

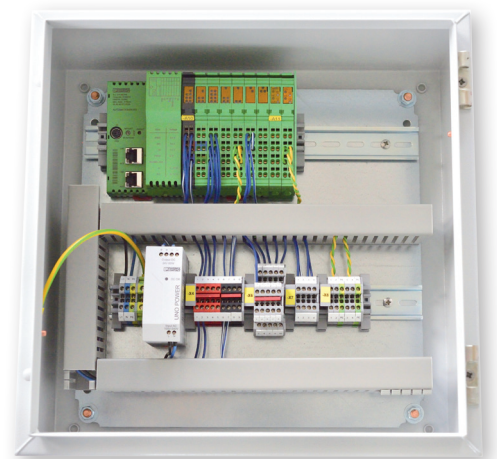
REFUcontrol

PV-monitoring
and park control solutions

- Professional, based on PLC
- REFUlog connected
- Customizable to your needs

Almost every solar plant needs some kind of monitoring or remote control solution. The modular REFUcontrol solution is based on the proven, industry graded PLC solution from Phoenix Contact.

Standard tasks like inverter data forwarding of RS485 connected solar parks to the REFUlog monitoring portal or remote active power control can be used out of the box. All kinds of individual requirements for professional park management with active and reactive power control, direct marketing and remote control can be realized with the support of qualified Phoenix Contact Solution Partners.



TECHNICAL DATA

	REFUcontrol RC-10 924002 924006	REFUcontrol RC-11 924003 924006	REFUcontrol RC-12 924004 924007	REFUcontrol RC-PRO - individual
Art. No. (Components)	924002	924003	924004	-
Art. No. (Cabinet with wiring/documentation)	924006	924006	924007	individual
Application	for Ethernet connected parks	for RS485 connected parks with up to 25 REFUsol inverters	for RS485 connected parks with up to 50 REFUsol inverters	for parks with individual control requirements

FUNCTIONALITY

Data forwarding to REFUlog	■	■	■	■
Data collection from REFUsol inverters (RS485)	-	■	■	■
Data transmission from REFUsol inverters (Ethernet)	■	■	■	■
Power reduction via 4 digital inputs (RS485)	-	■	■	■
Power reduction via 4 digital inputs (Ethernet)	■	■	■	■
Time synchronization of inverters with REFUlog	■	■	■	■
Reactive power control at point of inter-connection	-	-	-	■
Active power control at point of inter-connection	-	-	-	■
Connection to remote control IEC 60870-5-104 or modbus TCP	-	-	-	■
Connection to direct marketing platforms	-	-	-	■
Connection of irradiation/temperature sensor	-	-	-	■
Customized functions	-	-	-	■
Master Park Control	-	-	-	■

COMPONENTS

Control	ILC 151 ETH	ILC 191 ME/AN	ILC 191 ME/AN	
Power supply	UNO-PS/1 AC/24 DC/30 W			
Inline communication terminal	-	-	1 x IB IL RS UNI-PAC	
UMTS mobile router with VPN connection	-	-	-	optional

INTERFACES

Digital inputs	4	4	4	8
Digital outputs	-	-	-	4
RS485 interface	-	1	2	2
Ethernet interface	-	2	2	2
Analog inputs	-	-	-	2
Analog outputs	-	-	-	2

ELECTRICAL DATA

AC nominal input voltage range (V)	100 ... 240		
Frequency range AC (Hz)	45 ... 65		
Max. used power (W)	5.0	7.5	8.0
Typical max. current (mA)	210	310	325

Art. No.

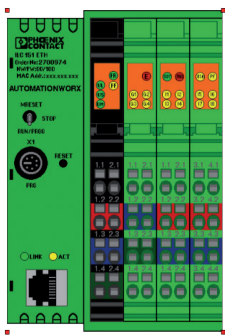
Components
924002 / 924003 / 924004

Cabinet
924005 / 924006 / 924007

MECHANICAL/ENVIRONMENTAL DATA

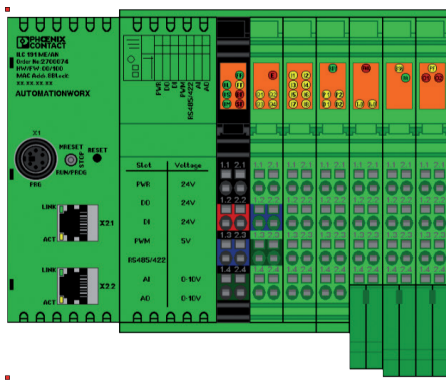
Dimensions W x H x D (mm)	max. 127 x 135 x 90	400 x 400 x 200
Weight (kg)	max. 0.6	ca. 3
Housing	Plastic	Metal, coated
Colour	green/grey	grey (RAL 7035)
Protection degree	IP 20	IP 54
Protection class	III, IEC/EN 61140, VDE 0140-1	I
Ambient temperature range operation (°C)		-25 ... 55
Ambient temperature range storage/transport (°C)		-25 ... 85
Air humidity range operation/storage/transport (%)		10 ... 95 (according to DIN EN 61131-2)
Air pressure operation/storage/transport (kPa)		70 ... 106 (up to 3,000 m altitude above sea level)
Warranty		1 year

REFUcontrol RC-10



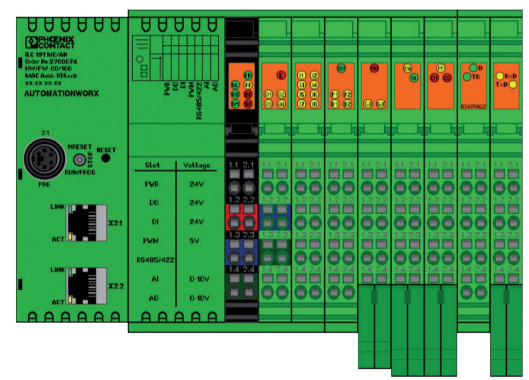
0,080 m

REFUcontrol RC-11



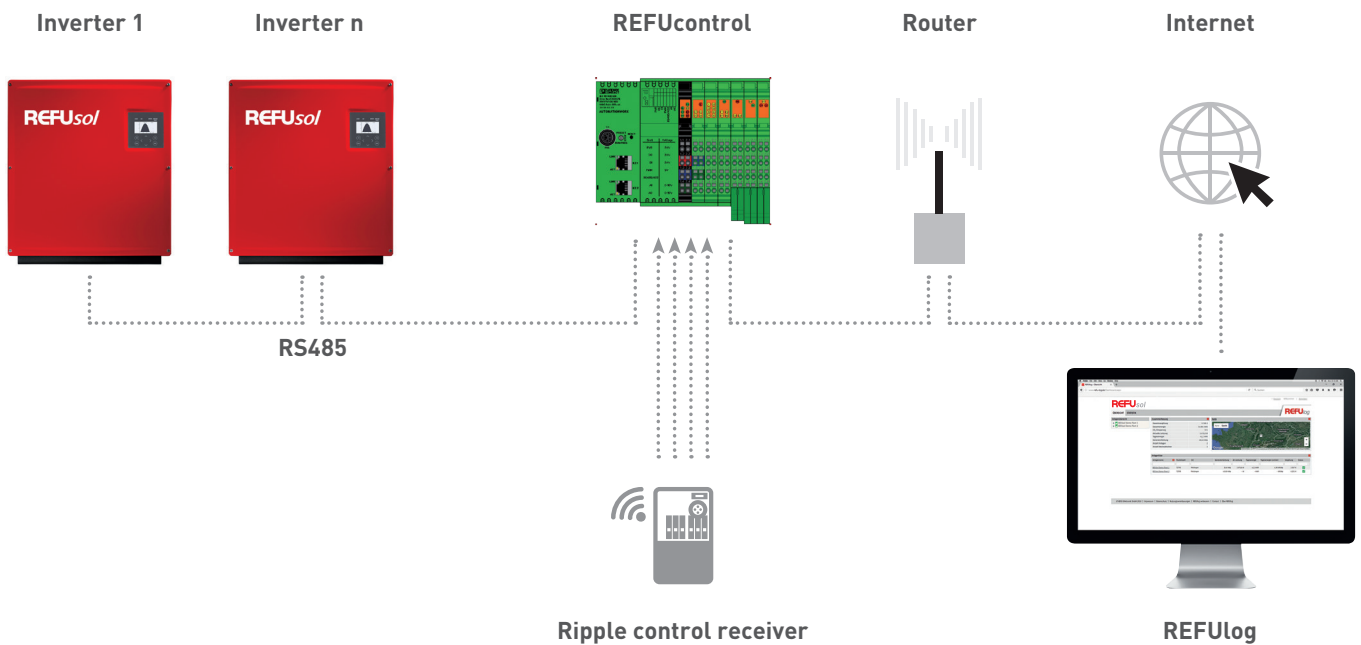
0,164 m

REFUcontrol RC-12

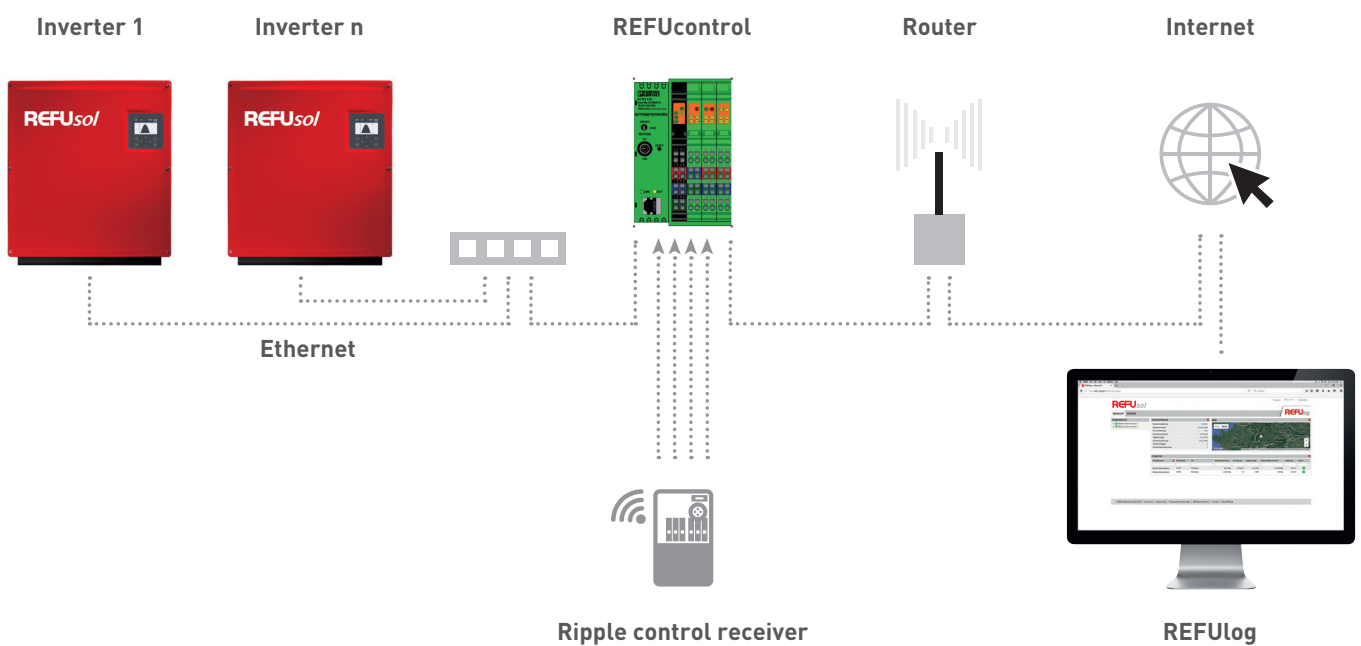


0,188 m

RS485 CONNECTED PARKS



ETHERNET CONNECTED PARKS



No responsibility is taken for the correctness of this information. Subject to modification.