



Thyristor  
modules  
DCTL

Product designation

Product type designation

### General characteristics

Rated voltage	V	400
Operating voltage range		340...440
Rated frequency	Hz	50/60
Operating frequency range	Hz	45...65
Rated current (Ie)	A	72
Step power at	400VAC	kvar 50
Peak inverse voltage (PIV)	VAC	1800
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 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	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	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

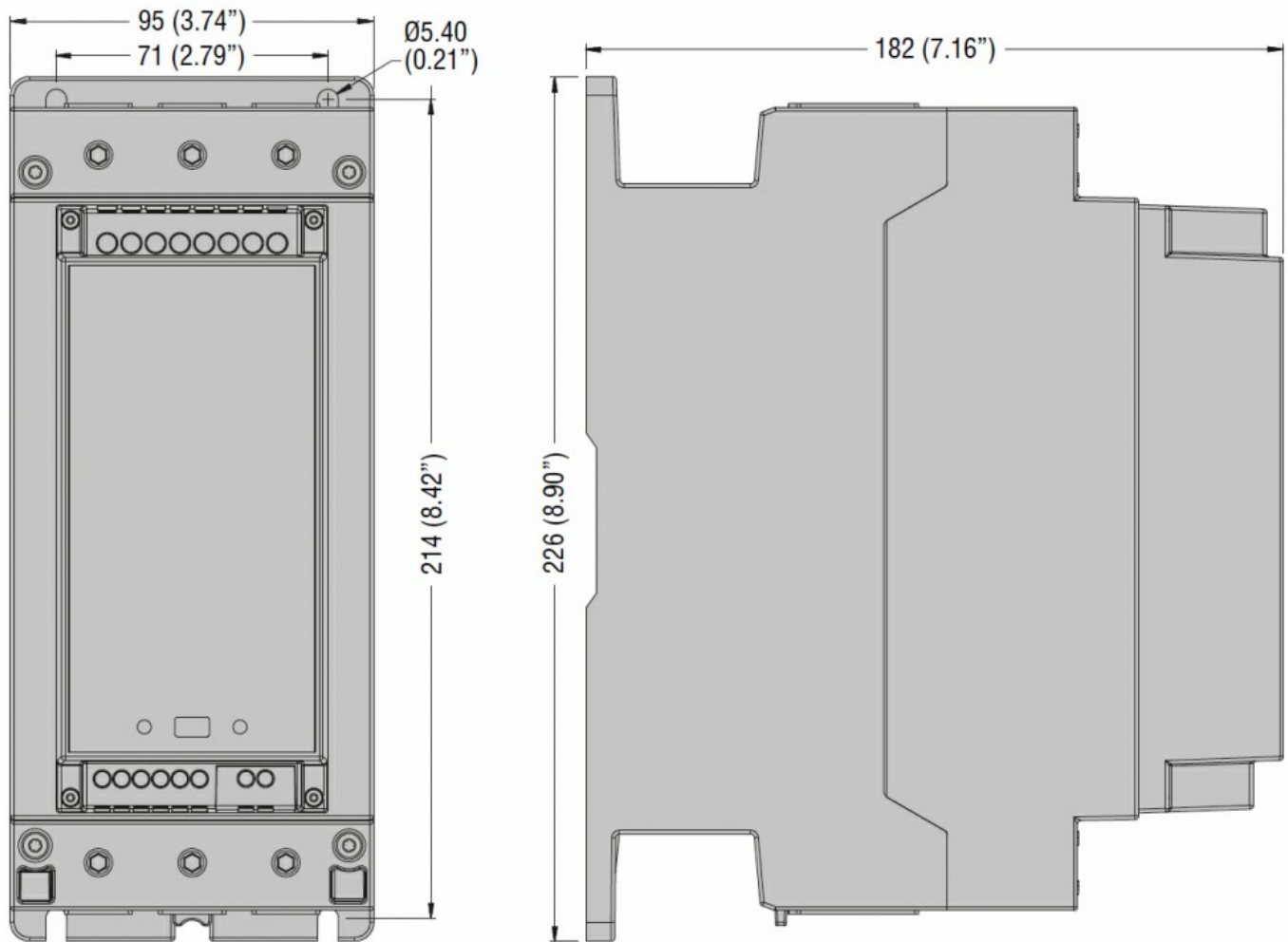
min	°C	-30
max	°C	+80

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

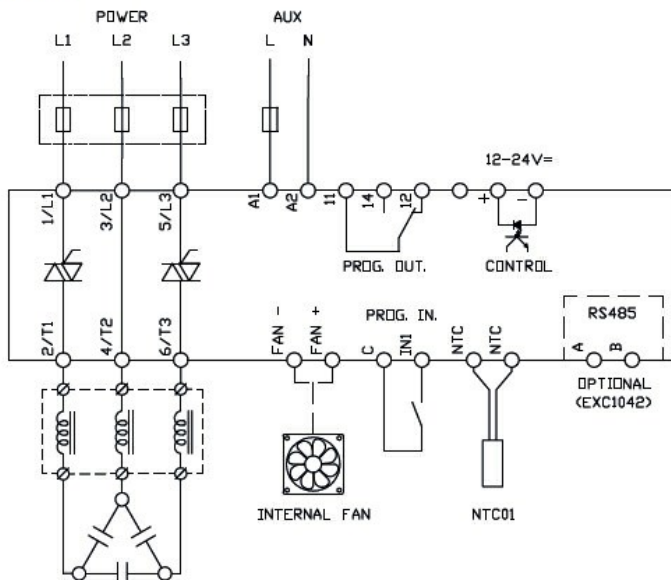
Execution		Internal panel version
Material		Polycarbonate
Mounting		Screw fixing or DIN-rail (IEC/EN 60715) with optional accessory EXP8003
Degree of protection		IP00
Dimensions (W x H x D)	mm	95 x 226 x 182
Weight	g	2840

#### Dimensions



## Wiring diagrams

### DCTL



## Certifications and compliance

### Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4

Certificates	
	cULus
ETIM classification	
ETIM 8.0	EC002055 - Solid state relay