

Product designation			Thyristor modules
Product type designation			DCTL
General characteristics			
Rated voltage	V	600...690	
Operating voltage range		340...759	
Rated frequency	Hz	50/60	
Operating frequency range	Hz	45...65	
Rated current (Ie)	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)	
Auxiliary supply			
Rated auxiliary supply voltage Us			
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
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	
Sensor type		NTC (ordering code NTC01)	
Measuring range		°C	-25...+85
Maximum connection lenght		mt	3
Fan power supply			

Terminals			FAN +/-
Supply voltage (internal)			5VDC (provided by DCTL)
Fan type			2 built-in fans type EXP8004
Relay outputs			
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: 10x10³ NC contact: 20x10³	
Mechanical life	cycles	10⁷	
Insulations			
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage Uimp	kV	6	
Connections - power terminals			
Type of terminal		Fixed - double lock clamp	
Conductor cross section	min	mm²	2 x 2.5
	Max	mm²	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
Connections - relay output			
Type of terminal		Screw	
Conductor cross section	min	mm²	0.2
	Max	mm²	4
	min	AWG	26
	Max	AWG	10
Tightening torque (Max)		Nm	0.8
		lbin	7
Connections - fan and digital input			
Type of terminal		Screw	
Conductor cross section	min	mm²	0.2
	Max	mm²	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

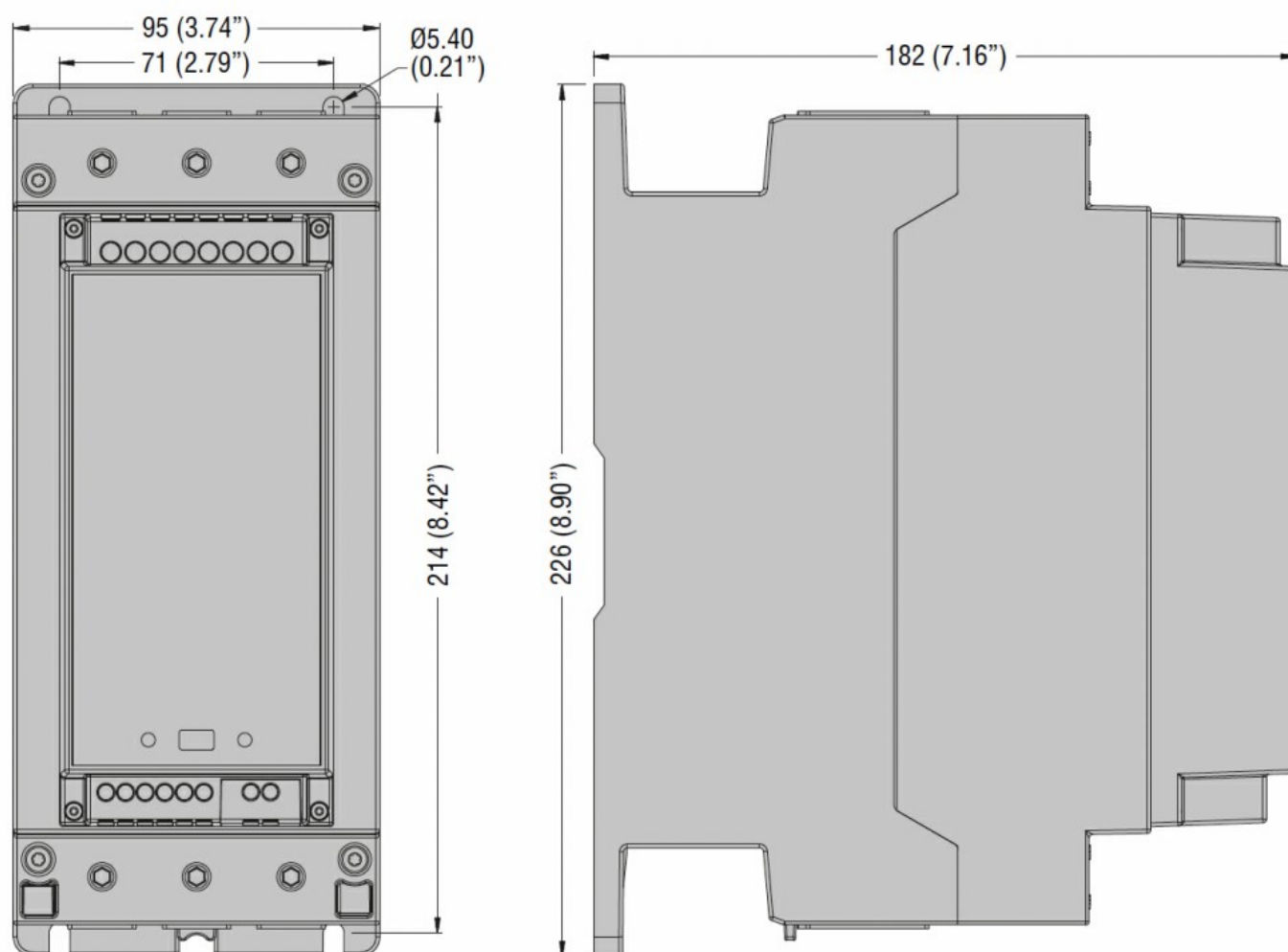
min	°C	-30
max	°C	+80

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

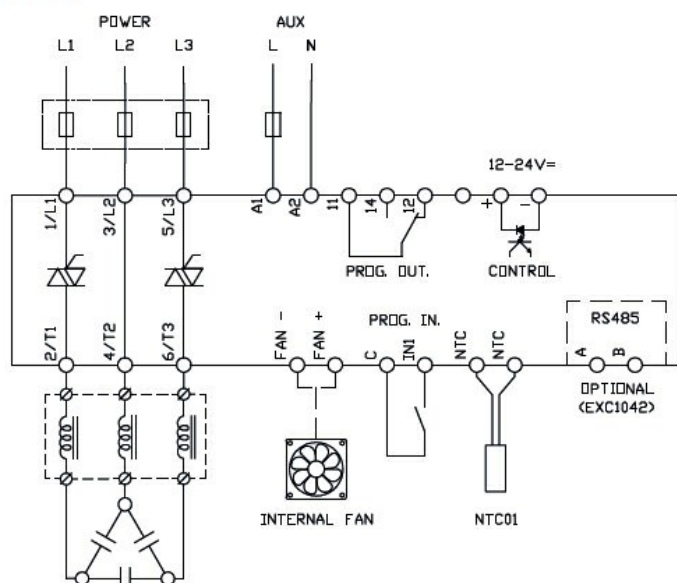
Execution		Internal panel version
Material		Polycarbonate
Mounting		Screw fixing or DIN-rail (IEC/EN 60715) with optional accessory EXP8003
Degree of protection		IP00
Dimensions (W x H x D)	mm	95 x 226 x 182
Weight	g	2840

Dimensions



Wiring diagrams

DCTL



Certifications and compliance

Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4

Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -
Solid state relay