

STAND ALONE CHARGER

ST 17-145

HIGH EFFICIENCY CHARGER WITH
USER-FRIENDLY INTERFACE



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YOUR POWERFUL SOLUTIONS PARTNER

Micropower Group develops and manufactures energy-efficient Lithium-Ion batteries, chargers, and power converters. With 40+ years of experience, we deliver high-quality systems and long-term value to leading OEMs through technical expertise, innovation, and reliability.

Intelligent Energy Solutions for a Sustainable Future

ABOUT MICROPOWER GROUP

Driving Electrification of Industry

Micropower enables industrial electrification through energy solutions tailored to real industrial applications. With deep system integration know-how and advanced battery expertise, we deliver efficient, high-performing technologies that support OEMs on their electrification journey.

In-house Development & Manufacturing

Our Nordic-based R&D and manufacturing ensure full process control and scalability. Our testing facilities support solution validation under real conditions. From prototype to volume, our industrialized setup enables efficient, high-quality production at scale.

Partnership Excellence

As a strategic partner, Micropower supports customers across the full electrification process. We ensure compliance, prioritize safety, and provide expert training. Our reliable delivery, short lead times, and dedicated support foster long-term collaboration.



COMPLETE ENERGY OFFERING

Micropower delivers energy systems combining Lithium-Ion batteries, chargers, power converters, and software into one integrated solution.

- Built on scalable and high-efficiency technology, tailored to suit your specific application
- Available as compact battery modules or high-voltage systems, with onboard or stationary chargers and robust power converters
- Enhanced with smart software for reliable, efficient performance that drives your electrification journey

OFF BOARD BATTERY CHARGER



SOFTWARE SOLUTIONS



POWER CONVERTER



LITHIUM-ION BATTERY



ON BOARD BATTERY CHARGER



MICROPOWER ST STAND ALONE BATTERY CHARGER

Micropower ST100-145 expands the ST 17-145 charger family with output power up to 14,5kW and 3-Phase wide input 380-440 VAC range to cover with one solution several markets (also outside Europe).

Performance & Efficiency

Up to 96% efficiency minimizes power loss and reduces CO₂ emissions. The ST17-90 version can handle up to 9kW power (16A input current), and the ST100-145 is available up to 14,5kW (32A input current) which enables us to get e.g. 36V 300A, 48V 250A, 80V 150A and 120V 100A output. This provides the perfect solution for different power grids and their fuses. The ST145 version is ½ the size as the existing comparable product.

Unified design and interface

Micropower ST features the well-known user interface from Micropower that is designed with the operator in mind. These products follow the design language already established.

All included

- Display for detailed information and possibility to set parameter
- 3 Big LED's visualizing the charging status from a bigger distance
- Maximum flexibility with multiple charging algorithms
- Embedded software functionality for Dynamic Power Limitation and Best Battery Choice
- Compatible with GET fleet management system and the GET-APP



Up to
96%
Efficiency

















380-440
VAC

Up to
14,5 kW
Output power

Reduced volume
50%
Compared to
existing products

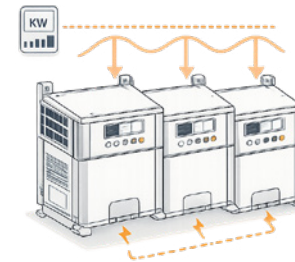
HIGHLIGHTS ST

Micropower ST100-145 expands the ST 17-145 charger family with output power up to 14,5kW and 3-Phase wide input 380-440 VAC range to cover with one solution several markets (also outside Europe).

-  Well known user interface
-  Graphic-disaplay
-  High power factor
-  Low standby power
-  High efficiency
-  Optimized coating
-  Optimized air flow
-  Rugged design
-  BMU Compatible
-  Simple and fast installation
-  Easy and fast configure
-  Service possibility
-  Best Battery Choice
-  Maximum flexibility
-  Dynamic Power Limitation
-  Connected via Radio

KEY SOFTWARE FUNCTIONALITIES

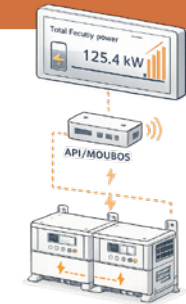
DPL - Dynamic Power Limitation



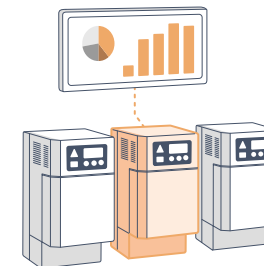
Automatically limits the total charging power to prevent electrical peaks. Power is distributed between chargers to ensure efficient charging while reducing energy costs and overload risks.

A-DPL - Active Dynamic Limitation

Extends DPL by integrating chargers with the facility's energy management system. Charging power adjusts dynamically to the building's total consumption to avoid peak loads.



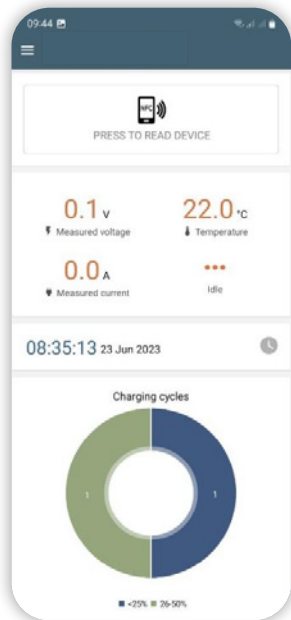
BBC - Best Battery Choice



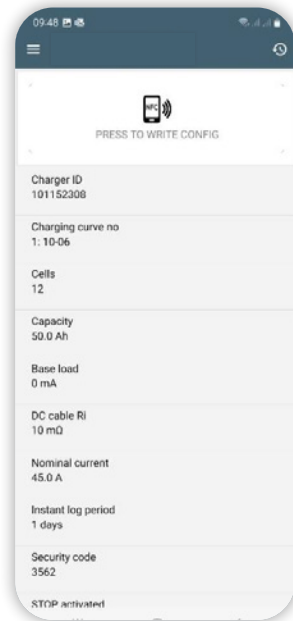
Ensures operators select the optimal battery for charging. Chargers communicate wirelessly to recommend the best battery, improving rotation, lifetime, and fleet efficiency.

GET APP

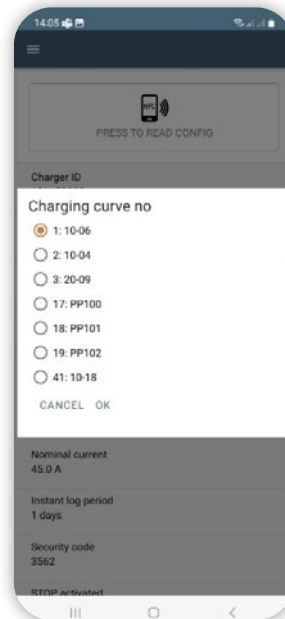
Micropower ST is easy to check the status of the charger, check the configuration and change configuration if needed. Also a copy function makes it possible to transfer the config from one charger to another one. Additionally it is possible to make a diagnostic report and share it as a common csv file.



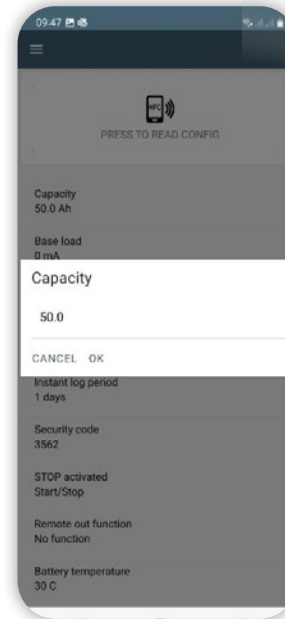
Status



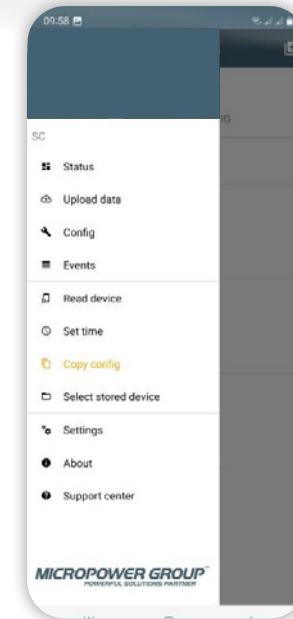
Check config



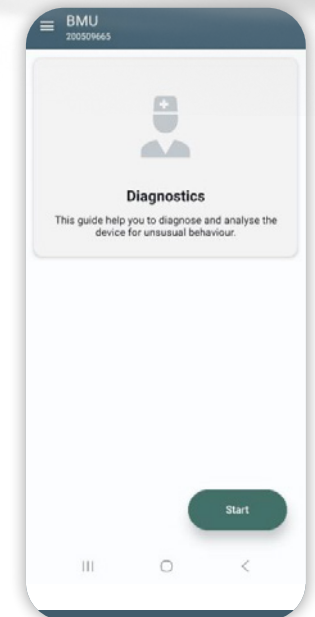
Change config



Change config



Copy config



Diagnostics

TECHNICAL SPECIFICATIONS

Technical specifications		
	ST 17-90	ST 100-145
Output Power	Up to 9kW	Up to 14,5kW
Output Voltage	24-80V	24-120V
Phase	3-phase	
Mains Voltage	380-440VAC	
Battery Types	Lead-acid and Lithium-Ion with CAN-bus communication	
Supported Battery Technologies	Lead-acid (Wet, AGM, Gel) / Lithium-Ion (CAN-BMS controlled)	
Charging Curves	Multiple user adjustable algorithms as standard incl. desulfation and deep discharged curves.	

Product features	
Radio communication	Communication between chargers, BMU and GET connect
NFC communication	Communication to the GET-App
CAN Interface	Communication with Li-Battery (BMS) with different protocols
HMI (User Interface)	4 LED (AC-present, Charging, Alarm, Charging finished)
Low stand-by power	<5W
HMI (User Interface)	1 multi-color LED
High power factor	0,95
I/O boards	Optional available for integration with sub-systems

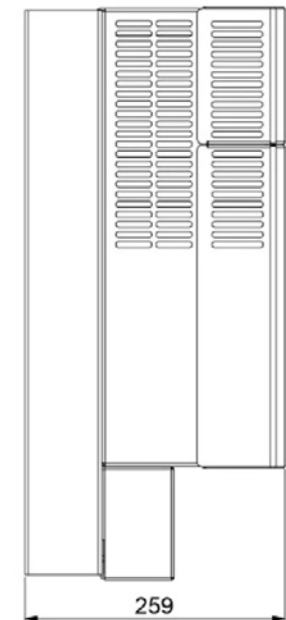
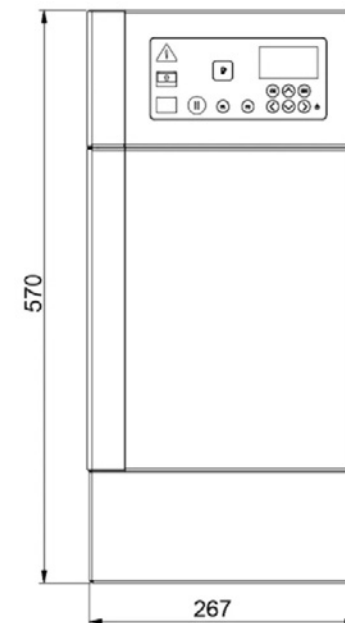
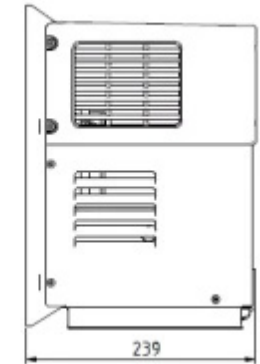
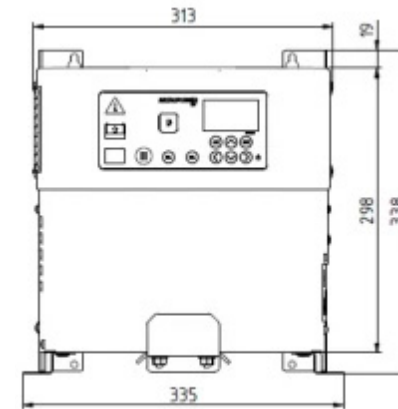
CERTIFICATIONS



Safety	RED 2014/53/EU - RED 2022/30/EU ST 17-90: IEC/EN 60335-1 ST 100-145: IEC/EN 62477-1
Emissions & Immunity	RED 2014/53/EU - RED 2022/30/EU EN 61000-6-2, EN 61000-6-4, EN 61000-3-3, EN61000-3-12,

TECHNICAL DOCUMENTATION PORTAL

Micropower Support Center



TECHNICAL DATA

MICROPOWER ST PB 17-90 3X380-440V

Product	ST17	ST20	ST30	ST40	ST45	ST60	ST50	ST60	ST65	ST70	ST30	ST50	ST60	ST70	ST60	ST80	ST90
Part Number	AN2349-B1	AN2389-B1	AN2429-B1	AN2489-B1	AN2529-B1	AN2629-B1	AN3439-B1	AN3489-B1	AN3529-B1	AN3569-B1	AN4349-B1	AN4389-B1	AN4429-B1	AN4489-B1	AN6349-B1	AN6389-B1	AN6409-B1
Model	1AA6451	1AA6451	1AA6451	1AA6451	1AA645A	1AA645A	1AA6452	1AA645B	1AA645B	1AA645B	1AA6453	1AA6453	1AA645C	1AA645C	1AA645E	1AA645E	1AA645E

Main data

Output voltage (V)	24	24	24	24	24	24	36	36	36	36	48	48	48	48	80	80	80
Output current (A)	60	80	100	130	150	200	105	130	150	170	60	80	100	130	60	80	90
Number of phases	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Rated voltage (V)	380-440 (50/60Hz)																
Current at nominal voltage 120/230Vac (A)	2,9	3,8	4,8	6,2	7,2	9,6	7,4	9,1	10,6	11,9	5,6	7,4	9,2	12,0	9,2	12,3	13,8

Battery connection

Output cable length (m)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Output cable cross-section (mm ²)	25	25	35	50	50	70	35	50	50	70	16	25	35	50	16	25	35
Output cable terminals	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6
Output voltage (V)	24	24	24	24	24	24	36	36	36	36	48	48	48	48	80	80	80

Electric data

Standby AC power consumption (W)	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5
Power consumption (W)	1871	2507	3127	4068	4727	6302	4848	6034	6975	7888	3656	4867	6077	7903	6054	8063	9061
Power factor	0,94	0,94	0,94	0,94	0,95	0,95	0,95	0,96	0,96	0,96	0,95	0,95	0,96	0,96	0,95	0,95	0,95
Recom. Supply fuse class	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Efficiency (%)	94	94	94	94	93	93	95	94	94	94	96	96	96	96	96	96	96

TECHNICAL DATA

MICROPOWER ST LI 17-90 3X380-440V

Product	ST20	ST30	ST40	ST45	ST60	ST50	ST60	ST65	ST70	ST30	ST50	ST60	ST70	ST60	ST80	ST90
Part Number	LN2389-B1	LN2429-B1	LN2489-B1	LN2529-B1	LN2629-B1	LN3439-B1	LN3489-B1	LN3529-B1	LN3569-B1	LN4349-B1	LN4389-B1	LN4429-B1	LN4489-B1	LN6349-B1	LN6389-B1	LN6409-B1
Model	1AA645I	1AA645I	1AA645I	1AA645A	1AA645A	1AA6452	1AA645B	1AA645B	1AA645B	1AA6453	1AA6453	1AA645C	1AA645C	1AA645E	1AA645E	1AA645E

Main data

Output voltage (V)	24	24	24	24	24	36	36	36	36	48	48	48	48	80	80	80
Output current (A)	80	100	130	150	200	105	130	150	170	60	80	100	130	60	80	90
Number of phases	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Rated voltage (V)	380-440 (50/60Hz)															
Current at nominal voltage 120/230Vac (A)	3,8	4,8	6,2	7,2	9,6	7,4	9,1	10,6	11,9	5,6	7,4	9,2	12,0	9,2	12,3	13,8

Battery connection

Output cable length (m)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Output cable cross-section (mm ²)	25	35	50	50	70	35	50	50	70	16	25	35	50	16	25	35
Output cable terminals	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6
Output voltage (V)	24	24	24	24	24	36	36	36	36	48	48	48	48	80	80	80

Electric data

Standby AC power consumption (W)	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5	< 2,5
Power consumption (W)	2507	3127	4068	4727	6302	4848	6034	6975	7888	3656	4867	6077	7903	6054	8063	9061
Power factor	0,94	0,94	0,94	0,95	0,95	0,95	0,96	0,96	0,96	0,95	0,95	0,96	0,96	0,95	0,95	0,95
Recom. Supply fuse class	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Efficiency (%)	94	94	94	93	93	95	94	94	94	96	96	96	96	96	96	96

TECHNICAL DATA

MICROPOWER ST PB 100-145 3X380-440V

Product	ST100	ST100	ST130	ST100	ST130	ST145	ST100	ST120	ST145	ST120	ST145
Part Number	AV2769-B1	AV3669-B1	AV3769-B1	AV4559-B1	AV4669-B1	AV4719-B1	AV6429-B1	AV6489-B1	AV6429-B1	AV9429-B1	AV7429-B1
Model	1AA8052	1AA8052	1AA8052	1AA805E	1AA8053	1AA8053	1AA8055	1AA8055	1AA8055	1AA8057	1AA8057

Main data

Output voltage (V)	24	36	36	48	48	48	80	80	80	96	120
Output current (A)	300	220	300	165	220	250	100	130	150	100	100
Number of phases	3	3	3	3	3	3	3	3	3	3	3
Rated voltage (V)	380-440 (50/60Hz)										
Type of grid	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC
Pollution degree	3	3	3	3	3	3	3	3	3	3	3
Over voltage category	2	2	2	2	2	2	2	2	2	2	2
Maximum altitude	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m
Current at nominal voltage 380-440Vac (A)	14,4	15,7	21,4	15,6	20,5	23,4	15,4	20,0	23,1	18,4	23,0

Battery connection

Output cable length (m)	3	3	3	3	3	3	3	3	3	3	3
Output cable cross-section (mm ²)	AWG4/0	95	AWG4/0	50	95	95	35	50	50	35	35
Output cable terminals	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8
Output voltage (V)	24	36	36	48	48	48	80	80	80	96	96

Electric data

Standby AC power consumption (W)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Power consumption (W)	9458	10296	14091	10226	13508	15365	10105	13139	15173	12104	15117
Power factor	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95
Recom. Supply fuse class	C	C	C	C	C	C	C	C	C	C	C
Efficiency (%)	93	93	93	94	95	95	96	96	96	96	96

TECHNICAL DATA

MICROPOWER ST LI 100-145 3X380-440V

Product	ST100	ST100	ST130	ST100	ST130	ST145	ST100	ST120	ST145	ST120	ST145
Part Number	LV2769-B1	LV3669-B1	LV3769-B1	LV4559-B1	LV4669-B1	LV4719-B1	LV6429-B1	LV6489-B1	LV6429-B1	LV9429-B1	LV7429-B1
Model	1AA8052	1AA8052	1AA8052	1AA805E	1AA8053	1AA8053	1AA8055	1AA8055	1AA8055	1AA8057	1AA8057

Main data

Output voltage (V)	24	36	36	48	48	48	80	80	80	96	120
Output current (A)	300	220	300	165	220	250	100	130	150	100	100
Number of phases	3	3	3	3	3	3	3	3	3	3	3
Rated voltage (V)	380-440 (50/60Hz)										
Type of grid	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC	TN/TC
Pollution degree	3	3	3	3	3	3	3	3	3	3	3
Over voltage category	2	2	2	2	2	2	2	2	2	2	2
Maximum altitude	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m	2000m
Current at nominal voltage 380-440Vac (A)	14,4	15,7	21,4	15,6	20,5	23,4	15,4	20,0	23,1	18,4	23,0

Battery connection

Output cable length (m)	3	3	3	3	3	3	3	3	3	3	3
Output cable cross-section (mm ²)	AWG4/0	95	AWG4/0	50	95	95	35	50	50	35	35
Output cable terminals	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8
Output voltage (V)	24	36	36	48	48	48	80	80	80	96	96

Electric data

Standby AC power consumption (W)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Power consumption (W)	9458	10296	14091	10226	13508	15365	10105	13139	15173	12104	15117
Power factor	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95
Recom. Supply fuse class	C	C	C	C	C	C	C	C	C	C	C
Efficiency (%)	93	93	93	94	95	95	96	96	96	96	96

TECHNICAL DATA

PRODUCT TYPEKEY STRUCTURE

X Y Z UU T- AA B C DD [-OR_] EE

X	
Code	Controll
A	ACCESS, "ST Pb"
L	LION, "ST Li"
S	SHARP, "SQ Pb"

Y	
Code	Casing
N	ST or SQ I7-90 (casing A24/A25)
V	ST 100-145 (casing A19)

Z	
Code	DC Volt
2	24
3	36
4	48
5	72
6	80
7	120
9	96

UU	
Code	DC Current
34	60
38	80
40	90
42	100
43	105
48	130
52	150
55	165
56	170
62	200
66	220
71	250
76	300

T	
Code	AC Volt 3-Phase
1	380-415
2	200
3	208-240
4	440
6	480
7	600
9	380-440

AA	
Code	Branding/Certification
B1	Micropower CE
B2	Micropower UR
B3	Micropower UL

B	
Code	AC cable 3-Phase
0	No AC cable
1	2,7m; CEE red (3P+N+E) 400V
4	2,7m; no connector
5	5m; CEE red (3P+N+E) 400V
6	5m; no connector
7	3m; CEE blue (3P+E) 250V
8	2,7m; CEE red (3P+E) 400V

C	
Code	DC-Cable
0	No DC cable
1	3m
2	5m
D	3m cold temp.
E	5m cold temp.

DD	
Code	DC-Connector
00	no DC-connector
02	MRC 80 (grey pin)
03	MRC 160 (grey pin)
04	MRC 320 (grey pin)
05	MRC 320 (red pin)
07	REMA DIN 80 (grey pin)
08	REMA DIN 160 (grey pin)
09	REMA DIN 320 (grey pin)
10	REMA DIN 640 (grey pin)
xx	And many more

EE	
Code	Option

COMPATIBLE OPTIONS/ACCESSORIES

The ST-family of products has capability to support both Lead-Acid (Pb) batteries and Li-Ion batteries with BMS communication through CAN. In the table below you will find possible options and accessories. The Accessories are additionally packed to the charger. The Options are included in the product part number and are included included/attached to the charger.

			Pb		Li		
			ST Pb 17-90	ST Pb 100-145	ST Li 17-90	ST Li 100-145	
"external" Accessories	Pb and Li relevant	Cable hook	●	●	●	●	
		Wall bracket	●	●	●	●	
		Shelf/Bench stand	●	●	●	●	
		Floor stand	○ 11270090	○ 11270090	○ 11270090	○ 11270090	
		Air Filter	○ 902097-003	○ 902097-001	○ 902097-003	○ 902097-001	
		LED Tower	○ 902088-024	○ 902088-024	○ 902088-024	○ 902088-024	
-EE (partcode) Electrical options	Pb and Li relevant	Others	24V DC out	○ -41	○ -41	○ -41	○ -41
			AGV - at 3-Phase incl. Ground Resistor	○ -12	○ -12	○ -12	○ -12
			1 Relay + CAN + no cable	○ -04	○ -04	○ -30	○ -30
			4 Relays (programmable) + 4 Dig. Inp	○ -18	○ -18	○ -18	○ -18
	Li relevant	MP Battery CAN/Pilot	no cables	✗	✗	● -04	● -04
			via AUX/Pilot DC-Plug	✗	✗	● -05	● -05
			cable - open end	✗	✗	● -30	● -30
	Pb relevant	Safe Disconnect	via Aux DC-Plug	○ -01	○ -01	✗	✗
			via Pilot DC-Plug	○ -02	○ -02	✗	✗
			cable - open end	○ -21	○ -21	✗	✗
		Air Pump	Air-Pump (230V 50Hz, pressure)	○ -05	○ -05	✗	✗
			Air-Pump (230V 60Hz, pressure)	○ -06	○ -06	✗	✗
		Aquomatic	Water filling (24VAC)	○ -31	○ -31	✗	✗

- Standard - included
- Optional
- ✗ Not available

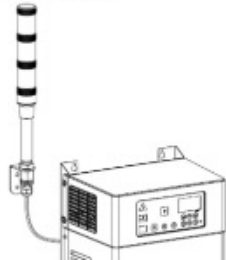
Combinations of different options are also possible, please contact your Micropower sales representative.

COMPATIBLE ACCESSORIES

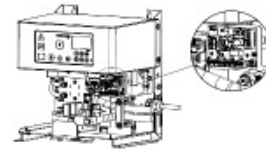
The ST-family of products has capability to support both Lead-Acid batteries and Li-Ion batteries with BMS communication through CAN. Various accessories are available, like the BMU or different IO boards to communicate with the BMS via CAN or digital in/out puts and relays for other control systems. Also LED towers are available to recognize the status from a far distance.



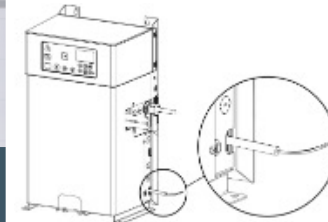
IO Multi consists of CAN, 4 relays (programmable) and 4 digital inputs. partcode -18)



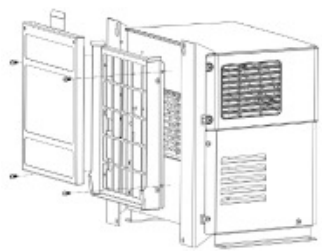
LED tower to show the status of the charger like a traffic light (IO Multi is needed with partcode -18)



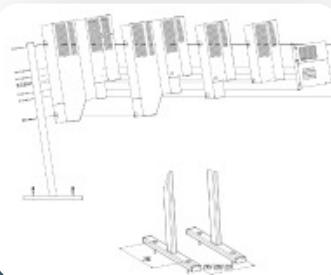
Small IO consists of 1 relay, 1 digital input, 24V 250mA output and CAN communication (part-code -04 for Pb, -30 for Li)



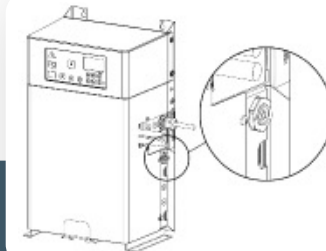
Water valve kit to power up a magnetic 24VAC valve to top the battery with distilled water (partcode -31)



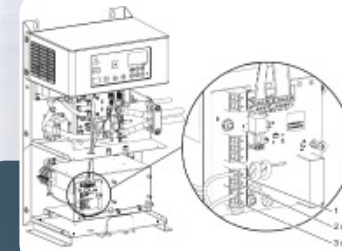
Air-Filter protects the device from dust particles in the air to ensure an even longer life expectancy



Floor stand for stable and robust mounting



Air-Pump to blow air into a prepared Lead Acid battery available for different battery voltages and different AC power supplies. (partcode -05, -06)



24V DC Kit up to 2,5A can be used to power up external equipment (partcode -41)

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Learn more!

