



			TI 2.1.
Product designation			Thyristor modules
Product type designation			DCTL
General characteristics			5012
Rated voltage		V	400480
Operating voltage range			340528
Rated frequency		Hz	50/60
Operating frequency range		Hz	4565
Rated current (Ie)		A	144
Step power at			
Step power at	400VAC	kvar	100
	440VAC	kvar	110
	480VAC		120
Pools inverse voltage (PIV)	400 VAC	kvar	
Peak inverse voltage (PIV)		VAC	2200
Number of controlled phases		Nr.	2
			12-24VDC input
			or free-voltage
			input or via
			RS485 serial port
Control circuit			(with optional card EXC1042 in
			card EXC 1042 in combination with
			controller
			DCRG8F +
Auxiliary supply			DCRG8F + EXP1012)
Auxiliary supply  Pated auxiliary supply voltage Us			
Rated auxiliary supply voltage Us			
	min	V/A/C	EXP1012)
Rated auxiliary supply voltage Us	min	VAC	100
Rated auxiliary supply voltage Us  AC	min Max	VAC	100 240
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency		VAC Hz	100 240 50/60
Auxiliary rated frequency Power consumption Max		VAC Hz VA	100 240 50/60 14.1
Auxiliary rated frequency Power consumption Max Power dissipation Max		VAC Hz	100 240 50/60
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max Control input		VAC Hz VA	100 240 50/60 14.1 5.8
Auxiliary rated frequency Power consumption Max Power dissipation Max		VAC Hz VA	100 240 50/60 14.1 5.8
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max Control input		VAC Hz VA	100 240 50/60 14.1 5.8
Auxiliary rated frequency Power consumption Max Power dissipation Max Control input Terminals		VAC Hz VA	100 240 50/60 14.1 5.8
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max Control input Terminals Rated voltage		VAC Hz VA	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max  Control input Terminals Rated voltage Operating range		VAC Hz VA	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max  Control input Terminals Rated voltage Operating range Digital inputs		VAC Hz VA	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max Control input Terminals Rated voltage Operating range Digital inputs Terminals Applied voltage at contact (internal)		VAC Hz VA W	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC
Rated auxiliary supply voltage Us		VAC Hz VA W	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10
Rated auxiliary supply voltage Us		VAC Hz VA W  mA VDC	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8 ≥3.2
Auxiliary rated frequency Power consumption Max Power dissipation Max Control input Terminals Rated voltage Operating range Digital inputs Terminals Applied voltage at contact (internal) Input current Low input signal Input signal delay		VAC Hz VA W  mA VDC	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC	100 240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8 ≥3.2



**ENERGY AND AUTOMATION** 

Sensor type		NTC (ordering
		code NTC01)
Measuring range	°C	
Maximum connection lenght	m	t 3
Fan power supply Terminals		FAN +/-
		5VDC (provided
Supply voltage (internal)		by DCTL)
Fan type		2 built-in fans type EXP8004
Relay outputs		
Number of relay output	Nr	
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	VA	
Electrical life (with rated load)	cycl	NO contact: es 10x10³ NC contact: 20x10³
Mechanical life	cycl	es 10 <sup>7</sup>
Insulations		
Rated insulation voltage Ui IEC/EN	V	480
Rated impulse withstand voltage Uimp	k\	′ 4
Connections - power terminals		
Type of terminal		Bars - 25x5mm, hole diam. 11mm
Conductor cross section	Max mn	n <sup>2</sup> 50 1 x AWG 3/0 (for
		cULus
	Max AW	compliance you
Tightening torque (Max)	Max AW	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs)
		compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375
Connections - relay output	Nr	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 bft in-lbs for EXA01 lugs)
Connections - relay output  Type of terminal	Nr	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 bft in-lbs for EXA01
Connections - relay output	Nr lbin/	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 in-lbs for EXA01 lugs)  Screw
Connections - relay output  Type of terminal	Nr Ibin/ min mn	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 bft in-lbs for EXA01 lugs)  Screw  0.2
Connections - relay output  Type of terminal	Nr Ibin/ min mn Max mn	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 in-lbs for EXA01 lugs)  Screw  0.2 1° 0.2
Connections - relay output Type of terminal	Nr Ibin/ min mn	compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)  35Nm (42Nm for EXA01 lugs) 309 in-lbs (375 in-lbs for EXA01 lugs)  Screw  12 0.2 13 4 14 G 26

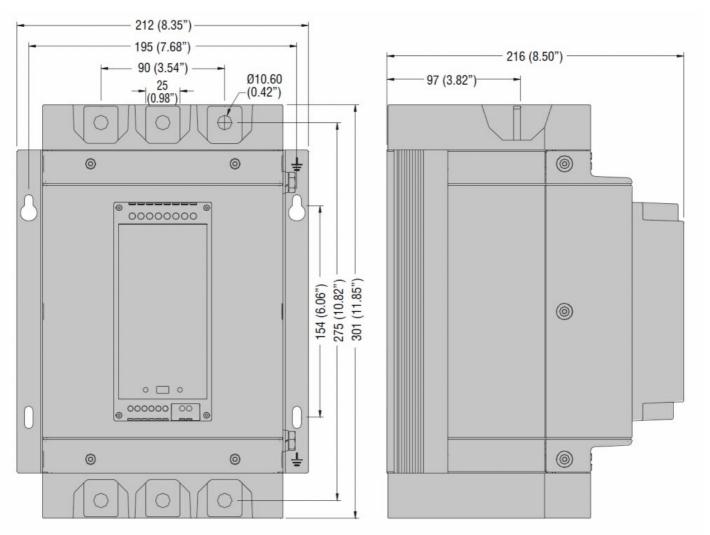


**ENERGY AND AUTOMATION** 

			Nm	0.8
			lbin	7
Connections - fan and	digital input			
Type of terminal				Screw
Conductor cross section	on			
		min	mm²	0.2
		Max	mm²	2.5
		min	AWG AWG	24
Tightoning torque (May	<u> </u>	Max	AWG	12
Tightening torque (Max	)		Nm	0.44
			lbin	4
Ambient conditions			IOIII	7
Temperature				
r	Operating temperature			
	3 1 7 1 1	min	°C	-20
				+45°C without
		max	°C	derating (up to
		Пах	O	55°C with
				derating)
	Storage temperature		۰.	20
		min	°C	-30
Relative humidity		max	<u> </u>	+80 <80%
Maximum Pollution deg	uroo.		70	2
Overvoltage category	nee			III
				2000m wihtout
Max altitude			m	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				00000-2-0)
Execution				Internal panel
				version
Material				Polycarbonate
Degree of protection				IP00
				212 x 301 x 216
				(with EXA01 lugs and EXA02
Dimensions (W x H x D	)		mm	terminals
				protection: 212 x
				468 x 216)
Weight			g	6680
Dimensions				

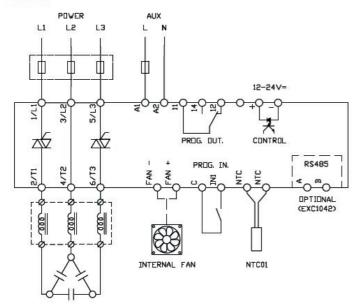


**ENERGY AND AUTOMATION** 



## Wiring diagrams

## DCTL

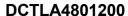


## Certifications and compliance

Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2





晶闸管, 120KVAR/400VAC, 额定工作电压400VAC, 带电流检测

**ENERGY AND AUTOMATION** 

IEC/EN 61000-6-4

Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -Solid state relay