FLEXIS

MULTIFUNCTIONAL BATTERY CHARGER

Programmable, high-frequency modular charger of traction batteries

BATTERY CHARGERS and POWER SUPPLIES for INDUSTRIAL APPLICATIONS

AXIMA

FLEXIS

INTELIGENT CHARGING

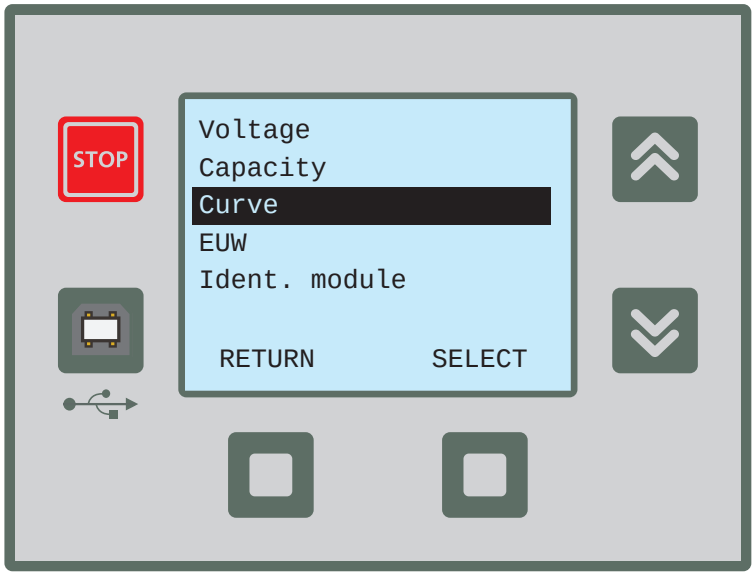
NEW FEATURES:

- **OPPORTUNITY CHARGING**
- **TIME SCHEDULE CHARGING**
- **AUTOMATIC ASSIGNMENT OF BATTERY VOLTAGE AND CAPACITY**
- **ESTIMATED TIME TO THE END OF CHARGING CYCLE**
- **SAVES EXPENSES FOR OPERATING**
- **MODULAR SYSTEM**
- **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
- Possibility to use one charger for more different batteries
- Possibility to set up preset and custom charging curves
- High resistence to mains disturbances
- Galvanic separated output mains
- Memory for 2.000 charging cycles
- Regeneration charging - desulphation and equalization

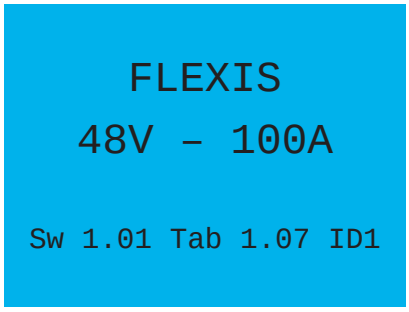
FLEXIS is fully programmable, high-frequency traction battery charger. FLEXIS optimised charging technology prolongs working life of battery, accelerates charging and saves energy. FLEXIS charger meets hard requirements of three-shift service in industrial areas.

BRIGHT TFT DISPLAY

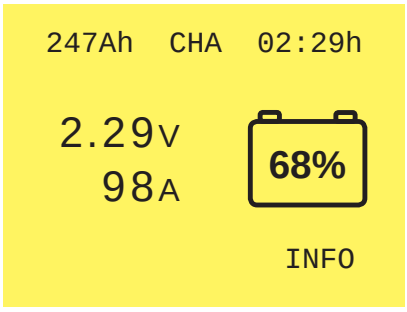


Operating panel allows to set parameters of charging – charging is adjusted to the values of battery.

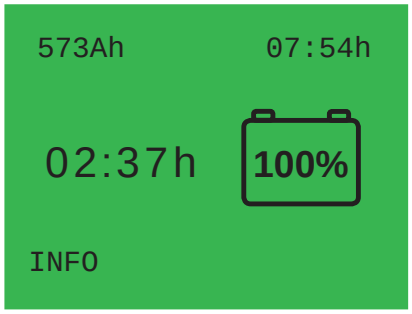
- Operating conditions are signalized by change of colour of the display all important values are displayed
- Display is sizable, all charging stages are visible from long distance
- Display shows estimated duration of the charging cycle



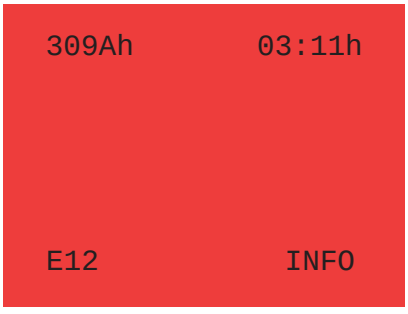
Standby mode



Charging



Charging finished



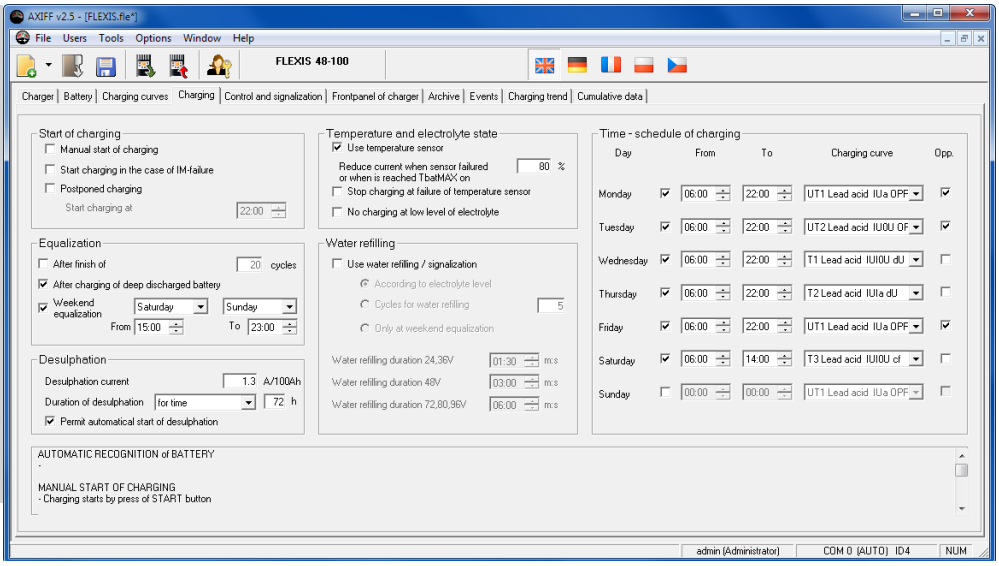
Error

AXIFF

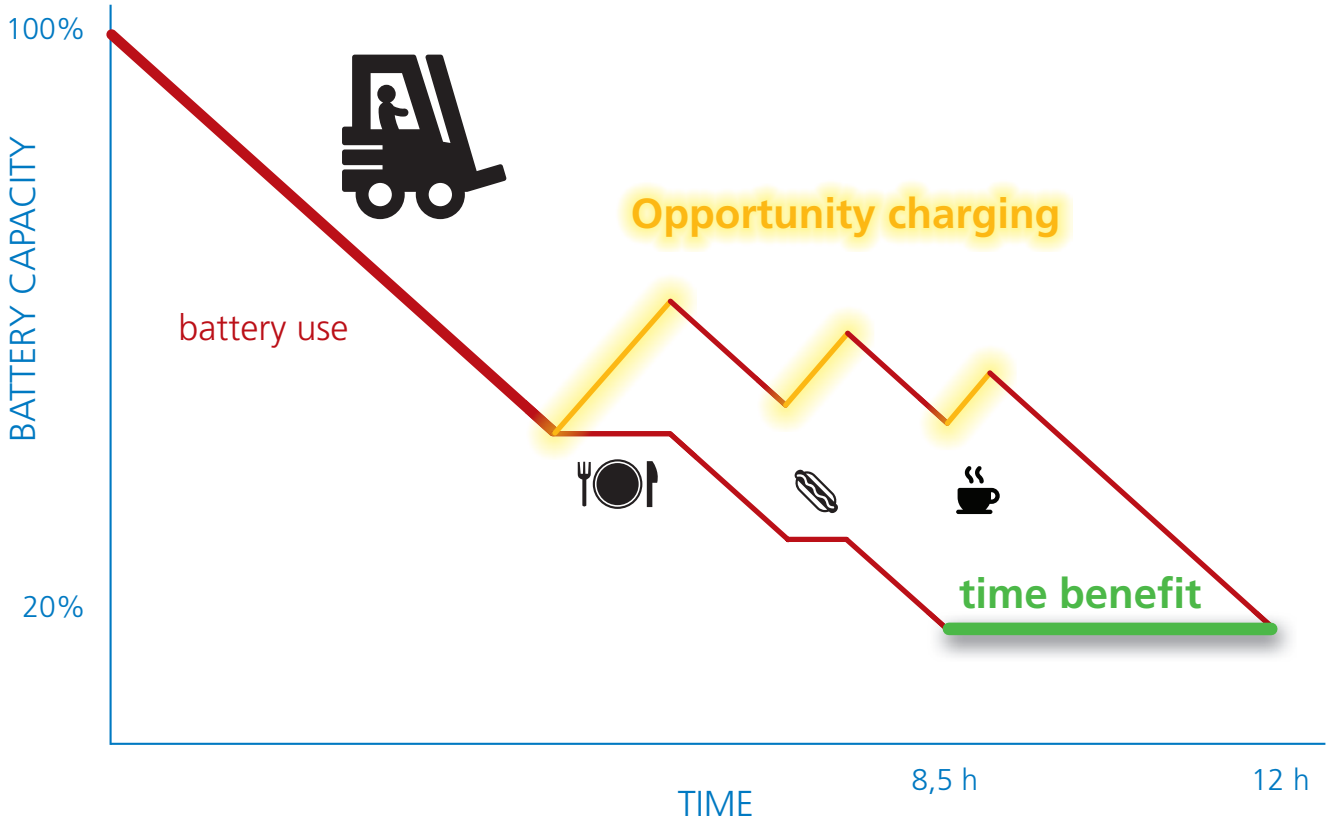
CONFIGURATION PROGRAMME FOR DETAILED SETTING OF THE CHARGER VIA PC

OPTIMAL SETTING OF THE CHARGER

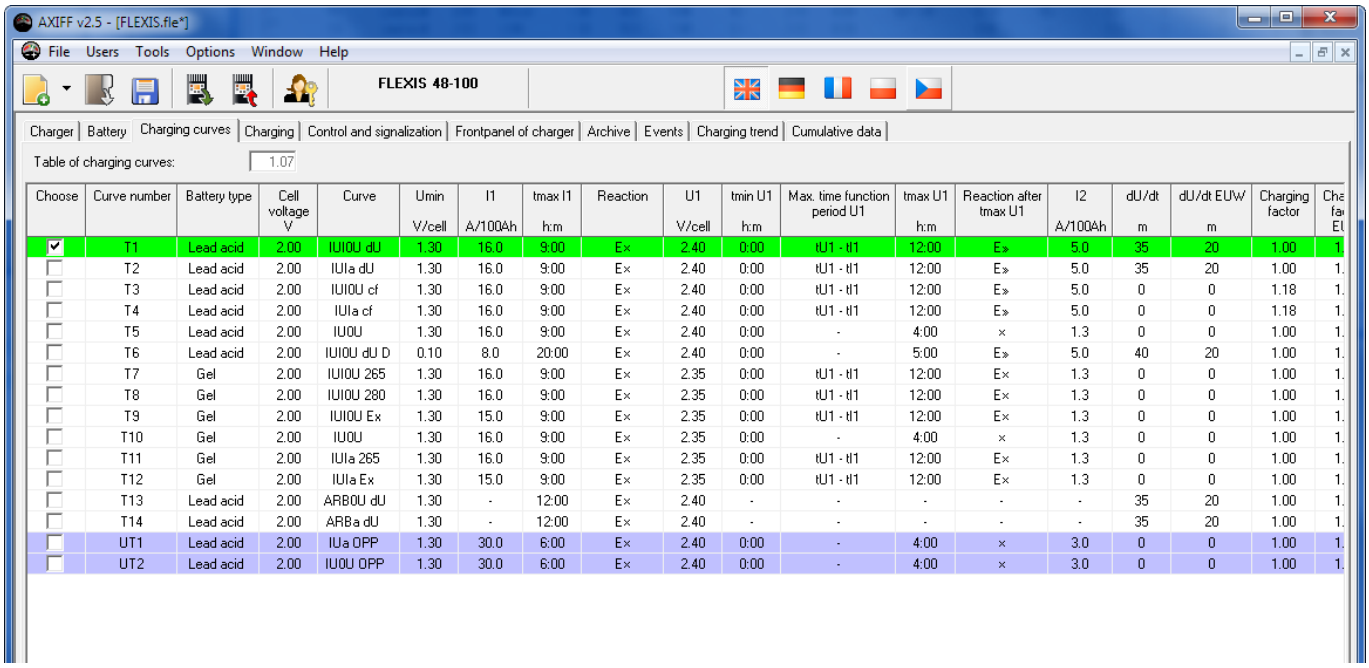
- User friendly and intuitive configuration programme
- Fully adjustable charging current and voltage
- Possibility to use one charger for plenty of different batteries by manual selection
- Setting opportunity charging
- Time schedule of charging



Opportunity charging is a way of fast battery charging by higher current than common charging. During a few short and intensive charging cycles the time of battery service is significantly longer. Working breaks are used for opportunity charging so it permits substantially prolong the forlikt worktime without battery change. This way of charging minimizes downtime in operation and does your material handling fleet **more effective**.

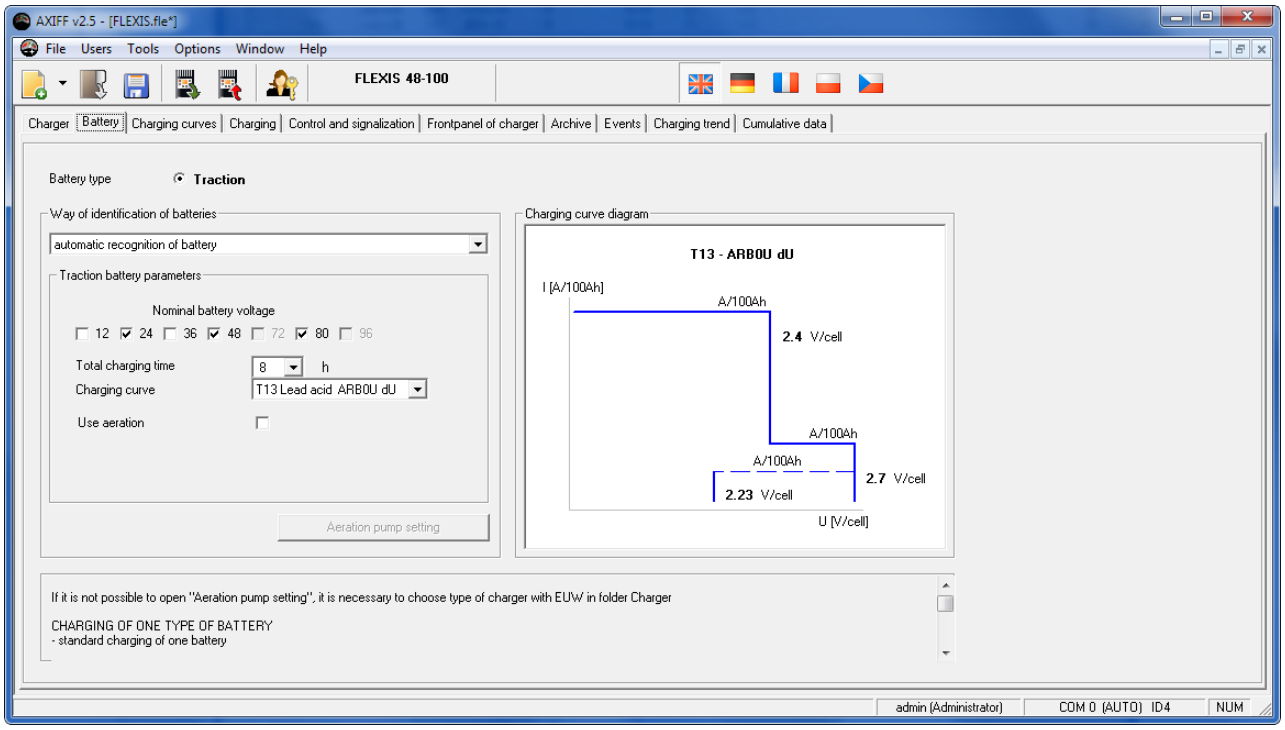


- Back analysis of charging archive optimises operating costs, helps to save electrical energy and prolongs working life of battery



Choose	Curve number	Battery type	Cell voltage V	Curve	Umin V/cell	I1 A/100Ah	tmax I1 h:m	Reaction	U1 V/cell	tmin U1 h:m	Max. time function period U1	tmax U1 h:m	Reaction after tmax U1	I2 A/100Ah	dU/dt m	dU/dt EUW m	Charging factor	Cha fa EU
☑	T1	Lead acid	2.00	IUI0U dU	1.30	16.0	9:00	E×	2.40	0:00	tU1 - tI1	12:00	E»	5.0	35	20	1.00	1.
☐	T2	Lead acid	2.00	IUIa dU	1.30	16.0	9:00	E×	2.40	0:00	tU1 - tI1	12:00	E»	5.0	35	20	1.00	1.
☐	T3	Lead acid	2.00	IUI0U cf	1.30	16.0	9:00	E×	2.40	0:00	tU1 - tI1	12:00	E»	5.0	0	0	1.18	1.
☐	T4	Lead acid	2.00	IUIa cf	1.30	16.0	9:00	E×	2.40	0:00	tU1 - tI1	12:00	E»	5.0	0	0	1.18	1.
☐	T5	Lead acid	2.00	IU0U	1.30	16.0	9:00	E×	2.40	0:00	-	4:00	×	1.3	0	0	1.00	1.
☐	T6	Lead acid	2.00	IUI0U dU D	0.10	8.0	20:00	E×	2.40	0:00	-	5:00	E»	5.0	40	20	1.00	1.
☐	T7	Gel	2.00	IUI0U 265	1.30	16.0	9:00	E×	2.35	0:00	tU1 - tI1	12:00	E×	1.3	0	0	1.00	1.
☐	T8	Gel	2.00	IUI0U 280	1.30	16.0	9:00	E×	2.35	0:00	tU1 - tI1	12:00	E×	1.3	0	0	1.00	1.
☐	T9	Gel	2.00	IUI0U Ex	1.30	15.0	9:00	E×	2.35	0:00	tU1 - tI1	12:00	E×	1.3	0	0	1.00	1.
☐	T10	Gel	2.00	IU0U	1.30	16.0	9:00	E×	2.35	0:00	-	4:00	×	1.3	0	0	1.00	1.
☐	T11	Gel	2.00	IUIa 265	1.30	16.0	9:00	E×	2.35	0:00	tU1 - tI1	12:00	E×	1.3	0	0	1.00	1.
☐	T12	Gel	2.00	IUIa Ex	1.30	15.0	9:00	E×	2.35	0:00	tU1 - tI1	12:00	E×	1.3	0	0	1.00	1.
☐	T13	Lead acid	2.00	ARB0U dU	1.30	-	12:00	E×	2.40	-	-	-	-	-	35	20	1.00	1.
☐	T14	Lead acid	2.00	ARBa dU	1.30	-	12:00	E×	2.40	-	-	-	-	-	35	20	1.00	1.
☐	UT1	Lead acid	2.00	IUa OPP	1.30	30.0	6:00	E×	2.40	0:00	-	4:00	×	3.0	0	0	1.00	1.
☐	UT2	Lead acid	2.00	IU0U OPP	1.30	30.0	6:00	E×	2.40	0:00	-	4:00	×	3.0	0	0	1.00	1.

- 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

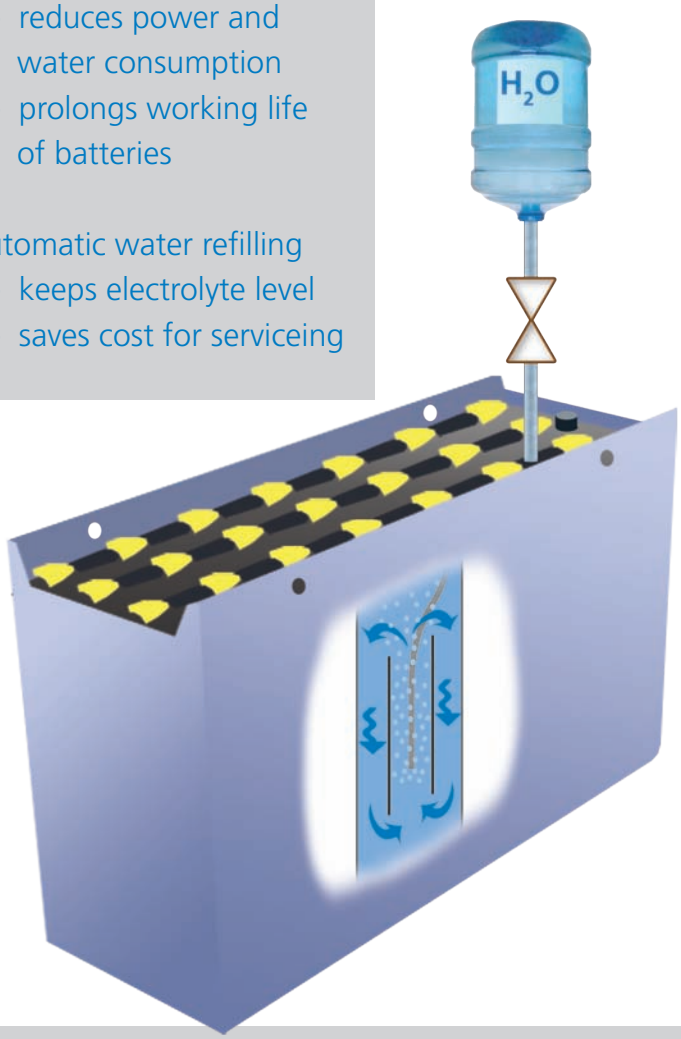


FLEXIS

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

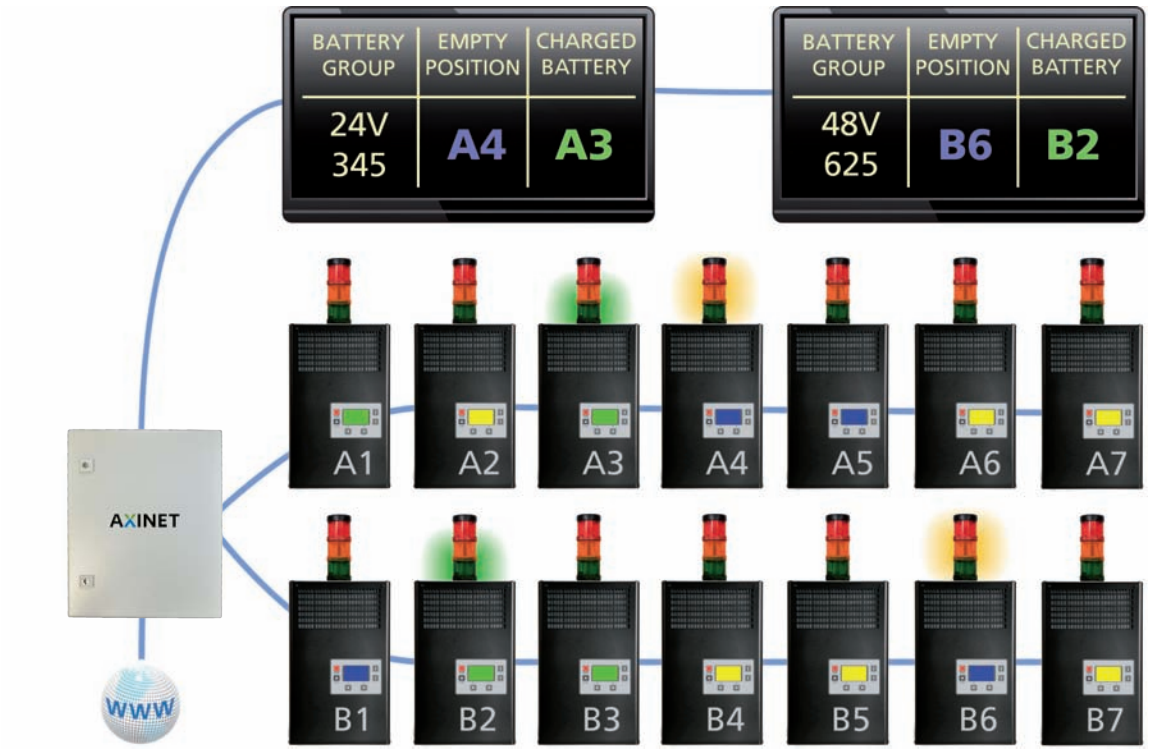
- Temperature sensor
  - compensation of charging voltage according to battery temperature

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

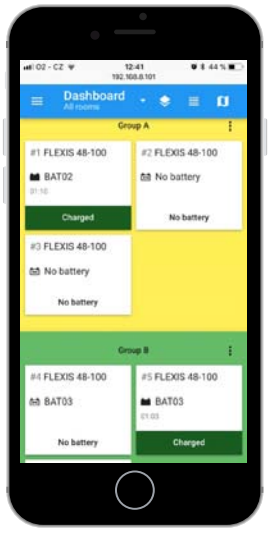
- Remote control
  - 2 digital inputs for remote control

AXINET

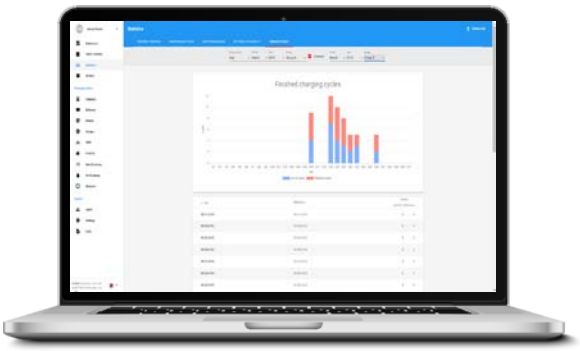
CHARGER MANAGEMENT SYSTEM for effective charging station



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.



- **Smart web app**
- Battery return place assigning, charged battery indication
- **Identification** of batteries, personnel and forklifts
- Sending **reports** via e-mail
- Clear visualization of individual charging points
- **Archive** of charging cycles
- **Statistics** for battery usage and operations
- **Remote access** via LTE



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	FF170	**FLEXIS 24E60**	308	462	423	571	316	15	13
	100	230	14,1	16	FF170	FF170	**FLEXIS 24E100**	513	769	704	952	526	15	13
	100	3 x 400	4,9	6	FF170	FF170	**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	FF170	**FLEXIS 48E50**	256	385	352	476	263	15	13
	50	3 x 400	4,9	6	FF170	FF170	**FLEXIS 48D50**	256	385	352	476	263	16	14
	100	3 x 400	8,0	10	FF170	FF170	**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	FF170	**FLEXIS 80E25**	128	192	176	238	132	16	13
	25	3 x 400	4,9	6	FF250	FF170	**FLEXIS 80D25**	128	192	176	238	132	17	14
	50	3 x 400	8,0	10	FF250	FF170	**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 Batterie Other types on request. Battery capacity values in the table according to IUIa dU charging curve.

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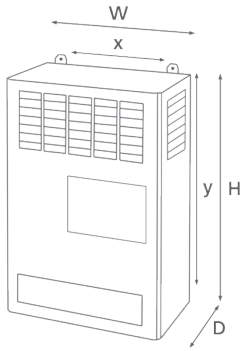
Efficiency	up to 94%
Output voltage stability	± 1%
Cooling	forced ventilation
Degree of protection	IP20
Operating conditions	-10°C to +40°C
Protection class	I
Standards	EN 61000-6-2 EN 61000-6-4 EN 60950-1

Case	Dimension (mm)			Fastening holes spacing (mm)	
	H	W	D	x	y
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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