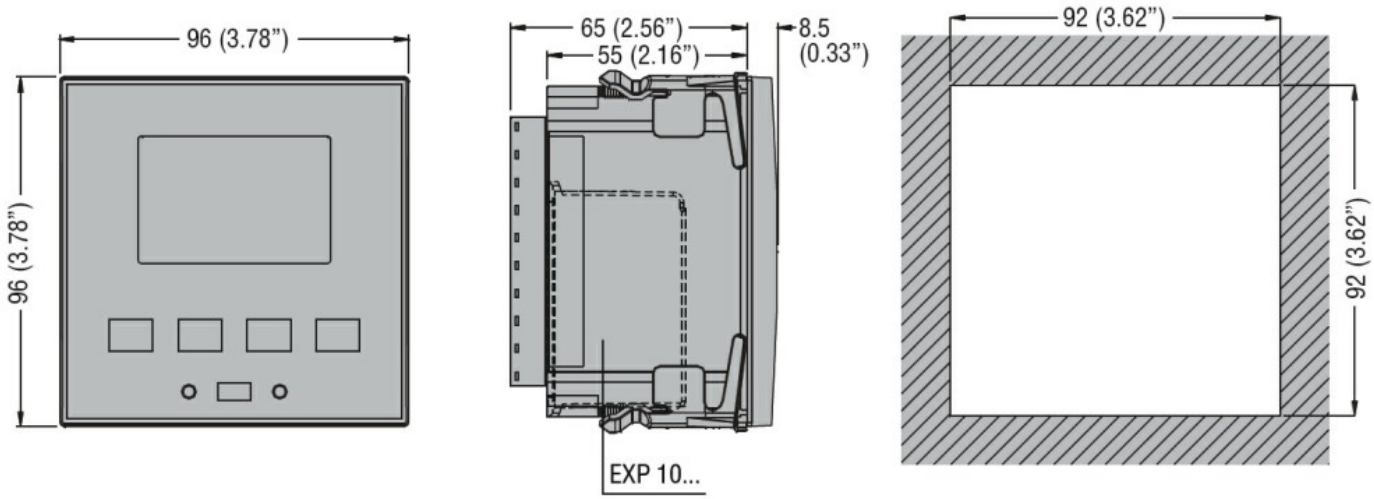
DCRL3

AUTOMATIC POWER FACTOR CONTROLLER, DCRL SERIES, 3 STEPS

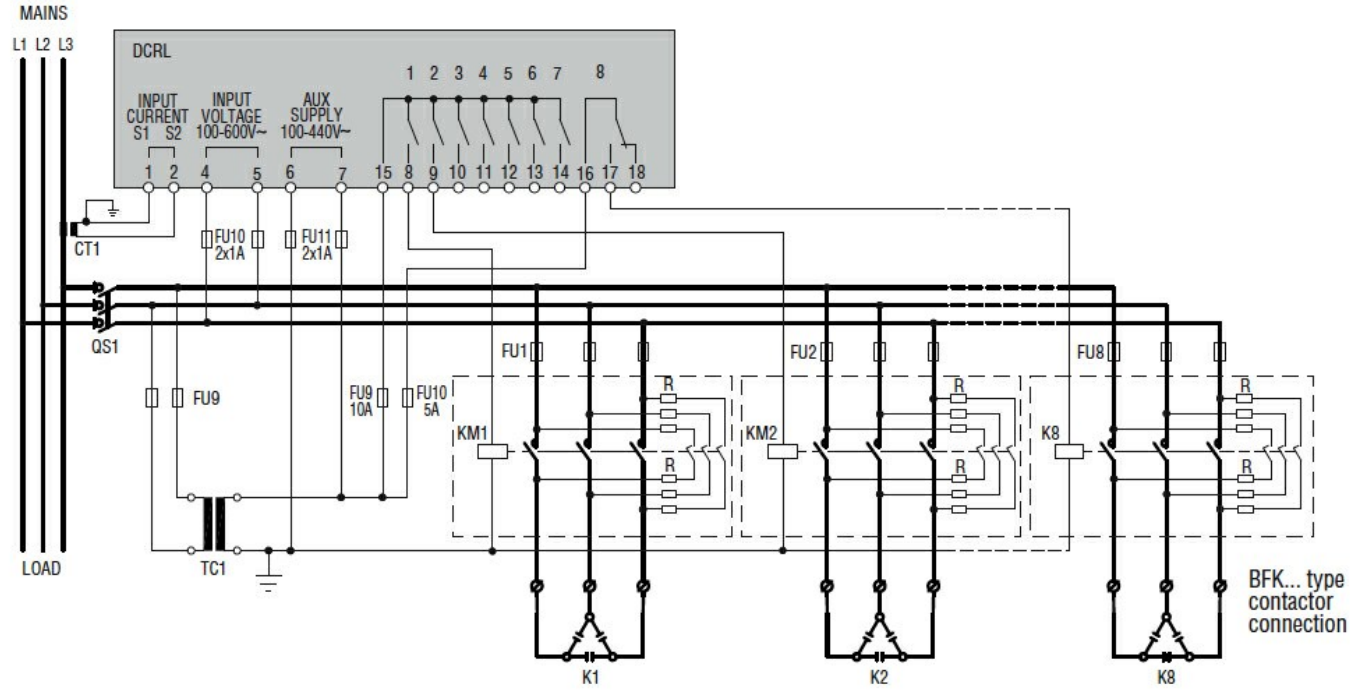
Product designation			Automatic power factor controller, 3 steps, icon display
Product type designation			DCRL3
Auxiliary supply			
Rated auxiliary supply voltage Us			
AC			
	min	VAC	100
	Max	VAC	440
DC			
	min	VDC	110
	Max	VDC	250
Auxiliary operating range			90…484VAC / 93.5…300VDC
Auxiliary rated frequency		Hz	50/60 ±10%
Power consumption Max		VA	9.5
Power dissipation Max		W	3.5
Immunity time for microbreakings		ms	<25
Voltage inputs			
Rated voltage (Ue)		VAC	600VAC L-L (rated max)
Operating range			50…720VAC L-L (415VAC L-N)
Frequency range		Hz	45…65
Type of measure			True RMS value
No-voltage release		ms	≥8
Measurement input impedance		kΩ	>1.10MΩ L-L, >0.55MΩ L-N
Type of connection			Single phase, two phase, three phase with or without neutral or balanced three phase system
Current inputs			
Number of current input		Nr.	1
Type of input			Shunt supplied by external current transformer (low voltage). Max 5A
Measurement range			0.025...6A~ for 5A scale; 0.025...1.2A~ for 1A scale
Measurement method			True RMS value

Constant overload	Ie	1.2 Ie
Overload peak	A	50A for 1s
Burden per phase	W	<0.6VA
Measurement data		
Type of voltage and current measurement		True RMS value
Power factor adjustment		0.5ind…0.5cap.
Type of temperature sensor		Internal
Temperature measurement range	°C	0…+212
Relay outputs		
Number of relay output	Nr.	3 (up to 6 with EXP10 06 - EXP10 07)
Contact arrangement		2 NO-SPST + 1 C/O-SPDT
Rated current		5A 250V AC1
UL/CSA and IEC/EN 60947-5-1 designation		B300
Maximum current at common contact terminal	A	10
Maximum switching voltage	VAC	415
Electrical life (with rated load)	cycles	10^5
Mechanical life	cycles	10^7
Insulations		
Rated insulation voltage Ui IEC/EN	V	600
Rated impulse withstand voltage Uimp	kV	9.5
Operating frequency withstand voltage	kV	5.2
Functions		
Automatic recognition of current flow direction		Yes
4-quadrant operation		Yes
Master-Slave function		No
Independent auxiliary supply input		Yes
Three-phase voltage control		No
Current inputs		1
Dynamic (FAST) power factor correction		No
Power factor correction by single phase		No
Possibility of connecting inductive steps		No
Possibility of use in medium voltage		Yes
Possibility of phase-neutral insertion on a three-phase system		Yes
Analog outputs		No
Input programmable as function or external temperature sensor		No
USB communication interface		No
RS232 communication interface		Yes
Opto-isolated RS485 communication interface		Yes
Ethernet communication interface		Yes
Opto-isolated Profibus-DP interface		No
GPRS/GSM modem		No
Optical USB communication port on front		No
Optical Wi-Fi communication port on front		Yes
Fast setting of current transformer		Yes
Compatible with Xpress configuration and remote control software		Yes
Compatible with Synergy and Synergy Cloud,supervision and energy management software		Yes
Compatible with Sam1 App		Yes
Calendar-clock with backup reserve power		No
Data logging memory		No
Event logging: alarms, setup changes, etc.		No

Customisable internal counters				No
Connections				
Type of terminal				Plug-in, removable
Conductor cross section				
		min	mm²	0.2
		Max	mm²	2.5
		min	AWG	24AWG (18AWG according to UL/CSA)
		Max	AWG	12
Tightening torque (Max)				
			Nm	0.56
			lbin	5 (4-5 according to UL/CSA)
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-20
		max	°C	+60
	Storage temperature			
		min	°C	-30
		max	°C	+80
Relative humidity			%	<80%
Maximum Pollution degree				2
Overvoltage category				3
Measurement category				III
Climatic sequence				Z/ABDM (IEC/EN 60068-2-61)
Shock resistance				15g (IEC/EN 60068-2-27)
Vibration resistance				0.7g (IEC/EN 60068-2-6)
Housing				
Execution				Flush mount
Material				Polycarbonate
Mounting				Flush-mount 96x96mm (3.78x3.78”)
Degree of protection				IP54 on front with gasket, if mounted in class IP54 panel or better. IP20 terminals
Dimensions (W x H x D)			mm	96 x 96 x 73.5
Weight			g	340
Dimensions				



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n°14
IEC/EN 61000-6-2
IEC/EN 61000-6-4
IEC/EN 61010-1
IEC/EN 61010-2-030
UL 508

Certificates

cULus
EAC
RCM

ETIM classification

ETIM 8.0	EC001443 - Effective power (cos phi) monitoring relay