



Automatic  
dynamic power  
factor controller,  
8 static steps,  
graphic display  
DCRG8F

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), 2.5  
(with no EXP  
modules)

Immunity time for microbreakings

ms  $\geq 35$ ms (110VAC);  
 $\geq 80$ 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  $\geq 8$

Measurement input impedance

k $\Omega$   $> 1.10\text{M}\Omega$  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

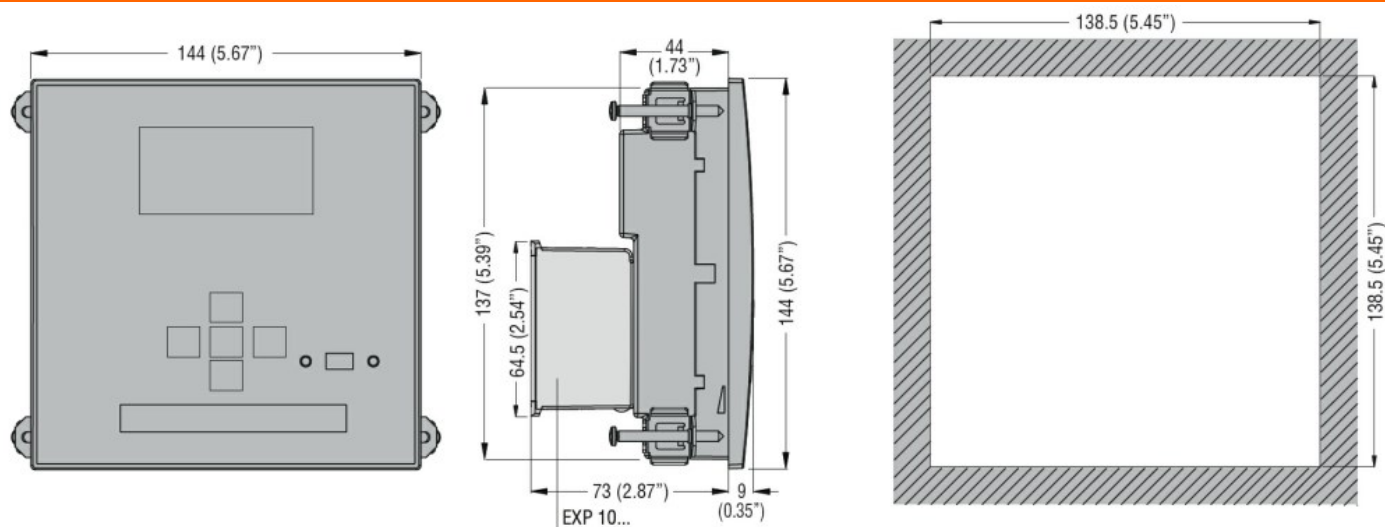
Type of input	Shunt supplied by external current transformer (low voltage). Max 5A		
Measurement range	0.025...6A~ for 5A scale; 0.025...1.2A~ for 1A scale		
Measurement method	True RMS value		
Constant overload	Ie	1.2 Ie	
Overload peak	A	50A for 1s	
Burden per phase	W	<0.6VA	
Measurement data			
Type of voltage and current measurement	True RMS value		
Power factor adjustment	0.5ind...0.5cap.		
Type of temperature sensor	Internal + PT100 with EXP1004		
Temperature measurement range	°C	0...+212	
Relay outputs			
Number of relay output	Nr.	0 (up to 10 with EXP10 06 - EXP10 07)	
UL/CSA and IEC/EN 60947-5-1 designation	B300		
Static Outputs			
Number of static output	8 (up to 24 with EXP1001)		
Rated current	120mA max 40VDC/30VAC		
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	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	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)

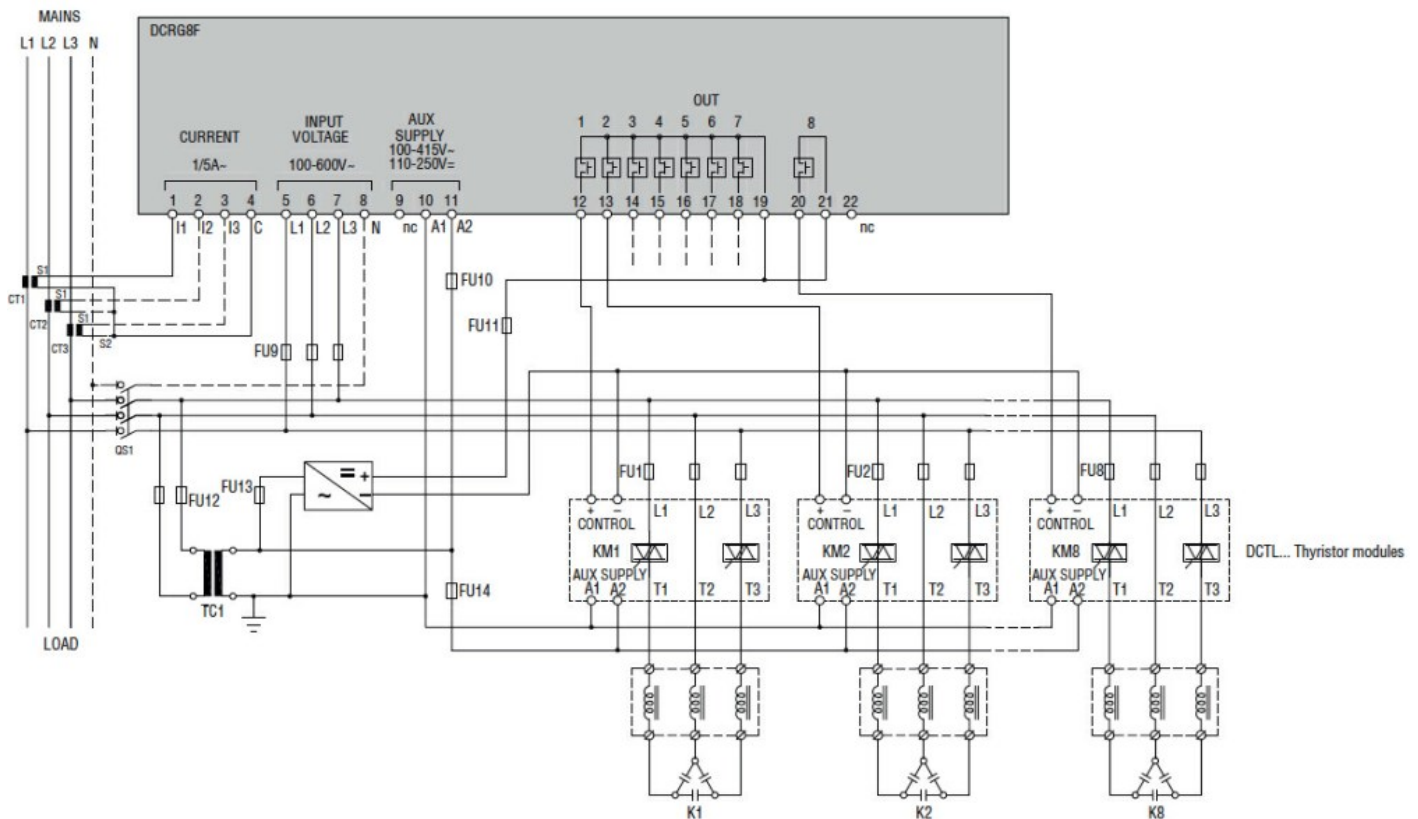
### Housing

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/EN 61000-6-2

IEC/EN 61000-6-4

IEC/EN 61010-1

UL508

### Certificates

cULus

EAC

RCM

## ETIM classification

ETIM 8.0

EC001443 -  
Effective power  
(cos phi)  
monitoring relay