

Product designation	Automatic power factor controller, 8 relay steps, graphic display DCRG8		
Product type designation	DCRG8		
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	\geq 35ms (110VAC); \geq 80ms (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	\geq 8
Measurement input impedance		k Ω	>1.10M Ω L-L, >0.55M Ω 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		I _e	1.2 I _e

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	105
Mechanical life		cycles	30 x 106
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
	RCM

ETIM classification

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