



Product designation	Thyristor modules DCTL		
Product type designation	General characteristics		
General characteristics			
Rated voltage	V	600...690	
Operating voltage range		340...759	
Rated frequency	Hz	50/60	
Operating frequency range		45...65	
Rated current (Ie)	A	48	
Step power at			
	400VAC	kvar	50
	440VAC	kvar	37
	480VAC	kvar	40
	525VAC	kvar	44
	600VAC	kvar	50
	690VAC	kvar	50
Peak inverse voltage (PIV)	VAC	3600	
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	CONTROL +/-		
Terminals	12-24VDC		
Rated voltage	8...30VDC		
Operating range			
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 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
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	690
Rated impulse withstand voltage Uimp	kV	6
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
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

Internal panel version

Execution

Polycarbonate

Material

Screw fixing or DIN-rail (IEC/EN 60715) with optional accessory EXP8003

Mounting

Degree of protection

IP00

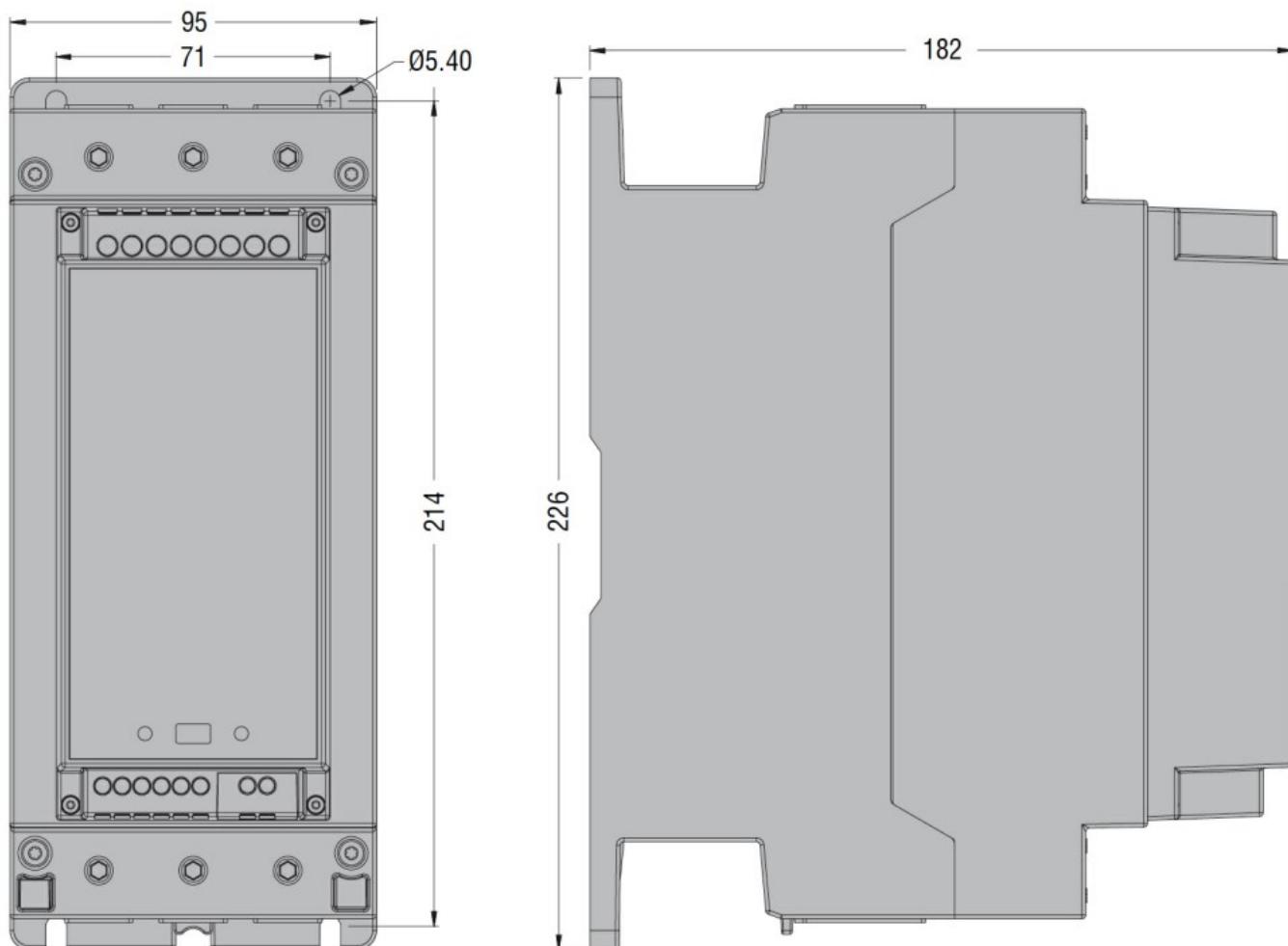
Dimensions (W x H x D)

mm 95 x 226 x 182

Weight

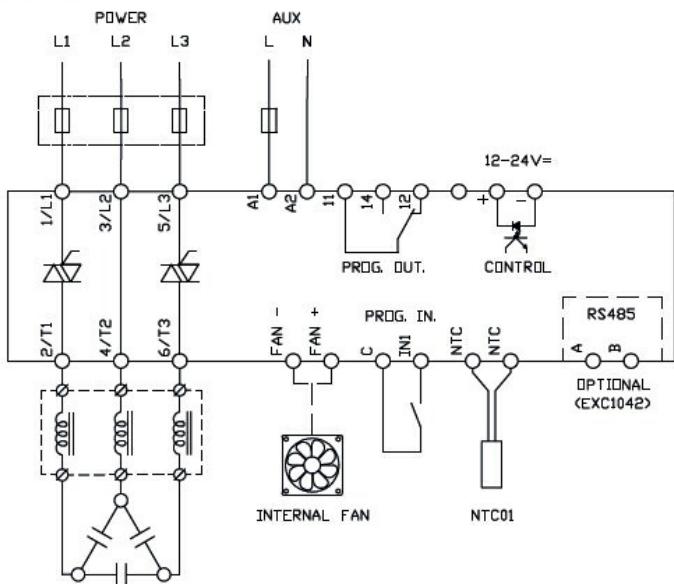
g 2840

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