



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	22
Step power at	400VAC	kvar 15
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	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
Sensor type	NTC (ordering code NTC01)

Measuring range	°C	-25...+85
Maximum connection length	mt	3
Fan power supply		
Terminals		FAN +/-
Supply voltage (internal)		5VDC (provided by DCTL)
Fan type		1 built-in fan 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: 10x10 <sup>3</sup> NC contact: 20x10 <sup>3</sup>
Mechanical life	cycles	10 <sup>7</sup>
Insulations		
Rated insulation voltage Ui IEC/EN	V	480
Rated impulse withstand voltage Uimp	kV	4
Connections - power terminals		
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
Connections - relay output		
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
Connections - fan and digital input		
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

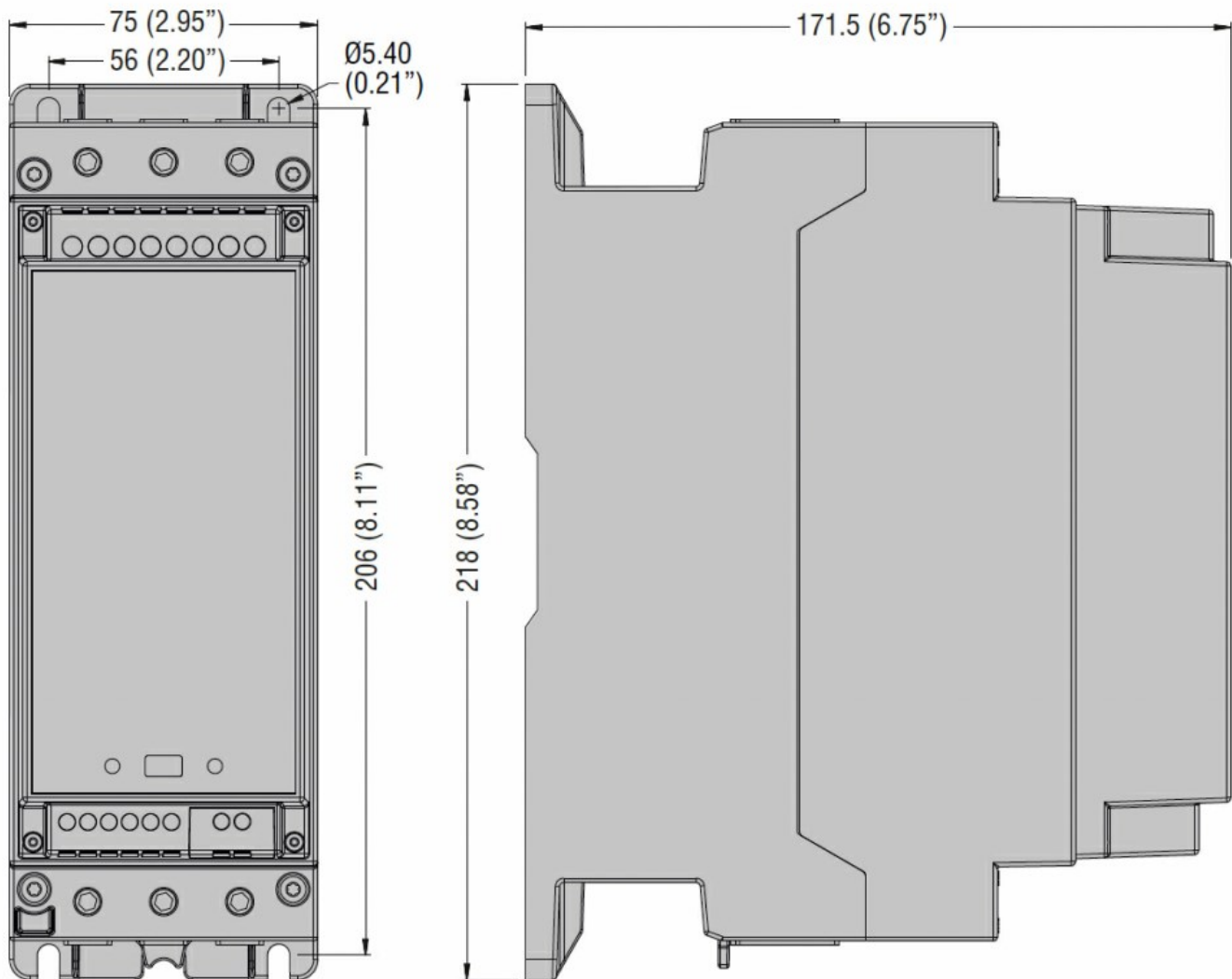
Dimensions (W x H x D)

mm 75 x 218 x 171.5

Weight

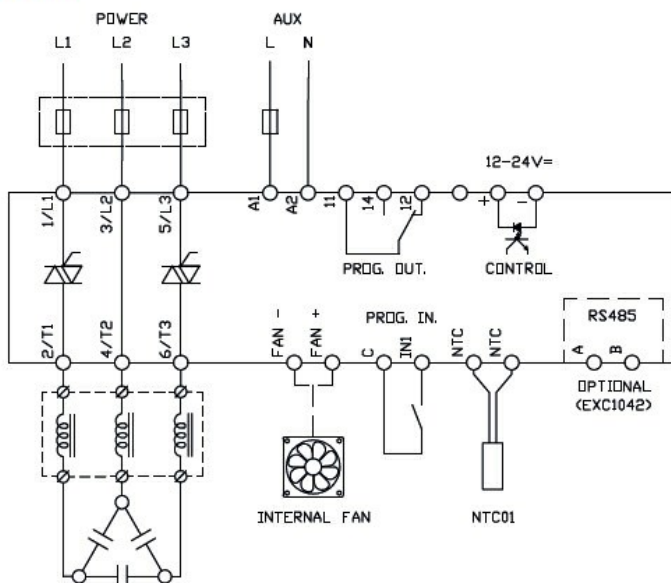
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### Dimensions



## 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