



Product designation

Thyristor  
modules

Product type designation

DCTL

**General characteristics**

Rated voltage	V	400...480
Operating voltage range		340...528
Rated frequency	Hz	50/60
Operating frequency range	Hz	45...65
Rated current (Ie)	A	43
Step power at		
	400VAC	kvar 36
	440VAC	kvar 33
	480VAC	kvar 36
Peak inverse voltage (PIV)	VAC	2200
Number of controlled phases	Nr.	2

Control circuit

12-24VDC input  
or free-voltage  
input or via  
RS485 serial port  
(with optional  
card EXC1042 in  
combination with  
controller  
DCRG8F +  
EXP1012)

**Auxiliary supply**

Rated auxiliary supply voltage Us  
AC

	min	VAC	100
	Max	VAC	240
Auxiliary rated frequency		Hz	50/60
Power consumption Max		VA	11.8
Power dissipation Max		W	4.6

**Control input**

Terminals	CONTROL +/-
Rated voltage	12-24VDC
Operating range	8...30VDC

**Digital inputs**

Terminals	C-IN1
Applied voltage at contact (internal)	5VDC
Input current	mA ≤10
Low input signal	VDC ≤0.8
High input signal	VDC ≥3.2
Input signal delay	ms ≥50

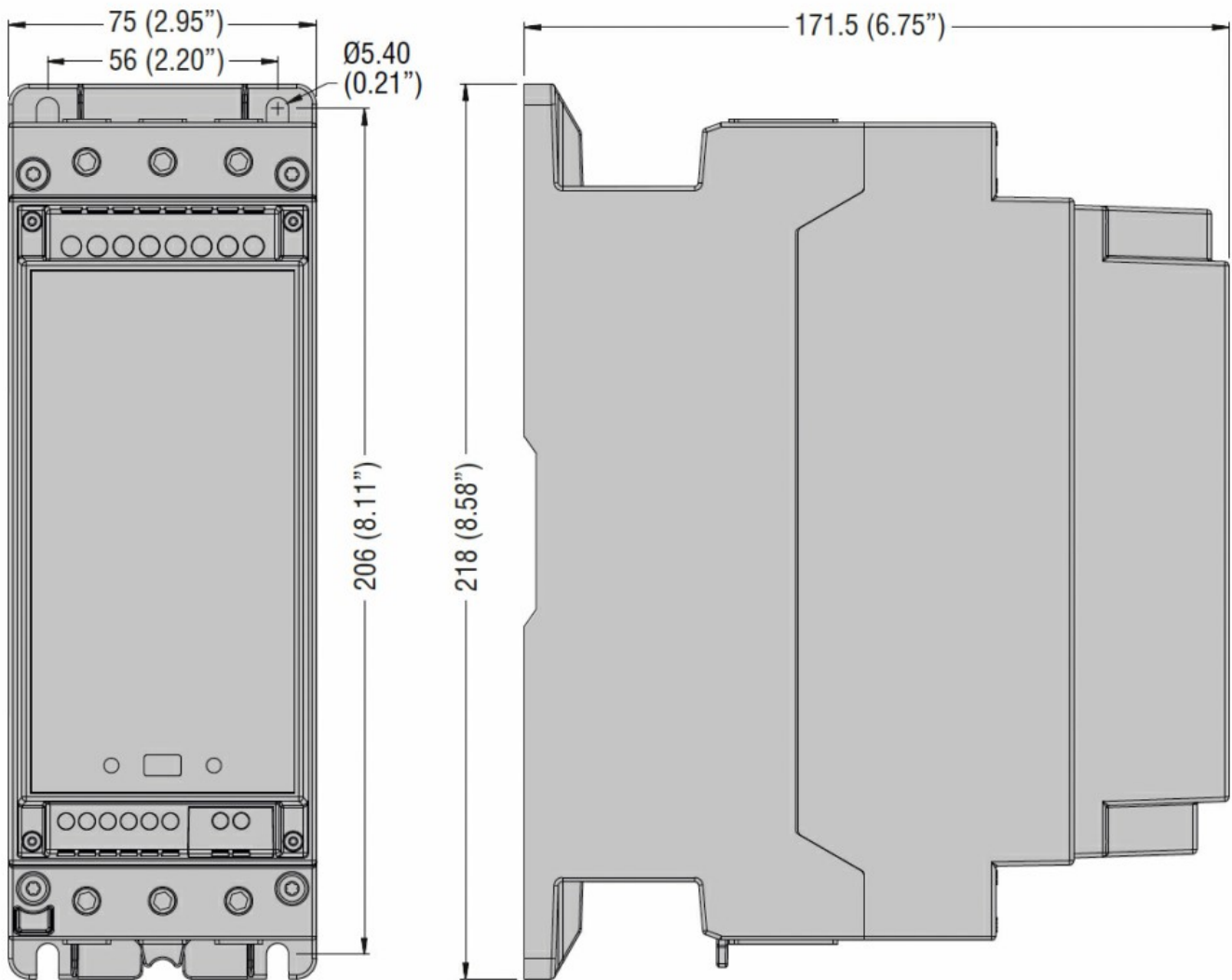
**NTC probe input**

Terminals	NTC-NTC
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Sensor type			NTC (ordering code NTC01)
Measuring range		°C	-25...+85
Maximum connection length		mt	3
<b>Fan power supply</b>			
Terminals			FAN +/-
Supply voltage (internal)			5VDC (provided by DCTL)
Fan type			1 built-in fan type EXP8004
<b>Relay outputs</b>			
Number of relay output		Nr.	1
Contact arrangement			1 C/O-SPDT
Rated current			NO contact: AC1 5A 250VAC / 5A 30VDC NC contact: AC1 3A 250VAC / 3A 30VDC
UL/CSA and IEC/EN 60947-5-1 designation			D300
Maximum switching voltage		VAC	250
Electrical life (with rated load)		cycles	NO contact: 10x10 <sup>3</sup> NC contact: 20x10 <sup>3</sup>
Mechanical life		cycles	10 <sup>7</sup>
<b>Insulations</b>			
Rated insulation voltage Ui IEC/EN		V	480
Rated impulse withstand voltage Uimp		kV	4
<b>Connections - power terminals</b>			
Type of terminal			Fixed - double lock clamp
Conductor cross section			
	min	mm <sup>2</sup>	2 x 2.5
	Max	mm <sup>2</sup>	2 x 35
	min	AWG	2 x 18
	Max	AWG	2 x 2
Tightening torque (Max)			
		Nm	4-5
		lbin/lbft	2.95-3.69 lbft
<b>Connections - relay output</b>			
Type of terminal			Screw
Conductor cross section			
	min	mm <sup>2</sup>	0.2
	Max	mm <sup>2</sup>	4
	min	AWG	26
	Max	AWG	10
Tightening torque (Max)			
		Nm	0.8
		lbin	7
<b>Connections - fan and digital input</b>			
Type of terminal			Screw
Conductor cross section			
	min	mm <sup>2</sup>	0.2
	Max	mm <sup>2</sup>	2.5

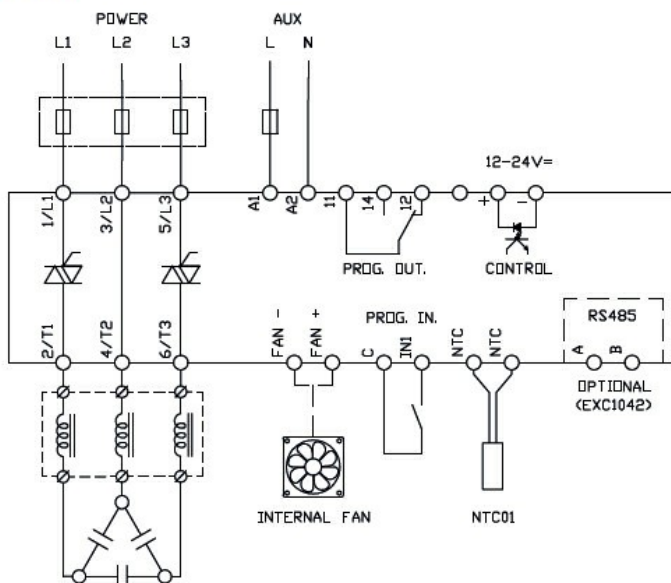
	min	AWG	24
	Max	AWG	12
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Tightening torque (Max)		Nm	0.44
		lbin	4
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<b>Ambient conditions</b>			
Temperature			
	Operating temperature		
	min	°C	-20
	max	°C	+45°C without derating (up to 55°C with derating)
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	Storage temperature		
	min	°C	-30
	max	°C	+80
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Relative humidity		%	<80%
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Maximum Pollution degree			2
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Overvoltage category			III
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Max altitude		m	2000m without derating
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Climatic sequence			Z/ABDM (IEC/EN 60068-2-61)
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Shock resistance			15g (IEC/EN 60068-2-27)
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Vibration resistance			0.7g (IEC/EN 60068-2-6)
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<b>Housing</b>			
Execution			Internal panel version
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Material			Polycarbonate
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Mounting			Screw fixing or DIN-rail (IEC/EN 60715) with optional accessory EXP8003
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Degree of protection			IP00
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Dimensions (W x H x D)		mm	75 x 218 x 171.5
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Weight		g	1740

**Dimensions**



## Wiring diagrams

### DCTL



## Certifications and compliance

### Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4

Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -  
Solid state relay