



ENERGIC Plus®

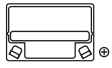
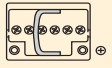
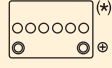
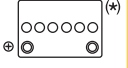
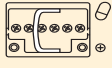
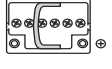
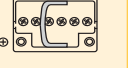
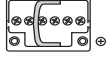
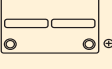
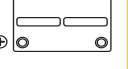
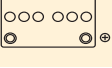
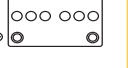
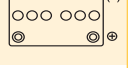
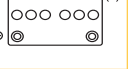
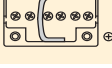
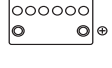
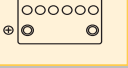


BATTERIES



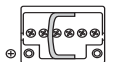
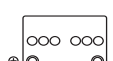
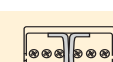


STARTER BATTERY TYPES

REF	Item nr.	12V Cap Ah	RC min	A -18°C		Pol +	 dimensions mm			hold-downs
		(20h)		EN 7,5V 10"	DIN 9,0V 30"		X	Y	H	
103TA3048	524.015.018	24	35	180	100		187	128	167	B0
103TA3049	532.011.022	32	40	220	130		233	131	167	B0
103TA3052	536.046.028	36	52	280	175		207	175	190	B3
115TA4688	540.008.030	40	60	300	180		175	175	190	B3
103TA3050	540.020.030	40	60	300	170		197	129	225	B0
103TA3051	540.022.030	40	60	300	170		197	129	225	B0
106TA8640	544.065.033	44	60	330	200		207	175	175	B3(+B4)
115TA4689	544.059.033	44	60	330	200		207	175	190	B3
115TA6868	544.064.033	44	60	330	200		207	175	190	B3
115TA4690	544.059.036	44	78	360	220		207	175	190	B3
115TA6869	545.077.030	45	65	320	190		218	135	225	B1
115TA6870	545.079.030	45	65	320	190		218	135	225	B1
103TA3061	545.023.032	45	70	320	190		237	127	223	B0
103TA3062	545.024.032	45	70	320	190		237	127	223	B0
106TA8639	545.084.032	45	70	320	190		237	127	223	B0
106TA8638	545.051.032	45	70	320	190		237	127	223	B0
103TA3060	545.019.036	45	78	360	220		242	175	175	B3(+B4)
103TA3068	550.041.036	50	80	360	220		200	170	223	B0
103TA3069	550.042.036	50	80	360	220		200	170	223	B0



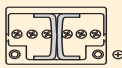
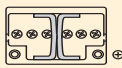
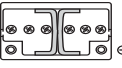
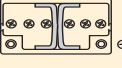
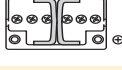
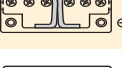
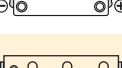
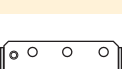
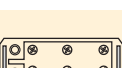
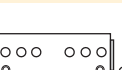
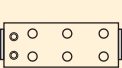
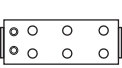
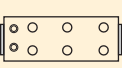
STARTER BATTERY TYPES

REF	 Item nr.	Cap	RC	A -18°C		 Pol +	 dimensions mm			hold-downs
		Ah (20h)		EN 7,5V 10"	DIN 9,0V 30"		X	Y	H	
115TA6871	555.060.042	55	90	420	240		207	175	190	B3
115TA6872	555.064.042	55	90	420	240		207	175	190	B3
103TA3074	555.059.045	55	100	450	270		242	175	190	B3
115TA6873	555.065.045	55	100	450	270		242	175	190	B3
103TA3075	560.068.042	60	100	420	240		230	170	223	B0
103TA3076	560.069.042	60	100	420	240		230	170	223	B0
106TA8647	560.048.045	60	100	450	260		270	175	225	B3+B6
106TA8648	560.049.045	60	100	450	260		270	175	225	B3+B6
103TA3071	560.077.051	60	95	510	300		242	175	190	B3
103TA3078	562.059.048	62	105	480	285		242	175	190	B3
103TA3073	562.065.048	62	105	480	285		242	175	190	B3
106TA8650	563.018.051	63	105	510	300		275	175	175	B3(+B4)
103TA3085	568.018.060	68	120	600	350		275	175	175	B3(+B4)
103TA3086	570.024.054	70	125	540	315		270	175	225	B3+B6
106TA8649	570.029.054	70	125	540	315		270	175	225	B3+B6
106TA8652	570.032.054	70	125	540	310		275	175	190	B3
106TA8651	570.038.054	70	125	540	310		275	175	190	B3
115TA6874	580.031.064	80	130	640	360		275	175	190	B3
103TA3091	580.032.064	80	130	640	360		275	175	190	B3

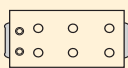
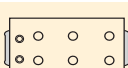
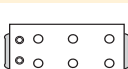
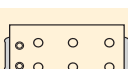
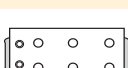
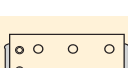
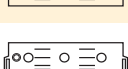
STARTER BATTERY TYPES



STARTER BATTERY TYPES

REF	 Item nr.	Cap	RC	A -18°C		 Pol +	 dimensions mm			hold-downs
		Ah (20h)		EN 7,5V 10"	DIN 9,0V 30"		X	Y	H	
115TA6875	580.035.068	80	150	680	400		310	175	190	B3
103TA3092	585.015.072	85	170	720	440		353	175	175	B3
103TA3093	588.027.064	88	170	640	395		353	175	190	B3
103TA3095	600.018.060	100	180	640	360		309	175	210	B3
106TA8655	600.032.064	100	190	640	390		330	175	205	B3
115TA6876	600.033.064	100	190	640	390		309	175	205	B3
103TA3097	600.038.076	100	190	760	450		353	175	190	B3
124TA5113	605.027.072	105	195	720	440		343	172	230	B0
124TA5115	605.028.072	105	195	720	440		343	172	230	B0
115TA6877	605.016.072	105	195	720	440		376	175	215	B1
115TA6878	620.033.076	120	220	760	460		510	175	225	B3
115TA6879	625.026.076	125	240	760	430		343	172	290	B0
103TA3103	625.034.085	125	240	850	500		510	189	223	B0
103TA3107	630.013.095	130	245	950	570		510	216	210	B0
103TA3109	635.044.100	135	280	1.000	600		513	175	210	B3
103TA3108	640.011.090	140	290	900	560		510	175	205	B1
106TA8660	650.031.100	150	300	1.000	580		510	175	225	B3
115TA6880	650.044.100	150	300	1.000	580		510	175	225	B3
103TA3111	650.020.100	150	300	1.000	580		510	189	223	B0

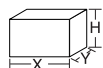
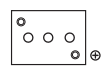
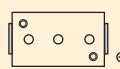
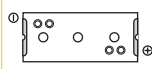
STARTER BATTERY TYPES

REF	Item nr.	12V Cap Ah (20h)	RC min	A -18°C		Pol +	 dimensions mm			hold-downs
				EN 7,5V 10"	DIN 9,0V 30"		X	Y	H	
106TA8661	650.089.100	150	300	1.000	580		513	223	223	B3
103TA3112	650.017.100	150	300	1.000	580		513	223	223	B0
106TA8664	680.089.110	180	340	1.000	650		513	223	223	B3
115TA5404	680.032.110	180	340	1.000	650		513	223	223	B0
106TA8665	700.029.125	200	390	1.250	740		513	223	223	B3
106TA8666	700.088.125	200	390	1.250	740		513	223	223	B0
106TA8667	700.089.125	200	390	1.250	740		513	223	223	B0
115TA6881	700.016.125	200	390	1.250	740		518	273	240	B0
115TA6882	700.018.125	200	390	1.250	740		518	273	240	B0
103TA3124	720.016.140	220	490	1.400	850		518	273	240	B0
103TA3125	720.018.140	220	490	1.400	850		518	273	240	B0

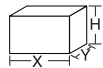
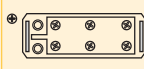
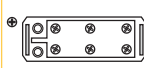
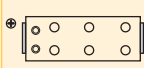
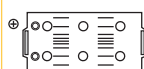
STARTER BATTERY TYPES

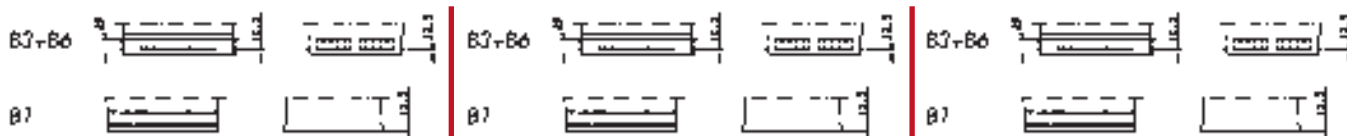


STARTER BATTERY TYPES

REF	Item nr.	Cap Ah (20h)	RC min	A -18°C		Pol +	 dimensions mm			hold- downs
				EN	DIN		X	Y	H	
				7,5V 10"	9,0V 30"					
103TA3045	080.015.045	80	145	450	260		215	170	190	B6
106TA8668	135.018.085	135	280	850	510		240	170	230	B0
103TA3047	165.013.100	165	360	1.000	580		330	175	240	B1
115TA5401	205.011.110	205	420	1.100	690		395	170	230	B0

HEAVY DUTY STARTER BATTERIES

REF	Item nr.	Cap Ah (20h)	RC min	A -18°C		Pol +	 dimensions mm			hold- downs
				EN	DIN		X	Y	H	
				7,5V 10"	9,0V 30"					
103TA3109	HD135S (653.39)	135	280	950	550		513	175	210	B3
115TA5403	HD160S (650.38)	160	330	1.000	600		510	189	223	B0
115TA5404	HD180S (680.32)	180	380	1.100	690		513	223	223	B0
115TA5405	HD230S (725.11)	230	520	1.400	850		518	273	240	B0

BATTERY FASTENING 

SPIRALCELL TECHNOLOGY BATTERIES



OPTIMA
BATTERIES
THE ULTIMATE POWER SOURCE™

Maximum power for Professionals!

Impressive cranking characteristics in a small battery!
Higher charge acceptance during recharges!
Sealed maintenance free spiralcell technology
No leaking even if case is broken!
Shock and vibration resistant!
Light weight!
Long Service Life!
Approved for air-shipment!

OPTIMA BATTERIES

**Starter battery**
REF 123TA9058
Red Top 4,2 Ltr S

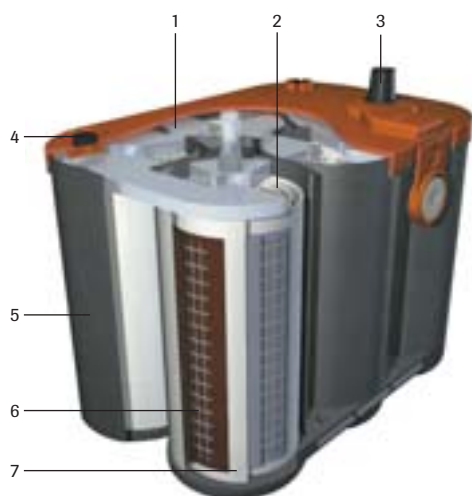
Voltage: 12V
815 CCA (EN)
50 Ah / 20 h
RC: 110 min
Dimensions (LxwxH): 254 x 175 x 200 mm

**Deep cycle battery**
REF 123TA9059
Yellow Top 4,2 Ltr Dual power

Voltage: 12V
765 CCA (EN)
55 Ah / 20 h
RC: 120 min
Dimensions (LxWxH): 254 x 175 x 200 mm

**Marine battery**
REF 123TA9060
Blue Top 4,2 Ltr Dual power

Voltage: 12V
765 CCA (EN)
55 Ah / 20 h
RC: 120 min
Dimensions (LxWxH): 254 x 175 x 200 mm

**Specifications:**

1. Heavy duty cast-on straps
2. Rugged spiral-wound construction & close plate spacing, vibration resistant
3. Corrosion- free terminals
4. Resealable pressure relief valve
5. Strong polypropylene housing
6. High-purity lead grids
7. Absorbant glass-mat separators hold electrolyte like a sponge to eliminate acid spilling

HYPER STARTER BATTERIES



HEAVY DUTY

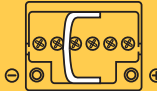
- State-of-charge indicator
- Increased performances +30%
- Lead-Calcium Technology
- 4 models for over 80% of all applications

HYPER 5
REF 115TA6842

HYPER 3
REF 115TA6839

HYPER 2
REF 115TA6838

HYPER 1
REF 115TA6837

HYPER 1 REF 115TA6837 	Ah (20h)		A (EN) -18°C				X x Y x H						
	45		410				207 x 175 x 175						
	536.21	536.24	536.46	536.53	543.15(*)	543.17(*)	544.34	544.59(*)	545.33	544.65	544.57(*)		
HYPER 2 REF 115TA6838 	Ah (20h)		A (EN) -18°C				X x Y x H						
	62		540				242 x 175 x 175						
	549.19	550.44	550.46	552.18(*)	554.23(*)	554.27	555.59	555.30	558.11(*)	560.91(*)	561.11	562.19	560.77
HYPER 3 REF 115TA6839 	Ah (20h)		A (EN) -18°C				X x Y x H						
	72		640				278 x 175 x 175						
	563.16	563.18	563.23(*)	564.20	565.30	566.18	566.38	568.18(*)	572.20	571.13	571.14(*)	572.29	574.12
HYPER 5 REF 115TA6842 	Ah (20h)		A (EN) -18°C				X x Y x H						
	90		760				353 x 175 x 175						
	580.15	588.27	588.34	595.18	592.18	595.29	600.38	600.44					

* with Ford adaptor

REF 115TA4706 Kit Ford-adaptors

Only available in filled version (acid)

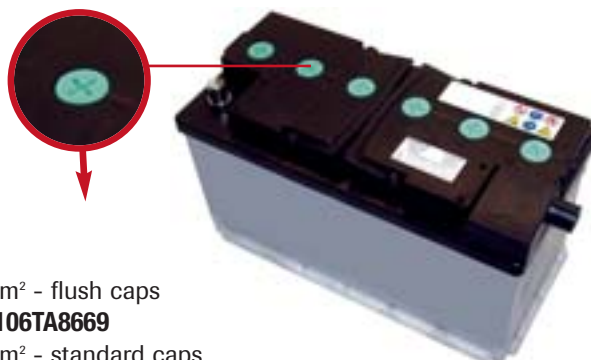


PLASTIC TERMINAL PROTECTION



REF 106TA6822

BATTERY CAPS

26 mm² - flush caps

REF 106TA8669

26 mm² - standard caps

REF 106TA8670

16 mm² - flush caps

REF 106TA8671

16 mm² - standard caps

REF 106TA8672

TERMINAL PROTECTION

TOP TERMINAL -



REF 106TA6823

Cable size: 10 mm²

REF 111TA3822

Cable size: 35 mm²

TOP TERMINAL +



REF 111TA3827

Cable size: 10 mm²

REF 111TA3823

Cable size: 35 mm²

LEFT ELBOW TERMINAL -



REF 106TA6824

Cable size: 35 mm²

REF 111TA3824

Cable size: 50/70 mm²

LEFT ELBOW TERMINAL +



REF 106TA6825

Cable size: 35 mm²

REF 111TA3826

Cable size: 50/70 mm²

RIGHT ELBOW -



REF 111TA3828

Cable size: 35 mm²

REF 111TA3825

Cable size: 50/70 mm²

RIGHT ELBOW +



REF 111TA3829

Cable size: 35 mm²

REF 111TA3830

Cable size: 50/70 mm²



FLAG TERMINAL

**REF 111TA3831**Cable size: 35 mm²**REF 111TA3832**Cable size: 50/70 mm²

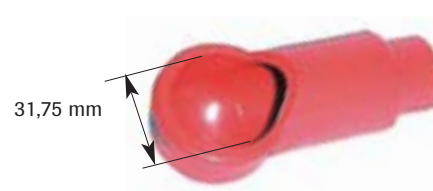
FLAG TERMINAL

**REF 111TA3833**Cable size: 35 mm²**REF 111TA3834**Cable size: 50/70 mm²

SIDE TERMINAL

**REF 111TA3835**Cable size: 35 mm²**REF 111TA3836**Cable size: 50 mm²**REF 112TA4799**Cable size: 70 mm²

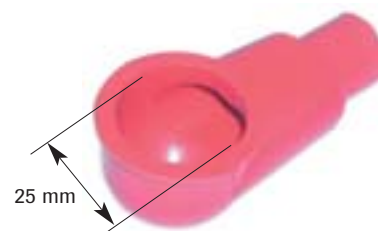
SIDE TERMINAL

**REF 111TA3838**Cable size: 35 mm²**REF 111TA3839**Cable size: 50 mm²**REF 111TA3840**Cable size: 70 mm²

SIDE TERMINAL

**REF 111TA3841**Cable size: 35 mm²

SIDE TERMINAL

**REF 112TA4800**Cable size: 35 mm²

SIDE TERMINAL

**REF 111TA3842**Cable size: 50 mm²

TERMINAL FOR DISTRIBUTOR CAPS

**REF 111TA3844**Cable size: 6 mm²

SIDE TERMINAL FOR IGNITION COILS

**REF 111TA3843**Cable size: 6 - 8 mm²



For price inquiries, please list:



FAX FORM: TRACTION BATTERIES



Company:

Customer code:

Name:

Fax number:

Truck make:

Truck type : Serial nr:

- Voltage:

- Ah (Ampere per Hour):

- External dimensions of the container

LENGTH :

WIDTH:

HEIGHT :

- Type of vehicle:

- Other accessories required:

We can also supply British standard cells!

✓ **Acid (32%):**

Container of 1L: REF 124TA2887

Container of 10L: REF 106TA8673

Container of 20L: REF 106TA8674
(Not available outside Belgium)

✓ **Distilled water:**

Container of 10L: REF 106TA8675

Container of 25L: REF 106TA8676



20L/25L



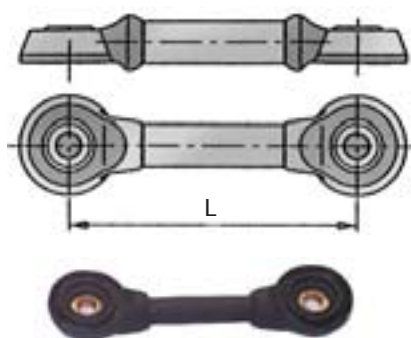
10L

LEAD CONNECTORS



REF	Connector (l) (mm)	Cover	REF
106TA8853	46	1	106TA8884
106TA8854	52	1.5	106TA8885
106TA8855	65	2	106TA8886
106TA8856	68	2.5	106TA8887
106TA8857	72	3	106TA8888
106TA8858	78	3.5	106TA8889
106TA8859	82	4	106TA8890
106TA8860	86	5	106TA8891
106TA8861	90	6	106TA8892
106TA8862	95		
106TA8863	98		
106TA8864	100		
106TA8865	104		
106TA8866	109		
106TA8867	115		
106TA8868	118		
106TA8869	123		
106TA8870	130		
106TA8871	137		
106TA8872	142		
106TA8873	148		
106TA8874	155		
106TA8875	160		

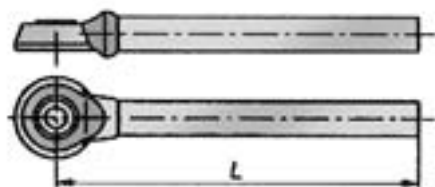
FLEXIBLE CONNECTORS



Bolt used for flexible connectors
123TA7164

REF	L (mm) / SECTION (mm ²)	Ah MAX.	REF	L (mm) / SECTION (mm ²)	Ah MAX.
106TA8878	95 - 25	250	106TA8905	95 - 50	> 500
106TA8879	110 - 25	250	106TA8907	110 - 50	> 500
106TA8880	130 - 25	250	106TA8908	130 - 50	> 500
106TA8895	95 - 35	500	106TA8909	150 - 50	> 500
106TA8896	110 - 35	500	106TA8910	170 - 50	> 500
106TA8897	130 - 35	500	106TA8911	190 - 50	> 500
106TA8898	150 - 35	500	106TA8912	210 - 50	> 500
106TA8899	170 - 35	500	106TA8913	250 - 50	> 500
106TA8900	190 - 35	500	106TA8914	300 - 50	> 500
106TA8901	210 - 35	500	106TA8915	350 - 50	> 500
106TA8902	250 - 35	500			
106TA8903	300 - 35	500			
106TA8904	350 - 35	500			

SET OF END-CABLES (+ & -)



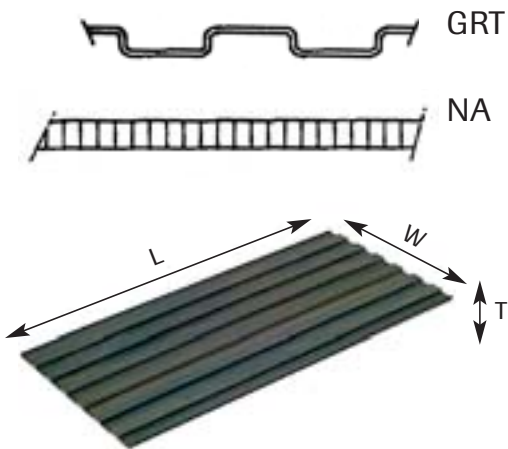
106TA8845	1500 - 25	250
106TA8846	2000 - 25	250
106TA8847	1500 - 35	500
106TA8848	2000 - 35	500
106TA8849	1500 - 50	750
106TA8850	2000 - 50	750
106TA8851	1500 - 70	> 750
106TA8852	2000 - 70	> 750





BATTERY SPACER PLATES

Spacer plate



Description	Dimensions W x T x L	REF
Spacer plate GRT	196 x 5 x 325	106TA8916
Spacer plate GRT	196 x 5 x 395	106TA8917
Spacer plate GRT	196 x 5 x 455	106TA8918
Spacer plate GRT	196 x 5 x 505	106TA8919
Spacer plate GRT	196 x 5 x 525	106TA8920
Spacer plate GRT	196 x 5 x 560	106TA8921
Spacer plate GRT	196 x 5 x 685	106TA8922
Spacer plate NA	325 x 5 x 2000	106TA8923
Spacer plate NA	395 x 5 x 2000	106TA8924
Spacer plate NA	455 x 5 x 2000	106TA8925
Spacer plate NA	505 x 5 x 2000	106TA8926
Spacer plate NA	525 x 5 x 2000	106TA8927
Spacer plate NA	560 x 5 x 2000	106TA8928
Spacer plate NA	685 x 5 x 2000	106TA8929
Spacer plate NA	1380 x 5 x 2000	106TA8930
Spacer plate NA	900 x 3.5 x 2000	106TA8931

BATTERY PAINT FOR BOX



black battery paint (5L)
REF 106TA8932



black battery paint (0,5L)
REF 106TA8933

BATTERY TERMINAL
ANTI-CORROSION GEL

Provides corrosion inhibitor protection.
Easy-application brush is included and comes
attached to the lid.



Can 227 gr
REF 115TA4697

TAILOR-MADE COATED BATTERY CONTAINERS

For inquiries, supply us with the external
dimensions of the container.



**TROLLEY (300 KG)****REF 106TA8844**Lightweight foldable platform trolley
capacity: 300 kg**TROLLEY (200 KG)****REF 106TA8843**Aluminum hand trolley
capacity: 200 kg**TROLLEY (150 KG)****REF 105TA4563**Lightweight foldable platform trolley
capacity: 150 kg**BATTERY CARRYING HARNESS****REF 106TA8842**

Universal battery carrier with handle

BATTERY CARRYING HARNESS**REF 106TA8840**
battery carrier
2 arms**REF 106TA8841**

battery carrier 3 arms

LIFTING HARNESS

CE

REF 106TA8839lifting harness for traction batteries 4
hooks 1500kg capacity**BATTERY MOVER ASSEMBLY**To remove traction batteries from forklifts.
Capacity: 2000 Kg**REF 122TA9158**

complete kit (includes: 1x106TA8838, 1x122TA9098, 2x122TA9099)

REF 106TA8838Battery mover supplied **without** upper and lower chains**REF 122TA9098**Upper chains, with **RED** hook**REF 122TA9099**Lower chains, with **YELLOW** hooks

CE



BATTERY CHANGING BEAMS

**REF 122TA7459**

Lifting beams are specifically designed to remove and replace forklift truck batteries safely and economically without the risk of damage. Supplied complete with 4 swivel hooks. Secured safely to the forks by thumb screws.

Technical specifications:

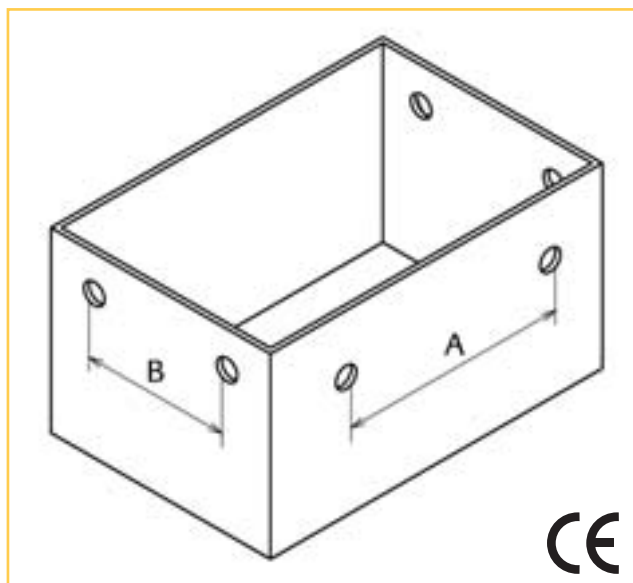
Maximum fork section: 150 x 70 mm

A (mm):
min 590 - max 1010

B (mm):
min 180 - max 900

Capacity: 2000 kg

Fully tested and CE certified



Water Tank

50L: REF 116TA6228
20L: REF 106TA8955

Flow Indicator

REF 106TA8956

Female Joint

REF 106TA8953

Male Joint

REF 106TA8952

Filter H₂O

REF 106TA8951

Ø 9,5mm • REF 106TA8942

Closing Cup

REF 106TA8940

complete part
REF 106TA8939

REF 111TA3478

REF 111TA3477

Plastic hose Ø 5.5 mm

REF 106TA8941 (metre)

Plastic hose Ø 9.5 mm

REF 106TA8942 (metre)

Plastic hose Ø 11 mm

REF 106TA8943 (metre)

Optional Kit

You can order this optional kit:

- 20L: REF 106TA8937

(includes water tank, flow indicator, plastic hose (+/- 3m) and female joint)

- 50L: REF 106TA8938

(includes water tank, flow indicator, plastic hose (+/- 3m) and female joint)

Standard Kit

Pipejoints

L-connection 10-6

REF 106TA8944

L-connection 10-10

REF 106TA8945

T-connection 6-10-6

REF 106TA8946

T-connection 10-6-10

REF 106TA8947

T-connection 10-10-10

REF 106TA8948

X-connection 6-10-6-10

REF 106TA8949

X-connection 10-10-10-10

REF 106TA8950

You can order this standard kit:

- 12 V: REF 115TA5406

(includes all the necessary parts for a 12 V battery)

- 24 V: REF 106TA8934

(includes all the necessary parts for a 24 V battery)

- 36V: REF 115TA5407

(includes all the necessary parts for a 36 V battery)

- 48 V: REF 106TA8935

(includes all the necessary parts for a 48 V battery)

- 72 V: REF 115TA5408

(includes all the necessary parts for a 72 V battery)

- 80 V: REF 106TA8936

(includes all the necessary parts for a 80 V battery)

- 96 V: REF 115TA5409

(includes all the necessary parts for a 96 V battery)



TOTAL SOURCE® DEEP-CYCLE BATTERIES FOR ACCESS EQUIPMENT



DEEP-CYCLE BATTERIES

TYPE	ALTERNATIVE	REF	V	Ah/20h	L x W x H*	ACID	WEIGHT
GC2C -PB6-220	T-105	106TA8677	6 V	220 Ah	262 x 181 x 276	4,2 L	28 kg
GC2B -PB6-244	T-145	106TA8678	6 V	244 Ah	262 x 181 x 276	4,8 L	30 kg
S3H -PB6-250		115TA6844	6 V	260 Ah	295 x 178 x 292		33 kg
S4H -PB6-305	T-305	106TA8679	6 V	305 Ah	305 x 178 x 356	11,3 L	51 kg
L16 -PB6-350	L16	106TA8680	6 V	353 Ah	314 x 181 x 419	11,7 L	53 kg
8VGC -T875		115TA6905	8 V	167 Ah	264 x 181 x 284		29 kg
M24m		115TA4691	12 V	85 Ah	286 x 171 x 248		20 kg
M27m		115TA4692	12 V	100 Ah	324 x 171 x 248		23 kg
30HH		115TA4693	12 V	115 Ah	330 x 171 x 242		30 kg
H4D		115TA4694	12 V	193 Ah	524 x 221 x 241		46 kg
H8Dd		115TA4695	12 V	240 Ah	521 x 278 x 241		67 kg
SSW		115TA4696	12 V	185 Ah	381 x 178 x 371		55 kg

*height including terminals

QUICK RELEASE



REF 115TA6845

HANDLE



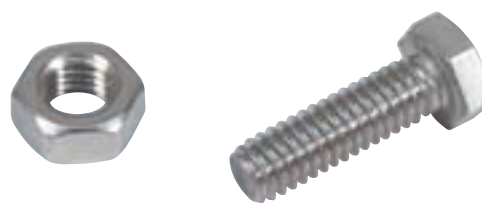
REF 115TA6846

WING NUT



REF 115TA6847

NUT & BOLT



REF 115TA6848



SEMI-TRACTION BATTERIES LEAD-ACID

REF	NUMBER	VOLTAGE	C20	C5	TYPE	L x W x H
115TA6849	9.080.1	6 V	100 Ah	80 Ah	P	225 x 175 x 235
115TA6850	9.095.2	6 V	120 Ah	96 Ah	P	260 x 175 x 235
106TA8681	240.15	6 V	240 Ah	185 Ah	P	244 x 190 x 275
115TA6851	6PzS195	6 V	240 Ah	195 Ah	T	244 x 190 x 275
115TA6852	6PzS205	6 V	270 Ah	205 Ah	T	244 x 190 x 275
115TA6853	PzS320	6 V	425 Ah	320 Ah	T	311 x 185 x 360
106TA8684	9.540.1	12 V	50 Ah	36 Ah	T	205 x 175 x 190
106TA8683	9.550.2	12 V	60 Ah	50 Ah	P	242 x 175 x 190
106TA8685	9.560.2	12 V	75 Ah	60 Ah	P	275 x 175 x 190
106TA8686	9.575.1	12 V	90 Ah	75 Ah	P	353 x 175 x 190
106TA8687	9.580.3	12 V	100 Ah	80 Ah	P	305 x 175 x 227
106TA8688	9.580.2	12 V	110 Ah	95 Ah	P	415 x 175 x 215
106TA8689	9.580.4	12 V	115 Ah	98 Ah	P	335 x 175 x 230
115TA6854	9.590.3	12 V	120 Ah	90 Ah	P	308 x 174 x 225
115TA6855	9.820.0	12 V	125 Ah	100 Ah	P	360 x 253 x 235
106TA8691	9.600.2	12 V	130 Ah	106 Ah	P	345 x 175 x 283
106TA8690	3PzS100	12 V	125 Ah	100 Ah	T	345 x 175 x 283
115TA6856	4PzS118	12 V	157 Ah	118 Ah	T	345 x 170 x 285
115TA6857	PzS126	12 V	167 Ah	126 Ah	T	510 x 175 x 225
106TA8693	9.605.1	12 V	140 Ah	115 Ah	P	510 x 189 x 223
106TA8694	9.635.1	12 V	180 Ah	145 Ah	P	513 x 223 x 223
115TA6858	PzS150	12 V	200 Ah	150 Ah	T	510 x 222 x 225
115TA6859	P.680.1	12 V	230 Ah	185 Ah	P	518 x 273 x 240

P = Semi-traction (plate)

T = Full-traction (tubular)

SEMI-TRACTION BATTERIES: GEL

REF	VOLT	Ah/20	Ah/5			
				X	Y	H
115TA5442	6	225	180	244	190	275
115TA5443	12	16	13	181	76	167
115TA5444	12	24	20	176	167	126
115TA5445	12	40	32	210	175	175
115TA5446	12	38	30	210	175	175
115TA5447	12	55	44	293	175	175
115TA5448	12	60	48	306	175	190
115TA5449	12	80	64	391	175	190
115TA5450	12	85	68	330	171	236
115TA5451	12	110	88	286	269	230
115TA5452	12	120	96	513	189	223
115TA5453	12	120	96	345	175	290
115TA5454	12	143	115	513	223	225
115TA5455	12	210	96	518	291	242



MAINTENANCE FREE SEMI-TRACTION BATTERIES

TOTAL SOURCE[®]
Parts and Accessories

**Technical specs:**

- sealed (closed-type) construction with bound electrolyte in glass mat
- shock-resistant
- electrolyte absorbed in glass mat
- internal oxygen and hydrogen recombination
- use of special (high-grade) alloys with high corrosion resistance
- recyclable batteries and parts
- ecological manufacturing methods

Maintenance-free battery advantages

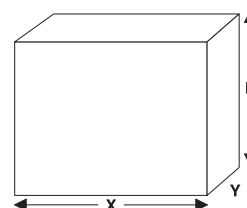
- closed-type battery requiring no maintenance
- multi-purpose use
- safe handling due to leak-proof construction
- safe to use in closed spaces and in systems for generating energy from alternative sources
- longer life span due to a higher recharge cycle capacity

Charging

- cyclical operation IU, WUU = 14,40 V/bat
- constant filling IU, WUU = 13,80 V/bat

Typical uses

- cleaning machines
- electrical vehicles
- electrical handpallet trucks
- wheelchairs
- boats
- campers and caravans
- golf carts
- alarm & security systems
- recharging systems
- solar power systems



REF	C100	C5	dimensions		
			X	Y	H
123TA7160	48	33	205	175	195
123TA7161	60	45	242	175	195
123TA7162	70	50	275	175	195
123TA7163	90	60	353	175	195



V.R.L.A. BATTERIES (VALVE REGULATED LEAD ACID BATTERIES)

Sealed lead acid batteries are available in two types: one for standby applications such as an emergency power source for safety lights, security and burglar alarm systems, computer peripheral terminals, etc., and the other for cyclic applications such as a portable power source for tape recorders, VTRs, toys, etc. In both types, assorted capacities from 1 Ah to 10 Ah are available and the scope of applications is getting wider and wider.



- Leakproof construction
- Absolute maintenance-free operation
- Long shelf life
- Usable and rechargeable in any position
- Wide operating temperature range
- Long service life
- High discharge rate capacity
- Absolutely safe

V.R.L.A. Batteries with a life span of 5 years (in floating use)

REF	Type	Voltage	Ah	Length	Width	Height	Weight (Kg)
115TA5413	NP1.2-6	6	1.2	97	25	54.5	0.31
115TA5414	NP2.8-6	6	2.8	134	34	64	0.57
115TA5415	NP3-6	6	3	134	34	64	0.63
115TA5416	NP7-6	6	7	151	34	97.5	1.32
115TA5417	NP10-6	6	10	151	50	97.5	1.93
115TA5418	NP12-6	6	12	151	50	97.5	2.05
115TA5419	NPO.8-12	12	0.8	96	25	61.5	0.35
115TA5420	NP1.2-12	12	1.2	97	48	54.5	0.57
115TA5421	NP2-12	12	2	150	20	89	0.70
115TA5422	NP2.1-12	12	2.1	178	34	64	0.83
115TA5423	NP2.3-12	12	2.3	178	34	64	0.94
115TA5424	NP2.8-12	12	2.8	134	67	64	1.10
115TA5425	NP3.2-12	12	3.2	134	67	64	1.17
115TA5426	NP4-12	12	4	90	70	106	1.57
115TA5427	NP7-12	12	7	151	65	97.5	2.65
115TA5428	NP12-12	12	12	151	98	97.5	4.09
115TA5429	NP17-12	12	17	181	75	167	6.2
115TA5430	NP24-12	12	24	166	175	125	8.92
115TA5431	NP38-12	12	38	197	165	170	13.93
115TA5432	NP65-12	12	65	350	166	174	22.82



TRACTION BATTERY CHARGERS





MODEL: RL DIGITAL



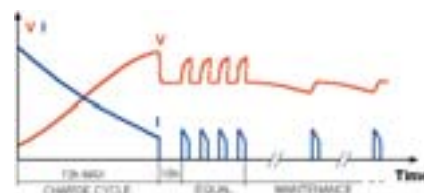
**3 year warranty
on all charger parts!**

THREE-PHASE

Ask for our FREE detailed manuals

- RL BOX A: REF 107TA8608

- RL BOX B: REF 107TA8609



Size (in mm):

Case A



500 x 360 x 700

Case B



500 x 440 x 900

Case B Maxi



630 x 500 x 1050

GENERAL INFORMATION RL DIGITAL

- Three-phase 230/400VAC 50/60Hz input, Single-phase 230V available on request
- Fully automatic
- CE certified
- 10-12h charge system: Wa (DIN41774),
- Microprocessor-controlled electronic card
- Derivative dV/dT charge control
- Digital display: VOLT/CELL, CURRENT, CAPACITY CHARGED, TIME OF CHARGE, ERROR MESSAGES
- **Auto-equalisation system**
- **Maintenance system**

Digital technology stands for:

- Increase in life span of battery
- Built-in maintenance system
- More compact than the older type of chargers, easier to store and transport

- Wheel kit (4) available for easy moving:
REF 106TA8697 (CASE A)



- Wheel kit (3) available for easy moving:
REF 106TA8698 (CASE B)





FAST CHARGER • 8H (WoWA)

• Specifications:

The WoWa charge system, described by the norm DIN41773, is used when it's necessary to reduce the time of charge. It is an evolution of the Wa charge system.

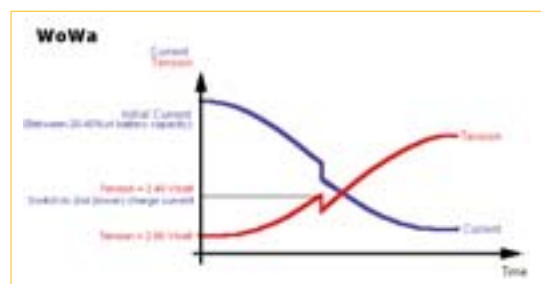
To reduce the time of charge, the WoWa system allows a higher charge current during the first phase of the charge. This higher current can be kept while the voltage of the battery is below the gassing point (2,40Volt/cell).

When the voltage of the battery reaches the gassing point, the current is reduced to the value of the standard Wa system, to avoid useless and dangerous overheating of the battery.

The advantage of the WoWa system is that the battery is charged faster without the risk of damaging and/or overheating it.

The choice of the right WoWa charger can be made by taking in consideration the battery capacity and the time available to charge it.

A common method is to chose a charger with a rated output current equal to 22% of the battery capacity in Ah.



AIRPUMP • ONLY WITH FAST CHARGER (WoWA)

The airpump chargers are made to charge batteries with an air-circulation system. The fresh air pumped into the battery, while it is being charged, reduces the temperature and improves the mixing of the electrolyte chemical components. This results in a faster and safer charge cycle, because it's possible to charge the battery with a higher current (less time), without the risk of overheating.

It's possible to regulate the amount of fresh air pumped into the battery with an apposite manual valve, mounted inside the charger. This is important because the optimal amount of fresh air is different for batteries of different type, make and capacity.

A pressure sensor has been added in order to detect any possible problem in the air-circulation system (e.g.: air tubes are not connected or broken, air pump is broken). In case of problems, the charger reacts automatically:

- the charge curve is changed from the original WoWA to a less aggressive WA
- the time of charge is adjusted according to the real condition of the battery



MODEL: RL DIGITAL / THREE-PHASE

Amp	STANDARD CHARGER (10-12H) CHARGING CURVE WA			FAST CHARGER (8H) CHARGING CURVE WOWA		FAST CHARGER AIRPUMP (8H) CHARGING CURVE WOWA		Weight	Input (KVA)	Box		
	REF	Cap. range		REF	Cap. range		REF				Cap. range	
24 VOLT												
40		107TA9513	199-263		123TA6906	166-220		123TA6997	166-220	48	1,4	A
60		106TA9180	323-395		123TA6907	276-330		123TA6998	276-330	57	2,1	A
80		106TA9181	396-526		123TA6908	331-440		123TA6999	331-440	62	2,8	A
100		106TA9182	527-658		123TA6909	441-550		123TA7000	441-550	66	3,5	A
120		106TA9183	659-789		123TA6910	551-660		123TA7001	551-660	68	4,2	A
140		106TA8699	790-921		123TA6911	661-770		123TA7002	661-770	76	4,9	A
160		106TA8700	922-1052		123TA6912	771-880		123TA7003	771-880	77	5,6	B
180		107TA9514	1053-1184		123TA6913	881-990		123TA7004	881-990	82	6,3	B
200		107TA9515	1185-1315		123TA6914	991-1100		123TA7158	991-1100	88	7	B
36 VOLT												
60		106TA9184	323-395		123TA6915	276-330		123TA7005	276-330	59	3,1	A
80		106TA9185	396-526		123TA6916	331-440		123TA7006	331-440	64	4,2	A
100		106TA9186	527-658		123TA6917	441-550		123TA7007	441-550	73	5,2	A
120		106TA9187	659-789		123TA6918	551-660		123TA7008	551-660	81	6,2	A
140		107TA7661	790-921		123TA6919	661-770		123TA7009	661-770	90	7,3	A
160		108TA4190	922-1052		123TA6920	771-880		123TA7010	771-880	95	8,3	B
180		108TA4191	1053-1184		123TA6921	881-990		123TA7011	881-990	104	9,4	B
200		108TA4192	1185-1315		123TA6922	991-1100		123TA7012	991-1100	110	10,4	B
40 VOLT												
50		106TA8701	264-329		123TA6923	221-275		123TA7013	221-275	45	2,9	A
60		106TA8702	323-395		123TA6924	276-330		123TA7014	276-330	49	3,5	A
80		106TA8703	396-526		123TA6925	331-440		123TA7015	331-440	57	4,6	A
100		108TA4193	527-658		123TA6926	441-550		123TA7016	441-550	70	5,7	A
48 VOLT												
40		107TA9516	199-263		123TA6927	166-220		123TA7017	166-220	56	2,8	A
50		106TA9188	264-329		123TA6928	221-275		123TA7018	221-275	60	3,5	A
60		106TA9189	323-395		123TA6929	276-330		123TA7019	276-330	66	4,2	A
80		106TA9190	396-526		123TA6930	331-440		123TA7020	331-440	75	5,6	A
100		106TA9191	527-658		123TA6931	441-550		123TA7021	441-550	82	7	A
120		106TA9192	659-789		123TA6932	551-660		123TA7022	551-660	89	8,4	A
140		106TA8704	790-921		123TA6933	661-770		123TA7023	661-770	99	9,8	A
160		106TA8705	922-1052		123TA6934	771-880		123TA7024	771-880	113	11,2	B
180		107TA9517	1053-1184		123TA6935	881-990		123TA7025	881-990	122	12,6	B
200		107TA9518	1185-1315		123TA6936	991-1100		123TA7026	991-1100	132	14	B

All spare parts available.



MODEL: RL DIGITAL / THREE-PHASE

Amp	STANDARD CHARGER (10-12H) CHARGING CURVE WA		FAST CHARGER (8H) CHARGING CURVE WOWA		FAST CHARGER AIRPUMP (8H) CHARGING CURVE WOWA		Weight	Input (KVA)	Box
	REF	Cap. range	REF	Cap. range	REF	Cap. range			
72VOLT									
60	106TA9193	323-395	123TA6937	276-330	123TA6967	276-330	80	6,3	A
80	106TA9194	396-526	123TA6938	331-440	123TA6968	331-440	88	8,3	A
100	106TA8706	527-658	123TA6939	441-550	123TA6969	441-550	94	10,5	A
120	106TA8707	659-789	123TA6940	551-660	123TA6970	551-660	113	12,5	B
140	106TA8708	790-921	123TA6941	661-770	123TA6971	661-770	122	14,6	B
160	107TA9519	922-1052	123TA6942	771-880	123TA6972	771-880	131	16,6	B
80VOLT									
40	107TA9520	199-263	123TA6943	166-220	123TA6973	166-220	66	4,6	A
60	106TA9195	323-395	123TA6944	276-330	123TA6974	276-330	81	6,9	A
80	106TA9196	396-526	123TA6945	331-440	123TA6975	331-440	93	9,2	A
100	106TA8709	527-658	123TA6946	441-550	123TA6976	441-550	105	11,5	A
120	106TA8710	659-789	123TA6947	551-660	123TA6977	551-660	117	13,8	B
140	106TA8711	790-921	123TA6948	661-770	123TA6978	661-770	124	16,1	B
160	107TA9522	922-1052	123TA6949	771-880	123TA6979	771-880	129	18,4	B
180	107TA9523	1053-1184	123TA6950	881-990	123TA6980	881-990	135	20,7	B
200	107TA9524	1185-1315	123TA6951	991-1100	123TA6981	991-1100	142	13	B
220	107TA9525	1316-1446	123TA6952	1101-1210	123TA6982	1101-1210	180	15,3	Bmaxi
240	107TA9526	1447-1577	123TA6953	1211-1320	123TA6983	1211-1320	185	27,6	Bmaxi
260	107TA9527	1578-1708	123TA6954	1321-1430	123TA6984	1321-1430	190	29,9	Bmaxi
280	107TA9528	1709-1839	123TA6955	1431-1540	123TA6985	1431-1540	195	32,2	Bmaxi
96VOLT									
60	107TA9529	323-395	123TA6956	276-330	123TA6986	276-330	90	8,4	B
80	107TA9530	396-526	123TA6957	331-440	123TA6987	331-440	100	11,2	B
100	107TA9531	527-658	123TA6958	441-550	123TA6988	441-550	118	14	B
120	107TA9532	659-789	123TA6959	551-660	123TA6989	551-660	123	16,8	B
140	107TA9533	790-921	123TA6960	661-770	123TA6990	661-770	135	19,6	B
160	107TA9534	922-1052	123TA6961	771-880	123TA6991	771-880	148	22,4	B
200	107TA9535	1185-1315	123TA6962	991-1100	123TA6992	991-1100	180	28	Bmaxi
240	107TA9536	1447-1577	123TA6963	1211-1320	123TA6993	1211-1320	195	33,6	Bmaxi
260	107TA9537	1578-1708	123TA6964	1321-1430	123TA6994	1321-1430	205	36,4	Bmaxi
280	107TA9538	1709-1839	123TA6965	1431-1540	123TA6995	1431-1540	215	39,2	Bmaxi
320	107TA9539	1840-2104	123TA6966	1541-1760	123TA6996	1541-1760	230	44,8	Bmaxi



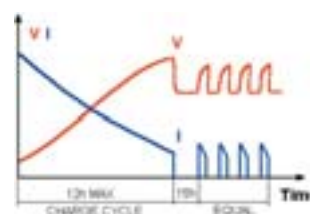
MODEL: RE

SINGLE-PHASE



Ask for our **FREE** detailed manuals

- **RE BOX A** : REF 107TA8376
- **RE BOX B** : REF 107TA8377
- **RE BOX C** : REF 107TA8378
- **RE BOX S** : REF 107TA8761



Size (in mm):

Box S	Box A	Box B	Box C
			
250 x 200 x 320	430 x 285 x 270	500 x 340 x 360	500 x 360 x 700

GENERAL INFORMATION RE

- Single-phase 230 VAC 50/60Hz input
- Fully automatic
- CE certified
- **10-12h** charge system: Wa (DIN41774),
- Microprocessor-controlled electronic card
- Equalisation
- Other versions available on request





FAST CHARGER • 8H (WoWa)

• Specifications:

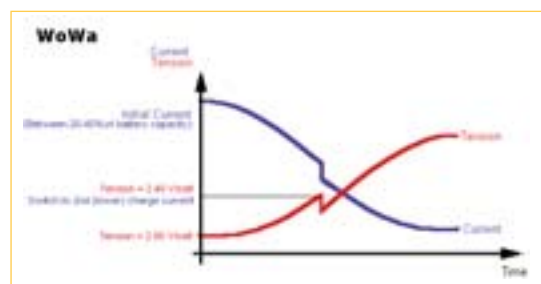
The WoWa charge system, described by the norm DIN41773, is used when it's necessary to reduce the time of charge. It is an evolution of the Wa charge system.

To reduce the time of charge, the WoWa system allows a higher charge current during the first phase of the charge. This higher current can be kept while the voltage of the battery is below the gassing point (2,40Volt/cell).

When the voltage of the battery reaches the gassing point, the current is reduced to the value of the standard Wa system, to avoid useless and dangerous overheating of the battery.

The advantage of the WoWa system is that the battery is charged faster without the risk of damaging and/or overheating it.

The choice of the right WoWa charger can be made by taking in consideration the battery capacity and the time available to charge it. A common method is to choose a charger with a rated output current equal to 22% of the battery capacity in Ah.



AIRPUMP • ONLY WITH FAST CHARGER (WoWA)

The airpump chargers are made to charge batteries with an air-circulation system. The fresh air pumped into the battery, while it is being charged, reduces the temperature and improves the mixing of the electrolyte chemical components. This results in a faster and safer charge cycle, because it's possible to charge the battery with a higher current (less time), without the risk of overheating.

It's possible to regulate the amount of fresh air pumped into the battery with an apposite manual valve, mounted inside the charger. This is important because the optimal amount of fresh air is different for batteries of different type, make and capacity.

A pressure sensor has been added in order to detect any possible problem in the air-circulation system (e.g.: air tubes are not connected or broken, air pump is broken). In case of problems, the charger reacts automatically:

- the charge curve is changed from the original WoWA to a less aggressive WA
- the time of charge is adjusted according to the real condition of the battery



MODEL: RE / SINGLE-PHASE

Amp	STANDARD CHARGER (10-12H) CHARGING CURVE WA		FAST CHARGER (8H) CHARGING CURVE WOWA		FAST CHARGER AIRPUMP (8H) CHARGING CURVE WOWA		Weight	Input (KVA)	Box
	REF	Cap. range	REF	Cap. range	REF	Cap. range			
12 VOLT									
10	106TA9226	60-95	123TA6869	42-69	-	-	10	0,16	S
15	106TA9227	96-110	123TA6870	70-83	-	-	12	0,25	S
20	106TA9228	111-132	123TA6871	84-109	-	-	12	0,33	S
25	106TA8745	133-165	123TA6872	110-137	-	-	13	0,40	S
30	106TA9229	166-198	123TA6873	138-165	-	-	14	0,50	S
40	106TA9230	199-263	123TA6874	166-220	-	-	17	0,65	S
50	106TA9231	264-329	123TA6875	221-275	-	-	25	0,80	A
60	106TA8746	323-395	123TA6876	276-330	-	-	27	1,00	A
80	106TA8747	396-526	123TA7159	331-440	-	-	32	1,30	A
24 VOLT									
10	106TA9232	60-95	116TA7024	42-69	-	-	14	0,33	S
15	106TA9233	96-110	116TA7025	70-83	-	-	14	0,50	S
20	106TA9234	111-132	123TA6878	84-109	-	-	14	0,65	S
25	106TA9235	133-165	116TA7026	110-137	-	-	15	0,80	S
30	106TA9236	166-198	116TA7027	138-165	-	-	20	1,00	A
40	106TA9237	199-263	116TA7028	166-220	-	-	21	1,30	A
50	106TA9238	264-329	116TA7029	221-275	-	-	24	1,60	A
60	106TA9239	323-395	116TA7030	276-330	-	-	26	2,00	A
80	106TA9240	396-526	116TA7031	331-440	-	-	37	2,60	B
100	106TA9241	527-658	116TA7032	441-550	123TA6890	441-550	43	3,20	C
120	106TA9242	659-789	116TA7033	551-660	123TA6891	551-660	45	4,00	C
140	106TA8748	790-921	116TA7034	661-770	123TA6892	661-770	53	4,60	C
36 VOLT									
30	106TA9243	166-198	123TA6879	138-165	-	-	23	1,50	A
40	106TA9244	199-263	123TA6880	166-220	-	-	25	2,00	A
50	106TA9245	264-329	123TA6881	221-275	-	-	33	2,40	A
60	106TA9246	323-395	123TA6882	276-330	-	-	35	3,00	B
80	106TA9247	396-526	123TA6883	331-440	-	-	59	4,00	B
100	106TA9248	527-658	123TA6884	441-550	123TA6893	441-550	65	4,80	C
120	106TA8749	659-789	123TA6885	551-660	123TA6894	551-660	69	6,00	C

All spare parts available.



MODEL: RE / SINGLE-PHASE

Amp	STANDARD CHARGER (10-12H) CHARGING CURVE WA		FAST CHARGER (8H) CHARGING CURVE WOWA		FAST CHARGER AIRPUMP (8H) CHARGING CURVE WOWA		Weight	Input (KVA)	Box
	REF	Cap. range	REF	Cap. range	REF	Cap. range			
40 VOLT									
50	106TA8750	264-329	123TA6886	221-275	-	-	35	2,88	B
60	106TA8751	323-395	123TA6887	276-330	-	-	38	3,45	B
80	106TA8752	396-526	123TA6888	331-440	123TA6895	331-440	62	4,60	C
100	106TA8753	527-658	123TA6889	441-550	123TA6896	441-550	67	5,75	C
48 VOLT									
10	106TA8754	60-95	116TA7035	42-69	-	-	19	0.65	S
15	106TA9249	96-110	116TA7036	70-83	-	-	22	1,00	A
30	106TA9250	166-198	116TA7037	138-165	-	-	25	2,00	A
40	106TA9251	199-263	116TA7038	166-220	-	-	35	2,60	B
50	106TA9252	264-329	116TA7039	221-275	-	-	39	3,25	B
60	106TA9253	323-395	116TA7040	276-330	-	-	45	4,00	B
80	106TA9254	396-526	116TA7041	331-440	123TA6897	331-440	54	5,20	C
100	106TA9255	527-658	116TA7042	441-550	123TA6898	441-550	59	6,50	C
120	106TA8755	659-789	116TA7043	551-660	123TA6899	551-660	65	8,00	C
72 VOLT									
60	106TA9256	323-395	116TA7044	276-330	123TA6900	276-330	59	6,00	C
80	106TA9257	396-526	116TA7045	331-440	123TA6901	331-440	64	8,00	C
100	106TA9258	527-658	116TA7046	441-550	123TA6902	441-550	70	9,60	C
80 VOLT									
40	106TA9259	199-263	116TA7047	166-220	123TA6903	166-220	63	4,60	C
60	106TA9260	323-395	106TA9261	221-330	123TA6904	221-330	70	6,90	C
80	106TA9261	396-526	116TA7049	331-440	123TA6905	331-440	78	9,20	C

BATTERY CHARGERS / SINGLE-PHASE



MODEL: RX

SINGLE-PHASE

THREE-PHASE

Ask for our **FREE** detailed manuals

- RX BOX A : REF 122TA8185
- RX BOX B : REF 122TA8186
- RX BOX S : REF 122TA8188



Size (in mm):

Best buy!

Box S



250 x 200 x 320

Box A



430 x 285 x 270

Box B



500 x 340 x 360

GENERAL INFORMATION RX

- Fully automatic, microprocessor controlled battery charger
- Compact and simple construction
- Led control panel:
 - Battery connected - in charge
 - Final charge
 - Charge complete - Equalisation
 - Emergency stop
 - Black-out of the mains
 - Ammeter 0-100%
- Automatic equalisation of the battery
- Automatic start on battery connection, with 3 delays to avoid arcing between the connectors. Automatic shutdown on battery disconnection during the charge
- Automatic saving of the charge parameters in case of black-out of the mains and automatic restart when the input is available
- Input voltages single-phase 220VAC or three-phase 380 VAC
other input voltages available on request
- Charge curve Wa (DIN41774)
- 1 year warranty (on spare parts)





MODEL: RX SERIES

REF	VOLT	AMP	CAPACITY RANGE vs TIME OF CHARGE (Ah)	BOX	WEIGHT (Kg)	INPUT POWER (KVA)
MODEL: RX / Single-phase / 220VAC						
122TA8161	24	20	100-120	S	13	0,70
122TA8162	24	25	125-150	S	14	0,85
122TA8163	24	30	150-180	S	17	1,00
122TA8164	24	40	200-240	S	19	1,30
122TA8165	24	50	250-300	A	22	1,70
122TA8166	24	60	300-360	A	24	2,00
122TA8167	48	60	300-360	B	43	4,2
122TA8168	48	80	360-500	B	48	5,6
MODEL: RX / Three-phase / 380VAC						
122TA8169	24	60	300-360	B	37	2,10
122TA8170	24	80	360-500	B	41	2,80
122TA8171	24	100	500-600	B	44	3,50
122TA8172	36	60	300-360	B	41	3,10
122TA8173	36	80	360-500	B	45	4,20
122TA8174	36	100	500-600	B	48	5,20
122TA8175	40	50	250-300	B	40	4,40
122TA8176	40	60	300-360	B	42	5,30
122TA8177	40	80	360-500	B	48	7,00
122TA8178	48	50	250-300	B	39	2,80
122TA8179	48	60	300-360	B	43	4,20
122TA8180	48	80	360-500	B	49	5,60
122TA8181	48	100	500-600	B	53	7,00
122TA8182	72	60	300-360	B	53	6,30
122TA8183	72	80	360-500	B	55	8,30
122TA8184	80	60	300-360	B	55	6,90

All spare parts available.

BATTERY CHARGERS / RX SERIES



WATERPROOF CHARGER BOX

Waterproof *Charger box*

We can build your RLD or RE charger in a waterproof Box



- Ideal for chargers used outside
- Impact resistant
- Non corrosive
- Constructed from 6mm fire retardant polypropylene
- Built in fork pockets:
 - Reduces damage during transport
 - Secure charger to forks during transport

Send your inquiry to our sales department.

Please provide us with full battery charger details:

Type, Volt, Amps, Single phase, Three phase, ...



TRACTION BATTERY CHARGERS

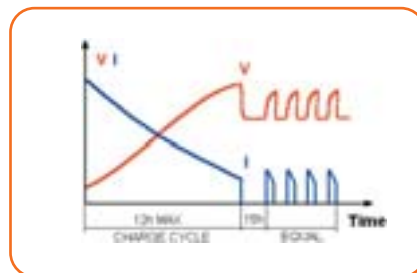
1. What is **EQUALISATION** and how does it work ?

When a battery is new, all the cells are virtually in the same condition. After the first cycle of charge-discharge, you can already measure small tension differences between the cells. These small differences between cells are more and more emphasized in the next charge-discharge cycles. This process reduces the performance of the battery and its life span.

The **EQUALISATION** function, offered on all Energic Plus chargers, has been developed to keep all the cells of the battery at the same level, even after years of continuous work. The equalisation function consists of 4 short extra charge cycles once the normal charge of the battery is completed. In the diagram of our chargers (see picture), it is possible to see the 4 equalisation charges.

ADVANTAGES:

- Improved battery performance
- Extended battery life span

2. What is **MAINTENANCE** and how does it work ?

If a battery is not used for a long time (example: seasonal work, holiday periods), it must be kept fully charged, in order to avoid a fall in performance. Then it is important TO CHARGE THE BATTERY PRIOR TO LEAVING IT IN STOCK FOR MORE THAN 24 HOURS. Another problem is present in all batteries: the AUTO-DISCHARGE process.

This makes it harder to keep a battery charged when the time in stock is longer (weeks or months).

The **MAINTENANCE performed by our RL-Digital chargers**, keeps the battery in perfect condition when it is not used for an indefinite time. It is sufficient to leave the battery connected to the charger and maintenance will be done automatically.

Our RLD-charger constantly monitors the battery voltage and maintains it between 2,25 and 2,37 V/cell, so the maintenance timing is "controlled" by the battery.

THE MOST IMPORTANT ADVANTAGES OF RL-Digital CHARGERS ARE:• **DERIVATIVE dV/dT FINAL CHARGE**

- The charge-time is completely defined by the battery conditions
- The risk of overheating in the battery is eliminated
- The risk of insufficient charge is eliminated
- The charger stops when the battery is fully charged

• **DIGITAL DISPLAY WITH ADVANCED INFORMATION**

The display continuously shows the charge parameters (current, capacity charged, effective time of charge, volt/cell). The display shows special messages in case of emergency stop, errors, black-out, to help the operation of troubleshooting (see user manuals). The parameters **CAPACITY CHARGED** and **EFFECTIVE TIME OF CHARGE** are required to enable complete control of the battery performance, especially when it is necessary to find the cause of a low autonomy of the forklift.



Best buy !!!

MODEL: RE MULTI

MULTI VOLTAGE

The output current of the charger always follows a Wa curve, with these initial currents:

12V	50A
24V	50A
36V	35A
48V	25A



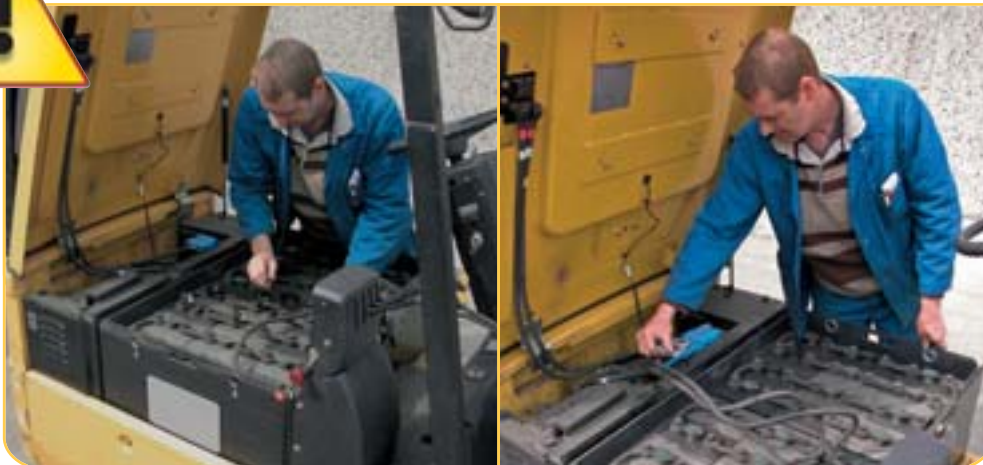
REF 122TA8189



GENERAL INFORMATION RE MULTI

- Dimensions: 430 x 285 x 270 mm
- Single-phase
- Timer controlled battery charger
- Rugged construction, for maximum reliability in heavy applications
- Charging curve WA
- Multivoltage power circuit
- Mechanical TIMER 0-24h
- External plugs for battery voltage selection
- Analog mobile coil ammeter
- 3 year warranty (on spare parts)
- CE certified

The RE-MULTI is the perfect charger for on-site assistance. It's smaller and easily portable, so it's perfect as a replacement of a faulty charger. Lead-acid batteries of any capacity can be charged with the RE-MULTI.





BOX D 500 X 440 X 900

ENERGIC Plus®**MODEL: MVC****MULTI VOLTAGE**

The MVC is a high frequency charger with IUa charge curve, where the constant current (phase I) is adjustable from zero to the maximum rated value of the charger with a potentiometer, and the constant voltage (phase U) is selectable between 12 different thresholds. This charger is suitable for any type of battery (lead-acid, gel, voltage, capacity). Long time, low constant current.

REF 106TA8696

2.40/2.50 V cell selectable
24/36/40/48/72/80 Volt
0 to 100 Amps
Three-phase input version

REF 108TA4244

2.40/2.50 V cell selectable
6/12/24/36/40/48 Volt
0 to 100 Amps
Three-phase input version

The MVC is equipped with a full, electronic protection system:

Autotest + Zero inrush current

When the MVC is turned on, a complete test of the functionality of the unit is performed automatically, in less than 10 seconds. In case of faults, the MVC remains in stand by and the internal circuits are not powered. This assures the maximum safety for the user. While the autotest is in progress, the internal capacitors of the MVC are pre-charged. This assures that the AC-input current of the charger, when the transformer will be powered, will increase with a soft ramp, without an inrush peak which could create problems with the protection/limiter devices at the customer's place.

Soft start

The output current of the charger always increases slowly, therefore, if the user turns on the MVC with the current potentiometer already set to the maximum value, the current will also increase slowly and will reach the max value in 3-5 seconds. This reduces the risk of sparks between the connectors.

Reverse polarity protection

If a battery is connected with reverse polarity, NO current flows on the wires. The MVC remains in stand-by and an apposite LED "Reverse Polarity" lights up on the front panel. When the battery is re-connected, with the right polarity, the MVC restarts automatically. This is the best and most safe polarity protection system that a charger can have.

Output short circuit protection

The MVC can work without problems with the output cables connected together, in case of short circuit no damage will occur.

Temperature protection

In case of overheating of the power components (e.g. because the internal fan is blocked) the MVC reduces the output current to zero and a LED "Thermal protection" lights up. With the optional battery temperature probe, the MVC can do the same in case of overheating of the battery.

OPTIONAL BATTERY TEMPERATURE PROBE

REF 122TA9100

- capable of charging single battery cells
- unbeatable flexibility



RETROFIT-KITS

**1. MULTI-VOLTAGE KIT:
TYPE 473SCE WITH EQUALISATION
(24-80V)**

24-80V REF 105TA2756


**2. SINGLE VOLTAGE KITS:
TYPE 422SCE WITH EQUALISATION
(12V-24V-36V)**

12V REF 105TA2753
24V REF 105TA2754
36V REF 105TA2755



These retrofit kits are designed to replace old controller systems and to update them to the latest safety specifications.

ALL RETROFIT KITS:

- come with standard auto-equalisation as standard
- are supplied with full installation manual
- have an integrated test function for checking the installation

SPIRAL CABLE (EUROPEAN CONTINENT ONLY)



Male plug:
REF 106TA6338



Male & female plug straight:
REF 110TA9376



Male & female plug 90°:
REF 111TA3845

PANELS FOR BATTERY CHARGERS

RE



RL D



RTC



RX

**RE • ANALOGUE AMMETER: (Serial number < 50.000)**

TYPE	BOX	DESCRIPTION	REF
RE	A	BASE	106TA8756
RE	A	COVER PANEL	106TA8757
RE	B	BASE	106TA8758
RE	B	COVER PANEL	106TA8759
RE	C	COMPLETE	124TA1143
RE	C	REAR PANEL	106TA8763

RE • DIGITAL AMMETER: (Serial number > 50.000)

TYPE	BOX	DESCRIPTION	REF
RE	S	BASE	107TA8754
RE	S	COVER	107TA8755
RE	A	BASE	107TA8756
RE	A	COVER	107TA8757
RE	B	BASE	107TA8758
RE	B	COVER	107TA8759
RE	C	COMPLETE	124TA1143
RE	C	REAR	106TA8763

RLD • Serial number < 71.800

TYPE	BOX	DESCRIPTION	REF
RL D	A	COMPLETE	124TA1144
RL D	A	REAR PANEL	106TA8763
RL D	B	BASE	106TA8764
RL D	B	SIDE PANEL LEFT	106TA8765
RL D	B	SIDE PANEL RIGHT	106TA8766
RL D	B	TOP PANEL	106TA8767
RL D	B	REAR PANEL	106TA8768
RL D	B	FRONT PANEL (DOOR)	106TA8769

RLD • Serial number > 71.800

TYPE	BOX	DESCRIPTION	REF
RL D	A	BASE	124TA1137
RL D	A	SIDE RIGHT PANEL	124TA1138
RL D	A	SIDE LEFT PANEL	124TA1139
RL D	A	TOP PANEL	124TA1140
RL D	A	REAR PANEL	106TA8763
RL D	A	FRONT PANEL (DOOR)	124TA1142
RL D	B	BASE	106TA8764
RL D	B	SIDE PANEL LEFT	106TA8765
RL D	B	SIDE PANEL RIGHT	106TA8766
RL D	B	TOP PANEL	106TA8767
RL D	B	REAR PANEL	106TA8768
RL D	B	FRONT PANEL (DOOR)	106TA8769

RTC

TYPE	BOX	DESCRIPTION	REF
RTC		BASE	106TA8764
RTC		SIDE PANEL LEFT	106TA8765
RTC		SIDE PANEL RIGHT	106TA8766
RTC		TOP PANEL	106TA8767
RTC		REAR PANEL	106TA8768
RTC		FRONT PANEL (DOOR)	106TA8770

RX

TYPE	BOX	DESCRIPTION	REF
RX	S	BASE	107TA8754
RX	S	COVER	107TA8755
RX	A	BASE	107TA8756
RX	A	COVER	107TA8757
RX	B	BASE	107TA8758
RX	B	COVER	107TA8759



MODEL SMC

BUILT-IN CHARGER

For lead-acid & gel cell batteries!



The SMC is a battery charger designed to be mounted on board in battery powered vehicles (scissor lifts, golfcarts, etc...). It has been designed for maximum reliability in wet and dusty environments. The SMC has three selectable charging curves (IU, IUa, IUla), suitable to charge both lead-acid and gel-cell batteries. The output current is independent from the variations of the AC input. The exclusive power control system of the SMC ensures a high power factor, high efficiency and very low EMI*, while the simple construction allows very easy service/maintenance operations.

* EMI: electro magnetic interference



GENERAL INFORMATION SMC

- Single phase
- high power factor
- high efficiency
- low EMI: The SMC doesn't generate electrical noise and input current distortion
- microprocessor controlled battery charger
- led control panel
- Auto-equalisation system
- Maintenance system
- charging curves: IU, IUa & IUla
- 10-12h charge system
- double feed of printcard (AC/DC)





MODEL: SMC SERIES

REF	VOLT	AMP	DIMENSIONS L x W x H	WEIGHT (Kg)
123TA7203	12	30	300 x 180 x 190	12
123TA7204	12	40	300 x 180 x 190	13
123TA7205	24	20	300 x 180 x 190	13
123TA7206	24	25	300 x 180 x 190	14
123TA7207	24	30	300 x 180 x 190	17
123TA7208	24	40	300 x 180 x 190	19
123TA7209	36	25	300 x 180 x 190	22
123TA7210	36	30	300 x 180 x 190	22
123TA7211	36	40	300 x 180 x 190	24
123TA7212	48	20	300 x 180 x 190	22
123TA7213	48	30	330 x 200 x 260	28
123TA7214	48	40	330 x 200 x 260	33
All spare parts available.				

BUILT-IN CHARGERS

MOUNTING BRACKET



REF 123TA6112
used for JLG E3

MOUNTING BRACKET



REF 123TA6113
used for JLG
E450A, E450AJ
M450A, M450AJ

BUILT-IN BATTERY CHARGERS



USED FOR FENWICK

**REF 123TA6126**

Input: 220VAC
Output: 24V 22A

USED FOR JUNGHEINRICH

**REF 123TA6127**

Input: 230VAC 1A 50Hz
Output: 24V 9A

USED FOR JUNGHEINRICH

**REF 123TA6128**

Input: 230VAC 3,7A 50/60Hz
Output: 24V 30A

USED FOR LINDE

**REF 116TA5127**

Input: 230VAC 8,5A 50/60Hz
Output: 24V 30A

USED FOR LINDE

**REF 123TA6129**

Input: 230VAC 8,5A 50Hz
Output: 24V 30A
with LED, red/green

USED FOR LINDE

**REF 123TA6130**

Input: 220VAC 50Hz
Output: 24V 25A

BUILT-IN BATTERY CHARGERS

NEW IN
PROGRAM

USED FOR LINDE

**REF 123TA6131**

Input: 220VAC 50Hz
Output: 24V 25A

USED FOR LOC

**REF 123TA6132**

Input: 230VAC 8,5A 50/60Hz
Output: 24V 30A

USED FOR MIC

**REF 123TA6133**

Input: 230VAC 4,2A 50Hz
Output: 24V 25A

USED FOR PRAT

**REF 123TA6134**

Input: 230VAC 4,7A 50/60Hz
Output: 24V 20A

USED FOR ROCLA

**REF 123TA6135**

Input: 230VAC 50Hz
Output: 24V 30A

USED FOR STEINBOCK/BOSS

**REF 123TA6136**

Input: 230VAC 4,7A 50/60Hz
Output: 24V 20A
with LED, yellow/green



BUILT-IN BATTERY CHARGERS



USED FOR STILL



REF 123TA6137
Input: 230VAC 8,5A 50Hz
Output: 24V 30A

USED FOR STILL



REF 123TA6138
Input: 230VAC 8,5A 50Hz
Output: 24V 30A

TOTALSOURCE



HIGH FREQUENCY CHARGERS

ENERGIC Plus[®] hf





New
generation

MODEL: CBC

HIGH FREQUENCY

Ask for our *FREE* detailed manual

- CBC: REF 123TA6868



size in mm: 500 x 440 x 900



GENERAL INFORMATION CBC

- Three-phase
- Fully automatic, microprocessor controlled battery charger
- Rugged construction, for maximum reliability in heavy applications
- Multivoltage / multicurrent power circuit, controlled by IGBT high
- Digital display:
 - Charging current (A)
 - Battery Voltage (V/cell)
 - Capacity charged (Ah)
 - Time of charge (Hours - Minutes)
 - Error messages
- Full electronic protection:
 - Wrong battery detection
 - Battery overvoltage - undervoltage
 - Output fuse blown
 - Black-out of the main supply
 - Emergency timer
 - Thermal protection
 - Reverse polarity (optional)
- Automatic equalisation and maintenance of the battery
- Automatic start on battery connection, automatic shutdown on battery disconnection
- Input voltage three-phase 220/380V ($\pm 15\%$), 50/60 Hz. Other input voltages on request.
- Easy to service and repair
- 3 year warranty (on spare parts)





MODEL: CBC SERIES

The **CBC** is a new family of high frequency chargers, based on IGBT technology, with unparalleled price/quality ratio and exclusive features. The design of these chargers has been optimized to solve the typical problems of the forklift rental companies.

The most important feature of the CBC is the complete programmability. These chargers are multi-voltage (12-96V), multi-current and multi-chemistry, therefore one CBC charger can be programmed to charge batteries of **any voltage, capacity and type**. The programming of the CBC is password protected, it's very simple and it's done by using apposite buttons located on the control board.

The CBC family has been split in four models, with different maximum power (5, 8, 10, 15 kW). It's possible to program each CBC with any combination of voltage and current, while the power (voltage*current) can't exceed the rated value.

The construction of the CBC is robust, simple and open. While other high frequency chargers are based on a single PCB board and can't be repaired by common electricians, the CBC is easy to access and repair, similarly to a standard, low frequency charger.

model	Programmable ranges		weight (kg)	REF
	voltages	max current		
CBC-K5	12V 24V 36V 48V 72V 80V 96V	120A 120A 120A 120A 80A 70A 60A	70	124TA2669
CBC-K8	12V 24V 36V 48V 72V 80V 96V	200A 200A 150A 120A 80A 70A 60A	80	123TA5544
CBC-K10	12V 24V 36V 48V 72V 80V 96V	200A 200A 180A 150A 110A 100A 80A	100	123TA5545
CBC-K15	12V 24V 36V 48V 72V 80V 96V	200A 200A 200A 200A 160A 150A 120A	125	123TA5546



WHY CHOOSE A HIGH FREQUENCY CHARGER ?

- **MAXIMUM** energy saving
- **LONGER** total battery life
- **GREATER** total cycle life
- **REDUCED** battery heating
- **REDUCED** charging times
- **LOWER** water consumption
- **LOWER** labour and need for water
- **OPTIMIZED** charge curves
- **THERMAL** compensation
- **SUPERIOR** safety and self protection
- **MINIMIZED** weight and size

High-frequency battery chargers face the state-of-the-art high frequency technology.

- Coated printed circuit boards.
- Metal case and self-extinguishing ABS.
- Weights and size are minimized.
- Adaptable to every use and very flexible.
- High frequency battery chargers are all controlled by microprocessor and internally protected against overload, short circuit, incorrect battery connection and voltage transients.
- With an internal selection, the chargers can be adapted to a wide range of battery capacities.
- High frequency battery chargers operate at 85 - 90% efficiency for the maximum saving of electric power cost.
- With the Thermal sensor option the charger's output electronically compensates the gasification voltage accordingly to the battery temperature.
- 18 month warranty
- CE certified (in conformity with EC directive 89/336/EEC regarding electromagnetic compatibility)

General Technical specs

- Operating temperature: -20° +50°C
- Output short circuit protection
- Reverse polarity protection
- Audible alarm system
- Automatic Thermal compensation



TYPE 1 - SINGLE-PHASE

**UBC**

Available at 12 or 24 V with dual input
single phase voltage 230 V.AC.
Size 230x110x65 mm. Weight 850 g

**BC 1**

Available at 12 or 24 V with
single phase 230 V.AC input.
Size 285x105x75 mm. Weight 1,5 Kg

**NG 1**

Available at 12, 24, 36, 48,
72, 80, 96 V. Single phase
230 V.AC input.
Size 300x160x80 mm.
Weight 2,2 Kg

**NG 3**

Available at 12, 24, 36, 48,
72, 80, 96 V. Single phase
230 V.AC input.
Size 425x215x90 mm
Weight 5,5 Kg

TYPE 2 - THREE-PHASE

**NG 5/7/9**

Available at 24, 36, 48, 72,
80, 96 V 400 V.AC
Three-phase input.
Size 520x260x100 mm.
Weight 9 Kg

**NG TOP**

Available at 24, 36, 48, 72,
80, 96 V 400 V.AC
Three-phase input.
Size 490x290x610 mm.
Weight 32 Kg



HIGH FREQUENCY TYPE 1 • SINGLE-PHASE

UBC	REF for acid bat.	REF for gel bat.	type 230Vac	Bat. volt	output current	8h charging time	10-12h charging time
 Size 230x110x65 mm. Weight 850 g	115TA6906 115TA6907	116TA5711 116TA5712	UBC12-18 UBC24-15	12V 24V	18A 15A	60-100Ah 45-80Ah	100-150Ah 80-130Ah

BC1	REF for acid bat.	REF for gel bat.	type 230Vac	Bat. volt	output current	8h charging time	10-12h charging time
 Size 285x105x75 mm. Weight 1,5 Kg	106TA8802 106TA8803 106TA8807	116TA5713 116TA5714 116TA5715	BC1 12-18 BC1 12-35 BC1 24-30	12V 12V 24V	18A 35A 30A	100-150Ah 100-160Ah	160-300Ah 160-250Ah

NG1	REF for acid bat.	REF for gel bat.	type 230Vac	Bat. volt	output current	8h charging time	10-12h charging time
 Size 300x160x80 mm. Weight 2,2 Kg	106TA8798 106TA8799 106TA8800 106TA8801	116TA5716 116TA5717 116TA5718 116TA5719	NG1 12-60 NG1 24-35 NG1 36-25 NG1 48-18	12V 24V 36V 48V	60A 35A 25A 18A	200-300Ah 120-190Ah 80-130Ah 60-100Ah	350-500Ah 200-300Ah 150-200Ah 100-160Ah

NG3	REF for acid bat.	REF for gel bat.	type 230Vac	Bat. volt	output current	8h charging time	10-12h charging time
 Size 425x215x90 mm. Weight 5,5 Kg	106TA8808 106TA8809 106TA8810 106TA8811 106TA8812 106TA8813 106TA8814 106TA8815 106TA8816 106TA8817 106TA8818 106TA8819 106TA8820 106TA8821 106TA8822 106TA8823 106TA8824 106TA8825 106TA8826	116TA5720 116TA5721 116TA5722 116TA5816 116TA5723 116TA5724 116TA5725 116TA5726 116TA5727 116TA5728 116TA5729 116TA5730 116TA5731 116TA5732 116TA5733 116TA5734 116TA5735 116TA5736 116TA5737	NG3 12-100 NG3 24-60 NG3 24-95 NG3 36-70 NG3 48-60 NG3 60-35 NG3 72-35 NG3 80-30 NG3 84-25 NG3 96-22 NG3 108-25 NG3 120-22 NG3 132-16 NG3 144-15 NG3 156-14 NG3 168-13 NG3 180-12 NG3 192-11 NG3 216-10	12 V 24 V 24 V 36 V 48 V 60 V 72 V 80 V 84 V 96 V 108 V 120 V 132 V 144 V 156 V 168 V 180 V 192 V 216 V	100 A 60 A 95 A 70 A 60 A 35 A 35 A 30 A 25 A 22 A 25 A 22 A 16 A 15 A 14 A 13 A 12 A 11 A 10 A	400-600Ah 200-300Ah 320-480Ah 240-360Ah 200-300Ah 140-210Ah 120-180Ah 110-160Ah 100-150Ah 90-130Ah 80-120Ah 75-110Ah 65-95Ah 60-90Ah 55-85Ah 50-80Ah 50-70Ah 45-65Ah 40-60Ah	600-1000Ah 300-500Ah 480-800Ah 360-600Ah 300-500Ah 210-350Ah 180-300Ah 160-270Ah 150-250Ah 130-220Ah 120-200Ah 110-180Ah 95-160Ah 90-150Ah 85-140Ah 80-130Ah 70-120Ah 65-110Ah 60-100Ah

HIGH FREQUENCY TYPE 2 • THREE-PHASE

NG5/7/9



Size 520x260x100 mm.
Weight 9 Kg

REF for acid bat.	REF for gel bat.	type 400Vac	Bat. volt	output current	8h charging time	10-12h charging time
106TA8785	116TA5738	NG5 24-100	24 V	100 A	400-600Ah	600-1000Ah
116TA6094	116TA6105	NG9 24-120	24 V	120 A	480-720Ah	720-1200Ah
106TA8786	116TA5739	NG5 36-100	36 V	100 A	400-600Ah	600-1000Ah
106TA8787	116TA5740	NG5 48-95	48 V	95 A	320-480Ah	480-800Ah
106TA8788	116TA5741	NG7 48-100	48 V	100 A	400-600Ah	600-1000Ah
116TA6095	116TA6106	NG9 48-120	48 V	120 A	480-720Ah	720-1200Ah
106TA8789	116TA5742	NG5 72-65	72 V	65 A	220-330Ah	330-550Ah
106TA8790	116TA5755	NG7 72-85	72 V	85 A	280-420Ah	420-700Ah
106TA8791	116TA5744	NG9 72-110	72 V	110 A	400-600Ah	600-1000Ah
106TA8792	116TA5745	NG5 80-60	80 V	60 A	200-300Ah	300-500Ah
106TA8793	116TA5746	NG7 80-75	80 V	75 A	260-390Ah	390-650Ah
106TA8794	116TA5747	NG9 80-100	80 V	100 A	320-480Ah	480-800Ah
106TA8795	116TA5748	NG5 84-55	84 V	55 A	180-270Ah	270-450Ah
106TA8796	116TA5749	NG5 96-50	96 V	50 A	160-240Ah	240-400Ah
106TA8797	116TA5750	NG5 120-35	120 V	30 A	120-180Ah	180-300Ah

NG TOP



Size 490x290x610 mm.
Weight 32 Kg

REF for acid bat.	REF for gel bat.	type 400Vac	Bat. volt	output current	8h charging time	10-12h charging time
116TA6107	116TA6108	NGTOP24-200	24 V	200A	800-1200Ah	1200-2000Ah
115TA6860	116TA5751	NGTOP48-170	48 V	170 A	700-1010Ah	1010-1600Ah
115TA6861	116TA5752	NGTOP72-140	72 V	140 A	600-1000Ah	1000-1400Ah
115TA6862	116TA5753	NGTOP80-150	80 V	150 A	600-800Ah	800-1250Ah
115TA6863	116TA5754	NGTOP96-120	96 V	120 A	400-750Ah	750-1200Ah

CHARGER WITH PRE-INSTALLED AIR PUMP KIT

20% faster charge with air-pump!



ONLY FOR ACID BATTERIES!

REF	Type	Bat. Volt	Output current	Battery capacity
230V MONO				
124TA1690	NG1 24/35	24	35	120-300Ah
124TA1691	NG3 24/60	24	60	200-500Ah
124TA1692	NG3 24/95	24	95	320-800Ah
124TA1693	NG3 36/70	36	70	240-600Ah
124TA1694	NG3 48/60	48	60	200-500Ah
400V TRI				
124TA1695	NG5 24/100	24	100	400-1000Ah
124TA1696	NG5 36/100	36	100	400-1000Ah
124TA1697	NG5 48/95	48	95	320-800Ah
124TA1698	NG7 48/100	48	100	400-1000Ah
124TA1699	NG9 24/120	24	120	480-1200Ah
124TA1700	NG9 48/120	48	120	480-1200Ah
124TA1701	NG9 80/100	80	100	320-800Ah
124TA1702	NGTOP 24/200	24	200	800-2000Ah
124TA1703	NGTOP 48/170	48	170	700-1600Ah
124TA1704	NGTOP 80/125	80	125	600-1250Ah



BATTERY DISCHARGER



To have the maximum return of your forklift, it is essential to check the condition of the battery. This equipment makes it possible to measure the capacity of your battery (Ah). It discharges the battery until a certain level is reached (usually 1,7Volt/cell)

The discharger is fitted with a display on which the following parameters are shown on:

- the battery voltage
- the selected stop voltage (usually 1,7V/cell)
- the discharging current
- the discharging time
- the Ah discharged



Software (optional) is available for recording of discharging curves by PC via RS232.

REF	TYPE	NOMINAL BATTERY VOLTAGE	DISCHARGING CURRENT
106TA8964	80 V - 150 A	1 to 80 V (Umax. = 96 V)	1 to 150 A
112TA4886	80 V - 300 A	1 to 80 V (Umax. = 96 V)	2 to 300 A
112TA4887	120 V - 100 A	1 to 120 V (Umax. = 160 V)	1 to 100 A
112TA4888	120 V - 200 A	1 to 120 V (Umax. = 160 V)	2 to 200 A
112TA4889	PC-Software		

MULTIVOLTAGE BATTERY CHARGER



Multivoltage battery charger

- This equipment can charge batteries in the range up to 96 volts with an adjustable current between 1 to 50 Amps.
- Time is adjustable from 1 to 72 hours.
- It weighs only 9 kg and is easy to move
- This unit can be used for on-site assistance, providing improved charging of any battery or replacement of any old charger that may have failed.

REF 124TA1705

THERMAL SENSOR (LENGTH: 5M)

REF 116TA6110

Thermal sensor for automatic compensation. Adjusts the battery voltage in relation to the ambient or battery temperature. (except BC1 and UBC)



SUPPORT

REF 116TA6111

(except BC1 and UBC)



INDICATOR

Shows the charging phase for on-board chargers.



REF 116TA6112 Remote Indicator Led D10, 1.250cm. For UBC/BC1 (Installation hole d. 14mm)

REF 116TA6113 Remote Indicator 1.250cm. For UBC/BC1 (Installation hole d. 22mm)

REF 116TA6114 Remote Indicator Led D10, 1.100cm. For NG (Installation hole d. 14mm)

REF 116TA6115 Remote Indicator 1.100cm. For NG (Installation hole d. 22mm)

REF 116TA6116 Remote Indicator Led D10, 1.300cm. For NG (Installation hole d. 14 mm)

SUPPORT

REF 116TA6118

Automatically stops the truck when mains voltage is present For BC1, NG1 and NG3



BATTERY DATA LOGGER



The battery control

- The Data Logger is a simple but accurate device to control and monitor batteries from 24 to 96 V
- You can easily place it on a battery and connect it to the + and -: it will record essential data automatically.

A complete system

- With the Battery Data Logger it's possible to manage a complete and accurate database of the battery fleet.
- You can constantly monitor the correct working duty and correct use of each battery.

REF 116TA6119



MODEL BDX

BATTERY DISCHARGER / ANALYZER



The **BDX** is an automatic battery **discharger/analyzer**, designed to test the efficiency of industrial batteries of any type, voltage and capacity. This equipment can be programmed to discharge the battery with a precisely controlled constant current, adjustable from zero to the maximum rated value, while keeping the battery voltage under control. While the discharge is in progress, the control board measures the total capacity (Ampere-Hours) discharged from the battery. When the battery voltage reaches the minimum programmed value, or when the maximum programmed test time is reached, the BDX shuts down automatically, while the measured parameters remain available to the user. **The BDX is very simple to use and doesn't require particular training.** The programming of the test requires less than 2 minutes and the operation is completely automatic.

GENERAL INFORMATION BDX

- High frequency IGBT regulator, featuring constant current discharge of the battery.
- Rugged construction
- Compact and portable design
- Wide power range available - Battery voltages up to 600 Vdc & Discharge currents up to 600 Amps
- Intelligent electronic protection system (includes soft start, battery polarity reversal and overtemperature).
- Programmable digital board, controlled by microprocessor.
- Can operate with batteries of any type.
- Digital display (battery voltage and current, time, capacity discharged, programmed values).
- CE certified

AC INPUT

Standard voltage	Voltage range: 85-135 or 180-250 Vac
	Singlephase
	Max power: 250 Watts
	50/60 Hz

DISCHARGE CAPABILITY

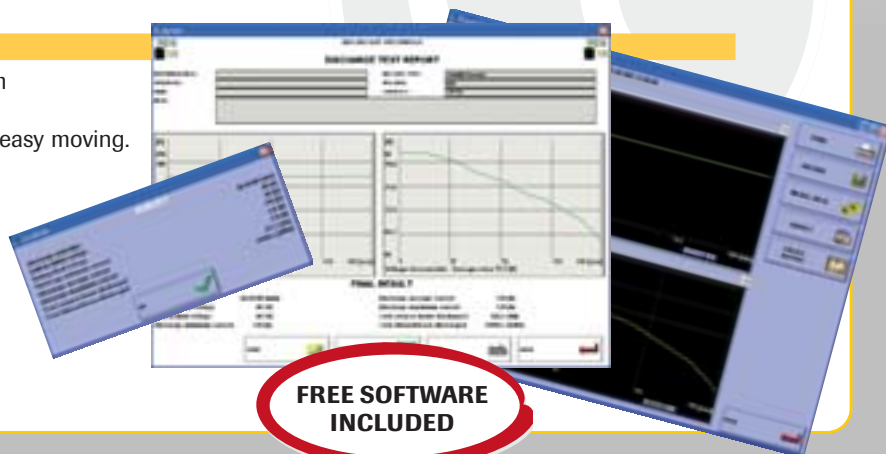
Standard versions	Battery voltage: 12-48 V Maximum discharge current: 100 A - REF 124TA2652
	Battery voltage: 12-96 V Maximum discharge current: 200 A - REF 124TA2653

PROTECTION

Battery polarity reversal	If the battery is connected with reverse polarity, the BDX remains in stand-by mode and no current flows.
Overtemperature	A thermal sensor protects all the electronic components of the BDX.
Sparks on connection	When the battery is connected to the BDX, no sparks and/or flames will be generated at the connectors.
Auto-test at startup	Every time the BDX is powered, an automatic self-test of the power electronics and the control boards is performed in less than 10 seconds. In case of fault, the unit remains in stand-by mode.

MECHANICAL

External dimensions	325 x 630 x 570 mm
Enclosure	2 mm steel.
	Four wheels kit for easy moving.
Cooling	Forced ventilation



**FREE SOFTWARE
INCLUDED**



230V ~ 50/60 Hz 46W
6-12 V
1,5-3 A
10-50 Ah
150 x 90 x 130 mm
1,455 Kg.



DOMESTIC CHARGER

REF 106TA8834



230V ~ 50/60 Hz 315W
12-24 V
6-12 A
45-180 Ah
290 x 170 x 240 mm
10,390 Kg.



CHARGER - TESTER

REF 106TA8830

230V ~ 50/60 Hz 83W
12 V
5 A
32-60 Ah
210 x 125 x 160 mm
2,320 Kg.



DOMESTIC CHARGER

REF 106TA8835



230V ~ 50/60 Hz 395W
12-24 V
8-16 A
60-205 Ah
290 x 170 x 240 mm
10,640 Kg.



CHARGER - TESTER

REF 105TA4897

230V ~ 50/60 Hz 115W
12 V
4-8 A
24-120 Ah
210 x 125 x 160 mm
3,500 Kg.



DOMESTIC CHARGER

REF 106TA8833



230V ~ 50/60 Hz 540W
12-24 V
10-20 A
92-250 Ah
290 x 170 x 240 mm
11,370 Kg.



CHARGER - TESTER

REF 106TA8829

230V ~ 50/60 Hz 210W
12-24 V
4-8 A
24-120 Ah
210 x 125 x 160 mm
4,400 Kg.



DOMESTIC CHARGER

REF 106TA8832



230V ~ 50/60 Hz 46W
12 V
3 A
24-50 Ah
150 x 90 x 130 mm
1,460 Kg.



AUTOMATIC CHARGER

REF 106TA8828

230V ~ 50/60 Hz 177W
12 V
6-12 A
45-180 Ah
250 x 145 x 200 mm
6,270 Kg.



CHARGER - TESTER

REF 106TA8831



230V ~ 50/60 Hz 210W
12-24 V
4-8 A
24-120 Ah
210 x 125 x 160 mm
4,430 Kg.



AUTOMATIC CHARGER

REF 106TA8827



AMMETERS INTERNAL SHUNT (GENERAL USE)



72 x 62 mm

0 - 20 A

0 - 30 A

0 - 50 A

0 - 60 A

0 - 80 A

REF 106TA8779

REF 106TA8780

REF 106TA8781

REF 111TA3456

REF 106TA8782

Rear body: Ø 55 mm



92 x 82 mm

0 - 50 A

0 - 80 A

REF 106TA8783

REF 106TA8784

Rear body: Ø 70 mm



VOLTMETERS

60 x 65 mm

0 - 50 V

0 - 100 V

REF 106TA8775**REF 106TA8776**

Rear body: Ø 45 mm

100 x 124 mm

0 - 50 V

0 - 100 V

REF 106TA8777**REF 106TA8778**

Rear body: Ø 45 mm

AMMETERS EXTERNAL SHUNT

60 x 65 mm

0 - 50 A

0 - 150 A

REF 106TA8773**REF 106TA8774**

Rear body: Ø 45 mm

SHUNT FOR AMMETERS



50 A - 60 m V

150 A - 60 m V

250 A - 60 m V

REF 106TA8771**REF 106TA8772****REF 111TA4118**



PLUGS 380 V - IN CONFORMITY WITH EUROPEAN SAFETY REQUIREMENTS



FEMALE

380V/6h

3P + $\perp$

16A REF 106TA6750

32A REF 106TA6751

380V/6h

3P + N + $\perp$

16A REF 106TA6752

32A REF 106TA6753



MALE

380V/6h

3P + $\perp$

16A REF 106TA6754

32A REF 106TA6755

380V/6h

3P + N + $\perp$

16A REF 106TA6756

32A REF 106TA6757



MALE

380V/6h

3P + $\perp$

16A REF 106TA6758

32A REF 106TA6759

380V/6h

3P + N + $\perp$

16A REF 106TA6760

32A REF 106TA6761



FEMALE

380V/6h

3P + $\perp$

16A REF 106TA6762

32A REF 106TA6763

380V/6h

3P + N + $\perp$

16A REF 106TA6764

32A REF 106TA6765

Made in conformity
with following standards:
IP44
IEC60309-1 & 2
EN60309-1 & 2

A full range of
charger spares held for
ENERGIC Plus

PLUGS 380 V

Car electronic tester

REF 106TA8960



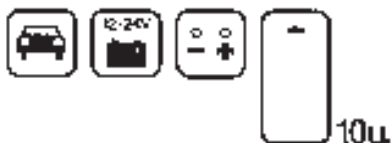
Digital voltmeter

REF 106TA8959



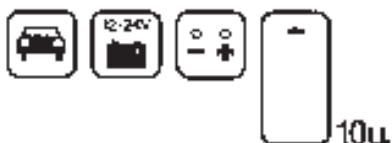
Electronic tester

REF 106TA8958



Electronic tester

REF 106TA8957



POCKET MULTIMETER



REF 106TA8963
Digital multimeter

MULTIMETER



REF 106TA8962
Multimeter with 2 leads

CLAMP METER



REF 112TA2908
up to 600A - 600v - AC/DC



START BOOSTER



best buy

Portable start booster 12V/24V

REF 106TA8965

- 12V: 700A → 1500A
- 24V: 400A → 900A
- battery 18Ah
- Cigarette lighter contact 12V 15A
- With voltmeter & flashlight

Portable start booster 12V

REF 106TA8966

- 12V: 700A → 1500A
- battery 24Ah
- Cigarette lighter contact 12V 15A
- With voltmeter & flashlight

BATTERY CELL TESTER

battery cell tester

REF 106TA8967

2 Volt 250A

REF 106TA8968

2 Volt 375A



12 VOLT BATTERY CHECKER

Specifications:

- digital read-out: Volt $\pm 0,1$ V
- rate of discharge at 12 volts 10 - 200 - 300 amps
- take readings after 5 seconds and hold reading for 10 seconds
- polarity indicator via diodes

REF 106TA8969



DISTILLED WATER STATION



Time and space are very expensive. Every year, large sums of money are spent on the maintenance of batteries with old and non-adapted equipment. To help you find a solution for this problem, we are now distributing battery water dispensing stations. These stations produce and distribute pure distilled water.

Fixed stations: (up to 20 forklifts)

This kind of station can be wall-mounted and operated directly from a pressurized drinking water supply.

They are supplied with two de-ionisation cartridges (capacity: 2x500L), 5 metres of flexible cable and a dispensing gun.

The de-ionisation cartridges include a colour change exhaustion indicator window, which indicates the degree of consumption.

Complete station
with standard gun

REF 106TA8970



Replacement cartridge:
Dimensions L x H x W

REF 106TA8971
86,5 x 30,5 x 11,5 cm



Standard dispensing gun
(Without level sensor)

REF 106TA8972



Dispensing gun with level sensor

REF 106TA8973

DEMINERALISED WATER UNIT

**REF 105TA4903**

Can produce 150 L demineralised water

REF 105TA4902

Replacement cartridge

REF 111TA3846

Coupling

WATER DEMINERALISER COMPLETE WITH RESERVOIR

REF 103TA1549 (Complete system)

The long experience acquired in the area of the forklift trucks led to the production of "Vinky".

"Vinky" is an efficient and easy-to-use device that will prove to be of use to personnel responsible for refilling water within traction batteries.

The Vinky can produce 500 litres of demineralised water, and is delivered with gun (with auto-level detector) and reservoir of 15 litres.



Face 1:
general drawing of the
system of Vinky balance

**For further details please ask
for our complete information
leaflet: REF 103TA1550**

Code	Description	REF
P	Gun	103TA1551
M	Demineraliser (= resin + tube)	103TA1552
R	Synthetic demineralising resin (no tube)	103TA1553
G	Sender unit to stop water from overflowing	103TA1554
V	Tank for demineralised water Capacity 15 L Dimensions : 206 x 166 x 461	103TA1555

BATTERY SUCTION PUMPS



12 volt suction pump
for emptying water
from battery boxes

mobile unit

REF 106TA8975

12 volt suction pump
for emptying water
from battery boxes

fixed unit on stand

REF 106TA8974

**BATTERY FILLER UNIT****REF 106TA8981**

automatic battery acid filling on trolley (220 volt)
for use in workshop

BATTERY FILLER UNIT**REF 106TA8980**

automatic battery acid filling (220 volt) for van-use
easy to move

BATTERY FILLER UNIT**REF 106TA8979**

professional unit for filling starter batteries
for filling 1 cell at once

TROLLEY ACTIVATOR 220V**REF 106TA8978**

Model indicated for middle work loads
Fills and levels all the types of batteries
Fills and levels batteries with degassing holes
2 electrical pumps: one for putting acid into the element,
the other for taking away the acid to level the element

BATTERY FILLER UNIT**REF 106TA8977**

mobile battery filler unit with filler gun
(50 L capacity tank) - 12 V pump

BATTERY FILLER UNIT**REF 106TA8976**

mobile water filling system with 60 L barrel
battery of 12 V 6,5Ah



BATTERY ACCESSORIES



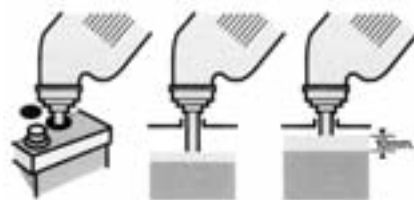
REF 106TA8987
hydrometer

MANUAL SUCTION PUMP



REF 105TA4900
hand pump with 9 L reservoir for
emptying water from battery boxes

BATTERY ACCESSORIES



water topping-up bottle
0,5 L **REF 106TA8982**
1 L **REF 106TA8983**

FILLING PUMP



REF 106TA8986
manual battery filling pump

REAMER



REF 106TA8984
Battery terminal reamer

BRUSH CLEANING SET



REF 106TA8985
brushes for battery starter terminals



BATTERY ACCESSORIES



REF 106TA8988
acid filling pistol

WATER FILLING PISTOL



REF 103TA1551
water filling pistol complete with
automatic level detector

LEVEL DETECTOR



REF 106TA8989
4 volt level indicator with lamp
lamp switches off when correct level is
reached

WATER FILLING PISTOL



REF 124TA1724
Automatic shut-off and regulator
22mm nozzle, fits most batteries
High flow rate - 7,6l per minute
Attaches to any standard hose (quick connect fittings included)



WATER FILLING PISTOL



REF 124TA1725
Automatic shut-off
16mm nozzle, for small vent openings
Steep bend for limited access applications



WATER FILLING PISTOL



REF 124TA1726
Automatic shut-off
16mm nozzle, for small vent openings



WATER FILLING PISTOL



REF 124TA1727
Automatic shut-off
Extra narrow 12mm nozzle



WATER FILLING PISTOL



REF 124TA1728
Automatic shut-off
Extra narrow 12mm nozzle
With 22,8mm extension



WATER FILLING PISTOL



REF 124TA1729
For watering transparent jar type stationary batteries
Gun operates outside the cell
Does not have automatic shut-off



**CONDUCTIBILITY TESTER****REF 116TA5778**

Checks the conductivity
(microSiemens-value)
of your demineralised water

FOOT-PUMP**REF 116TA5779**

Foot-pump suitable for barrels up to 120L

HAND-PUMP**REF 116TA5780**

Hand-pump suitable for barrels up to 60L

TROLLEY**REF 116TA5782**

Trolley to move filled batteries
Nylon wheels. Dim.: 660 x 335 mm

PORTABLE SYSTEM FOR REMOVING EXCESS WATER FROM THE BATTERY CONTAINER**REF 116TA5781**

Dimensions: 140 x 170 x 220 mm
With 12V cigarette lighter plug

BATTERY BOX**REF 116TA5783**

Battery box with cover to move filled starter batteries
Gray acidproof plastic
Dim.: 370 x 170 x 270 mm

CLAMP**REF 116TA5784**

Clamp to lift traction cells

**PUMP****REF 106TA8996**

semi-automatic acid pump

ELECTRONIC CIRCUIT TESTER**REF 106TA8990****BATTERY GREASE****REF 106TA8991**

tube of anti-corrosive grease for battery terminals (20 ml)

PUNCHES**REF 106TA8994**

set of letters

REF 106TA8995

set of numbers/symbols

BATTERY PROTECTION SPRAY**REF 107TA7662**

Battery cleaner with acid indicator

- eliminates corrosion
- provides corrosion prevention
- turns pink in the presence of acid

ACID-RESISTANT FUNNEL**REF 107TA7663**

acid-resistant funnel



BATTERY



REF 116TA6190
4,5 V
1 unit

BATTERY



REF 116TA6187
C, 1.5 V
packing of 2 units

BATTERY



REF 116TA6188
AA, 1.5 V
packing of 4 units

BATTERY



REF 116TA6189
AAA, 1.5 V
packing of 4 units

BATTERY



REF 116TA6185
9 V
1 unit

BATTERY



REF 116TA6186
D, 1.5 V
packing of 2 units



SAFETY



REF 106TA9006
eye washing bottle
400 ml

REF 106TA9007
eye washing bottle
800 ml

REF 106TA9008
holder



REF 106TA9005
eye washing bottle kit
complete with sterile bandages etc



REF 106TA9004
emergency first aid kit complete with
splint, tongs, plasters and eyewash
etc



REF 106TA8997
first aid box



**ACID ABSORBER****REF 106TA9009**

Ø 7,6 cm x 122 cm, 30/box
Absorbs ACID!

NEUTRACID

Absorber and extinguisher with indicator of neutralisation. NeutrAcid absorbs liquids and neutralises acids.

1Kg of NeutrAcid is capable of neutralizing approx. 300 ml of concentrated sulphuric acid H_2SO_4 , approx. 600 ml of concentrated nitric acid HNO_3 , approx. 1000 ml of concentrated hydrochloric acid HCl .

When colour turns yellow, neutralization is completed. One filling of box cap holds approx. 150g of NeutrAcid.

REF 106TA9020**WATER CONTAINERS**

WITH TAP

REF 123TA9050 - 10 L**REF 106TA8955** - 20 L**REF 106TA8954** - 50 L**ACID GAS
DISPOSABLE RESPIRATORS**

REF 124TA1731 - small
REF 124TA1732 - medium
REF 124TA1733 - large

**EMERGENCY SHOWER****REF 106TA9019**

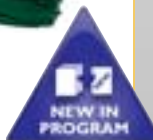
Emergency shower complete with eye bath
Fixed unit

**SAFETY GLASSES****REF 106TA9013**

acid-resistant safety glasses

ACID SLEEVES

REF 124TA1730
forearm protection
381mm



Plastic

**ACID-RESISTANT APRON****REF 106TA9018**

acid-resistant apron

GLOVES

rubber acid-resistant gloves

SIZE	REF
8	106TA9014
9	106TA9015
10	106TA9016
11	106TA9017

REF 106TA9010

emergency shower - 200 x 200 mm

REF 106TA9011

eye shower - 200 x 200 mm

**REF 106TA9012**

portable emergency shower



CONTAINER

**REF 115TA4698**

190L 1200 x 800 x 200 mm

REF 115TA4700

220L 800 x 1200 x 250 mm

REF 115TA4699

550L 1310 x 1310 x 350 mm

REF 116TA5638

Pallet to easily lift container

BATTERY ACCESSORIES

CONTAINER

**REF 106TA8992**

container for storing batteries

REF 106TA8993

container cover

PALLET COVER



REF 116TA5639 (= pallet cover)
For container REF 106TA8992

WATER PROTECTOR

Water Protector is an electrotechnical acid-free preserving agent. Eliminates moisture, corrosion and grease, lubricates and protects.



REF 115TA6864
Can 1000 ml.



REF 115TA6865
Aerosol 400 ml.



MANUAL HOIST



REF 115TA5410

Manual hoist : 250 Kg
 Lift capacity : 250 Kg
 Total length : 250 mm
 Chain : 1500 mm
 Weight : 1,5 Kg



PROTECTIVE MAT

REF 115TA5411

(REF for 1 mat)

Protective mat for traction batteries
 Protects the floor from damage and pollution
 Protects the battery against severe shocks
 80cm x 120cm



PROTECTIVE MOUNTINGS

REF 115TA5412

(REF for 1 mounting)

Protects the floor from damage and pollution
 Protects the battery against severe shocks
 Can be fitted in the lifttruck compartment





AQ-STEAM

REF 115TA4701

Cleans your traction batteries in an environment-friendly way: without wasting water!
The most important feature of the steam technique is the extremely low water consumption (approx. 2L/hour). This makes it the perfect option for cleaning traction batteries. A small quantity of cleaning product can be added to the steam, which will clean, degrease and neutralize excess battery acid.

Advantage:

- environment-friendly: no contaminated waste water & no cleaning rags
- battery does not have to leave the lift trucks
- time-saving: battery boxes no longer need to be pumped out
- cost-saving: prolongs the life span of your battery – prevents leakage currents
- protected against overpressure, overheating, low-water indications,...



Technical features:

- stainless steel version
- input voltage: 230 V
- Max. steam temp.: 160°C
- Vacuum motor: 1000 W
- Pressure: 6,5 bar
- Dim.: 60X55X33
- Weight: 24 kg

QUICK-FILL

REF 115TA4702

Vacuum filling system for batteries: fills car batteries in 30 seconds! "Quick-fill" is a pneumatic vacuum filler pump. This compact device is made entirely out of corrosion proof PVC & steel. The filler pump is used to fill starter and traction batteries with acid.

It is easy to use and completely splatter free! An extremely reliable device with only 2 moving valves, which require virtually no maintenance. All this confirms the "Quick-fill" reputation as one of the world's most reliable and fastest filling systems in the battery field.

Features:

- "Quick-fill" is vacuum-powered, i.e. the acid is not pressurized to avoid splattering.
- Does not fill damaged or leaking batteries
- User-friendly, simple, safe & splatter free
- Reliable & virtually maintenance free: only 2 moving parts
- Manufactured from corrosion proof PVC & steel
- With overflow inhibitor
- Filler head + adaptors included

Dimensions: 35,5X19X48
Weight: 8 kg
Air pressure: 1,4 – 2,8 bar





BATTERY RECOVERY

Prolongs the life span & increases the capacity of your batteries!

Battery Recovery has been developed to clean and realloy the active elements in a battery by means of an electrochemical reaction! It can be used for: starter batteries, semi-traction batteries, deep-cycle batteries, traction batteries,...

Problem :

Sulphated cells cause the inner resistance in a battery to increase.

This results in: limited capacity, increased water consumption, longer charging time,...

Batteries that are hardly ever or never used suffer from an even more accelerated sulphatation process, resulting in a reduced life span of the battery!



Untreated



Treated



Untreated

Treated

Solution :

Battery Recovery reduces sulphatation & inner resistance in your battery!

A small quantity of Battery Recovery mixes with the existing electrolyte: thanks to this renewed chemical mixture, all sulphate crystals are dissolved & the plates are shielded from sulphatation.

Advantage :

- Extends the life span of your batteries considerably
- Reduces the water consumption of your battery
- Reduces the gasification
- Reduces the charging time
- Reduces corrosion of the terminals
- The battery preserves its capacity longer (increased working capacity)

...



REF 115TA4703

can 180 ml
for treatment of 3 motorcycle batteries
or 2 starter batteries and deep-cycle



REF 115TA4705

can 360 ml
for treatment of 1 truck battery
or 4 car batteries



REF 115TA4704

can 946 ml
for treatment of 10 car batteries

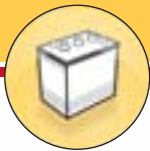
- Kit contains everything needed to clean forklift batteries
- Neutralizes and cleans batteries, stands, rollers, forklift, battery compartments and concrete floors
- Eliminates trickle discharge to ensure optimum performance
- Minimizes safety risks by eliminating acid burns and shock
- pH color indicators alert users of acidic corrosion
- Easy to apply and safe to use on metal, plastic and rubber
- Durable kit can withstand any environment



REF 124TA1740	Utility brush
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ACID EATER & NOTES

NOTES



NOTES

NOTES

Lined area for notes, featuring horizontal yellow lines on a light gray background.

