



Product designation

Thyristor  
modules

Product type designation

DCTL

**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	11
Step power at	400VAC	kvar 7.5
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  $U_s$   
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 $\leq 10$
Low input signal	VDC $\leq 0.8$
High input signal	VDC $\geq 3.2$
Input signal delay	ms $\geq 50$

**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		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

Tightening torque (Max)

Nm 0.44  
lbin 4

Ambient conditions

Temperature

Operating temperature

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

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

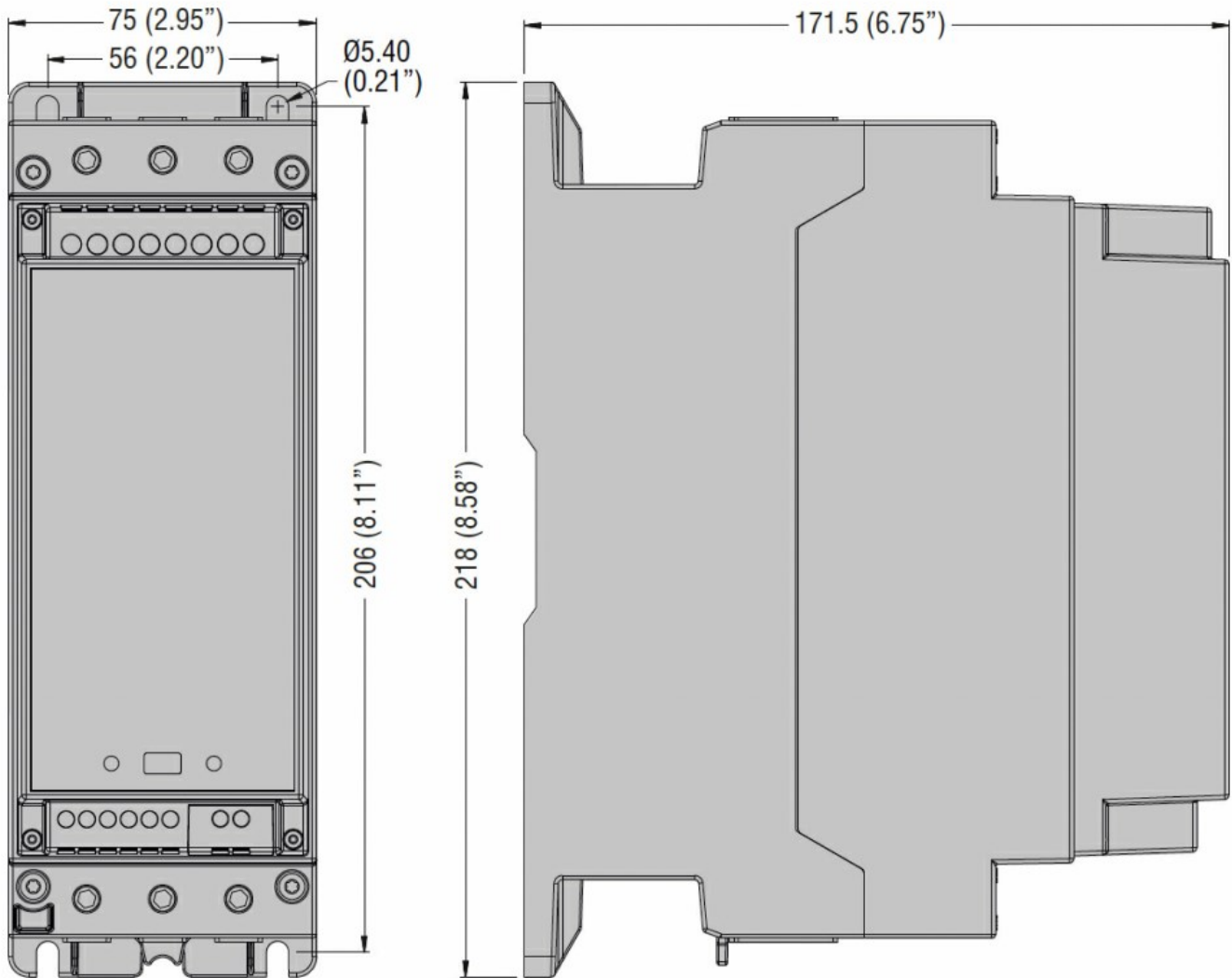
Dimensions (W x H x D)

mm 75 x 218 x 171.5

Weight

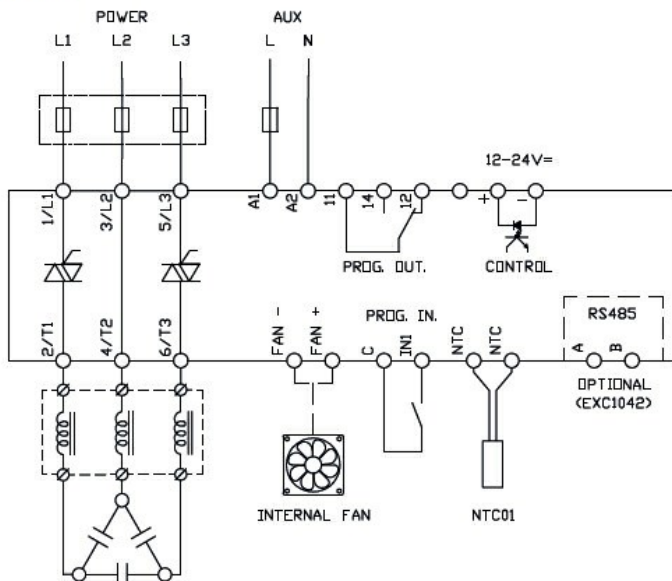
g 1740

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