

Product designation				Thyristor modules
Product type designation				DCTL
<b>General characteristics</b>				
Rated voltage	V			600...690
Operating voltage range			340...759	
Rated frequency	Hz			50/60
Operating frequency range	Hz			45...65
Rated current (I <sub>e</sub> )	A			48
Step power at				
	400VAC	kvar	50	
	440VAC	kvar	37	
	480VAC	kvar	40	
	525VAC	kvar	44	
	600VAC	kvar	50	
	690VAC	kvar	50	
Peak inverse voltage (PIV)	VAC			3600
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)
<b>Auxiliary supply</b>				
Rated auxiliary supply voltage U <sub>s</sub>	AC			
	min	VAC	100	
	Max	VAC	240	
Auxiliary rated frequency			Hz	50/60
Power consumption Max			VA	14.1
Power dissipation Max			W	5.8
<b>Control input</b>				
Terminals				CONTROL +/-
Rated voltage				12-24VDC
Operating range				8...30VDC
<b>Digital inputs</b>				
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
<b>NTC probe input</b>				
Terminals				NTC-NTC
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				2 built-in fans 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			690
Rated impulse withstand voltage Uimp	kV			6
<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	5.5-6.5
			lbin/lbft	4.06-4.79 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	
Tightening torque (Max)			Nm	0.44
			lbin	4

### Ambient conditions

#### Temperature

##### Operating temperature

min	°C	-20
max	°C	+45°C without derating (up to 55°C with derating)

##### Storage temperature

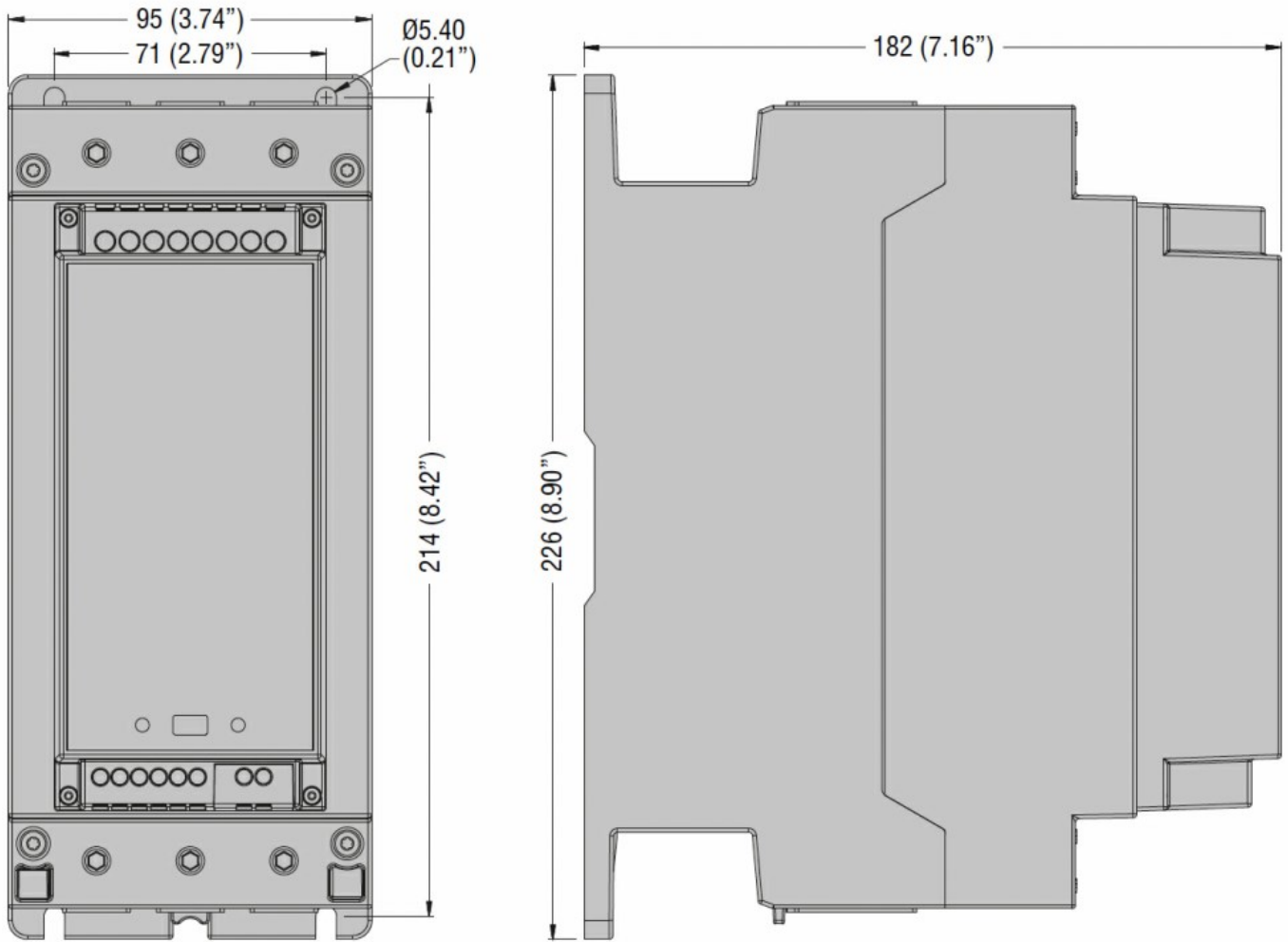
min	°C	-30
max	°C	+80

Relative humidity	%	<80%
Maximum Pollution degree		2
Overvoltage category		III
Max altitude	m	2000m without derating
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

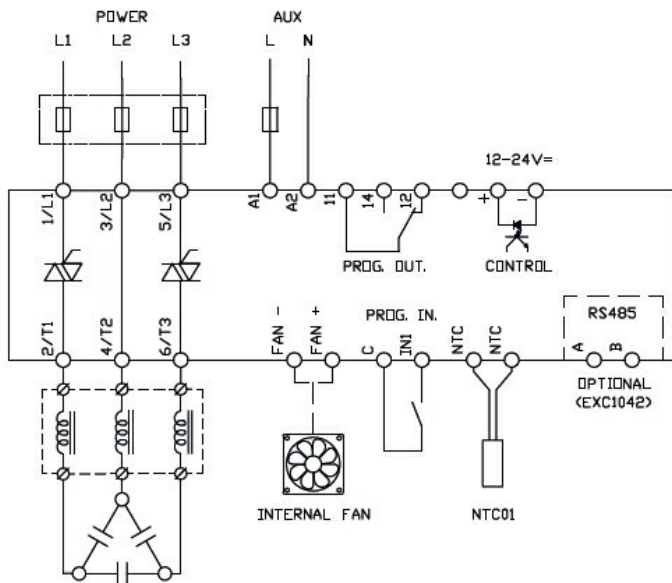
Execution		Internal panel version
Material		Polycarbonate
Mounting		Screw fixing or DIN-rail (IEC/EN 60715) with optional accessory EXP8003
Degree of protection		IP00
Dimensions (W x H x D)	mm	95 x 226 x 182
Weight	g	2840

### Dimensions



Wiring diagrams

**DCTL**



Certifications and compliance

Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4

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Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -  
Solid state relay