



POWER

# FORTIS

## TRACTION BATTERY CHARGER

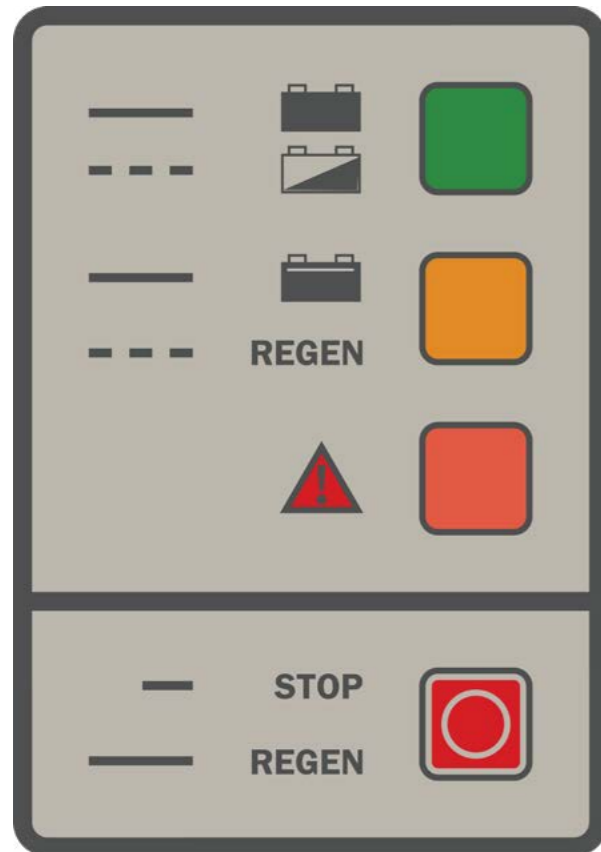
High frequency modular charger

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



## EASY-TO-USE

## PRECISE CHARGE



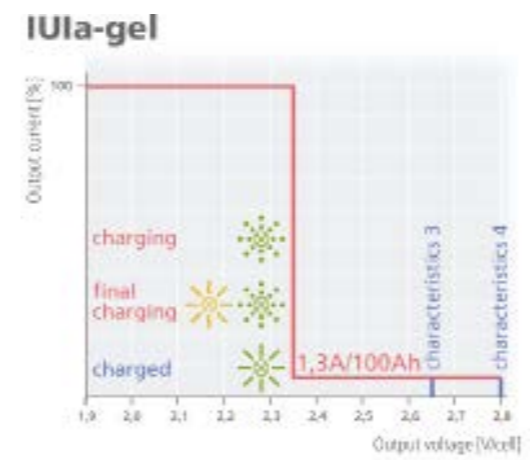
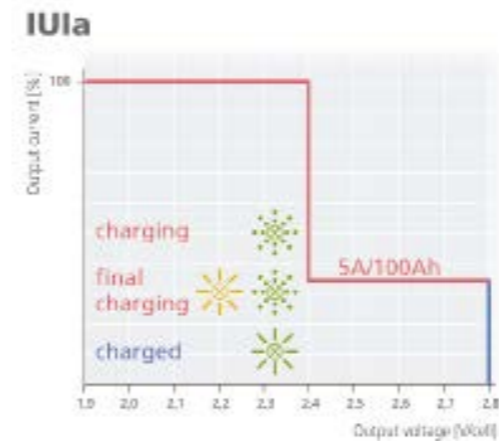
### FUNCTION AND PARAMETERS:

- 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

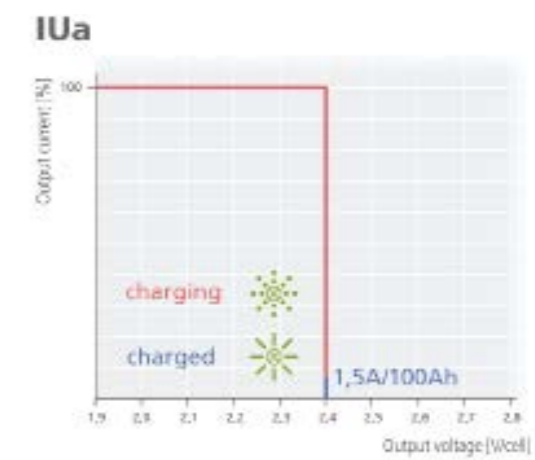
Operational stages are signaled by three big LED lights, status of charging is visible from long distance. Output current is adjustable to match battery capacity.

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

## CHARGING CHARACTERISTICS



- 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



## 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

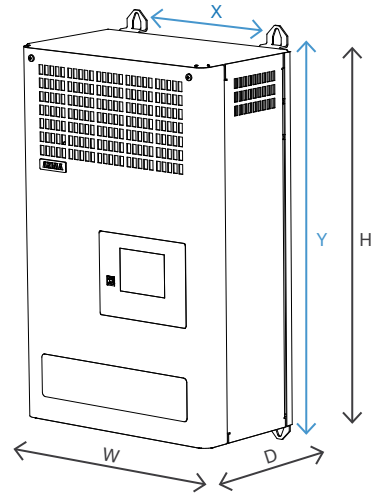
# CHARGER TYPES

Output voltage (V)	Output current (A)	Mains (VAC)	Input current (A)	Mains protection (A)	Case with air pump	Case without air pump	Type	Charging time / Battery capacity (Ah max.)						Weight (Kg)	
								with air pump		without air pump		gel	with air pump	without air pump	
								6h	8h	8h	10h	10h			
24	60	230	8,7	10	FF170	FF170	FORTIS 24E60	308	462	423	571	316	15	13	
	100	230	14,1	16	FF170	FF170	FORTIS 24E100	513	769	704	952	526	15	13	
	100	3 x 400	4,9	6	FF170	FF170	FORTIS 24D100	513	769	704	952	526	16	14	
	200	3 x 400	9,8	10	FF250	FF250	FORTIS 24D200	1026	1538	1408	1905	1053	26	25	
	50	230	14,1	16	FF170	FF170	FORTIS 48E50	256	385	352	476	263	15	13	
	50	3 x 400	4,9	6	FF170	FF170	FORTIS 48D50	256	385	352	476	263	16	14	
48	100	3 x 400	8,0	10	FF170	FF170	FORTIS 48D100	469	704	644	871	482	20	18	
	150	3 x 400	12,9	16	FF250	FF250	FORTIS 48D150	726	1088	996	1348	745	28	27	
	200	3 x 400	16,0	20	FF250	FF250	FORTIS 48D200	938	1408	1289	1743	963	31	30	
	25	230	14,1	16	FF250	FF170	FORTIS 80E25	128	192	176	238	132	16	13	
	25	3 x 400	4,9	6	FF250	FF170	FORTIS 80D25	128	192	176	238	132	17	14	
	50	3 x 400	8,0	10	FF250	FF170	FORTIS 80D50	256	385	352	476	263	20	17	
80*	75	3 x 400	12,9	16	FF330	FF250	FORTIS 80D75	385	577	528	714	395	30	26	
	100	3 x 400	16,0	20	FF330	FF250	FORTIS 80D100	513	769	704	952	526	32	28	
	125	3 x 400	20,9	25	FF550	FF330	FORTIS 80D125	641	962	880	1190	658	42	37	
	150	3 x 400	24,0	32	FF550	FF330	FORTIS 80D150	769	1154	1056	1429	789	45	40	
	175	3 x 400	28,9	32	FF550	FF550	FORTIS 80D175	897	1346	1232	1667	921	54	49	
	200	3 x 400	32,0	40	FF550	FF550	FORTIS 80D200	1026	1538	1408	1905	1053	56	52	
	225	3 x 400	36,9	40	FF720	FF720	FORTIS 80D225	1154	1731	1585	2143	1184	65	63	

\* Intended also for 96V and 110V Batterie 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 60950-1

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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