Model ARD // Three-phase

General information:

- Three-phase 230/400 VAC 50/60 Hz input, single-phase 230 V available on request
- Fully automatic
- CE certified
- 10-12 h 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-aqualisation system
- Maintenance system

Digital technology stands for:

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

On demand:

- Fast charger
- Air pump

Advantages of a round shape:

- Less chance of damage during transport
- If the side becomes dented, the damage is reduced thanks to the spherical shape.

RLD = ARD
New design, same charger

3 year warranty on all charger parts!

All our battery chargers from p 3 - p 7 are supplied without battery connectors. For battery connectors please see p 10-11.

For quotation please contact your sales person with:
- Type battery, gel/lead acid
- Battery voltage
- Battery capacity in amps an hour

BATTERY CHARGERS

TOTAL SOURCE

Model RE // Single-phase

General information

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

3 year warranty on all charger parts!

On demand:

- Fast charger
- Air pump

Model RX // Single-phase – Three-phase

General information

- 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 220 VAC or three-phase 380 VAC other input voltages available on request
- Charge curve Wa (DIN41774)
- 1 year warranty (on spare parts)

BATTERY CHARGERS

TOTAL SOURCE

Model AR-TOP // *Three-phase - Single-phase*

General information

- AR-TOP (New control board + dual charging curve)
- Three-phase 230/400 VAC 50/60 Hz input
- Single-phase 230 V available on request
- Fully automatic, microprocessor control
- Dural selectable charging curve: Wa (10-12 hours) / Wsa-Pulse (7-8 hours)
- Derivative dV/dT charge control
- Digital display (16 x 2 LCD): BOLT/CELL, CURRENT, CAPACITY CHARGED, TIME OF CHARGE, ERROR MESSAGES, END CODES, HISTORY LOG
- Automatic equilization / Maintenance / Refresh functions
- Programmable gassing voltage
- Battery recovery/desulphation cycle
- Programmable real time clock functionalities (day/time):
  - *Off-peak charging time window*
  - *Equalize time and days*
  - *Opportunity charging time frame*
- Data storage capabilities
- Connectivity package: RS-485, USB (optional), wireless (optional)
- Compatible with wireless battery ID modules
- Compatible with WEB based fleet management system
- Stackable cabinet (up to 3 units high)

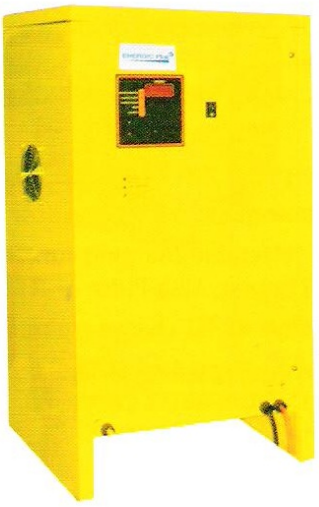
BATTERY CHARGERS

TOTALSOURCE

Model CBC // *Three-phase*

General information:

- 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*
  - *Blackout 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 220/380 V (± 15%), 50/60 Hz. Other input voltages on request.
- Easy to service and repair
- 3 year warranty on spare parts



High frequency

Size (WxDxH):

500 x 440 x 900 mm

BATTERY CHARGERS

TOTAL SOURCE

Model High frequency

Type 1 - single-phase

UBC

- Available at 12 or 24 V with dual input
- Single-phase voltage 230 VAC input
- Size 230 x 110 x 65 mm. Weight 850 g

BC 1

- Available at 12 or 24 V
- Single-phase voltage 230 VAC input
- Size 285 x 105 x 75 mm. Weight 1,5 kg

NG 1

- Available at 12, 24, 36, 48, 72, 80, 96 V
- Single-phase voltage 230 VAC input
- Size 300 x 160 x 80 mm. Weight 2,2 kg

NG 3

- Available at 12, 24, 36, 48, 72, 80, 96 V
- Single-phase voltage 230 VAC input
- Size 425 x 215 x 90 mm. Weight 5,5 kg

Type 2 - three-phase

NG 5/7/9

- Available at 24, 36, 48, 72, 80, 96 V 400 VAC
- Three-phase voltage 400 VAC input
- Size 520 x 260 x 100 mm. Weight 9 kg

NG TOP

- Available at 24, 36, 48, 72, 80, 96 V 400 VAC
- Three-phase voltage 400 VAC input
- Size 490 x 290 x 610 mm. Weight 32 kg

BATTERY CHARGERS

TOTAL SOURCE

Model BDX // Single-phase

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.

General information

- Easy to use, even without specialized training
- High-frequency IGBT regulator, featuring constant current discharge of the battery
- Compact and portable design – strong construction
- Wide power range available – Battery voltages up to 600 VDC & discharge currents up to 600 A
- Programmable digital board, controlled by microprocessor
- Can operate with batteries of any type.
- Digital display (battery voltage and current, time, capacity discharged, programmed values)
- Two or more BDX units can operate in parallel

AC INPUT Standard voltage

- Voltage range: 85-135 or 180-250 VAC
  Single-phase
  Max power: 250 W
  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**

BOOSTER

TOTAL SOURCE

Professional start booster to start each type of vehicle, from an engine powered lift truck to an electric aerial platform. Even if there is no battery or if the battery is completely discharged. Select your booster according to your machinery by means of the required Peak Amperage (cranking current).

Nr		Start Ampère	Peak Ampère	Maximum charge	Output	Input - fuse	Weight	Dimensions (mm)
1	Micro 12 V-660 CA **REF 106TA8966**	660 CA	1750 A	7 kW	16 A	300 A	11,5 kg	375 x 110 x 320
2	SOS 12 V-1200 CA **REF 136TA1197**	1200 CA	3100 A	14 kW	16 A	300 A	16,5 kg	450 x 130 x 390
3	SOS 12/24 V -1520/760 CA **REF 106TA8965**	1520 CA on 12 V – 760 CA on 24 V	4500 A on 12 V – 2250 A on 24 V	22 kW	16 A	300 A	23 kg	530 x 160 x 480
4	SOS 12/24 V – 2400/1200 CA **REF 136TA1198**	2400 CA on 12 V – 1200 CA on 24 V	6200 A on 12 V – 3100 A on 24 V	28 kW	16 A	500 A	28,5 kg	375 x 110 x 320
5	Mobile 12/24 V – 3200/1600 A **REF 136TA1199**	3200 CA on 12 V – 1600 CA on 24 V	7750 A on 12 V – 3875 A on 24 V	32 kW	16 A	500 A	58 kg	490 x 355 x 1005

REF 136TA1237

TVH can deliver an adapted kit with the right battery connectors and cables. The kit includes the heavy duty version of the TotalSource® boosters (see nr 4 on top of this page) and is ideal to let your scissor lifts ride your loading ramp in a quick and easy way.