



# RDC Charger

## User manual



**Robotina d.o.o.**  
OIC-Hrpelje 38 Hrpelje  
SI-6240 Kozina  
Slovenia

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## Table of Contents

<b>HIQ Components</b> .....	5
<b><i>HIQ Hardware selection table</i></b> .....	5
<b><i>Energy management &amp; Storage</i></b> .....	9
Low voltage system building blocks .....	9
High voltage system building blocks .....	10
eSTORE all in one solution .....	11



# HIQ Components

## HIQ Hardware selection table

component	description	order code	status
<b>HIQ controllers</b>			
Master controller	230 VAC, 11 IO, Enocean, 2 × RS232, RS485, IEX2 terminals	<a href="#">MC-230-01</a>	available
	230 VAC, 11 IO, 2 × RS232, RS485, IEX2 terminals	<a href="#">MC-230-02</a>	available
	230 VAC, 11 IO, 2 × RS232, isolated RS485, IEX2 terminals	<a href="#">MC-230-04</a>	request
	24 VDC, 26 IO, 2 × RS232	<a href="#">MC-24-05</a>	available
	230 VAC, 14 IO, RS485, 2 Wiegand	<a href="#">MC-230-W</a>	available
	230 VAC, 11 IO, 2 × RS232, RS485, IEX2 terminals, RFM free-programmable radio	<a href="#">MC-230-02-RFM</a>	available
<b>IEX Modules DIN rail</b>			
Light controller	10 high power relay-controlled outputs	<a href="#">LC-10-IQ</a>	obsolete
		<a href="#">LC-10-IQ mk2</a>	available
	8 high power relay-controlled outputs	<a href="#">LC-8-IQ</a>	available
Light dimmer	4 channel universal lights dimmer controls up to 4 Eltaco LUD-12 dimmers	<a href="#">LD-P4-IQ</a>	available
DALI dimmer	8 DALI groups dimmer	<a href="#">LD-D8-IQ</a>	available
DALI-2 application controller	100mA, autoaddress, no galvanic isolation	<a href="#">LC-DC2</a>	available
DALI-2 application controller	200mA, no autoaddress, galvanic isolation	<a href="#">LC-DC2-ISO</a>	available
LED stripe dimmer	4 channel 12/24V constant voltage LED dimmer	<a href="#">LD-V4-IQ</a>	available
Blinds controller	5 blinds position controller	<a href="#">BC-5-IQ</a>	available

component	description	order code	status
I/O expansion module, Cybro family	12 dig inputs, 6 an/dig inputs, 6 dig inputs/outputs	<a href="#">Bi-24</a>	available
	12 dig inputs, 12 relay 5A outputs	<a href="#">Bio-24R</a>	available
	12 dig inputs, 12 transistor outputs	<a href="#">Bio-24T</a>	available
	12 dig inputs, transistor outputs, 4 fast counter inputs, 6 PWM outputs	<a href="#">Bio-24PWM</a>	available
	10 digital inputs, 10 relay 8A outputs	<a href="#">Bio-20R</a>	available
	4x230V AC inputs, 8 relays 16A (lights)	<a href="#">Bio-8R4</a>	available
	Resistive inputs (RTD), 12xPt100/1000, Ni100/1000 or potentiometer	<a href="#">AiR-12</a>	available
	Voltage inputs, 12x0..10V	<a href="#">AiV-12</a>	available
	Current inputs, 12x0..20mA	<a href="#">AiC-12</a>	available
	Voltage outputs, 12x0..10V	<a href="#">AoV-12</a>	available
Card reader interface	2 channel wiegand (card, QR, ANPR) reader module, 2x output, 4x input	<a href="#">CR-W2</a>	available
Bus coupler	Connection between RJ9 and cable	<a href="#">CAD-BC</a>	available
	Connection between RJ9 and cable, 10pcs bulk package	<a href="#">CAD-BC-B</a>	available
COM - various software options	Serial communication module RS232 - RS485	<a href="#">COM</a>	available
	Serial communication module IEX - RS232	<a href="#">COM-232</a>	available
	Serial communication module IEX - RS485	<a href="#">COM-485</a>	available
Bus extender	Connection between RJ9 and cable, surge protection	<a href="#">CAD-BE-PROT</a>	available
<b>IEX Modules field</b>			
Scene controller	Touch 4 scene controller	<a href="#">SC-4T-IQ</a>	available
	4scene controller, using any brand of push buttons	<a href="#">SC-4S-IQ</a>	available
Temperature & Humidity sensors	Temperature sensor	<a href="#">TS</a>	available
	Temperature & Humidity sensor	<a href="#">TS-H</a>	available
Thermostat	Touch room thermostat	<a href="#">TH-1T-IQ</a>	available
	Blind room thermostat	<a href="#">TH-2-IQ</a>	available
Touch operator panel with LCD display	2x20 characters, temperature, humidity, light sensor	<a href="#">OP-8</a>	available
	Wall mounting kit for OP-8 touch panel	<a href="#">OP-8 - WALL KIT</a>	available

component	description	order code	status
HVAC controller	3 speed fan, 2 valves, binary/analog input, temperature input	<a href="#">FC-1-IQ</a>	available
	Modulating valve, 2 relay controller, binary analog input	<a href="#">FC-2-IQ</a>	available
Switch inputs module, flush mount	4 switch inputs, 4 switch inputs/LED outputs	<a href="#">SW-W3-IW</a>	available
	4 switch inputs, 4 switch inputs/LED outputs - 10pcs bulk package	<a href="#">SW-W3-IW-B</a>	available
I/O expansions module, flush mount	2 mains sense inputs 2 relay outputs 16A	<a href="#">O2-L-IW</a>	available
<b>Wireless extension modules</b>			
Wireless DALI-to-DALI bridge	DALI wireless bridge, multiple ballasts per bridge	<a href="#">WD-1</a>	available
Wireless Modbus-to-Modbus bridge	Modbus wireless bridge,	<a href="#">WM-1</a>	available
Wireless Modbus relay	Wireless modbus relay	<a href="#">WR-1</a>	available
	Wireless modbus 5 relay, 1 digital input, 1 temperature input	<a href="#">WR-5</a>	available
<b>RS485 modules</b>			
Touch HMI	4 inch touch HMI panel 86mm box black frame	<a href="#">TGP-4A-01-IQ</a>	available
	4 inch touch HMI panel 86mm box black frame, DIN dose 60mm	<a href="#">TGP-4D-01-IQ</a>	available
	4 inch touch HMI panel 86mm box white frame	<a href="#">TGP-4A-02-IQ</a>	request
	4 inch touch HMI panel 86mm box gold frame	<a href="#">TGP-4A-03-IQ</a>	request
	7 inch touch HMI panel 86mm box black frame	<a href="#">TGP-7A-01-IQ</a>	request
	10 inch touch HMI panel black frame, wall	<a href="#">TGP-10W-01-IQ</a>	request
Power sensor	1-phase power sensor, DIN rail	<a href="#">PM1-E-D</a>	available
	1-phase power sensor, DIN rail, CT	<a href="#">PM1-E-D-CT</a>	available
	3-phase power sensor, DIN rail	<a href="#">PM3-E-D</a>	available
	3-phase power sensor, DIN rail, CT	<a href="#">PM3-E-D-CT</a>	available
	1-phase split core current transformer,50A	<a href="#">CT1-E-50</a>	available
	3-phase split core current transformer,50A,100A, 250A, 400A	<a href="#">CT3-E-XX</a>	available

component	description	order code	status
Air Quality sensor	Temperature and humidity on wall sensor RS485	<a href="#">RB-100-TH</a>	available
	Temperature, humidity, CO2 on wall sensor RS485	<a href="#">RB-100-AQ</a>	available
<b>Wiegand modules</b>			
QR or RFID readers	QR code and 125kHz RFID reader, Wiegand 32b	<a href="#">QR-FR-B</a>	available
	Card reader, 125kHz RFID, Wiegand, embedded module	<a href="#">CR-MR</a>	available
	Card reader, Mifare, Wiegand, embedded module	<a href="#">CR-MM</a>	request
<b>IOT Linkers</b>			
IOT Linker	Used for RDC Charger, HEMS Gateway and Custom Projects. 2 LAN, 1 USB, USB-C Power supply	<a href="#">IOT-L2-2</a>	available
IOT Linker	Used for CybroWebScada, S-RMS and Custom Projects. 3 LAN, 2 USB, USB-C Power supply	<a href="#">IOT-L3-3</a>	available
IOT Linker	Used for BTMS Gateway and some cases when IOT-L3-3 is not enough. 2 LAN, 1 USB, 12V Power supply	<a href="#">IOT-L3-PRO</a>	available
<b>Sensors &amp; accessories - connect to I/O</b>			
Temperature sensor	Plastic 2m wire	<a href="#">ES-P-IQ</a>	available
	Metal housing ip 67, 5m wire	<a href="#">ES-B-IQ</a>	available
	White housing, terminals	<a href="#">ES-W-OW-WHITE</a>	available
	Ivory housing, terminals	<a href="#">ES-W-OW-IVORY</a>	available
Presence/Motion sensors	On-wall & on-ceiling PIR sensor with no delay	<a href="#">IR-580-IQ</a>	available
	Recessed ceiling PIR sensor, relay output	<a href="#">IR-C6-B</a>	available
Buttons	2 mini buttons	<a href="#">CAD-2-BUT</a>	available
Push button wires	Wires for connecting switches on SW-W3 / SC-4S-IQ, 20pcs	<a href="#">CAD-SW-IW-B</a>	available
Push button illumination	White illumination LEDs for SW-W3 / SC-4S-IQ, 20pcs	<a href="#">CAD-SW-LED-W-B</a>	available
Lightness sensor	Indoor lightness sensor, 0...10V output	<a href="#">RHKF-U-IQ</a>	request
Universal dimmer module (Eltaco)	Universal 230VAC light dimmer for LD-P4-IQ	<a href="#">LUD12-IQ</a>	request
Wind indicator	Wind speed indicator	<a href="#">WSI-IO-1</a>	request
Leakage sensor	Liquid leakage detector with 1m sensor probe	<a href="#">LLD-IO-1</a>	request
Opening sensor	Magnetic door / window opening sensor	<a href="#">MOS-01</a>	request
Opening sensor	Magnetic door / window opening sensor	<a href="#">MOS-02</a>	request
<b>Accessories</b>			



component	description	order code	status
Bus cable	2.5cm RJ9 to RJ9 bus cable	CAD-P0-IQ	available
	1m RJ9 to RJ9 bus cable	CAD-P1-IQ	available
	2m RJ9 to RJ9 bus cable	CAD-P2-IQ	available
	3m RJ9 to RJ9 bus cable	CAD-P3-IQ	available
Power supply	24VDC / 1.5 A power supply	<a href="#">PS-30-24</a>	available
	24VDC / 2.5 A power supply	<a href="#">PS-60-24</a>	available
	12VDC / 2 A power supply	<a href="#">PS-30-12</a>	available
Electric strike	Electromechanical strike lock	<a href="#">EL-ST</a>	available
	Electromechanical strike lock	<a href="#">99 NF Top 305</a>	available
	Electromechanical strike lock	<a href="#">SM99 NF Top 305</a>	available
	Electromechanical strike lock	<a href="#">SZ99 NF Top 305</a>	available
	Electromechanical strike lock	<a href="#">SF99 NF Top 305 24(424)</a>	available

## Energy management & Storage

### Low voltage system building blocks

#### Batteries

Description	Voltage	Ah	Capacity [kWh]	Code	Mounting
LiFePO4 LV battery module	51.2	100	5.1	<a href="#">RB 512-100-R</a>	rack
LiFePO4 LV battery module	51.2	200	10.2	<a href="#">RB 512-200-R</a>	rack
LiFePO4 LV battery module	51.2	200	10.2	<a href="#">RB 512-200-W</a>	wall
LiFePO4 LV battery module	51.2	280	14.3	<a href="#">RB 512-280-W</a>	wall

#### Hybrid Inverters

Description	Grid	Battery	Capacity	Code	Mounting
Low voltage hybrid inverter	3-phase	LV	10 kVA	<a href="#">LV-10-3P-01</a>	wall
Low voltage hybrid inverter	3-phase	LV	12 kVA	<a href="#">LV-12-3P-01</a>	wall
Low voltage hybrid inverter	1-phase	LV	8 kVA	<a href="#">LV-08-1P-01</a>	wall
Low voltage hybrid inverter	1-phase	LV	12 kVA	<a href="#">LV-12-1P-01</a>	wall
Low voltage hybrid inverter	1-phase	LV	16 kVA	<a href="#">LV-16-1P-01</a>	wall

**PDU**

Description	Grid	Battery	Code	Mounting
DCLV PDU with xEMS	3-phase	LV	<a href="#">RAC-LV-x</a>	wall

**High voltage system building blocks****Batteries**

Description	Voltage[V]	Capacity [kWh]	Code	Mounting
LiFePO4 HV Freestanding (modular battery)	153.6	7.68	<a href="#">BA-G3-01-F</a>	Freestanding (modular)
LiFePO4 HV Freestanding (modular battery)	204.8	10.24	<a href="#">BA-G4-01-F</a>	Freestanding (modular)
LiFePO4 HV Freestanding (modular battery)	256	12.80	<a href="#">BA-G5-01-F</a>	Freestanding (modular)
LiFePO4 HV Freestanding (modular battery)	409.6	20.48	<a href="#">BA-G8-01-F</a>	Freestanding (modular)

**Batteries**

Description	Voltage[V]	Ah	Capacity [kWh]	Code	Mounting
LiFePO4 HV battery rack	512	100	51.2	<a href="#">RBHV 512-100-RA</a>	standing IP20
LiFePO4 HV battery rack	512	100	51.2	<a href="#">RBHV 512-100-RA-O</a>	standing IP54
LiFePO4 HV battery rack	665	100	66.5	<a href="#">RBHV 665-100-RA</a>	standing IP20
LiFePO4 HV battery rack	665	100	66.5	<a href="#">RBHV 665-100-RA-O</a>	standing IP54
LiFePO4 HV battery rack	512	200	102.4	<a href="#">RBHV 512-200-RA</a>	standing IP20
LiFePO4 HV battery rack	512	200	102.4	<a href="#">RBHV 512-200-RA-O</a>	standing IP54

**Hybrid Inverters**

Description	Grid	Battery	Capacity	Code	Mounting
High voltage hybrid inverter	3-phase	HV	10 kVA	<a href="#">HV-10-3P-01</a>	wall
High voltage hybrid inverter	3-phase	HV	15 kVA	<a href="#">HV-15-3P-01</a>	wall
High voltage hybrid inverter	3-phase	HV	20 kVA	<a href="#">HV-20-3P-01</a>	wall

Description	Grid	Battery	Capacity	Code	Mounting
High voltage hybrid inverter	3-phase	HV	30 kVA	<a href="#">HV-30-3P-01</a>	wall
High voltage hybrid inverter	3-phase	HV	50 kVA	<a href="#">HV-50-3P-01</a>	wall

## PDU

Description	Grid	Battery	Code	Mounting
ACHV PDU with xEMS	3-phase	HV	<a href="#">RAC-HV-x</a>	wall

## eSTORE all in one solution

Description	Voltage	Power [kW]	Capacity [kWh]	Code	Mounting
Energy storage with xEMS	512	50	102.4	<a href="#">eSTORE 512-200</a>	standing IP20
Energy storage with xEMS	512	50	102.4	<a href="#">eSTORE 512-200-O</a>	standing IP54
Energy storage with xEMS	1330	1075	1118	eSTORE 1330-840	standing IP54
Energy storage with xEMS	1330	1075	2236	eSTORE 1330-1680	standing IP54

## PDU

Description	Grid	Battery	Code	Mounting
ACHVHP PDU (eSTORE), HP batteries	3-phase	HVHP	RAC-HP-x	wall