



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 U_s
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
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: 10x10 ³ NC contact: 20x10 ³
Mechanical life	cycles	10 ⁷
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 ² 2 x 2.5
	Max	mm ² 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	mm ² 0.2
	Max	mm ² 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 ² 0.2
	Max	mm ² 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
 max °C 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

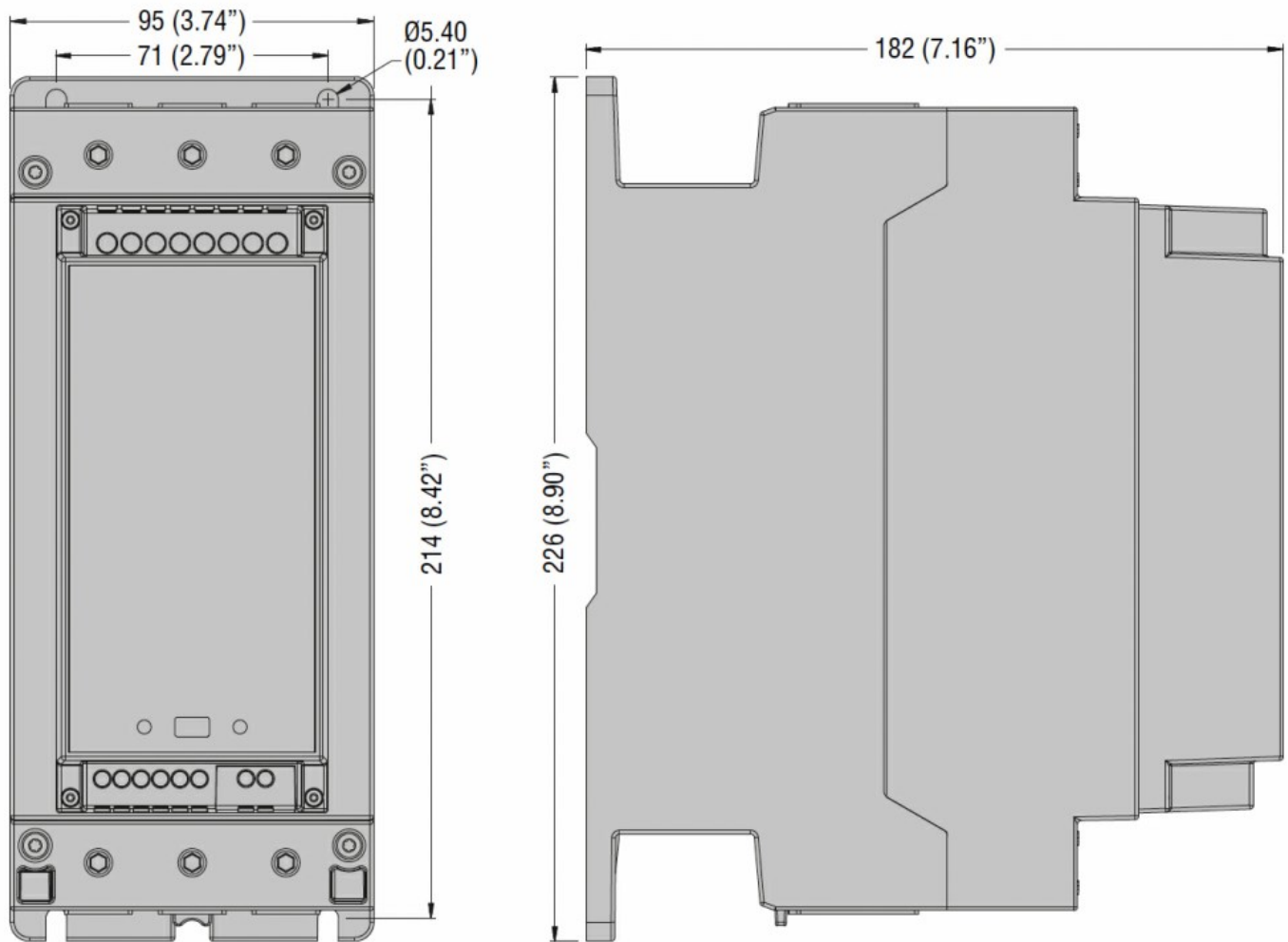
Dimensions (W x H x D)

mm 95 x 226 x 182

Weight

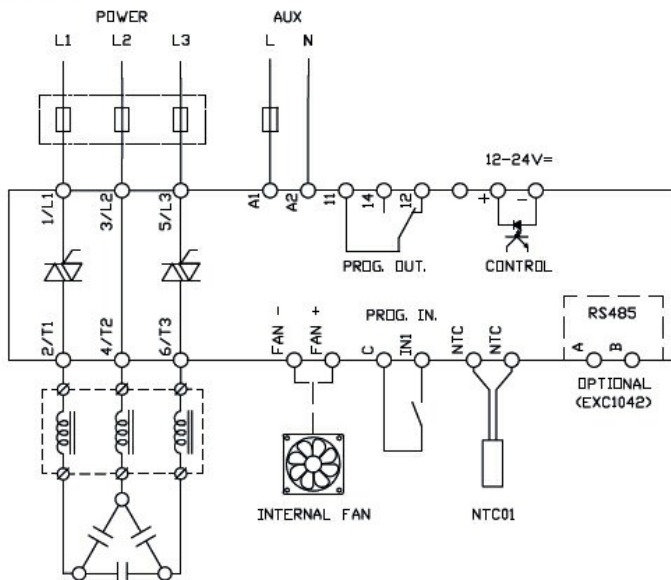
g 2840

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