



Product designation

Thyristor
modules
DCTL

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	72
Step power at		
	400VAC	kvar 60
	440VAC	kvar 55
	480VAC	kvar 60
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

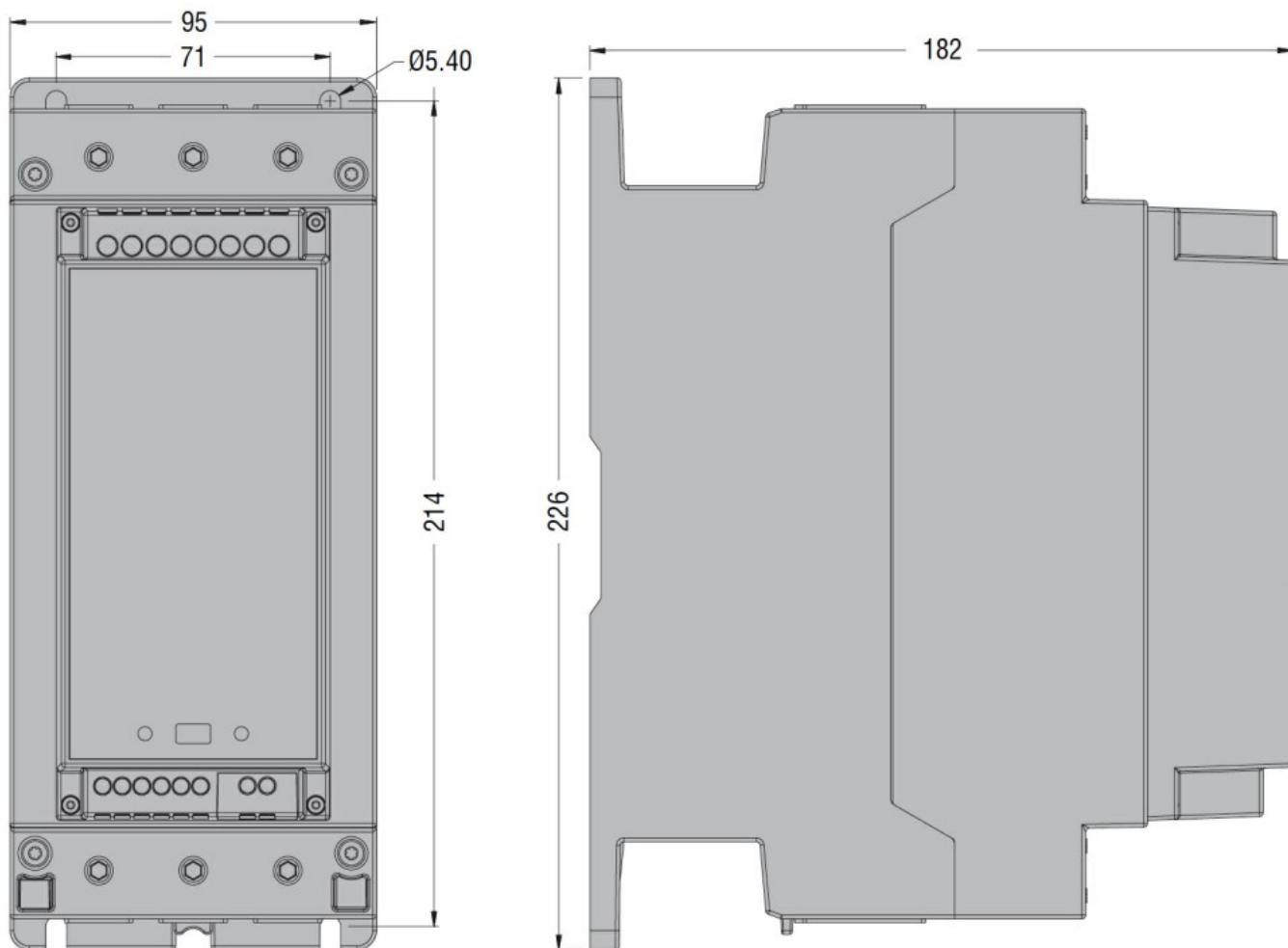
Applied voltage at contact (internal)	5VDC
Input current	mA \leq 10
Low input signal	VDC \leq 0.8
High input signal	VDC \geq 3.2
Input signal delay	ms \geq 50

NTC probe input

Terminals	NTC-NTC
-----------	---------

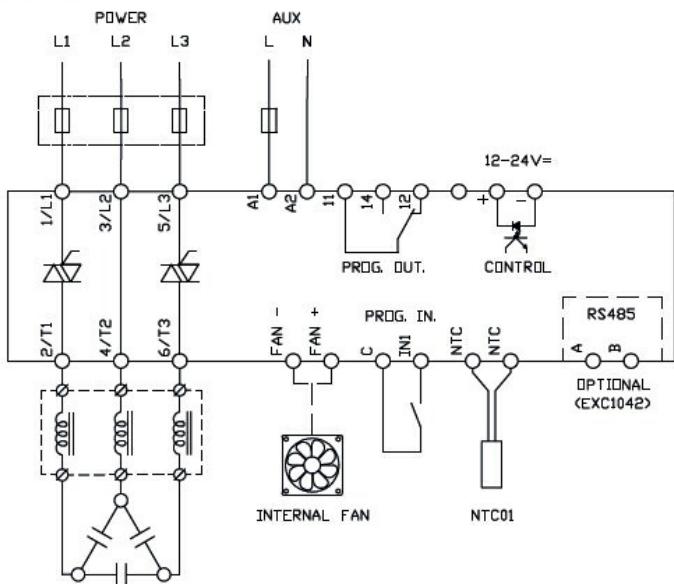
Sensor type	NTC (ordering code NTC01)				
Measuring range	°C	-25...+85			
Maximum connection lenght	mt	3			
Fan power supply					
Terminals	FAN +/-				
Supply voltage (internal)	5VDC (provided by DCTL)				
Fan type	2 built-in fans type EXP8004				
Relay outputs					
Number of relay output	Nr.	1			
Contact arrangement	1 C/O-SPDT				
NO contact: AC1 5A 250VAC / 5A 30VDC NC contact: AC1 3A 250VAC / 3A 30VDC					
Rated current					
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			
	Ibin/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			
	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
			+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	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