

# THYRISTOR MODULE, 50KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL

Product designation			Thyristor
Product type designation			modules DCTL
General characteristics			DCTL
Rated voltage		V	600690
Operating voltage range			340759
Rated frequency		Hz	50/60
Operating frequency range		Hz	4565
Rated current (le)		Α	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
·			12-24VDC input
			or free-voltage
			input or via
			RS485 serial port
Control circuit			(with optional
			card EXC1042 in
			combination with
			controller DCRG8F +
			EXP1012)
			=/:: : : : : - /
Auxiliary supply			
Auxiliary supply  Rated auxiliary supply voltage Us			
Rated auxiliary supply voltage Us	min	VAC	100
Rated auxiliary supply voltage Us	min Max	VAC VAC	100 240
Rated auxiliary supply voltage Us AC			
Rated auxiliary supply voltage Us		VAC	240
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency		VAC Hz	240 50/60
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max		VAC Hz VA	240 50/60 14.1
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max		VAC Hz VA	240 50/60 14.1
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max Control input		VAC Hz VA	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		VAC Hz VA	240 50/60 14.1 5.8 CONTROL +/-
Rated auxiliary supply voltage Us AC  Auxiliary rated frequency Power consumption Max Power dissipation Max  Control input Terminals Rated voltage		VAC Hz VA	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	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	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		VAC Hz VA	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	240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC
Rated auxiliary supply voltage Us		VAC Hz VA W	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	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	240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8 ≥3.2
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC	240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8 ≥3.2
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC	240 50/60 14.1 5.8 CONTROL +/- 12-24VDC 830VDC C-IN1 5VDC ≤10 ≤0.8 ≥3.2 ≥50
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC ms	240 50/60 14.1 5.8  CONTROL +/- 12-24VDC 830VDC  C-IN1 5VDC ≤10 ≤0.8 ≥3.2 ≥50  NTC-NTC NTC (ordering code NTC01)
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC	240 50/60 14.1 5.8  CONTROL +/- 12-24VDC 830VDC  C-IN1 5VDC ≤10 ≤0.8 ≥3.2 ≥50  NTC-NTC NTC (ordering
Rated auxiliary supply voltage Us		MAC Hz VA W  mA VDC VDC ms	240 50/60 14.1 5.8  CONTROL +/- 12-24VDC 830VDC  C-IN1 5VDC ≤10 ≤0.8 ≥3.2 ≥50  NTC-NTC NTC (ordering code NTC01)
Rated auxiliary supply voltage Us		MAC Hz VA W  MA VDC VDC ms	240 50/60 14.1 5.8  CONTROL +/- 12-24VDC 830VDC  C-IN1 5VDC ≤10 ≤0.8 ≥3.2 ≥50  NTC-NTC  NTC (ordering code NTC01) -25+85





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Terminals			FAN +/-
Supply voltage (internal)			5VDC (provided by DCTL)
Fan type			2 built-in fans
Relay outputs			type EXP8004
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 D300
UL/CSA and IEC/EN 60947-5-1 designation  Maximum switching voltage		VAC	250
Electrical life (with rated load)		cycles	NO contact: 10x10³ NC contact: 20x10³
Mechanical life		cycles	10 <sup>7</sup>
Insulations			
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Connections - power terminals  Type of terminal			Fixed - double
Conductor cross section			lock clamp
	min Max min Max	mm² mm² AWG AWG	2 x 2.5 2 x 35 2 x 18 2 x 2
Tightening torque (Max)		Nm lbin/lbft	5.5-6.5 4.06-4.79 lbft
Connections - relay output			0
Type of terminal Conductor cross section			Screw
Conductor cross section	min Max min Max	mm² mm² AWG AWG	0.2 4 26 10
Tightening torque (Max)			
		Nm Ibin	0.8 7
Connections - fan and digital input			
Type of terminal			Screw
Conductor cross section			
	min	mm²	0.2
	Max	mm²	2.5
	min	AWG	24
Tightoning torque (Mov)	Max	AWG	12
Tightening torque (Max)		Nm Ibin	0.44 4



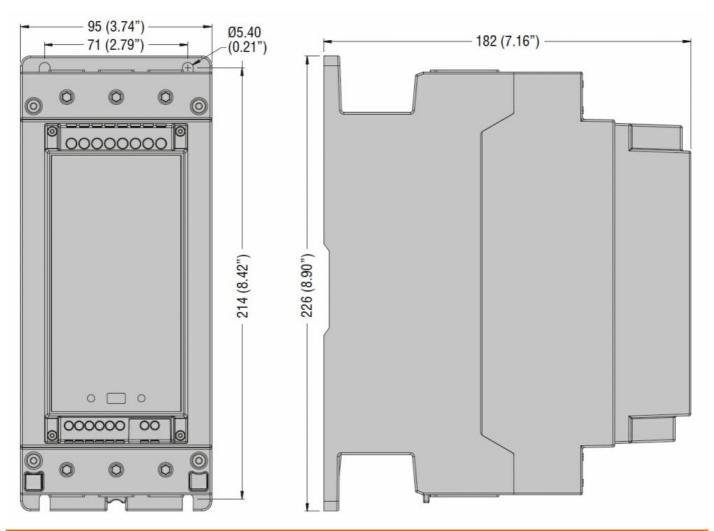


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Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-20
				+45°C without
		max	°C	derating (up to
				55°C with
	Character terminaristics			derating)
	Storage temperature		°C	20
		min	°C	-30
Deletive homeidite		max		+80
Relative humidity			%	<80%
Maximum Pollution deg	gree			2 III
Overvoltage category				
Max altitude			m	2000m wihtout derating
-				Z/ABDM (IEC/EN
Climatic sequence				60068-2-61)
				15g (IEC/EN
Shock resistance				60068-2-27)
				0.7g (IEC/EN
Vibration resistance				60068-2-6)
Housing				,
Execution				Internal panel
EXECUTION				version
Material				Polycarbonate
				Screw fixing or
				DIN-rail (IEC/EN
Mounting				60715) with
g				optional
				accessory
Dograp of protection				EXP8003
Degree of protection				IP00
Dimensions (W x H x D	ין		mm	95 x 226 x 182
Weight			g	2840
Dimensions				

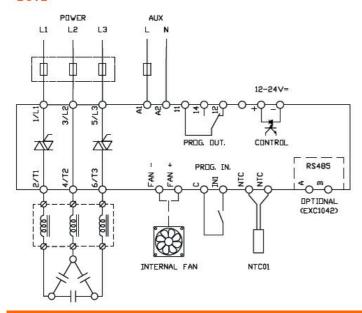


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### Wiring diagrams

### DCTL



### Certifications and compliance

Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4



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## **DCTLA6900500**

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Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -Solid state relay