



Automatic power factor controller, 8 relay steps, graphic display, for capacitive reactive power factor correction DCRG8IND

Product designation

Product type designation

Auxiliary supply

Rated auxiliary supply voltage U_s

AC

min	VAC	100
Max	VAC	415

DC

min	VDC	110
Max	VDC	250

Auxiliary operating range

90...484VAC /
93.5...300VDC

Auxiliary rated frequency

Hz 50/60 $\pm 10\%$

Power consumption Max

VA 27 (with 4 EXP modules)

Power dissipation Max

W 10.5 (with 4 EXP modules), 5.5 (with no EXP modules)

Immunity time for microbreakings

ms ≥ 35 ms
(110VAC); ≥ 80 ms
(220...415VAC)

Voltage inputs

Rated voltage (U_e)

VAC 600VAC L-L
(rated max)

Operating range

50...720VAC L-L
(415VAC L-N)

Frequency range

Hz 45...65 Hz /
360...440 Hz

Type of measure

True RMS value

No-voltage release

ms ≥ 8

Measurement input impedance

k Ω $> 1.10\text{M}\Omega$ L-L,
 $> 0.55\text{M}\Omega$ 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. 3

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 + PT100 with EXP1004 + NTC with EXP1016
Temperature measurement range	°C		0...+212
Relay outputs			
Number of relay output	Nr.		8 (up to 18 with EXP10 06 - EXP10 07)
Contact arrangement			7 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		30 x 10 ⁶
Static Outputs			
Number of static output			0 (up to 8 with EXP1001)
Insulations			
Rated insulation voltage Ui IEC/EN	V		600
Rated impulse withstand voltage Uimp	kV		9.5
Operating frequency withstand voltage	kV		5.2
Connections			
Type of terminal			Plug-in, removable
Conductor cross section	min	mm ²	0.2
	Max	mm ²	2.5
	min	AWG	24AWG (18AWG according to UL/CSA)
	Max	AWG	12
Tightening torque (Max)		Nm	0.56
		lbin	5lbin (4-5lbin according to UL/CSA)

Ambient conditions

Temperature

Operating temperature

min	°C	-20
max	°C	+70

Storage temperature

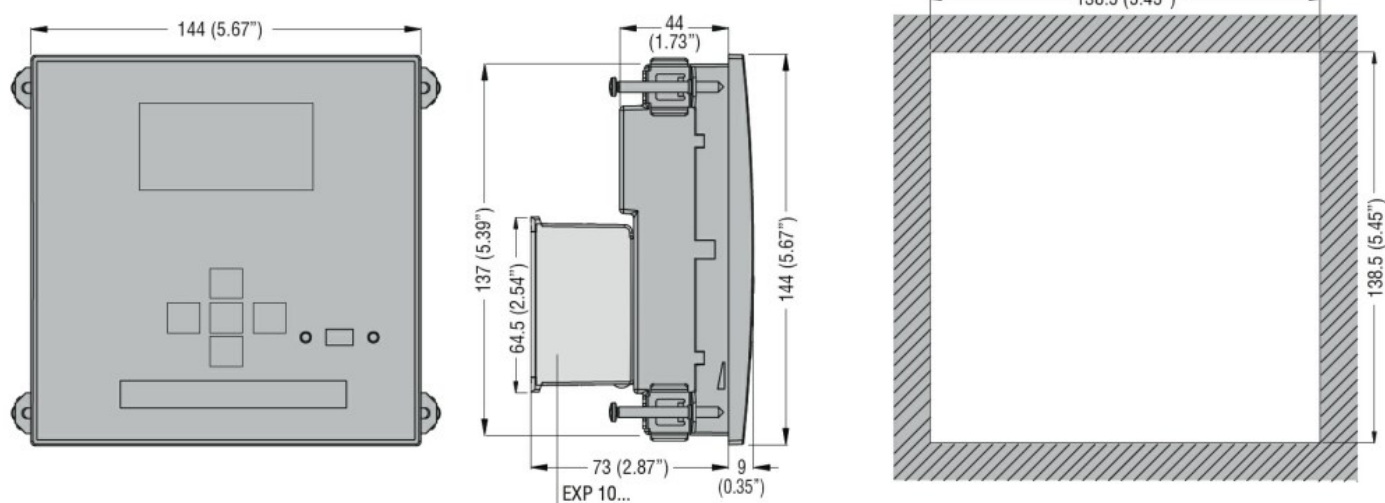
min	°C	-30
max	°C	+80

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)

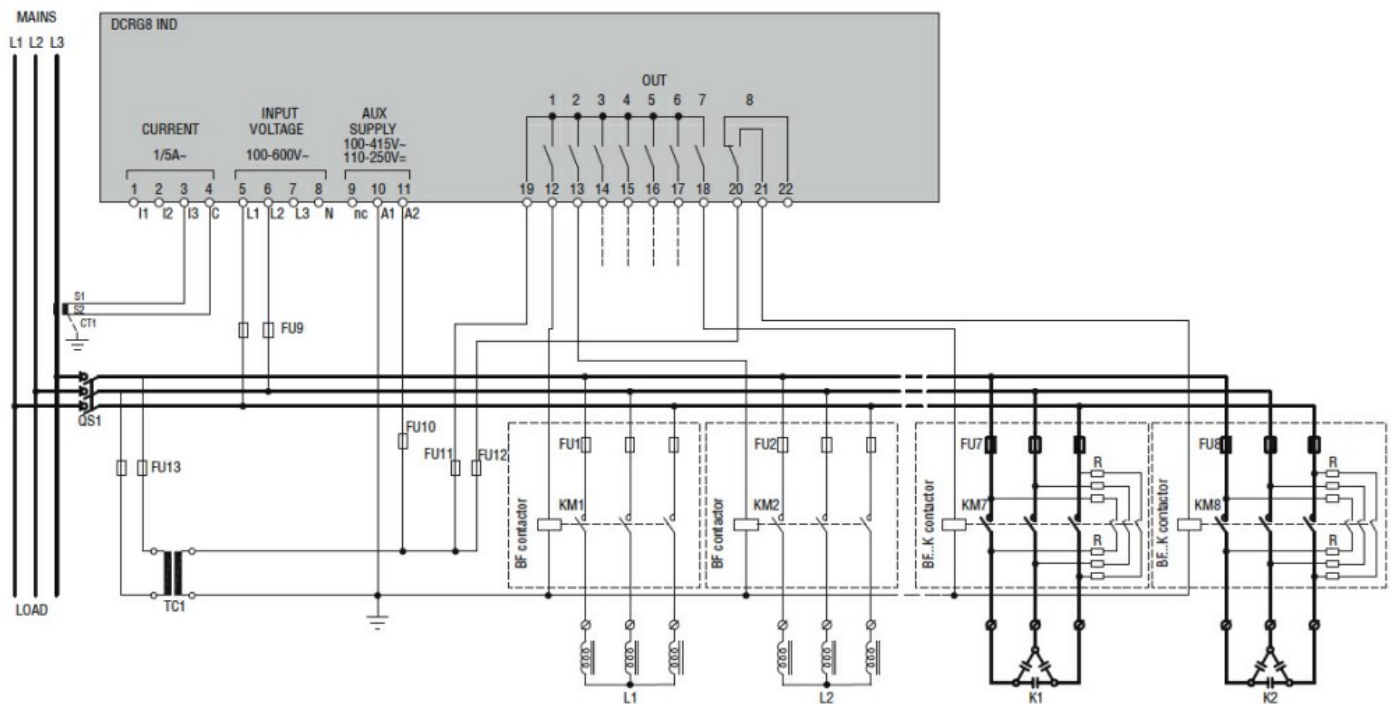
Housing

Execution		Flush mount
Material		Polycarbonate
Mounting		Flush-mount 144x144mm (5.67x5.67")
Degree of protection		IP65 on front, IP20 terminals
Dimensions (W x H x D)	mm	144 x 144 x 53.2
Weight	g	980

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n°14

IEC 61010-1

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL 508

Certificates

cULus

EAC

ETIM classification

ETIM 8.0

EC001443 -
Effective power
(cos phi)
monitoring relay