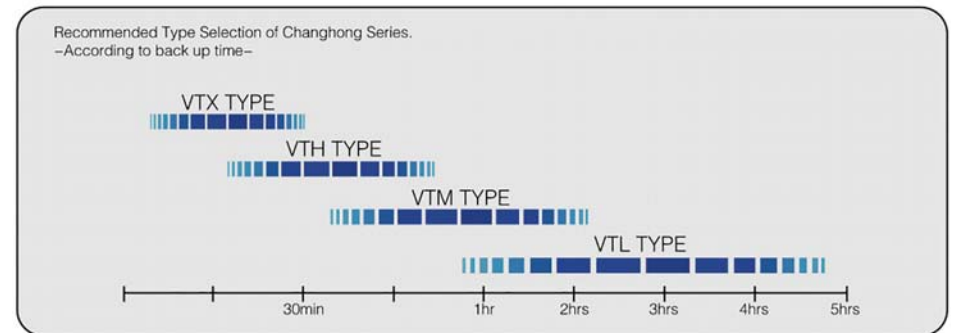
Cell MODEL	NORMINAL Voltage (V)	NORMINAL CAPACITY (AH)	CELL DIMENSIONS (mm)			Thread of pole	WEIGHT (Filled) (Kg)	ELECTROLYTE VOLUME (L)	Container Material
			L	W	H				
VTL10	1.2	10	85	39	156	M8	1.0	0.5	PP
VTL20	1.2	20	114	52	266	M10	2.0	0.6	MBS
VTL20 (-2)	1.2	20	82	258	258	M10	1.3	0.3	MBS
VTL20 (-3)	1.2	20	135	54	265	M10	1.8	0.58	MBS/PP
VTL22	1.2	22	112	31	220	M8	1.2	0.3	MBS
VTL30 (-2)	1.2	30	135	54	265	M10	2.0	0.5	MBS/PP
VTL30	1.2	30	114	52	266	M10	2.2	0.5	MBS
VTL40	1.2	40	114	52	266	M10	2.3	0.42	MBS
VTL40 (-2)	1.2	40	135	54	265	M10	2.4	0.5	MBS/PP
VTL40 (-3)	1.2	40	141	66	226	M10	2.6	0.5	PP
VTL45	1.2	45	138	61	266	M10	3.0	0.85	MBS
VTL45 (-2)	1.2	45	141	66	226	M10	2.8	0.7	PP
VTL50 (-2)	1.2	50	141	71	295	M10	3.5	0.9	PP
VTL50	1.2	50	138	61	266	M10	3.2	0.7	MBS
VTL60	1.2	60	143	76	275	M10	4.0	1.1	MBS
VTL60 (-2)	1.2	60	135	53	370	M10	3.9	1	PP
VTL60 (-3)	1.2	60	141	71	295	M10	4.0	0.9	PP
VTL60 (-4)	1.2	60	139	79	295	M10	4.3	1.13	MBS
VTL65	1.2	65	143	76	295	M10	4.7	1.1	MBS
VTL70	1.2	70	139	79	295	M10	4.4	1	MBS
VTL70 (-2)	1.2	70	141	71	295	M10	4.3	0.8	PP
VTL70 (-3)	1.2	70	143	76	275	M10	4.3	1	MBS
VTL70	1.2	70	139	79	295	M10	4.4	1	VTL70
VTL80	1.2	80	143	76	275	M10	4.7	0.95	MBS
VTL80(-1)	1.2	80	141	71	295	M10	4.6	0.9	PP
VTL80(-2)	1.2	80	139	79	295	M10	4.7	1	MBS
VTL90	1.2	90	139	79	362	M10	5.9	1.4	MBS/PP
VTL100 (-2)	1.2	100	139	79	362	M10	6.0	1.4	MBS/PP
VTL100 (-3)	1.2	100	143	100	280	M10	6.0	1.4	MBS
VTL 120	1.2	100	143	100	362	M10	6.0	1.4	MBS/PP
VTL120(-2)	1.2	100	142	80	366	M10	6.2	1.6	MBS
VTL125	1.2	110	143	100	280	M10	6.0	1.4	MBS
VTL150	1.2	150	164	106	345	M20x1.5	9.0	2.5	MBS/PP
VTL175	1.2	175	167	162	345	M20x1.5	12.5	3.25	MBS
VTL200	1.2	200	164	106	345	M20x1.5	10.0	1.8	MBS
VTL250	1.2	250	168	165	345	M20x1.5	21.0	5.2	MBS
VTL300	1.2	300	282	170	348	M20x1.5	24.0	4.5	MBS
VTL300(-2)	1.2	300	176	161	540	M20x1.5	20.5	4.7	MBS
VTL300(-3)	1.2	300	277	145	450	M16	21.0	5.2	PP
VTL400	1.2	400	170	152	385	M10	33.6	7.8	MBS
VTL500	1.2	500	277	138	490	M10	34.0	7.5	MBS
VTL600	1.2	600	291	176	510	M10	40.0	9.2	MBS
VTL800	1.2	800	399	186	570	M10	57.5	15.5	MBS
VTL900	1.2	900	399	186	570	M10	67.5	17	MBS
VTL1000	1.2	1000	399	186	570	M10	70.0	18.5	MBS
VTL1100	1.2	1100	399	186	570	M10	76.0	20	MBS
VTL1200	1.2	1200	399	186	570	M10	82.0	21.5	MBS

BATTERY MODEL	NORMINAL Voltage (V)	NORMINAL CAPACITY (AH)	CELL DIMENSIONS (mm)			Thread of pole	CELL WEIGHT (Filled) (Kg)	ELECTROLYTE VOLUME (L)	Container Material
			L	W	H				
VTH10	1.2	10	135	54	266	M10	2.2	0.8	ABS/PP
VTH20	1.2	20	135	54	266	M10	2.6	0.6	ABS/PP
VTH30	1.2	30	143	52	275	M10	2.9	0.7	ABS
VTH40	1.2	40	143	76	275	M10	4.3	1.3	ABS
VTH50	1.2	50	139	79	362	M16	6.0	1.5	ABS
VTH60	1.2	60	143	100	275	M16	6.7	1.3	PP
VTH60	1.2	60	139	79	373	M16	6.3	1.3	PP
VTH70	1.2	70	143	100	275	M20	6.7	1.2	1.2
VTH80	1.2	80	165	105	346	M20X1.5	9.2	2.0	ABS/PP
VTH90	1.2	90	165	105	345	M20X1.5	9.3	2.0	ABS/PP
VTH100	1.2	100	165	105	345	M20X1.5	13.5	3.6	ABS
VTH100	1.2	100	167	162	345	M20X1.5	13.3	3.6	ABS
VTH150	1.2	150	282	170	348	M20X1.5	2.0	6.2	ABS
VTH200	1.2	200	292	177	510	M20X1.5	22.0	10.7	ABS
VTH250	1.2	250	165	128	401	M20X1.5	16.2	3.5	ABS
VTH300	1.2	300	282	170	348	M20X1.5	27.0	6.0	ABS
VTH400	1.2	400	285	170	490	M20X1.5	36.0	10.0	ABS
VTH400	1.2	400	395	185	560	M20X1.5	37.0	9.0	ABS

# Nickel Cadmium Alkaline Battery

## UNIKOR VT SERIES Ni-Cd BATTERY

BATTERY MODEL	NORMINAL Voltage (V)	NORMINAL CAPACITY (AH)	CELL DIMENSIONS (mm)			Thread of pole	WEIGHT (Filled) (Kg)	ELECTROLYTE VOLUME (L)	Container Material
			L	W	H				
VTX5	1.2	5	81	26	163	M8	0.51	0.031	MBS
VTX10	1.2	10	81	26	163	M10	0.62	0.060	MBS
VTX10(-2)	1.2	10	81	34	266	M8	1.07	0.13	MBS
VTX10(-3)	1.2	10	81	26	163	M8	0.6	0.060	MBS
VTX10(-5)	1.2	10	81	26	163	M8	62.00	0.060	MBS
VTX20	1.2	20	81	34	266	M8	1.25	0.12	MBS
VTX20(-4)	1.2	20	81	34	266	M10	1.25	0.12	MBS
VTX20(-6)	1.2	20	81	34	266	M10	1.25	0.12	MBS
VTX20(-8)	1.2	20	138	61	266	M10	2.8	0.5	MBS
VTX20(-10)	1.2	20	81	43	266	M10	1.70	0.17	MBS
VTX20(-11)	1.2	20	138	61	266	M10	2.75	0.53	MBS
VTX30	1.2	30	81	43	266	M10	1.75	0.210	MBS
VTX40	1.2	40	81	43	266	M10	1.85	0.2	PP
VTX40	1.2	40	80	35	235	M5	1.50	16.000	Nylon
VTX40(-5)	1.2	40	81	43	266	M10	1.85	0.2	MBS
VTX40(-7)	1.2	40	138	61	266	M10	3.3	0.5	MBS
VTX40(-9)	1.2	40	100	85	138	M10	1.6	0.2	MBS
VTX40(-10)	1.2	40	81	43	266	M10	1.86	0.18	MBS
VTX40(-11)	1.2	40	138	61	266	M10	3.25	0.55	MBS
VTX50	1.2	50	81	50	266	M10	2.14	0.25	MBS
VTX50(-2)	1.2	50	138	61	266	M10	3.5	0.53	MBS
VTX60	1.2	60	81	50	266	M16	2.2	0.24	MBS
VTX60(-2)	1.2	60	139	62	267	M16	4.00	0.4	MBS
VTX70	1.2	70	139	62	267	M16	4.00	0.4	MBS
VTX80	1.2	80	139	62	267	M16	4.20	0.35	MBS
VTX80	1.2	80	86	86	305	M10	3.2	0.45	PP
VTX80	1.2	80	139	62	267	M10	3.8	0.6	PP
VTX90	1.2	90	139	62	267	M16	4.3	0.33	MBS
VTX100	1.2	100	138	61	266	M16	4.3	0.25	MBS
VTX100(-2)	1.2	100	139	79	291	M16	5.5	1.4	MBS
VTX110	1.2	110	138	61	266	M16	4.5	0.850	MBS
VTX110(-2)	1.2	110	139	79	291	M16	5.5	1.4	MBS
VTX120	1.2	120	138	61	266	M16	4.6	0.25	MBS
VTX120(-5)	1.2	120	139	79	291	M16	5.5	1.4	MBS
VTX130(-2)	1.2	130	139	79	291	M16	5.6	1.4	MBS
VTX140	1.2	140	165	105	350	M20	9.50	1.9	MBS
VTX140(-2)	1.2	140	139	79	362	M16	6.60	1.2	MBS
VTX140(-3)	1.2	140	139	79	291	M16	9.2	1.8	MBS
VTX150	1.2	150	165	105	350	M20	9.5	1.9	MBS
VTX150(-2)	1.2	150	139	79	362	M16	9.3	1.85	MBS
VTX150(-3)	1.2	150	165	79	291	M16	9.00	1.8	MBS
VTX160	1.2	160	139	105	350	M20	8.2	1.44	MBS
VTX160(-2)	1.2	150	139	79	362	M16	9.5	1.85	MBS
VTX170	1.2	170	165	105	350	M20	9.5	1.9	MBS
VTX170(-2)	1.2	170	139	79	362	M16	10.00	1.95	MBS
VTX170(-5)	1.2	170	139	79	362	M16	9.8	1.95	MBS
VTX190	1.2	190	165	105	350	M20	9.9	1.95	MBS
VTX210	1.2	210	165	105	350	M20	10.5	1.9	MBS
VTX230	1.2	230	166	162	343	M16	13.00	3.000	MBS
VTX250	1.2	250	166	162	343	M16	13.00	2.8	MBS



## Motive Power Lead Acid Traction Battery

Battery Type	Rated Capacity(Ah)		Overall Dimension(mm)				Weight(kg)		Post Q/Y		
	Shr	ehr	W	H	TH	DRY	WET				
VCA	180	180	-	109	158	295	328	9.5	12	2	
	216	216	-	109	158	295	328	11.8	14.8	2	
	238	238	-	141	158	295	328	12.8	16	2	
	252	252	-	125	158	295	328	13.5	17	2	
	288	288	-	141	158	295	328	15.7	19.5	2	
	324	324	-	157	158	295	328	17.5	22	2	
	360	360	-	173	158	295	328	21	24.5	2	
	120	120	-	61	158	328	361	6.6	8.2	2	
	160	160	-	77	158	328	361	8.7	10.8	2	
	200	200	-	93	158	328	361	10.5	13.5	2	
VCC	240	240	-	109	158	328	361	12.5	16	2	
	280	280	-	125	158	328	361	14.8	18.6	2	
	320	320	-	141	158	328	361	17.2	21.5	2	
	360	360	-	157	158	328	361	19	24	2	
	400	400	-	173	158	328	361	21.5	27	2	
	6	280	-	125	158	348	381	13.6	17.1	2	
	8	360	-	141	158	348	381	19	24	2	
	12	516	-	241	158	348	381	27.7	34.8	2	
	150	150	170	61	158	395	428	9.2	11.5	2	
	3A	165	-	61	158	399	426	10.1	12.6	2	
VCD	200	200	-	77	158	395	428	10.4	13.2	2	
	40N	216	-	33	158	399	426	11.2	14.2	2	
	250	250	-	93	158	395	428	12.5	16.5	2	
	270	250	270	109	158	395	428	12.6	17	2	
	300	300	-	109	158	395	428	15	19.6	2	
	320	320	-	125	158	374	407	16	20.9	2	
	350	350	-	125	158	395	428	17.4	22.6	2	
	360	360	-	125	158	374	407	17.9	23.2	2	
	400	400	-	141	158	395	428	19.7	25.5	2	
	450	450	-	157	158	395	428	23.2	29.5	2/4	
VCDH	500	500	-	173	158	395	428	24.6	32	2/4	
	550	550	-	185	158	395	428	27.2	34.5	4	
	600	600	-	204	158	395	428	29.5	37.5	4	
	175	175	-	61	158	409	442	8.9	11	2	
	232	232	-	77	158	409	442	11.5	14.5	2	
	290	290	-	93	158	409	442	14.3	17.8	2	
	350	350	-	109	158	409	442	17.2	21.5	2	
	400	400	-	125	158	409	442	20.2	25	2	
	460	460	-	141	158	409	442	22.5	28	2/4	
	520	520	-	157	158	409	442	25.7	32	2/4	
VCE	580	580	-	173	158	409	442	28.4	35.5	2/4	
	630	630	-	185	158	409	442	30.5	38.5	4	
	700	700	-	204	158	409	442	34	42.5	4	
	180	180	-	61	158	453	486	9.8	12.3	2	
	240	240	-	77	158	453	486	13	16.2	2	
	300	300	-	93	158	453	486	15.4	19.5	2	
	360	360	-	109	158	453	486	18.5	23.5	2	
	420	420	-	125	158	453	486	21.4	27	2/4	
	480	480	-	141	158	453	486	24	30.5	2/4	
	540	540	-	157	158	453	486	26.5	34	2/4	
VGF	600	600	-	173	158	453	486	29	38	2/4	
	660	660	-	185	158	453	486	31.2	40.5	4	
	720	720	-	204	158	453	486	34	44	4	
	VGI	785	785	-	185	158	488	521	37.2	47.1	4
		865	865	-	204	158	488	521	41.8	51.9	4
		935	935	-	221	158	488	521	44.6	56.1	4
		240	240	-	61	158	517	550	13.3	16.7	2
		285	285	-	77	158	517	550	14.2	18.8	2
		370	370	-	93	158	517	550	18.2	23.6	2
		445	445	-	109	158	488	521	22.2	28.3	2
530		530	-	125	158	488	521	25.7	33.1	2	
605		605	-	141	158	488	521	28.7	36.4	2/4	
730		730	-	173	158	488	521	34.4	43.8	4	
VGI	785	785	-	185	158	488	521	37.2	47.1	4	
	865	865	-	204	158	488	521	41.8	51.9	4	
	935	935	-	221	158	488	521	44.6	56.1	4	
	240	240	-	61	158	517	550	13.3	16.7	2	
	285	285	-	77	158	517	550	14.2	18.8	2	
	370	370	-	93	158	517	550	18.2	23.6	2	
	470	470	-	109	158	517	550	23.5	29.9	2	
	565	565	-	125	158	517	550	27.4	35.3	2	
	645	645	-	141	158	517	550	31.7	39.9	2/4	
	725	725	-	157	158	517	550	36.1	45.5	4	
1005	1005	-	221	158	517	550	48.2	60.3	4		

Design and specification are changed without notice.  
Please confirm by contacting to us before you place an order.



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## Motive Power Lead Acid Traction Battery

Battery Type	Rated Capacity(Ah)		Length	Overall Dimension(mm)		Total Height	Weight(kg)		Post Q/Y	
	Shr	ehr		Width	Container's Height		DRY	WET		
VCE	737	720	737	204	158	457	486	34.2	44.3	4
	715	660	715	237	158	453	486	31.5	43.5	4
	720	720	770	237	158	453	486	34.4	45.9	4
	740	740	-	237	158	453	486	35.2	46.4	4
	800	800	-	237	158	453	486	37.3	48.5	4
	880	840	880	237	158	453	486	39	49.9	4
	850	850	-	237	158	453	486	39.4	50.2	4
	3A 201010	210	-	61	158	490	523	11	13.8	2
	268280	280	-	77	158	490	523	13.8	17.5	2
	280	280	-	90	158	490	523	14	18.5	2
VCF	320	320	-	90	158	490	523	16.6	21.4	2
	335	335	-	93	158	490	523	16.9	21.7	2
	350	350	-	109	158	490	523	17	22.5	2
	6A	390	-	109	158	490	523	18.8	25	2
	400140	420	-	109	158	490	523	20	25.5	2
	490	490	-	125	158	490	523	24	30.5	2/4
	545	545	-	141	158	490	523	25.2	34	2/4
	630	630	-	157	158	490	523	29	38	4
	10A	650	-	173	158	490	523	29.9	39.2	4
	700	700	-	173	158	490	523	33.5	42.2	4
VOH	3A	300	-	61	158	698	731	16	20.5	2
	45	360	-	71	158	698	731	18.2	23	2
	1501100	160	-	45	158	519	552	8.7	10.8	2
	2201A 1280	230	-	61	158	519	552	12.8	16	2
	188300	300	-	77	158	519	552	15.5	19.6	2
	335	300	335	90	158	519	552	16	20.5	2
	4	420	-	90	158	519	552	16.8	21.3	2
	3857375	375	-	93	158	519	552	19	24	2
	440	440	-	109	158	519	552	22	28	2/4
	546	546	-	125	158	519	552	26.2	34	2/4
VCI	490	490	-	125	158	519	552	26	32.2	2/4
	505	505	-	125	158	519	552	26.2	32.5	2/4
	575585	585	-	141	158	519	552	29.2	36.5	2/4
	595	546	595	141	158	519	552	26.5	34.2	2/4
	660	630	660	157	158	519	552	31	39	2/4
	710	670	710	185	158	519	552	33.2	42	4
	770	707	770	185	158	519	552	35	44	4
	845	845	-	185	158	519	552	38	48.7	4
	850	780	850	204	158	519	552	36	46.5	4
	11	858	-	204	158	519	552	38.5	49.4	4
VCJ	990	990	-	204	158	519	552	42	53	4
	990	990	-	221	158	519	552	48	60	4
	1080	1080	-	237	158	519	552	51.2	65.4	4
	1200	1200	-	244	158	519	552	56	76	4
	300	300	-	61	158	690	723	16	20	2
	400	400	-	77	158	690	723	19.5	25	2
	500	500	-	93	158	690	723	24	30	2
	600	600	-	109	158	690	723	28.5	36	2/4
	700	700	-	125	158	690	723	33	42	4
	800	800	-	141	158	690	723	38	48	4
VGC	900	900	-	157	158	690	723	43	54	4
	1000	1000	-	173	158	690	723	48	60	4
	1100	1100	-	189	158	690	723	52	66	4
	125	125	-	90	158	328	361	12.8	16	2
	520	520	-	185	158	328	361	24.9	31.2	2/4
	415	415	-	125	158	393	426	20.2	25.9	2
	470	470	-	141	158	393	426	22.5	29.2	2
	485	485	-	141	158	408	441	23.2	29.1	2
	545	545	-	157	158	408	441	26.1	32.7	2
	600	600	-	173	158	408	441	28.5	36	2/4
VGE	245	245	-	157	158	453	486	13.6	17	2
	220	220	-	61	158	488	521	12.8	16	2
	280	280	-	77	158	510	543	15	19	2
	370	370	-	93	158	488	521	18.2	23.6	2
	445	445	-	109	158	488	521	22.2	28.3	2
	530	530	-	125	158	488	521	25.7	33.1	2
	605	605	-	141	158	488	521	28.7	36.4	2/4
	730	730	-	173	158	488	521			

# Motive Power Lead Acid Traction Battery

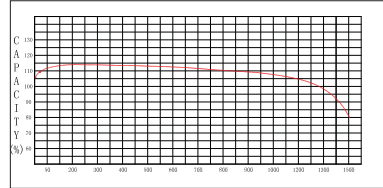
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- TUBULAR PLATE FORKLIFT TRACTION BATTERY
- BS / DIN MODEL
- APPLICATION
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- PRODUCTS RANGE
  - 2V - 120AH ~ 1680AH / 5HRS
  - BS MODEL / DIN MODEL
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  - CYCLE LIFE : 1,500 CYCLES AT D.O.D 80% DISCHARGE CONDITION

- DISCHARGE CHARACTERISTICS DEPENDS ON DISCHARGE TIME
- V : Initial Discharge Voltage (V)
- Vm : Medium Discharge Voltage (V)
- Vs : Final Discharge Voltage (V)
- K : The "K" curve shows the 5 hour capacity of the cell in %

CURVE OF LIFE CYCLE



From the Fig. the value of current (A) in each discharge rate of a storage battery of which 5 hour rate capacity is 400 Ah is as shown below.

- 6 hour rate (6 hr, 1.70VPC) = 400Ah x 1.04C/6 = 69A
- 5 hour rate (5 hr, 1.70VPC) = 400Ah x 1.00C/5 = 80A
- 3 hour rate (3 hr, 1.65VPC) = 400Ah x 0.85C/3 = 133A
- 2 hour rate (2 hr, 1.65VPC) = 400Ah x 0.75C/2 = 150A
- 1 hour rate (1 hr, 1.55VPC) = 400Ah x 1.60C/1 = 240A

As seen from the above description, the more frequently the fileting work is made or the high speed running is made in the operation of a electric truck, the shorter the available working time of storage battery becomes

# Motive Power Lead Acid Traction Battery

## Traction Battery Technical specifications

Battery Type	Rated Capacity (Ah/5HR)	Overall Dimension				Reference weight(kg)		Post' Q'ty
		L	W	H	H	Dry	Wet	
2PZS 120	120	47	198	360	395	7	9	2
3PZS 180	180	65	198	360	395	9.5	12.5	2
4PZS 240	240	83	198	360	395	12	16	2
5PZS 300	300	101	198	360	395	14.5	19.5	2
6PZS 360	360	119	198	360	395	17	23	2
7PZS 420	420	137	198	360	395	19.5	26.5	2
8PZS 480	480	155	198	360	395	22	30	2
9PZS 540	540	173	198	360	395	24.5	33.5	2/4
10PZS 600	600	191	198	360	395	27	37	2/4
11PZS 660	660	209	198	360	395	29.5	40.5	2/4
12PZS 720	720	227	198	360	395	32	44	4
2PZS 140	140	47	198	405	440	8	10.5	2
3PZS 210	210	65	198	405	440	11	14.5	2
4PZS 280	280	83	198	405	440	14	19	2
5PZS 350	350	101	198	405	440	17	23	2
6PZS 420	420	119	198	405	440	20	27	2
7PZS 490	490	137	198	405	440	23	31	2
8PZS 560	560	155	198	405	440	26	35.5	2/4
9PZS 630	630	173	198	405	440	29	40	2/4
10PZS 700	700	191	198	405	440	32.5	44	2/4
11PZS 770	770	209	198	405	440	36	49	4
12PZS 840	840	227	198	405	440	39	52	4
2PZS 160	160	47	198	450	485	9.5	12.5	2
3PZS 240	240	65	198	450	485	12.5	16.5	2
4PZS 320	320	83	198	450	485	15.5	21	2
5PZS 400	400	101	198	450	485	19	26	2
6PZS 480	480	119	198	450	485	22.5	30.5	2
7PZS 560	560	137	198	450	485	26	35.5	2/4
8PZS 640	640	155	198	450	485	29.5	40.5	2/4
9PZS 720	720	173	198	450	485	33	45	2/4
10PZS 800	800	191	198	450	485	36.5	50.5	4
11PZS 880	880	209	198	450	485	40	55	4
12PZS 960	960	227	198	450	485	43	59	4
2PZS 180	180	47	198	525	560	10	13	2
3PZS 270	270	65	198	525	560	13.5	18	2
4PZS 360	360	83	198	525	560	17	23	2
5PZS 450	450	101	198	525	560	20.5	28	2
6PZS 540	540	119	198	525	560	24	33	2/4
7PZS 630	630	137	198	525	560	27.5	38	2/4
8PZS 720	720	155	198	525	560	31	43	2/4
9PZS 810	810	173	198	525	560	34.5	48	4
10PZS 900	900	191	198	525	560	38	53	4
11PZS 990	990	209	198	525	560	41	57	4
12PZS 1080	1080	227	198	525	560	44	61	4

# Motive Power Lead Acid Traction Battery

## Traction Battery Technical specifications

Battery Type	Rated Capacity (Ah/5HR)	Overall Dimension				Reference weight(kg)		Post' Q'ty
		L	W	H	H	Dry	Wet	
2PZS 200	200	47	198	560	595	11	14.5	2
3PZS 300	300	65	198	560	595	15	20	2
4PZS 400	400	83	198	560	595	19	25.5	2
5PZS 500	500	101	198	560	595	23	35	2
6PZS 600	600	119	198	560	595	27	37	2/4
7PZS 700	700	137	198	560	595	31	42	2/4
8PZS 800	800	155	198	560	595	35	49	4
9PZS 900	900	173	198	560	595	39	54	4
10PZS 1000	1000	191	198	560	595	43	60	4
11PZS 1100	1100	209	198	560	595	47	65	4
12PZS 1200	1200	227	198	560	595	51	71	4
2PZS 240	240	47	198	690	725	13.5	17.5	2
3PZS 360	360	65	198	690	725	18.5	24.5	2
4PZS 480	480	83	198	690	725	23.5	31.5	2
5PZS 600	600	101	198	690	725	28.5	39	2
6PZS 720	720	119	198	690	725	33.5	46	2/4
7PZS 840	840	137	198	690	725	38.5	53	4
8PZS 960	960	155	198	690	725	43.5	60	4
9PZS 1080	1080	173	198	690	725	48.5	67	4
10PZS 1200	1200	191	198	690	725	53.5	74	4
11PZS 1320	1320	209	198	690	725	58.5	81	4
12PZS 1440	1440	227	198	690	725	63.5	88	4
3PZS 280	280	47	198	720	755	15.5	20	2
3PZS 420	420	65	198	720	755	21	28	2
4PZS 560	560	83	198	720	755	26.5	36	2/4
5PZS 700	700	101	198	720	755	32	44	2/4
6PZS 840	840	119	198	720	755	37.5	51	4
7PZS 980	980	137	198	720	755	43.5	60	4
8PZS 1120	1120	155	198	720	755	50	69	4
9PZS 1260	1260	173	198	720	755	56	78	4
10PZS 1400	1400	191	198	720	755	62	86	4
11PZS 1540	1540	209	198	720	755	68	92	4
12PZS 1680	1680	227	198	720	755	74	98	4

Design and specification are changed without notice. Please confirm by contacting to us before you place an order.

