

# Chargers

AQ-TRON® STANDARD CHARGERS 12 HOURS - WA



## AQ-TRON®

### TECHNICAL SPECIFICATIONS Wa

- Mains input 230/400Vac  $\pm 5\%$  50-60Hz
- Characteristics of charge current Wa
- Microprocessor controlled charging process
- Clear and recognisable visualisation of charging level through 5mm LEDs and display
- Display and acoustic Safety timer over the 12h
- Last 5 charge cycles saved on board memory
- Starting charge automatic or manual
- Suitable for rated battery voltages from 12V - 24V - 36V - 48V - 80V
- Maintenance charge
- Phase failure signalling
- Intelligent post-charge
- Conformity to European normative **CE** marking

### RECOMMENDATIONS

Before buying a charger, next data must be determined:

#### a) CHARGE CYCLE

We advise you to consider your choice of the battery, and to examine all our chargers. Every model was designed for a specific application. Before you choose, check the next points:

- 1) Is the battery totally or partly discharged when it's connected to the charger?
- 2) How much time is there to charge the battery?
- 3) Do you need a charger which can charge batteries with different tension and capacity? Contact us!

## AQ-TRON® PRACTICAL 12 HOUR CHARGER TO KEEP YOUR BATTERIES IN TOP CONDITION

	Ref.	Tension (V)	Power supply (V)	Current (A)	Dim. XxYxH	Average C5 (Ah)	
12 V	AQ12M15	12	230	15	250 x 160 x 180	75	
	AQ12M20	12	230	20	250 x 160 x 180	110	
	AQ12M25	12	230	25	250 x 160 x 180	140	
	AQ12M30	12	230	30	340 x 260 x 260	170	
24 V	AQ24M10	24	230	10	250 x 160 x 180	55	
	AQ24M15	24	230	15	250 x 160 x 180	75	
	AQ24M20	24	230	20	250 x 160 x 180	110	
	AQ24M25	24	230	25	340 x 260 x 260	140	
	AQ24M30	24	230	30	340 x 260 x 260	170	
	AQ24M40	24	230	40	340 x 260 x 260	220	
	AQ24M50	24	230	50	340 x 260 x 260	290	
	AQ24M60	24	230	60	340 x 260 x 260	360	
	AQ24M80	24	230	80	340 x 260 x 260	460	
	AQ24T80	24	3x400	80	500 x 350 x 400	460	
	AQ24M100	24	230	100	500 x 350 x 400	600	
	AQ24T100	24	3x400	100	500 x 350 x 400	600	
	AQ24T120	24	3x400	120	500 x 350 x 400	750	
	AQ24T140	24	3x400	140	500 x 350 x 400	875	
36 V	AQ36M20	36	230	20	340 x 260 x 260	110	
	AQ36M25	36	230	25	340 x 260 x 260	140	
	AQ36M30	36	230	30	340 x 260 x 260	170	
	AQ36M40	36	230	40	340 x 260 x 260	220	
	AQ36M50	36	230	50	340 x 260 x 260	290	
	AQ36M60	36	230	60	500 x 350 x 400	360	
	AQ36M80	36	230	80	500 x 350 x 400	460	
	AQ36T80	36	3x400	80	500 x 350 x 400	460	
	AQ36T100	36	3x400	100	500 x 350 x 400	600	
	AQ36T120	36	3x400	120	500 x 360 x 900	750	
AQ36T140	36	3x400	140	500 x 360 x 900	875		
48 V	AQ48M50	48	230	50	500 x 350 x 400	290	
	AQ48T50	48	3x400	50	500 x 350 x 400	290	
	AQ48M60	48	230	60	500 x 350 x 400	360	
	AQ48T60	48	3x400	60	500 x 350 x 400	360	
	AQ48M80	48	230	80	500 x 350 x 400	460	
	AQ48T80	48	3x400	80	500 x 350 x 400	460	
	AQ48M100	48	230	100	500 x 360 x 900	600	
	AQ48T100	48	3x400	100	500 x 360 x 900	600	
	AQ48T120	48	3x400	120	500 x 360 x 900	750	
	AQ48T160	48	3x400	160	500 x 360 x 900	1000	
72 V	AQ72T80	72	3x400	80	500 x 360 x 900	460	
	AQ72T100	72	3x400	100	500 x 360 x 900	600	
	AQ72T120	72	3x400	120	500 x 360 x 900	750	
80 V	AQ80T80	80	3x400	80	500 x 360 x 900	460	
	AQ80T100	80	3x400	100	500 x 360 x 900	600	
	AQ80T120	80	3x400	120	500 x 360 x 900	750	
	AQ80T140	80	3x400	140	500 x 360 x 900	875	
	BAT/19591	UNIVERSAL TRANSFORMATION KIT 12V-96V					



M = monofase / monophasé / mono-phase

T = driefase / triphasé / three-phase

# Chargers

AQ-TRON® EQUIPMENT

# AQ-TRON®

- ▶ **BAT/34544** Electronic card for single phase charger
- ▶ **BAT/34543** Electronic card for three-phase charger
- ▶ **BAT/34545** Rectifier bridge for single phase charger 20 A
- ▶ **BAT/21090** Rectifier bridge for single phase charger 30 A
- ▶ **BAT/15417** Rectifier bridge for single phase charger 40 A
- ▶ **BAT/34548** Rectifier bridge for single phase charger 50 A
- ▶ **BAT/33100** Rectifier bridge for single phase charger 60 A
- ▶ **BAT/34550** Rectifier bridge for three-phase charger 60 A
- ▶ **BAT/34551** Rectifier bridge for three-phase charger 80 A
- ▶ **BAT/34552** Rectifier bridge for three-phase charger 100 A
- ▶ **BAT/34553** Rectifier bridge for three-phase charger 120 A
- ▶ **BAT/34554** Rectifier bridge for three-phase charger 140 A
- ▶ **BAT/34555** Single phase fuses 20/30/40/60/80A
- ▶ **BAT/34556** Three-phase fuses 80/100/120/140/160A

## CHECKLIST

- 1 ✓ Compact size
- 2 ✓ Solid body
- 3 ✓ Simple use
- 4 ✓ Clear indication of the charge phase
- 5 ✓ Equalization charge
- 6 ✓ Safety timer
- 7 ✓ CE-label
- 8 ✓ Exact calibration of the mains voltage
- 9 ✓ Connection cables included



### ▲ **BAT/33368**

Protecting cage for chargers  
Size: 520 x 380 x 920 (h)



### ▲ **BAT/33369**

Protecting cage for chargers  
Size: 520 x 380 x 460 (h)

# Chargers

## FUSES FOR BATTERY CHARGERS

### ► DIN 72581 CERAMIC

Center distance: 30



Ref.	Amp.
BAT/18200	30
BAT/18202	50
BAT/18204	80
BAT/18206	100
BAT/18208	150

### ► DIN 72582 CERAMIC

Center distance: 30



Ref.	Amp.
BAT/17120	30
BAT/17121	50
BAT/17122	80
BAT/17126	100
BAT/18214	150

### ► DIN 43561 CERAMIC

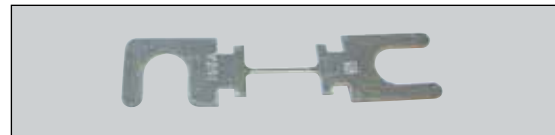
Center distance: 60



Ref.	Amp.
BAT/17661	35
BAT/18218	40
BAT/17662	50
BAT/18220	63
BAT/18222	80
BAT/17663	100
BAT/18224	125
BAT/18226	135
BAT/18228	150
BAT/18230	160
BAT/18232	175
BAT/18234	200
BAT/18236	225
BAT/17565	250
BAT/17569	275
BAT/17566	300
BAT/18238	325
BAT/17567	355
BAT/17412	400
BAT/18240	425
BAT/18242	500

### ► DIN 43560 CERAMIC

Center distance: 60



Ref.	Amp.
BAT/16669	35
BAT/16670	40
BAT/16671	50
BAT/16672	63
BAT/16673	80
BAT/16674	100
BAT/17129	125
BAT/17132	135
BAT/17135	150
BAT/17137	160
BAT/17139	175
BAT/17141	200
BAT/18247	225
BAT/18249	250
BAT/18251	275
BAT/18253	300
BAT/18255	325
BAT/18257	355
BAT/18259	400
BAT/18261	425
BAT/18263	500

### ► TYPE LET 240V

Center distance: 42



Ref.	Amp.
BAT/18426	25
BAT/18430	35
BAT/18432	50
BAT/18434	63
BAT/18436	80
BAT/18438	100
BAT/18440	125
BAT/18442	160
BAT/18444	180

# Chargers

## AQ-TRON® INDUSTRIAL CHARGERS

### RECOMMENDATIONS

Before buying a charger, next data must be determined:

#### a) CHARGE CYCLE

We advise you to consider your choice of the battery, and to examine all our chargers. Every model was designed for a specific application. Before you choose, check the next points:

- 1) Is the battery totally or partly discharged when it's connected to the charger?
- 2) How much time is there to charge the battery?
- 3) Do you need a charger which can charge batteries with different tension and capacity? Contact us!

#### b) TENSION OF THE CHARGER

The tension of the charger must be the same as that of the battery: 2.0V per cell.

#### c) CHARGE CURRENT

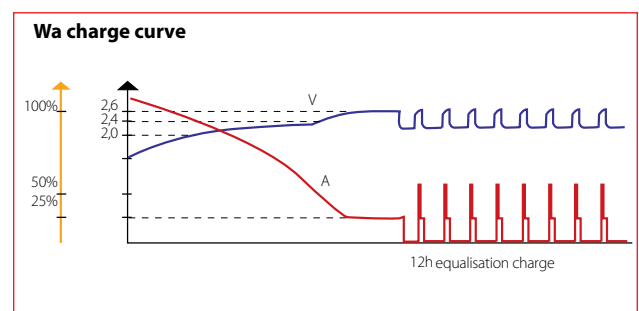
The charge current must be chosen in accordance with the battery capacity. With charge current, we mean the current which is given by the charger when the battery is at its nominal voltage (2.0V/cell). The current decreases to 50% when the battery tension rises up to 2.4V/cell and to 25% when 2.65V/cell is reached. For example: 48V - 100A / 57.6V - 50A / 63.6V - 25A.



### Wa charge curve

#### Wa charge curve:

Consists in a principal charge phase and a final charge phase. The charger starts to charge with a maximal current (100 %), during the charge, the battery tension increases and the charge current decreases correspondingly. When 2.4V/cell is reached, the charge current is decreased to 50 % and the principal charge phase is ended. During the final charge phase, the charge current decreases to 25 %, and a battery tension of 2.65V/cell is reached (= full battery tension).



## CAPACITY TABLE FOR AQ-TRON® BATTERY CHARGERS

BATTERY DATA		POWER REQUIRED	MAXIMUM CURRENT AND FUSES					
VOLT V	AMP A		MAIN POWER KVA	SINGLE -PHASE		THREE PHASE		
		VOLT 230		FUSE aM	VOLT 230	FUSE aM	VOLT 400	FUSE aM
24	25	0.90	3.9	6,3				
24	30	1.08	4.7	6,3				
24	40	1.44	6.3	8,0	3.6	6	2.1	4
24	60	2.16	9.4	12,0	5.4	8	3.1	4
24	80	2.88	12.5	16,0	7.2	12	4.2	6
24	100	3.60	15.7	20,0	9,0	16	5.2	8
24	120	4.32			10.9	20	6.2	10
24	140	5.04			12.7	20	7.3	12
36	30	1.62	7,0	12,0	4.1	6	2.3	4
36	40	2.16	9.4	16,0	5.4	8	3.1	4
36	60	3.24	14.1	20,0	8.1	12	4.7	8
36	80	4.32	18.8	32,0	10.9	16	6.2	10
36	100	5.40	23.5	40,0	13.6	20	7.8	12
36	120	6.48	28.2	50,0	16.3	25	9.4	12
36	140	7.56			19,0	32	10.9	16
48	40	2.88	12.5	20,0	7.2	12	4.2	6
48	60	4.32	18.8	32,0	10.9	16	6.2	10
48	80	5.76	25,0	40,0	14.5	25	8.3	12
48	100	7.20			18.1	32	10.4	16
48	120	8.64			21.7	35	12.5	20
48	140	10.08			25.3	40	14.6	25
48	160	11.52					16.6	25
72	60	6.48			16.3	25	9.4	16
72	80	8.64			21.7	35	12.5	20
72	100	10.80			27.1	40	15.6	25
72	120	12.96					18.7	32
72	140	15.12					21.8	40
72	160	17.26					25,0	40
80	60	7.20			18.1	32	10.4	16
80	80	9.60			24.1	40	13.9	25
80	100	12.00			30.2	50	17.3	25
80	120	14.40					20.8	32
80	140	16.80					24.3	40
80	160	19.20					27.7	50
80	180	21.60					31.2	50
96	60	8.64			21.7	35	12.5	20
96	80	11.52			29,0	50	16.6	25
96	100	14.40					20.8	40
96	120	17.28					25,0	40
96	140	20.16					29.1	50
96	160	23.04					33.3	50
96	180	25.92					37.5	63