

CD3000E-3PH Enhanced 3 Phase unit to drive 3 phase load up to 500A

Specification

Overview

- ✓ CD3000E-3PH is a fully digital and universal Thyristor unit based on a very powerful dedicated microprocessor configurable via serial communication port for all inputs, firing modes, feed back modes and loads types.
- ✓ Suitable to drive resistive, inductive, transformer and complex loads requiring current limit and power feedback.
- ✓ External Key Pad to control the unit and read the power, current and voltage value.
- ✓ Universal Input signal with automatic zero/span calibration.
- ✓ The Universal Firing modes are customer configurable via RS485 communication as either Burst Firing, Single Cycle and Phase Angle.
- ✓ Universal Feed back modes.
- ✓ Soft Start can be used in addition to Burst Firing.
- ✓ Unbalanced load and Heater Break Alarm.
- ✓ RS 485 Modbus protocol.
- ✓ Internal fuses are standard on CD3000E-3PH.
- ✓ IP20 Protection.
- ✓ Comply with EMC specification CE and UL_{US} .



Technical Specification

Operating temperature	0 to 45°C for higher temperature see derating curve.
Voltage power supply	Range 330V to 480V max and 600V on request.
Auxiliary voltage supply	90 to 265V; 20VA power consumption.
Analog Input 1	Fan voltage supply: 230V \pm 15% as a standard and 110V on request.
Analog Input 2	Primary reference, 4 to 20mA, 0 to 10V, 10K Potentiometer, Communication port.
Analog Output	External Current Limit Set, analog input to set the current limit value: 0 to 10V.
Digital Input	1 analog output 0-10V, 0-20mA or 4-20mA, to retransmit either Current, Voltage or Power.
Digital Output	Four optoisolated digital inputs (12/24Vdc), for START, STOP, CALIBRATION and RESET ALARM.
Relay Output	Two optoisolated digital output 12Vdc.
Universal Firing	Critical alarm. One of these firing modes can be configured on line via serial port: Burst Firing; Single Cycle; Soft Start + Burst Firing; Phase Angle + Soft Start.
Soft Start	Digital adjustable ramp rate can be used in up or/end down mode.
Feedback	Voltage (V), Current (I) and Power (VxI) feedback.
Heater break alarm	Microprocessor based circuit to diagnose partial or total load failure and short circuit on Thyristors.
Unbalanced load	This protection allows to have Multidrive working up to 20% of unbalance on one of phases.
Communication	RS485 port with Modbus communication protocol 9600 or 19200 bauds.
Thermal protection	Available on forced ventilated units.
Fuses	Internal high speed fuses.
Mounting	Panel mounting. IP20 Protection.

Ordering code

Model	Current (A)	Operating voltage	Max Supply voltage	Load connections	Auxiliary voltage	Load type	Firing mode	Feed-back mode	Main input	Second input	External current profile	Retransmission		Options
												Code	Code	
CD3000E	25	Should be	480V	3D	110V	RES	ZC Zero Crossing	V	0-10V	0-10V	0-10V	V10	Voltage 0-10V	CD-KP
3PH	35	Below the	600V	3 Wire Delta	230V	Resistive	SC Single Cycle	Voltage	4-20mA	4-20mA	4-20mA	W10	Current 0-10V	(External Key-Pad)
	45	Max		6D		TRA	BF Burst Firing	I	10 Kpot	10 Kpot	10 Kpot	W10	Power 0-10V	UL
	75	Supply		6 W open delta		Transf.	S+BF Soft Start+Burst	Current	Comm	Comm	Comm	V020	Voltage 0-20mA	(cUL us Listed)
	100	Voltage		3S			PA Phase Angle	W				I020	Current 0-20mA	
	125			3 Wire Star			S+PA Soft Start+Phas A.	Power				W020	Power 0-20mA	
	150			4S				EX				V420	Voltage 4-20mA	
	225			4 Wire Star				External				I420	Current 4-20mA	
	300			with neutral				0-10V				W420	Power 4-20mA	
	350						Note: for Burst Firing specify the desired n° of cycles ON at 50% of demand							
	400													
	450													
	500													

Sample code

CD3000E 3PH / 150A / 415V / 480V / 3D / 230V / RES / BF008 / W / 0-10V / 0-10V / V10 / CD-KP

Dimensions

CD3000E-3PH 25-75A

	W	H	D
25A	116	316	187
35A	116	316	187
45A	116	316	187
75A	116	316	187

CD3000E-3PH 100-225A

	W	H	D
100A	137	440	270
125A	137	440	270
150A	137	440	270
225A	262	440	270

CD3000E-3PH 300-400A

	W	H	D
300A	262	520	270
350A	262	520	270
400A	262	520	270

CD3000E-3PH 450-500A

	W	H	D
450A	262	520	270
500A	262	520	270

Fuses and Fuseholder

Internal Fuses are standard on CD3000E-3PH.

Input features

Input signal	Input impedance
0-10V	8200 Ω
4-20mA	100 Ω
10K Ω Potentiometer	8200 Ω

Auxiliary Power Supply : 90-240Vac

Output features

Current	Voltage range (V)	Repetitive peak reverse voltage (480V)	Latching current (mAeff)	Max peak one cycle (10msec.) (A)	Leakage current (mAeff)	I ² T value for fusing tp=10msec	Frequency range (V)	Power loss I=Inom (W)	Isolation voltage (Vac)
25A	330→480 V	1200	450	500	15	1030	47→70	90	2500
35A	330→480 V	1200	450	1000	15	4750	47→70	126	2500
45A	330→480 V	1200	450	1000	15	4810	47→70	162	2500
75A	330→480 V	1200	450	1000	15	4810	47→70	270	2500
100A	330→480 V	1200	450	1540	15	11300	47→70	360	2500
125A	330→480 V	1200	450	2000	15	19100	47→70	450	2500
150A	330→480 V	1200	450	2000	15	19100	47→70	540	2500
225A	330→480 V	1200	300	4800	15	108000	47→70	810	2500
300A	330→480 V	1200	300	5250	15	128000	47→70	1080	2500
350A	330→480 V	1200	200	7800	15	300000	47→70	1260	2500
400A	330→480 V	1200	200	8000	15	306000	47→70	1440	2500
450A	330→480 V	1200	1000	17800	15	1027000	47→70	1620	2500
500A	330→480 V	1200	1000	17800	15	1027000	47→70	1800	2500

Warranty / Remedy

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