CD3000M-2PH

Universal 2phase thyristor unit

General Description

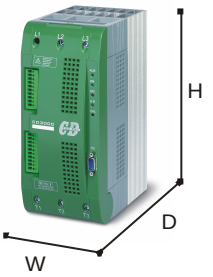
- CD3000M-2PH is a digital and universal Thyristor unit fully configurable via serial communication port.
- RS485 Modbus protocol comm is included as standard
- Two phase Thyristors to control 3 phase Star or Delta resistive loads up to 700A
- Microprocessor based electronic circuit fully isolated from power
- Universal Input signal with automatic zero/span calibration
- Firing, customer configurable via serial port Zero Crossing, Burst Firing
- Heater Break circuit microprocessor based to diagnose load failure and short circuit on Thyristors is available as an option
- Possibility to read and write the parameters via external key pad: CD-KP
- External Fuse holder and fuses up to 100A, Internal Fuses from 125A to 700A.
- Comply with EMC CE and cULus
- IP20 protection

Technical specification

Operating temperature	0÷40°C up to 100A. For higher temperature see derating curve
Voltage power supply	24V minimum, 480V max and 600V on request
Universal Input signal	SSR, 4÷20mA, 0÷10V, 10K pot., customer configurable with automatic zero/span calibration
Universal Firing	One of these firing modes can be configured on line via serial port: Zero Crossing ZC; Burst Firing BF
Auxiliary voltage supply	230V or 460V; 10VA power consumption
Fan voltage supply	230V ±15%
Heater break alarm	Discrimination better than 20%. Circuit microprocessor based to diagnose partial or total load failure and short circuit on Thyristors. Latching alarm plus reset. Relay output 1A at 230V
Line Drop Voltage	Automatic compensation ±15% of supply voltage with analog input
Mounting	Din rail mounting up to 100A, bulk head over 100A,
Protection	Ip20

Ordering code

Model	Current (A)	Oper. Volt. (V)	Max. Volt. (V)	Aux Voltage (V)	Input	Firing mode	Options
CD3000M-2PH	15	24V min	480	230	SSR	ZC (Zero Crossing)	COMM (RS485 MODBUS)
	25		600	460	0÷10V	BF (Burst Firing)	CD-KP (External Key Pad)
	35			600	4÷20mA		EF (External Fuse+Fuse Holder
	45				10K Pot.	Note: for Burst Firing specify	up to 100A)
	75					the desired n° of cycles ON at	NF (NO FUSE up to 100A)
	100					50% of power demand	IF (Internal Fuses are standard
	125						over 100 A)
	150						HB (Heater Break Alarm)
	200						110V Fan (Fan at 110V)
	275						UL (cUL us Listed)
	400						
	450						
	500						
	600						
	700						
EXAMPLE CODE							
CD3000M 2PH/	150A/	440V/	480V/	460V/	4-20mA/	ZC/	HB

CD3000M-2PH 15A-25A	CD3000M-2PH 35A-100A	CD3000M-2PH 125A-150A	CD3000M-2PH 200A	CD3000M-2PH 275A-700A
				

Dimensions

	W	H	D
15A	95	120	120
25A	95	120	120
35A	148	120	123
45A	148	120	159

	W	H	D
75A	148	138	159
100A	148	138	159
125A	116	316	187
150A	116	316	187

	W	H	D
200A	116	350	220
275A	262	520	270
400A	262	520	270
450A	262	520	270

	W	H	D
500A	262	520	270
600A	262	520	270
700A	262	520	270

Fuses and Fuseholder

External Fuses + Fuse holder up to 100A, Internal Fuses from 125A to 700A.

Input features

Input signal	Maximum current drain	Input impedance	ON condition	Off condition
SSR	5mA constant current drain		≥4V - max 30V	≤1V
0÷10V		8200Ω		
4÷20mA		100Ω		
10K Pot.		8200Ω		
Auxiliary Power Supply				
230V (Range 200V to 260V max.) or 460V (Range 330V to 500V max)				

Output features

Model	Current	Voltage range (V)	Ripetitive peak reverse voltage (480V)	(600V)	Latching current (mAeff)	Max peak one cycle (10msec.) (A)	Leakage current (mAeff)	I2T value for fusing tp=10msec	Frequency range (Hz)	Power loss I=Inom (W)	Isolation Voltage Vac
CD3000-PH	15A	24÷480 V	1200	NA	150	230	15	610	47÷70	36	2500
	25A	24÷480 V	1200	NA	150	230	15	610	47÷70	60	2500
	35A	24÷600 V	1200	1600	250	600	15	1800	47÷70	88	2500
	45A	24÷600 V	1200	1600	450	1000	15	4750	47÷70	108	2500
	75A	24÷600 V	1200	1600	450	1350	15	8830	47÷70	180	2500
	100A	24÷600 V	1200	1600	450	2000	15	19100	47÷70	240	2500
	125A	24÷600 V	1200	1600	450	2000	15	19100	47÷70	255	2500
	150A	24÷600 V	1200	1600	300	5250	15	128000	47÷70	268	2500
	200A	24÷600 V	1200	1600	300	5250	15	128000	47÷70	380	2500
	275A	24÷600 V	1200	1600	300	4800	15	108000	47÷70	623	2500
	400A	24÷600 V	1200	1600	200	7800	15	300000	47÷70	875	2500
	450A	24÷600 V	1200	1600	200	7800	15	300000	47÷70	1021	2500
	500A	24÷600 V	1200	1600	200	8000	15	306000	47÷70	1061	2500
	600A	24÷600 V	1200	1600	1000	17800	15	1027000	47÷70	1178	2500
	700A	24÷600 V	1200	1600	1000	17800	15	1027000	47÷70	1425	2500

Note: for more deep information about derating curve, fuseholder dimensions and wiring see our web site: www.cdautomation.com