



Thyristor
modules
DCTL

Product designation

Product type designation

General characteristics

Rated voltage	V	400...480
Operating voltage range		340...528
Rated frequency	Hz	50/60
Operating frequency range	Hz	45...65
Rated current (Ie)	A	144
Step power at		
	400VAC	kvar 100
	440VAC	kvar 110
	480VAC	kvar 120
Peak inverse voltage (PIV)	VAC	2200
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
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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
	Max	AWG	1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)
Tightening torque (Max)		Nm	35Nm (42Nm for EXA01 lugs)
		lbin/lbft	309 in-lbs (375 in-lbs for EXA01 lugs)
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

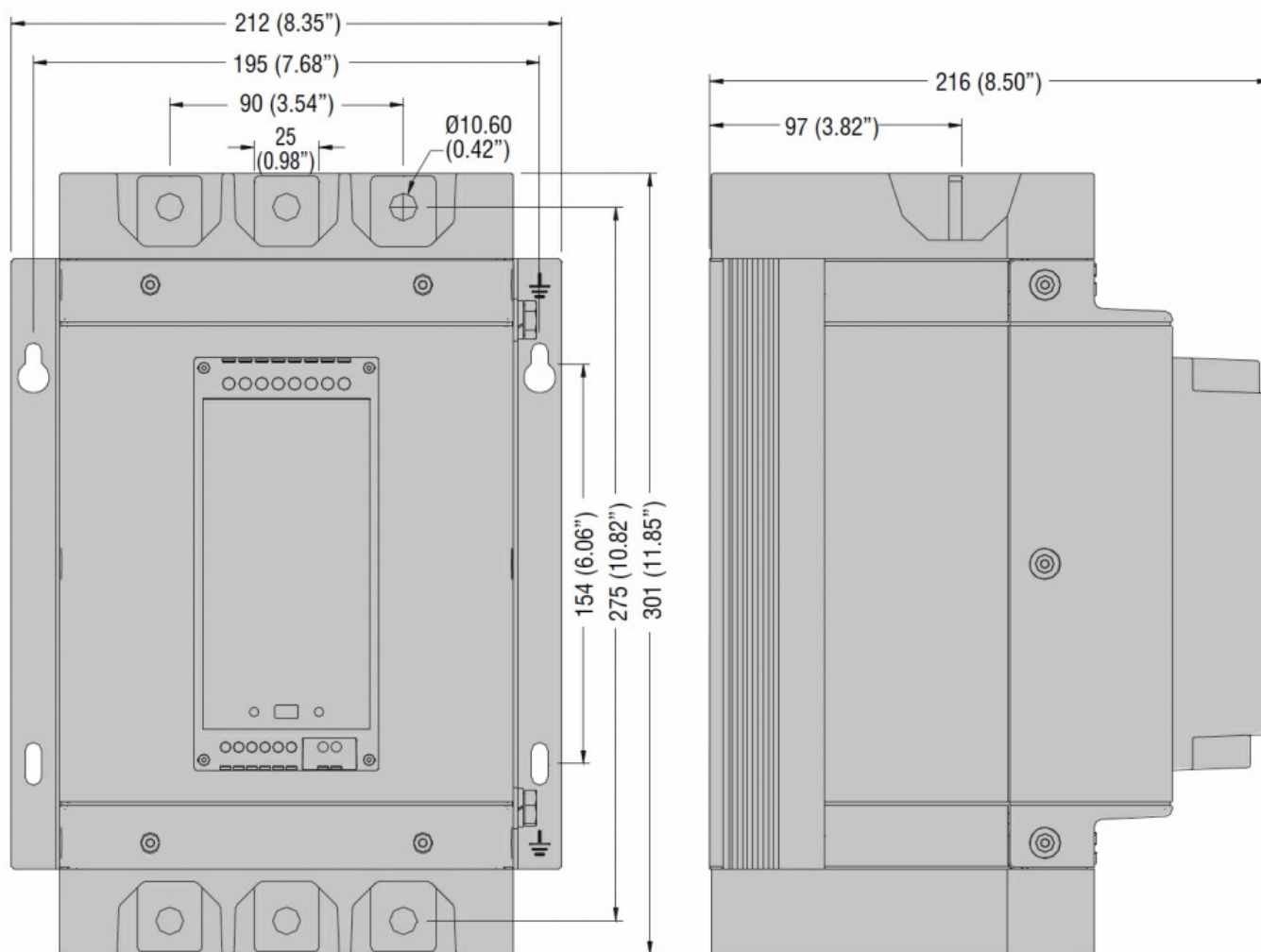
Ambient conditions

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

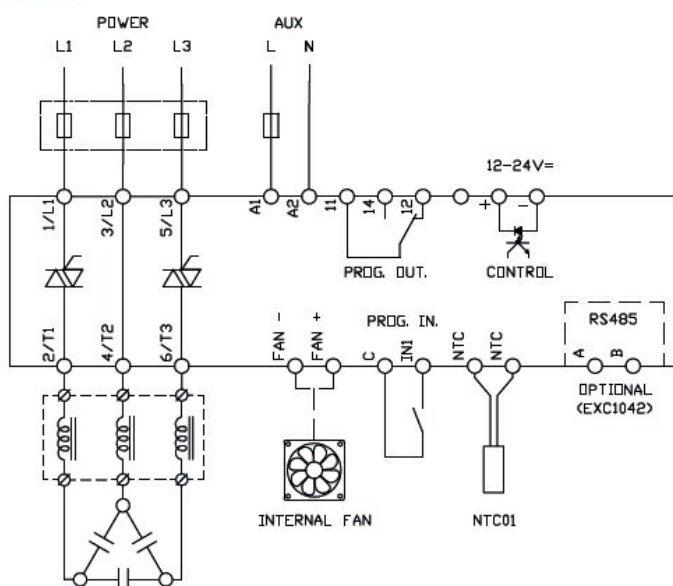
Execution			Internal panel version
Material			Polycarbonate
Degree of protection			IP00
Dimensions (W x H x D)		mm	212 x 301 x 216 (with EXA01 lugs and EXA02 terminals protection: 212 x 468 x 216)
Weight		g	6680

Dimensions



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