

CD3000E-2PH Enhanced 2 Phase unit to drive 3 phase load up to 700A General Description



- CD3000E 2PH is a Full digital and universal Thyristor unit based on a very powerful dedicated micro configurable via serial communication port for all inputs, firing modes, feed back modes and loads types.
- Two leg switching tree wires load star or delta connections.
- Suitable to drive resistive loads and three phase transformer.
- External Key Pad to control the unit and to read power, current and voltage value
- Universal Input signal with automatic zero/span calibration.
- Universal Firing modes, customer configurable via Rs485 comm. Modbus or communication port as Burst Firing, Single Cycle and Delayed Triggering.
- Power feedback or voltage compensation
- Unbalanced load and Heater Break Alarm.
- RS 485 port. Modbus protocol.
- Comply with EMC and
- IP20 Protection.

Technical specification

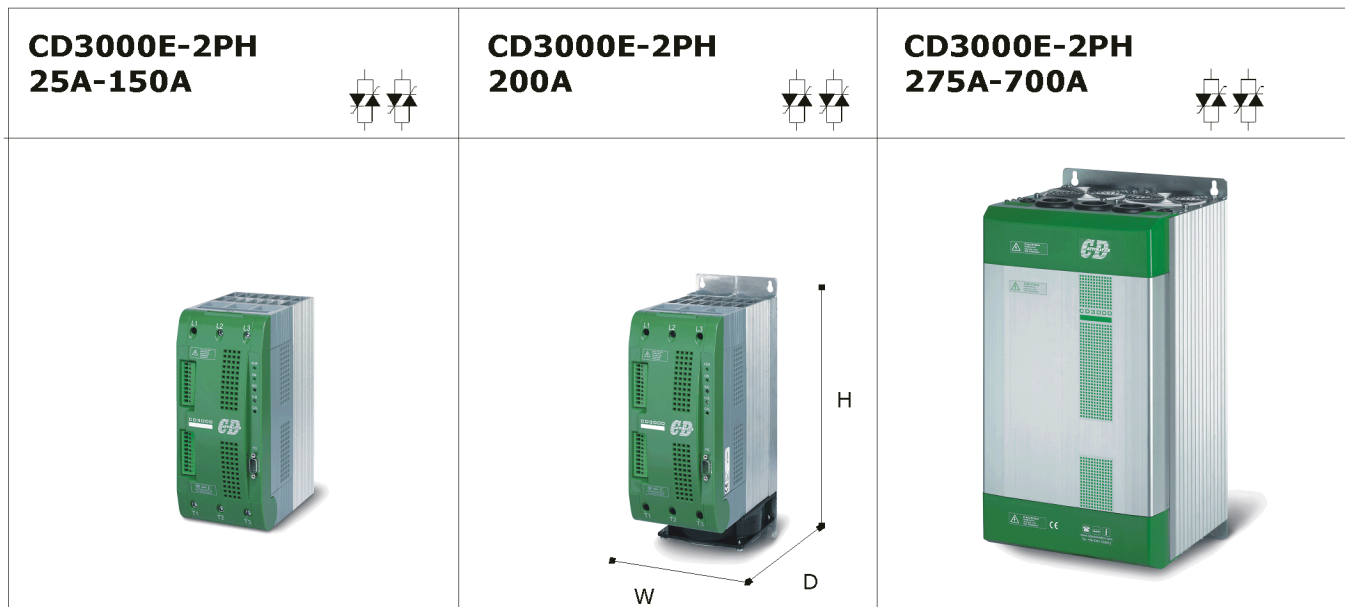
Operating temperature	0-45°C for higher temperature see derating curve
Voltage power supply	Range 330V to 480V max and 600V on request
Auxiliary voltage supply	90-265V; 20VA power consumption. Fan voltage supply: 230V ±15% as a standard and 110V on request.
Analog Input 1	Primary reference, 4-20mA, 0-10V,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

Ordering code

Model	Current (A)	Oper. Volt. (V)	Max Volt. (V)	Load connections	Auxiliary Voltage (V)	Load type	Firing mode	Feedback mode	Main input	External curr. profil	Retransmission Code	Options
CD3000E 2PH	25	24V min	480V	3D 3 Wire Delta	110	RES Resistive	ZC Zero Crossing	W Power	0-10V	0-10V	W10 Power 0-10V	NO-HB
	35		600V	3S 3 Wire Star	230	TRA Transformer	BF Burst Firing	V Voltage	4-20mA	10 Kpot	W020 Power 0-20mA	UL (cUL us Listed)
	45						DT Delay Trigger		10 Kpot	Comm	W420 Power 4-20mA	CD-KP External
	75								Comm			Key-Pad
	100						Note: for Burst					
	125						Firing specify the					
	150						desired n° of					
	200						cycles ON at 50%					
	275						of power demand					
	400											
	450											
	500											
	600											
	700											

EXAMPLE CODE

CD3000E 2PH	150A/	440V/	480V/	3S/	230V/	RES/	ZC/	W/	0-10V/	0-10V/	W10/	UL
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Dimensions

	W	H	D		W	H	D		W	H	D	
25A	116	316	187		125A	116	316	187	450A	262	520	270
35A	116	316	187		150A	116	316	187	500A	262	520	270
45A	116	316	187		200A	116	350	220	600A	262	520	270
75A	116	316	187		275A	262	520	270	700A	262	520	270
100A	116	316	187		400A	262	520	270				

Fuses

Internal Fuses are standard on CD3000E-2PH.

Input features

Input signal	Input impedance
0÷10V	8200W
4÷20mA	100W
10K Pot.	8200W

Auxiliary Power Supply
90-240Vac

Output features

Voltage	Voltage range (V)	Ripetitive peak reverse voltage (480V)	Latching current (mAeff)	Max peak one cycle (10msec.) (A)	Leakage current (mAeff)	I2T 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	60	2500
35A	330÷480 V	1200	450	500	15	1030	47÷70	84	2500
45A	330÷480 V	1200	450	1000	15	4750	47÷70	108	2500
75A	330÷480 V	1200	450	1000	15	4750	47÷70	180	2500
100A	330÷480 V	1200	450	1540	15	11300	47÷70	240	2500
125A	330÷480 V	1200	450	2000	15	19100	47÷70	300	2500
150A	330÷480 V	1200	300	5250	15	128000	47÷70	360	2500
200A	330÷480 V	1200	300	5250	15	128000	47÷70	480	2500
275A	330÷480 V	1200	300	4800	15	108000	47÷70	660	2500
400A	330÷480 V	1200	200	7800	15	300000	47÷70	960	2500
450A	330÷480 V	1200	200	7800	15	300000	47÷70	1080	2500
500A	330÷480 V	1200	200	8000	15	306000	47÷70	1200	2500
600A	330÷480 V	1200	1000	17800	15	1027000	47÷70	1440	2500
700A	330÷480 V	1200	1000	17800	15	1027000	47÷70	1680	2500