



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	144
Step power at	400VAC	kvar 100
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		Bars - 25x5mm, hole diam. 11mm
Conductor cross section	Max	mm ² 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)
	Max	AWG
Tightening torque (Max)	Nm	35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 in-lbs for EXA01 lugs)
	lbin/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

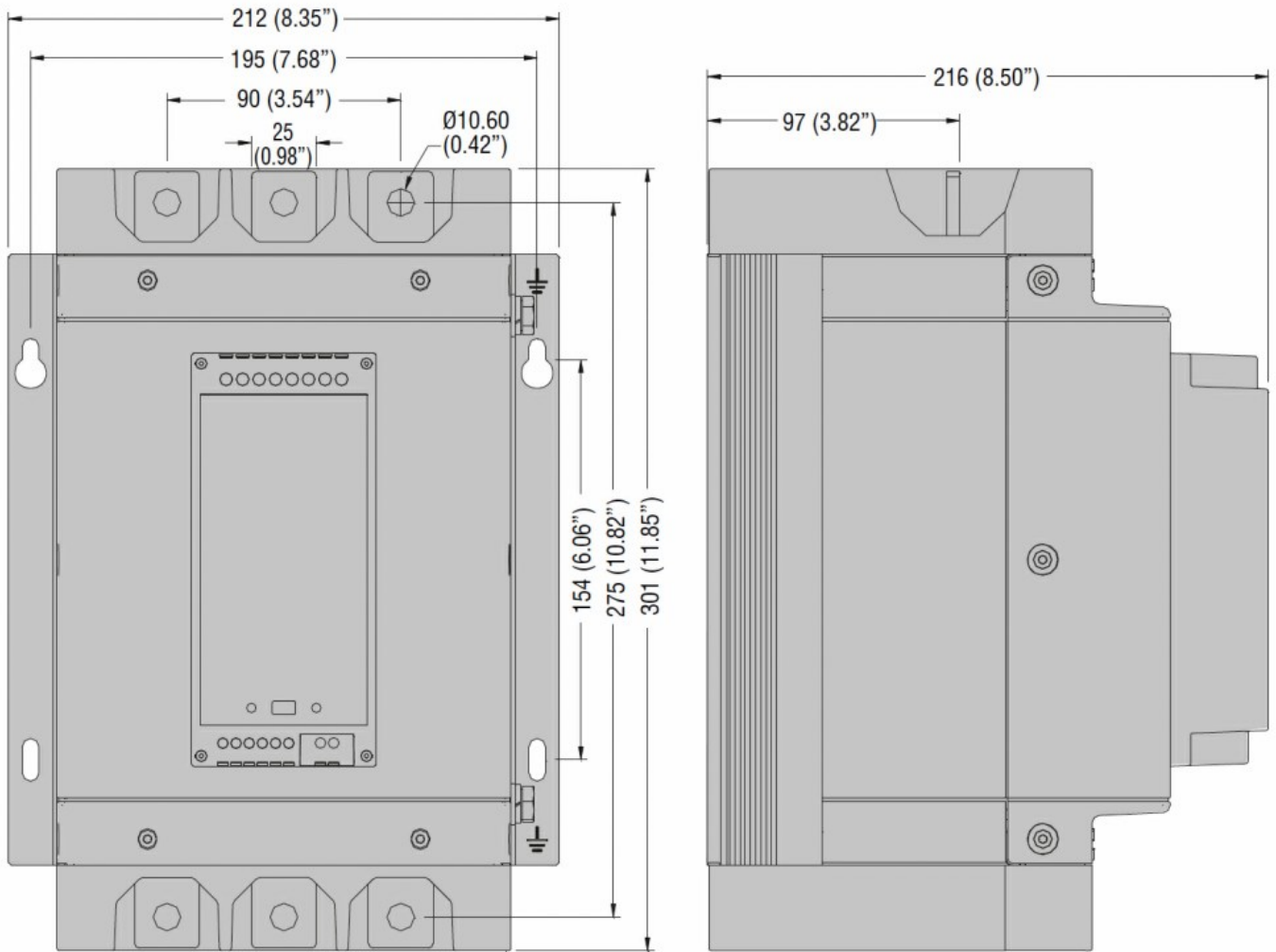
Temperature	Operating temperature		
	min	°C	-20
	max	°C	+45°C without derating (up to 55°C with derating)
	Storage temperature		
	min	°C	-30
	max	°C	+80

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

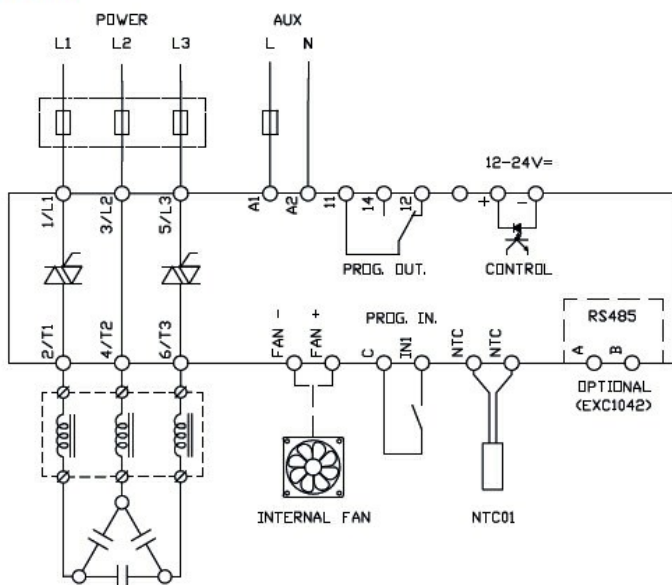
Execution				Internal panel version
Material				Polycarbonate
Degree of protection				IP00
Dimensions (W x H x D)			mm	212 x 301 x 216 (with EXA01 lugs and EXA02 terminals protection: 212 x 468 x 216)
Weight			g	6680

Dimensions [mm (in)]



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