



POWER

# FORTIS

## TRACTION BATTERY CHARGER

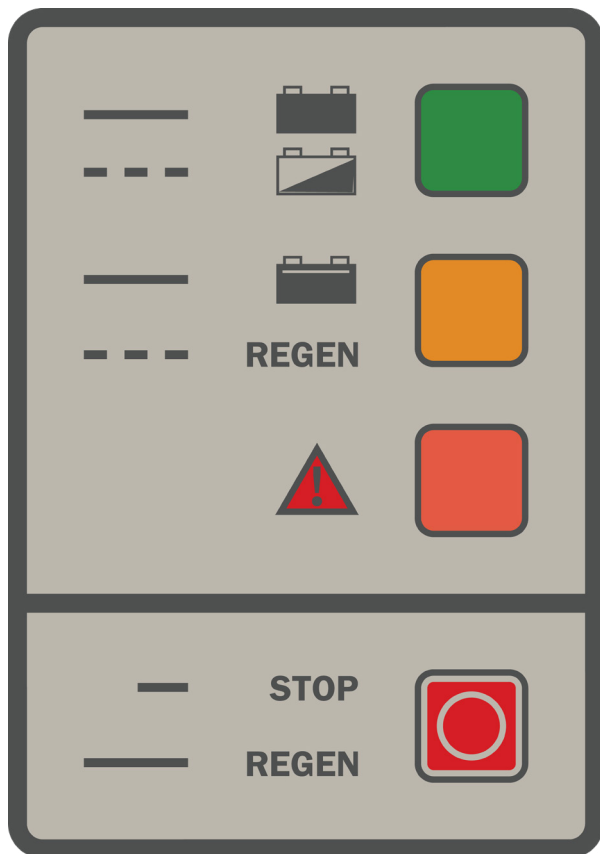
High frequency modular charger

[www.axima-power.com](http://www.axima-power.com)



## EASY-TO-USE

## PRECISE CHARGE



### FUNCTION AND PARAMETERS:

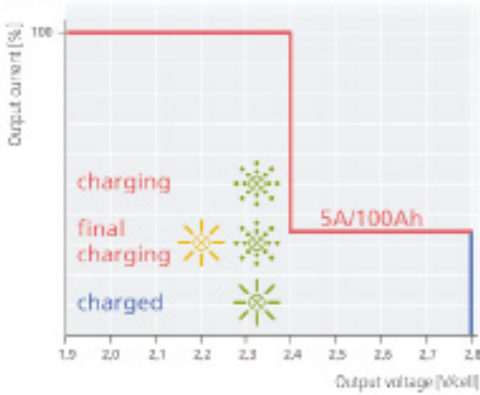
- VERY HIGH RELIABILITY
  - SHORT-CIRCUIT PROOF OUTPUT
  - REDUCES OPERATING COSTS
  - MODULAR SYSTEM
  - PRESET CHARGING CURVES
- 
- Efficiency up to 94%, power factor  $\cos \varphi \sim 1$
  - Active PFC and softstart
  - Verification of connected battery
  - Galvanic separated mains - output
  - Regeneration charging - desulphation and equalization
  - Short-circuit and reverse-polarity proof output
  - Optimised HF charging technology accelerates charging, prolongs working life of batteries and saves energy
  - Traction battery charger FORTIS meets hard requirements of three shift
  - Operation in industrial areas

Operational stages are signaled by three big LED lights, status of charging is visible from long distance. Output current is adjustable to match battery capacity.

FORTIS chargers comply with european standards of using PFC in electronical devices.

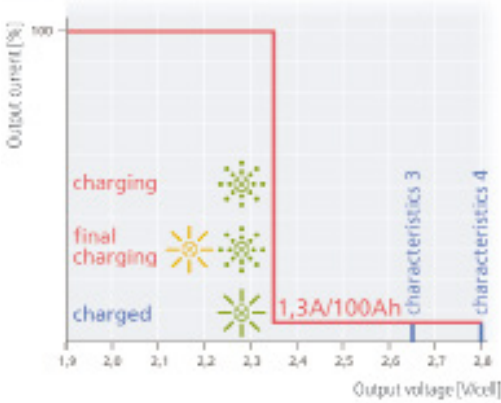
# CHARGING CHARACTERISTICS

**IUIa**

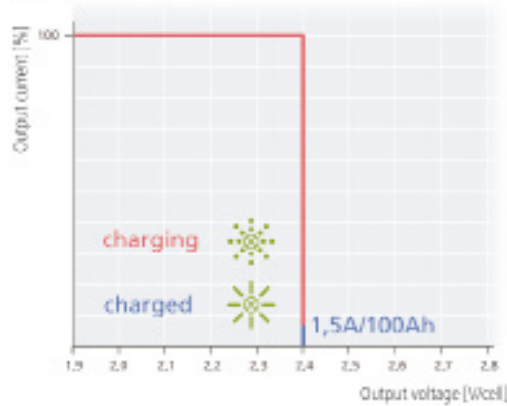


- Simple choice of charging characteristics enables to optimize charging of different battery types
- Optimal value of charging factor reduces power consumption and prolongs battery working life

**IUIa-gel**



**IUIa**



# OPTIONAL EQUIPEMENT

- External signaling - signal column / acoustic
- Two digital inputs for remote control
- Temperature sensor - compensation of charging voltage according to battery temperature
- Two potential-free outputs



Temperature sensor



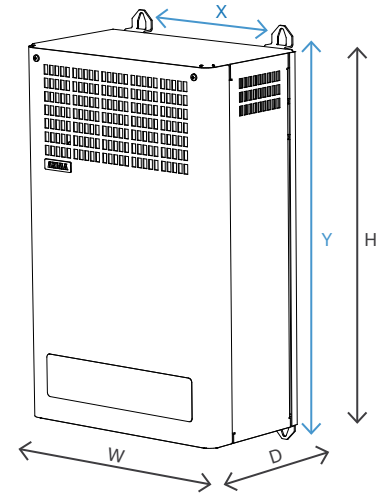
Outputs for external signaling

# CHARGER TYPES

Output voltage (V)	Output current (A)	Mains (VAC)	Input current (A)	Mains protection (A)	Case	Type	Charging time / Battery capacity (Ah max.)			Weight (Kg)
							lead-acid		gel	
							8h	10h	10h	
24	60	230	8,7	10	FF170	FORTIS 24E60	423	571	316	13
	100	230	14,1	16	FF170	FORTIS 24E100	704	952	526	13
	100	3 x 400	4,9	6	FF170	FORTIS 24D100	704	952	526	14
	200	3 x 400	9,8	10	FF250	FORTIS 24D200	1408	1905	1053	25
48	50	230	14,1	16	FF170	FORTIS 48E50	352	476	263	13
	50	3 x 400	4,9	6	FF170	FORTIS 48D50	352	476	263	14
	100	3 x 400	8,0	10	FF170	FORTIS 48D100	644	871	482	18
	150	3 x 400	12,9	16	FF250	FORTIS 48D150	996	1348	745	27
80*	200	3 x 400	16,0	20	FF250	FORTIS 48D200	1289	1743	963	30
	25	230	14,1	16	FF170	FORTIS 80E25	176	238	132	13
	25	3 x 400	4,9	6	FF170	FORTIS 80D25	176	238	132	14
	50	3 x 400	8,0	10	FF170	FORTIS 80D50	352	476	263	17
	75	3 x 400	12,9	16	FF250	FORTIS 80D75	528	714	395	26
	100	3 x 400	16,0	20	FF250	FORTIS 80D100	704	952	526	28
	125	3 x 400	20,9	25	FF330	FORTIS 80D125	880	1190	658	37
	150	3 x 400	24,0	32	FF330	FORTIS 80D150	1056	1429	789	40
	175	3 x 400	28,9	32	FF550	FORTIS 80D175	1232	1667	921	49
	200	3 x 400	32,0	40	FF550	FORTIS 80D200	1408	1905	1053	52
	225	3 x 400	36,9	40	FF720	FORTIS 80D225	1585	2143	1184	63

Other types on request. Battery capacity values in the table according to IUla dU charging curve.

forced ventilation	up to 94%
Output voltage stability	± 1%
Cooling	forced ventilation
Degree of protection	IP20
Operating conditions	-10°C to +40°C
Protection class	I
Standards	EN 61000-6-2 EN 61000-6-4 EN 62368-1



Case	H	W	D	X	Y
FF170	477	302	169	230	515
FF250	477	302	254	230	515
FF330	477	302	339	230	515
FF550	477	547	339	499	515
FF720	477	717	339	699	515

Dimensions in millimetres [mm]  
X and Y are positions of mounting holes