

# CD3000S-1PH SOLID STATE RELAY



## GENERAL DESCRIPTION

- CD3000S IS A COMPACT LOW COST FAMILY OF SOLID STATE SWITCHES DESIGNED TO REPLACE CONTACTORS
- SINGLE PHASE THYRISTOR UNIT UP TO 700A
- APPLICABLE FOR RESISTIVE LOADS
- ZERO CROSSING FIRING, SIMPLE BURST FIRING 8 OR 16 CYCLE AVAILABLE WITH LP 4-20 MA INPUT
- LOGIC INPUT SIGNAL (SSR)
- CONSTANT CURRENT DRAIN WITH SSR INPUT
- ANALOG INPUT 4-20MA LOOP POWERED, UP TO 110A
- AC INPUT 110 VAC OR 230 VAC UP TO 110A
- HEATER BREAK (HB) ALARM TO DIAGNOSTIC PARTIAL OR TOTAL LOAD FAILURE AND SHORT CIRCUIT ON THYRISTORS, AVAILABLE AS AN OPTION.
- SIDE BY SIDE PACKAGING
- SPECIAL DESIGN FOR HEATSINK WITH HIGH DISSIPATION
- IP20 PROTECTION
- COMPLY WITH EMC SPECIFICATION



## TECHNICAL SPECIFICATION

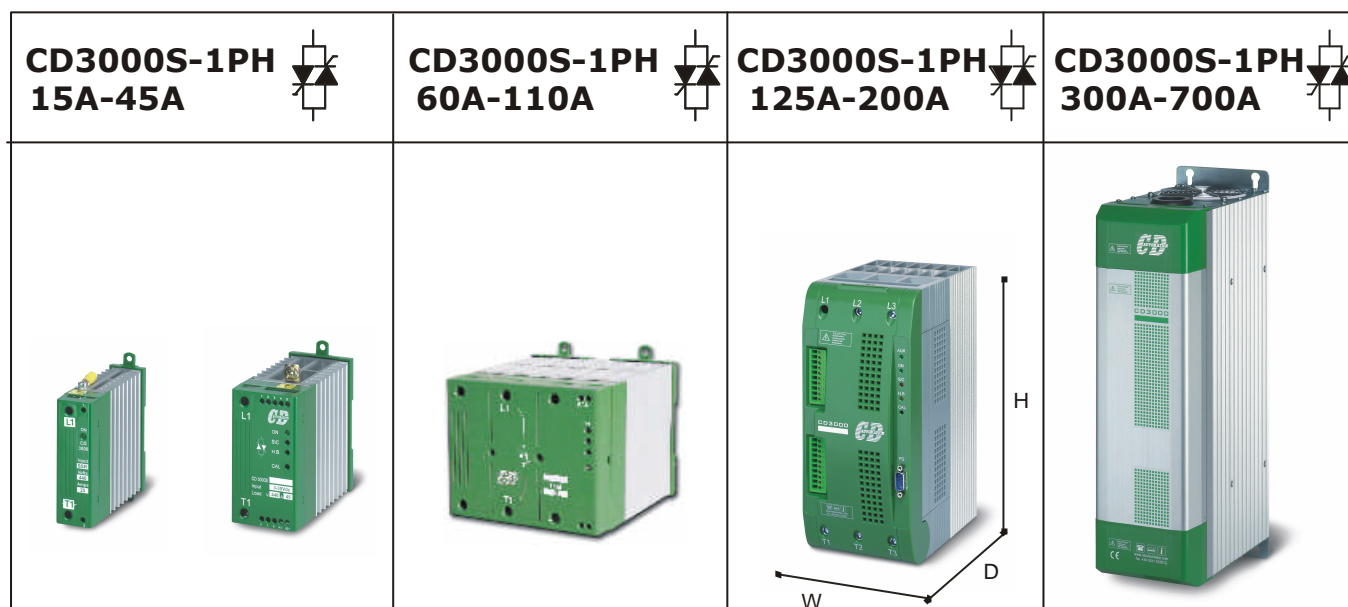
Operating temperature	0÷40°C up to 110A. For higher temperature see derating curve
Voltage power supply	24V minimum, 480V max and 600V on request
Input signal	SSR (OFF state <1Vdc, ON = 4-30 Vdc); Ac Input 110V-230Vac available up to 110A; Loop powered linear current 4 ) 20mA (is required a current sources with 6,5 Vdc) available Up to 110A.
Firing	Zero Crossing ZC; Burst Firing 8/16 if 4-20mA is used
Auxiliary voltage supply	230V to 460V; 10VA requested for CD3000S from 125A to 700A
Fan voltage supply	230V ±15% standard
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
Mounting	Din rail mounting up to 110A, bulk head over 110A, IP20 protection.

## ORDERING CODE

Model	Current (A)	Supply Voltage (V)	Aux Voltage (V)**	Input	Firing	Options
CD3000S-1PH	2x10	240	230	SSR	ZC (Zero Crossing)	NF (NO FUSE)
	15	480	460	110 V ac	BF (Burst Firing)	EF (External Fuse+Fuse Holder)
	25	600		230 V ac		IF (Internal Fuses are standard over 110A)
	35			LP 4-20 mA (Loop Powered)		
	45					HB (Heater Break Alarm)
	60					110v Fan (Fan at 110v)
	90					UL (cUL us Listed )
	110					
	125					
	150		** Only if required		Note: For BF available with 4-20mA loop powered only	
	200					
	300					
	400					
	500					
	600					
	700					

### EXAMPLE CODE

CD3000S-1PH 150A/ 480V/ 230/ SSR/ ZC/ EF



## DIMENSIONS

	W	H	D		W	H	D		W	H	D		W	H	D
2x10	30	120	120	45A	52	120	120	125A	116	316	187	400A	137	520	270
15A	30	120	120	60A	117	120	159	150A	116	316	187	500A	137	520	270
25A	30	120	120	90A	117	120	159	200A	116	316	187	600A	137	520	270
35A	52	120	120	110A	117	138	159	300A	137	520	270	700A	137	520	270

## FUSES AND FUSEHOLDER

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

## INPUT FEATURES

Input signal	Detail	ON condition	Off condition
SSR	20 mA constant current drain	$\geq 4V$ -max 30V	$\leq 1V$
LP 4÷20mA (Loop Powered)	is request current sources with 6,5Vdc max.		
110 Vac	Range 110Vac $\pm 15\%$ up to 20 mA	$> 90$	$\leq 50$
230 Vac	Range 230Vac $\pm 15\%$ up to 20 mA	$> 200$	$\leq 100$

Auxiliary Power Supply From 125A to 700A is requested

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](http://www.cdautomation.com)