

THYRISTOR MODULE, 100KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL



Product designation			Thyristor modules
Product type designation			DCTL
General characteristics			20.2
Rated voltage		V	600690
Operating voltage range			340759
Rated frequency		Hz	50/60
Operating frequency range		Hz	4565
Rated current (le)		Α	96
Step power at			
	400VAC	kvar	100
	440VAC	kvar	73
	480VAC	kvar	80
	525VAC	kvar	87
	600VAC	kvar	100
	690VAC	kvar	100
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			CONTROL +/-
Rated voltage			12-24VDC
Operating range			830VDC
Digital inputs			0.1014
Terminals			C-IN1
Applied voltage at contact (internal)		A	5VDC
Input current		mA	≤10
Low input signal		VDC	≤0.8
High input signal		VDC	≥3.2





THYRISTOR MODULE, 100KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL

Input signal delay		ms	≥50
NTC probe input			
Terminals			NTC-NTC
Company home			NTC (ordering
Sensor type			code NTC01)
Measuring range		°C	-25+85
Maximum connection lenght		mt	3
Fan power supply			
Terminals			FAN +/-
Cumply yeltogo (internal)			5VDC (provided
Supply voltage (internal)			by DCTL)
Fan type			2 built-in fans
- an type			type EXP8004
Relay outputs			
Number of relay output		Nr.	1
Contact arrangement			1 C/O-SPDT
			NO contact: AC1
			5A 250VAC / 5A
Rated current			30VDC NC
			contact: AC1 3A 250VAC / 3A
			30VDC
UL/CSA and IEC/EN 60947-5-1 designation			D300
Maximum switching voltage		VAC	250
Waximum switching voltage		VAC	NO contact:
Electrical life (with rated load)		cycles	10x10 ³ NC
Electrical life (with rated load)		Cyclos	contact: 20x10³
Ta. 1 197			
Mechanical life		cvcles	10 ⁷
Mechanical life Insulations		cycles	107
Insulations		cycles	10 ⁷ 690
Insulations Rated insulation voltage Ui IEC/EN			
Insulations		V	690
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals		V	690
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp		V	690
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals		V	690 6 Bars - 25x5mm,
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal	Max	V	690 6 Bars - 25x5mm,
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal	Max	V kV	690 6 Bars - 25x5mm, hole diam. 11mm
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal	Max	V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal	Max	V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal	Max	V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal		V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal		V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal		V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section		V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02)
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section		V kV	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02) 35Nm (42Nm for
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus compliance you must install n°2 lugs kit code EXA01 + n°2 terminal shrouds kit code EXA02) 35Nm (42Nm for EXA01 lugs)
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max)		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max) Connections - relay output		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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)
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max) Connections - relay output Type of terminal		V kV mm²	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max) Connections - relay output	Max	V kV mm² AWG	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max) Connections - relay output Type of terminal	Max	V kV mm² AWG Nm Ibin/lbft	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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
Insulations Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Connections - power terminals Type of terminal Conductor cross section Tightening torque (Max) Connections - relay output Type of terminal	Max	V kV mm² AWG	690 6 Bars - 25x5mm, hole diam. 11mm 50 1 x AWG 3/0 (for cULus 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



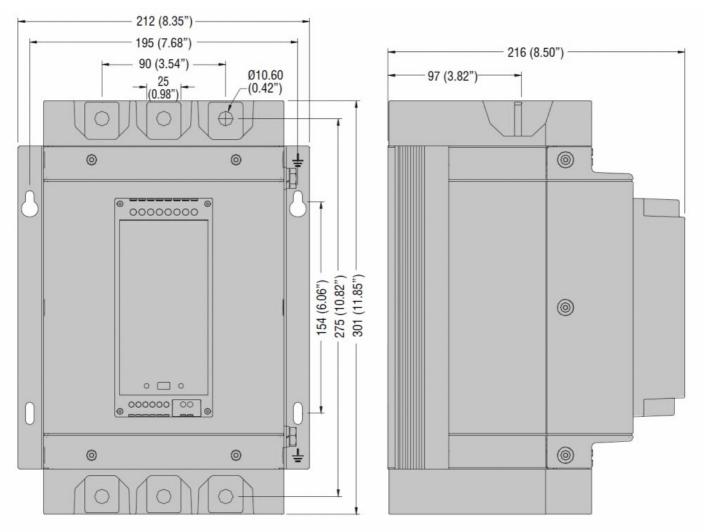


THYRISTOR MODULE, 100KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL

	Max	AWG	26 10
Tightening torque (Max)	IVICA	7,000	10
		Nm	0.8
		lbin	7
Connections - fan and digital input			
Type of terminal			Screw
Conductor cross section			
	min	mm²	0.2
	Max	mm²	2.5
	min Mov	AWG	24
Tightoning targue (May)	Max	AWG	12
Tightening torque (Max)		Nm	0.44
		lbin	4
Ambient conditions		IDIII	4
Temperature			
Operating temperature			
	min	°C	-20
			+45°C without
	max	°C	derating (up to
	max	O	55°C with
			derating)
Storage temperature		0.0	0.0
	min	°C	-30
Deletive housidity	max	°C %	+80
Relative humidity Maximum Pollution degree		%	<80% 2
			III
Overvoltage category			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			
Execution			Internal panel version
Material			Polycarbonate
Degree of protection			IP00
			212 x 301 x 216
			(with EXA01 lugs
Dimensions (W x H x D)		mm	and EXA02
			terminals
			protection: 212 x 468 x 216)
Weight		g	6680
Dimensions		9	

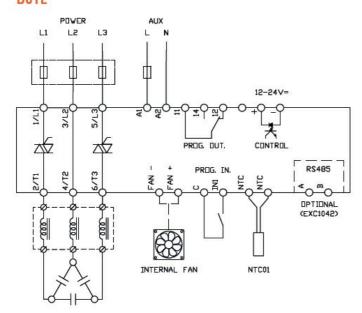
ENERGY AND AUTOMATION

THYRISTOR MODULE, 100KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL



Wiring diagrams

DCTL



Certifications and compliance

Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2



DCTLA6901000

THYRISTOR MODULE, 100KVAR AT 690VAC, RATED OPERATING VOLTAGE 600...690VAC, WITH CURRENT CONTROL

IEC/EN 61000-6-4

Certificates

cULus

ETIM classification

ETIM 8.0

EC002055 -Solid state relay