FLEXIS

MULTIFUNCTIONAL BATTERY CHARGER

Programmable, high-frequency modular charger of traction batteries

BATTERY CHARGERS and POWER SUPPLIES for INDUSTRIAL APPLICATIONS

AXIMA

FLEXIS

FOR TRACTION BATTERIES

SIMPLE OPERATING

- **VERY HIGH RELIABILITY**
- **SHORT CIRCUIT PROOF OUTPUT**
- **SAVES EXPENSES FOR OPERATING**
- **MODULAR SYSTEM**
- **PRESET CHARGING CURVES**

- User friendly – setting of parameters via operating panel or PC
- EFficiency up to 94%, power factor cos φ ~1
- Active PFC and softstart
- Verification of connected battery
- High resistence to mains disturbances
- Galvanic separated mains - output
- High stability of output parameters
- Possibility to set up custom charging curves
- Memory for 1.000 charging cycles
- Regeneration charging - desulphation and equalization
- Possibility to use one charger for more different batteries by manual selection

FLEXIS is fully programmable, high-frequency charger of traction batteries .

Optimised charging technology prolongs working life of battery, accelerates charging and saves energy.

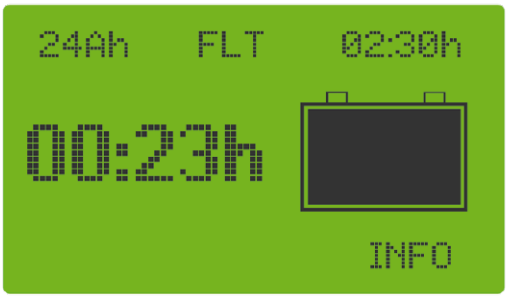
FLEXIS charger meets hard requirements of three-shift service in industrial areas.

FOUR–COLOUR GRAPHIC DISPLAY

Operating panel on the charger allows to set parameters of charging – charging is adjusted to the values of battery.

Standby mode

Charging



Charging finished

Error

Operating conditions are signalized by change of colour of the display, all important values are displayed.

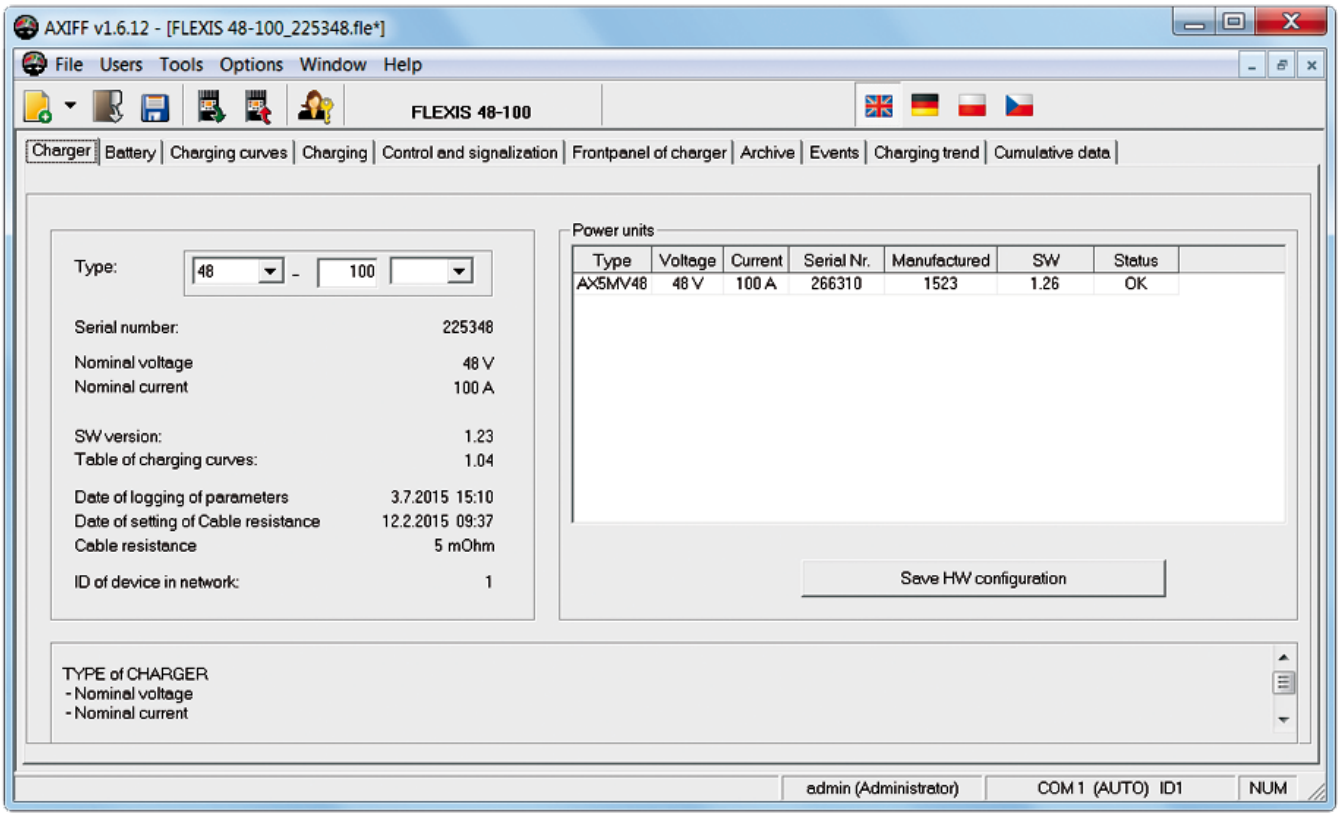
Display is sizable, all charging stages are visable from long distance.

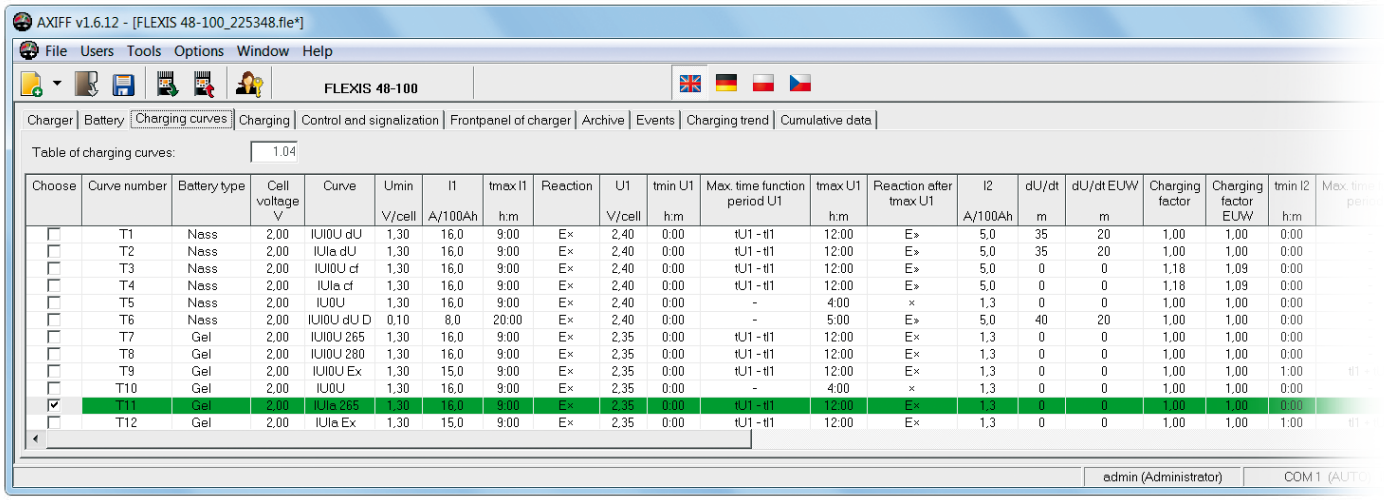
AXIFF

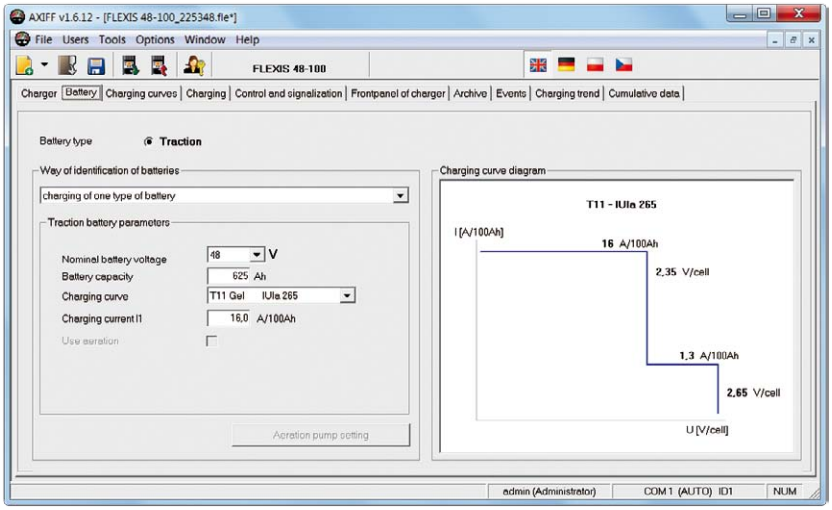
CONFIGURATION PROGRAMME FOR DETAILED SETTING OF THE CHARGER VIA PC

OPTIMAL SETTING OF THE CHARGER

ARCHIVE OF CHARGING CYCLES

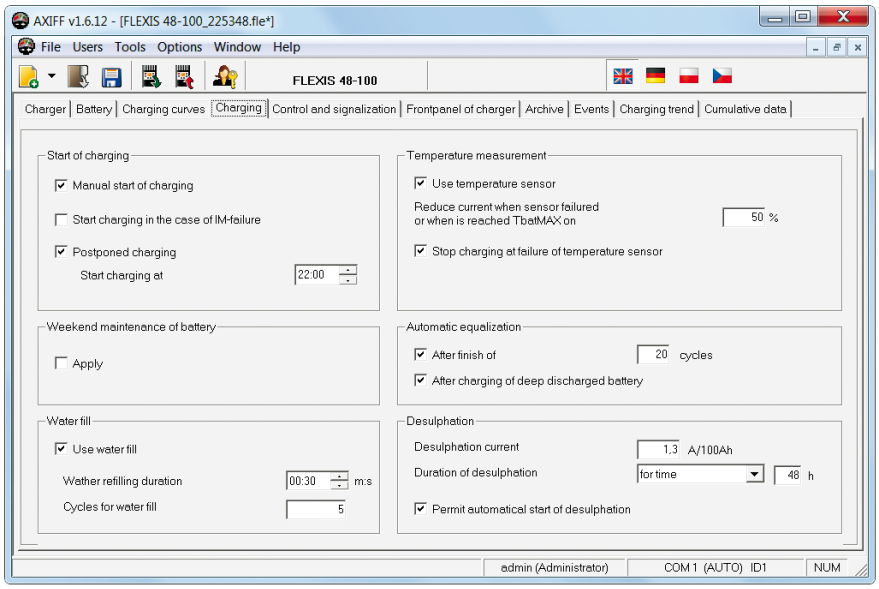


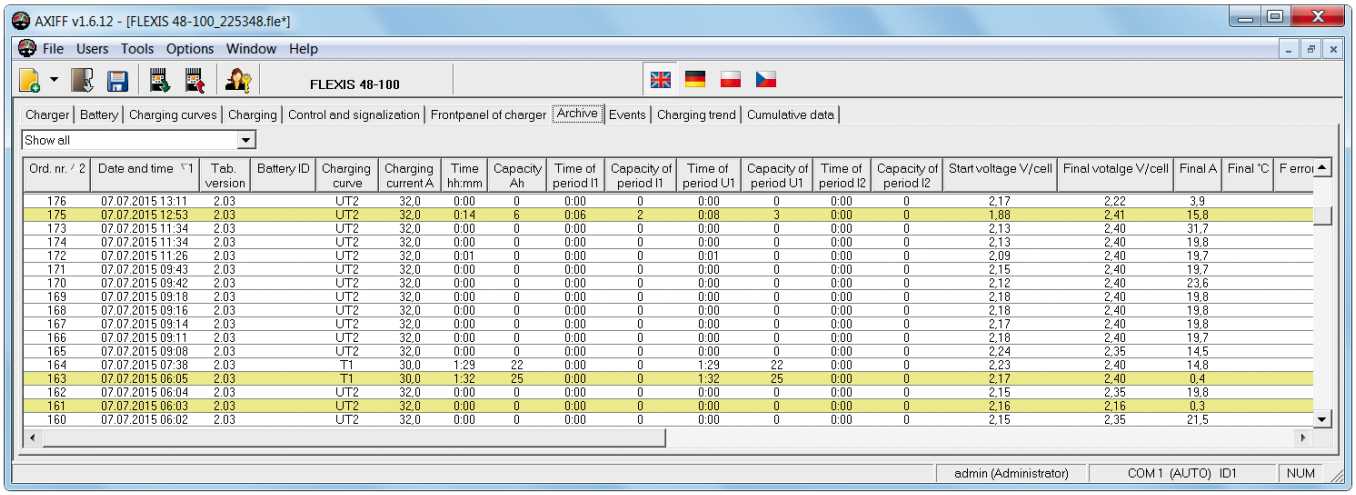




- User friendly and intuitive operating of configuration programme
- Fully adjustable charging current and voltage
- Possibility to use one charger for twenty different batteries by manual selection

- Exact setting of charging parameters ensures perfect care of battery
- Selection from preset charging curves
- Possibility to modify extra charging curves adequate to exact battery types
- Periodical regeneration – makes care of batteries easier





Ord. nr. / 2	Date and time	Tab. version	Battery ID	Charging curve	Charging current A	Time hh:mm	Capacity Ah	Time of period I1	Capacity of period I1	Time of period U1	Capacity of period U1	Time of period I2	Capacity of period I2	Start voltage V/cell	Final votalge V/cell	Final A	Final °C	F erro
176	07.07.2015 13:11	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,17	2,22	3,9		
175	07.07.2015 12:53	2.03		UT2	32,0	0:14	6	0:06	2	0:08	3	0:00	0	1,88	2,41	15,8		
173	07.07.2015 11:34	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,13	2,40	31,7		
174	07.07.2015 11:34	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,13	2,40	19,8		
172	07.07.2015 11:26	2.03		UT2	32,0	0:01	0	0:00	0	0:01	0	0:00	0	2,09	2,40	19,7		
171	07.07.2015 09:43	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,15	2,40	19,7		
170	07.07.2015 09:42	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,12	2,40	23,6		
169	07.07.2015 09:18	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,18	2,40	19,8		
168	07.07.2015 09:16	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,18	2,40	19,8		
167	07.07.2015 09:14	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,17	2,40	19,8		
166	07.07.2015 09:11	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,18	2,40	19,7		
165	07.07.2015 09:08	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,24	2,35	14,5		
164	07.07.2015 07:38	2.03		T1	30,0	1:29	22	0:00	0	1:29	22	0:00	0	2,23	2,40	14,8		
163	07.07.2015 06:05	2.03		T1	30,0	1:32	25	0:00	0	1:32	25	0:00	0	2,17	2,40	0,4		
162	07.07.2015 06:04	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,15	2,35	19,8		
161	07.07.2015 06:03	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,16	2,16	0,3		
160	07.07.2015 06:02	2.03		UT2	32,0	0:00	0	0:00	0	0:00	0	0:00	0	2,15	2,35	21,5		

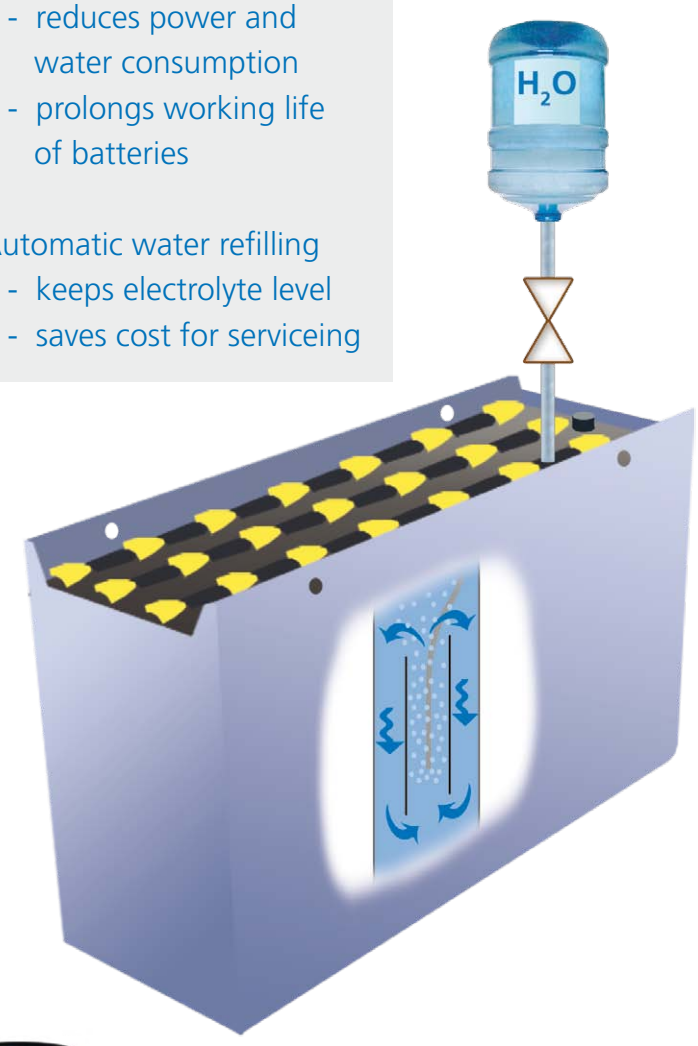
- Back analysis of charging archive optimises operating costs, helps to save electrical energy and prolongs working life of battery

FLEXIS

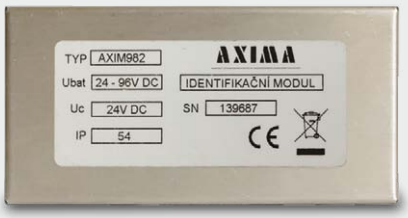
OPTIONAL EQUIPEMENT

- Air electrolyte circulation
  - reduces charging time
  - reduces power and water consumption
  - prolongs working life of batteries

- Automatic water refilling
  - keeps electrolyte level
  - saves cost for serviceing



- Battery identification module AXIM
  - one charger for more batteries



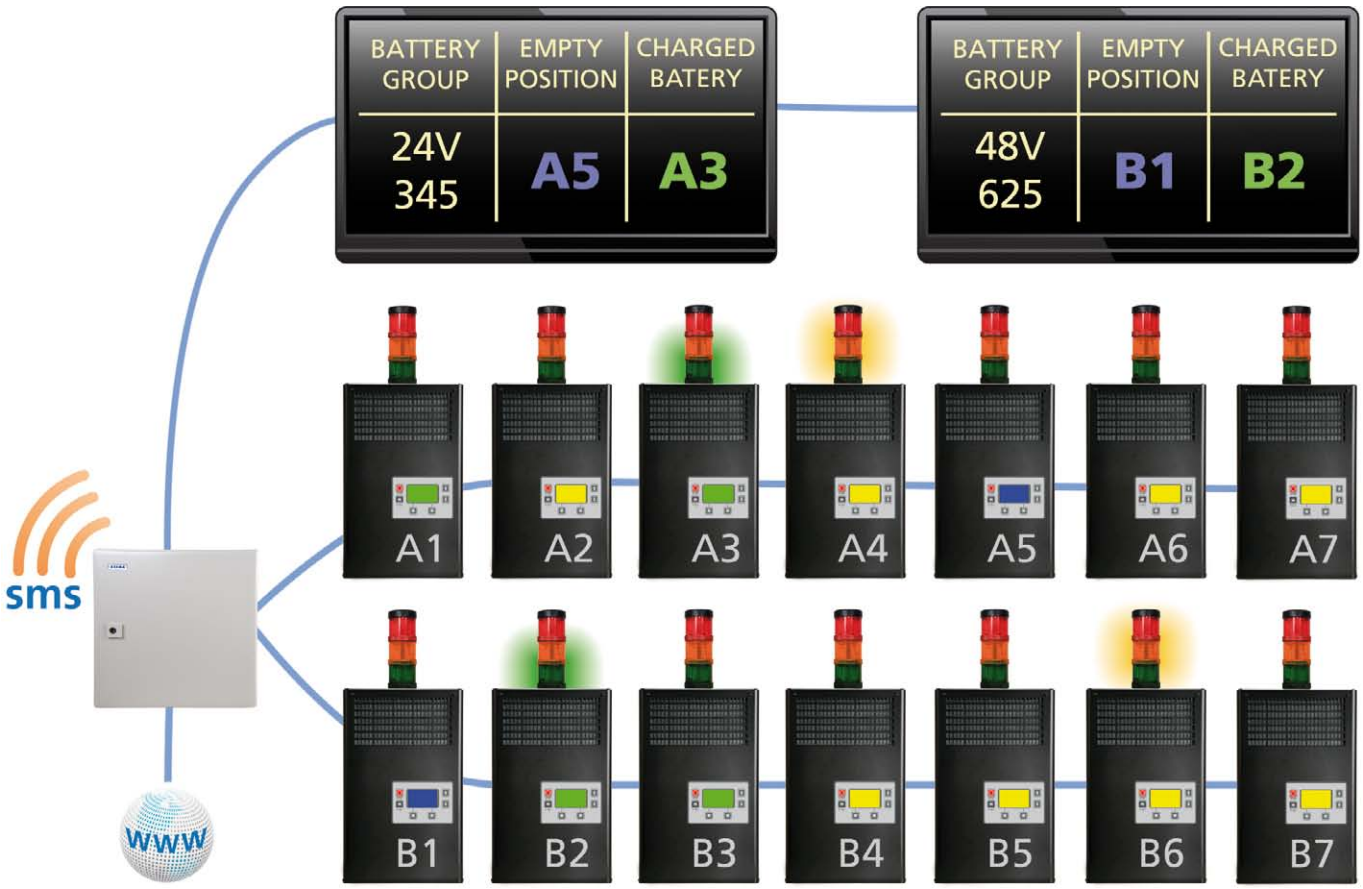
- Temperature sensor
  - compensation of charging voltage according to battery temperature

- External signaling
  - outputs for signal column
  - 3 potential-free contacts for signaling

- Remote control
  - 2 digital inputs for remote control

AXINET

BATTERY MANAGEMENT AND MONITORING SYSTEM



AXInet is a system that optimizes the operation of charging stations using chargers from the FLEXIS series. The system connects individual chargers into groups according to their batteries and evaluates their condition. The AXInet system increases usability of batteries and chargers, thus reducing operating costs to the minimum. The AXInet data network system can connect up to 255 FLEXIS chargers and thereby acquire an overview of the condition and utilization of the operation.

- Battery return place assigning, charged battery indication
- Identification of batteries, personnel and forklifts
- Sending information about operating events via SMS
- Clear visualization of individual charging points
- Creating an operational database
- Statistics for battery usage and operations

FLEXIS

MULTIFUNCTIONAL BATTERY CHARGER

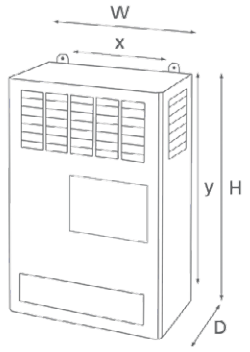
Output voltage (V)	Output current (A)	Mains (VAC)	Input current (A)	Mains protection (A)	Case with air pump	Case without air pump	Type	Charging time / Battery capacity (Ah max.)					Weight (kg)	
								with air pump		without air pump		gel	with air pump	without air pump
								6h	8h	8h	10h	10h		
24	60	230	8,7	10	FF170	FF130	**FLEXIS 24E60**	308	462	423	571	316	15	13
	100	230	14,1	16	FF170	FF130	**FLEXIS 24E100**	513	769	704	952	526	15	13
	100	3 x 400	4,9	6	FF170	FF130	**FLEXIS 24D100**	513	769	704	952	526	16	14
	200	3 x 400	9,8	10	FF250	FF250	**FLEXIS 24D200**	1026	1538	1408	1905	1053	26	25
48	50	230	14,1	16	FF170	FF130	**FLEXIS 48E50**	256	385	352	476	263	15	13
	50	3 x 400	4,9	6	FF170	FF130	**FLEXIS 48D50**	256	385	352	476	263	16	14
	100	3 x 400	8,0	10	FF170	FF130	**FLEXIS 48D100**	469	704	644	871	482	20	18
	150	3 x 400	12,9	16	FF250	FF250	**FLEXIS 48D150**	726	1088	996	1348	745	28	27
	200	3 x 400	16,0	20	FF250	FF250	**FLEXIS 48D200**	938	1408	1289	1743	963	31	30
80*	25	230	14,1	16	FF250	FF130	**FLEXIS 80E25**	128	192	176	238	132	16	13
	25	3 x 400	4,9	6	FF250	FF130	**FLEXIS 80D25**	128	192	176	238	132	17	14
	50	3 x 400	8,0	10	FF250	FF130	**FLEXIS 80D50**	256	385	352	476	263	20	17
	75	3 x 400	12,9	16	FF330	FF250	**FLEXIS 80D75**	385	577	528	714	395	30	26
	100	3 x 400	16,0	20	FF330	FF250	**FLEXIS 80D100**	513	769	704	952	526	32	28
	125	3 x 400	20,9	25	FF550	FF330	**FLEXIS 80D125**	641	962	880	1190	658	42	37
	150	3 x 400	24,0	32	FF550	FF330	**FLEXIS 80D150**	769	1154	1056	1429	789	45	40
	175	3 x 400	28,9	32	FF550	FF550	**FLEXIS 80D175**	897	1346	1232	1667	921	54	49
	200	3 x 400	32,0	40	FF550	FF550	**FLEXIS 80D200**	1026	1538	1408	1905	1053	56	52
	225	3 x 400	36,9	40	FF720	FF720	**FLEXIS 80D225**	1154	1731	1585	2143	1184	65	63

* Intended also for 96V and 110V Batteries

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

Efficiency	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

Case	Dimension (mm)			Fastening holes spacing (mm)	
	H	W	D	x	y
FF130	477	302	135	230	515
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	669	515



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