

CD3200 PHASE ANGLE THYRISTOR UNIT

GENERAL DESCRIPTION

- TO DRIVE SINGLE PHASE TRANSFORMER, RESISTIVE AND INDUCTIVE LOADS UP TO 700A
- PHASE ANGLE FIRING (PA) WITH SOFT START
- MICROPROCESSOR BASED ELECTRONIC CIRCUIT FULLY ISOLATED FROM POWER
- UNIVERSAL INPUT SIGNAL
- SELECTABLE FEEDBACK MODE: V, I, V² AND VXI
- ADJUSTABLE CURRENT LIMIT
- PROFILING OF CURRENT LIMIT BY ANALOG INPUT
- DIGITAL INPUT CONFIGURABLE
- RS485 COMM MODBUS PROTOCOL IS INCLUDED AS STANDARD
- HEATER BREAK CIRCUIT MICROPROCESSOR BASED TO DIAGNOSE LOAD FAILURE AND SHORT CIRCUIT ON THYRISTORS IS AN OPTION.
- MONITORING AND CONTROL VIA EXTERNAL KEY PAD (CD-KP)
- EXTERNAL FUSEHOLDER AND FUSE UP TO 110A, INTERNAL FUSE OVER 110A
- THYRISTOR IN INVERSE PARALLEL
- COMPLY WITH CE AND cUL^{us}
- IP20 PROTECTION



TECHNICAL SPECIFICATION

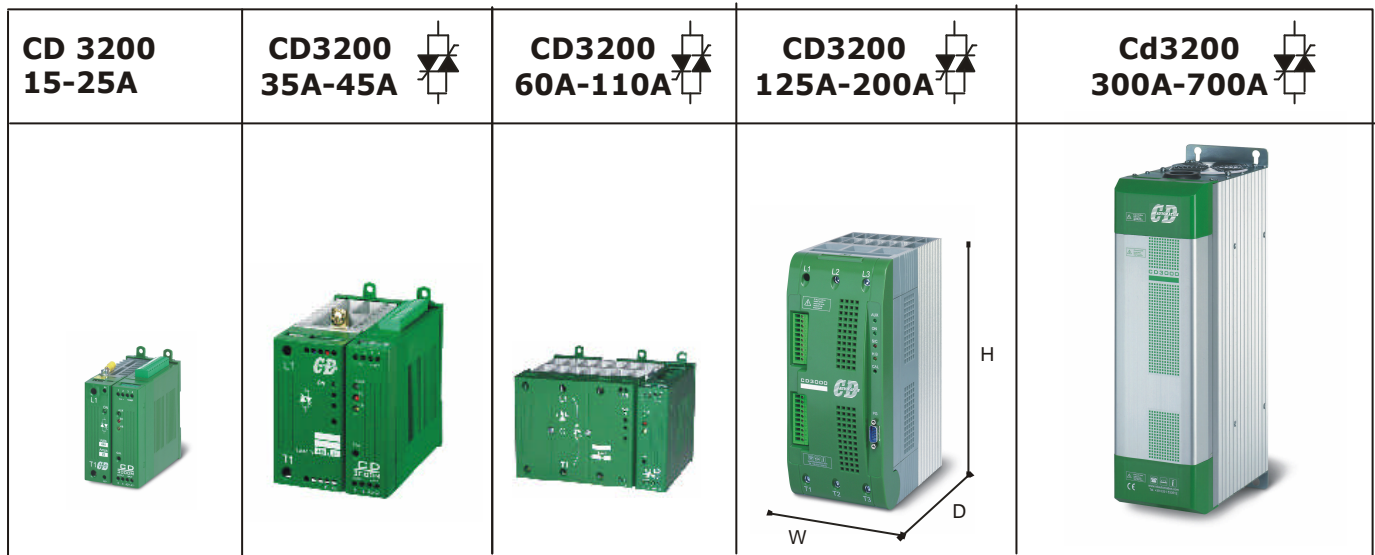
Operating temperature	0÷40°C up to 110A. For higher temperature see the rating curve
Voltage power supply	24V minimum, 480Vmax and 600V on request.
Universal input signal	4÷20mA, 0÷10V, 10K pot, customer configurable with automatic Zero/Span calibration
Firing mode	Phase Angle plus Soft Start (S+PA) with analog input
Auxiliary voltage supply	230V or 460V ±15%; 10VA power consumption
Fan voltage supply	230V ±15% from 110A to 700A
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
Current Limit	Adjustable by pot. or by serial comm.
Soft Start	Adjustable by serial comm.
Current monitoring	Signal available on RS485 comm. on CD-KP
Feedback monitoring	Signal available on RS485 comm.
Mounting	Din rail mounting up to 110A, bulk head over 110A, IP20 protection.

ORDERING CODE

Model	Current (A)	Oper. Voltage	Max Voltage (V)	Aux Voltage (V)	Input	Firing mode	Feed Back	Options
CD3200	15	24V min	480	230	0÷10V	S+PA (Soft Start	V	NCL (No Current Limit)
	25		600	460	4÷20mA	+ Phase angle.)	I	COMM (RS485 MODBUS)
	35			600	10K Pot.	PA (Phase Angle)	V ²	CD-KP (External Key Pad)
	45							EF (External Fuse+Fuse Holder)
	60							NF (NO FUSE)
	90							IF (Internal Fuses are standard over 110A)
	110							HB (Heater Break Alarm)
	125							110V Fan (Fan at 110V)
	150							UL (cUL us Listed)
	200							
	300							
	400							
	500							
	600							
	700							

EXAMPLE CODE

CD3200	125A/	440V/	480V/	460V/	0÷10V/	PA/	I/	UL
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DIMENSIONS

	W	H	D		W	H	D		W	H	D		W	H	D
15A	63	120	120	60A	148	120	159	150A	116	316	187	500A	137	520	270
25A	63	120	120	90A	148	120	159	200A	116	316	187	600A	137	520	270
35A	85	120	120	110A	148	138	159	300A	137	520	270	700A	137	520	270
45A	85	120	120	125A	116	316	187	400A	137	520	270				

FUSES AND FUSEHOLDER

External Fuses + Fuseholder up to 110A, Internal Fuses from 125A to 700A.

INPUT FEATURES

Input signal	Maximum current drain	Input impedance	ON condition	Off condition
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

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
15A	24÷480 V	1200	NA	150	230	15	610	47÷70	18	2500
25A	24÷480 V	1200	NA	150	230	15	610	47÷70	30	2500
35A	24÷600 V	1200	1600	250	400	15	780	47÷70	42	2500
45A	24÷600 V	1200	1600	250	600	15	1800	47÷70	54	2500
60A	24÷600 V	1200	1600	450	1000	15	4750	47÷70	72	2500
90A	24÷600 V	1200	1600	450	2000	15	19100	47÷70	108	2500
110A	24÷600 V	1200	1600	450	1540	15	11300	47÷70	137	2500
125A	24÷600 V	1200	1600	450	1540	15	11300	47÷70	146	2500
150A	24÷600 V	1200	1600	450	2000	15	19100	47÷70	162	2500
200A	24÷600 V	1200	1600	300	4800	15	108000	47÷70	204	2500
300A	24÷600 V	1200	1600	300	5250	15	128000	47÷70	320	2500
400A	24÷600 V	1200	1600	200	7800	15	300000	47÷70	397	2500
500A	24÷600 V	1200	1600	200	8000	15	306000	47÷70	530	2500
600A	24÷600 V	1200	1600	1000	17800	15	1027000	47÷70	589	2500
700A	24÷600 V	1200	1600	1000	17800	15	1027000	47÷70	712	2500

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