



Product designation

Thyristor
modules
DCTL

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 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 \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 lenght	mt	3
Fan power supply		FAN +/-
Terminals		5VDC (provided by DCTL)
Supply voltage (internal)		2 built-in fans type EXP8004
Fan type		
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
		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)
	Ibin/lbft	
Connections - relay output		
Type of terminal		Screw
Conductor cross section	min	mm ²
	Max	mm ²
	min	AWG
	Max	AWG
Tightening torque (Max)	Nm	0.8
	Ibin	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%
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Maximum Pollution degree

2

Overvoltage category

III

Max altitude

m	2000m wihtout derating
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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
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Material

Material	Polycarbonate
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Degree of protection

IP00

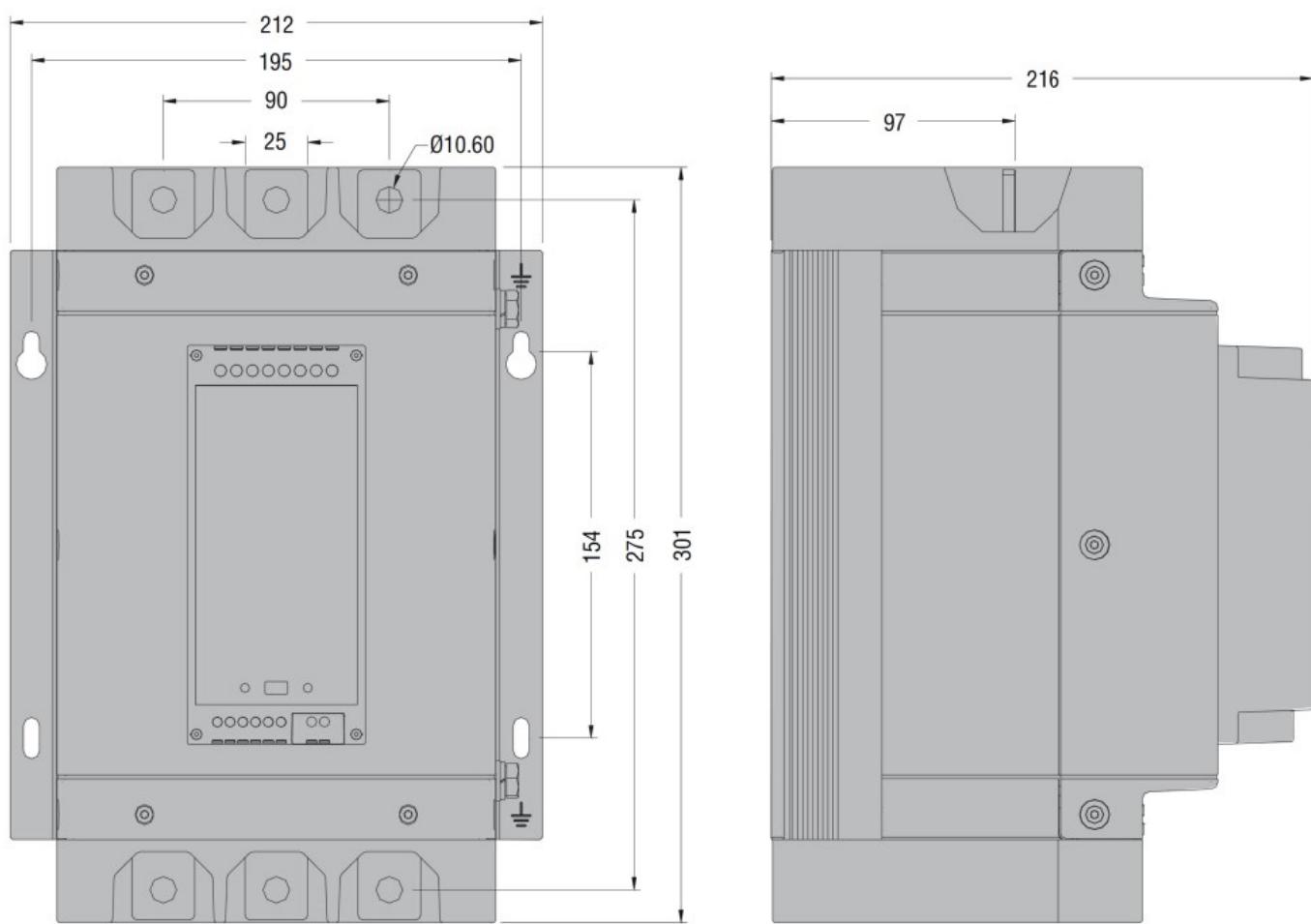
Dimensions (W x H x D)

mm	212 x 301 x 216 (with EXA01 lugs and EXA02 terminals protection: 212 x 468 x 216)
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Weight

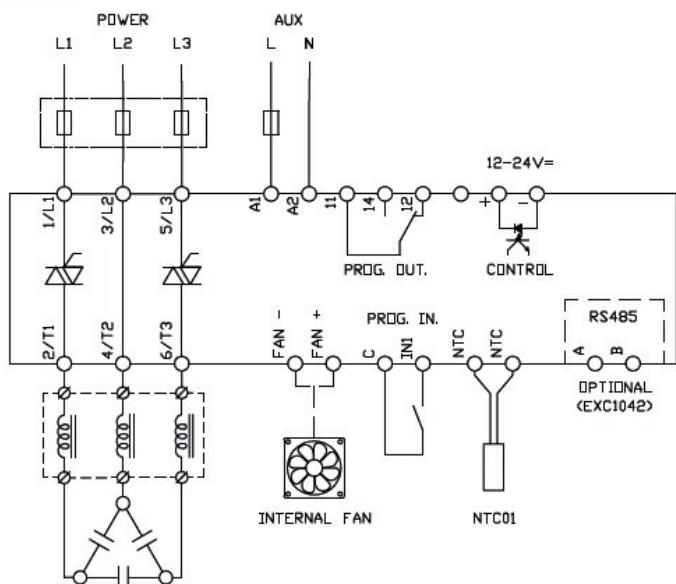
g	6680
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Dimensions



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