

# Control Panels for XDF Duct Heaters - CPXD Series

Caloritech™ XDF duct heaters are normally supplied with a CPXD control panel. These control panels are available in two basic types - Type 4 moisture resistant or explosion-proof, and with four different control packages as listed.

## Standard Features

All CPXD control panels are supplied with magnetic contactor, HRC fusing, fused 120V control transformer, high limit controls, control circuit, **“ON/OFF”** switch, control **“ON”** light, high-limit indicator light, high-limit push-to-reset, terminals for connection of temperature controls and differential air pressure switch.

## Enclosure Types

CPXD control panels are available for either type 4 moisture resistant locations or hazardous locations Class I, Div. 1 & 2, Groups B, C, D and Class II, Div. 1 & 2, Groups E, F, G.

Table 13 – Control Panel Specifications: Type 4 Moisture Resistant

No. of Circuits	kW	Package #1 Basic Unit without Disconnect				Catalog No.			
		208V 3Ø	240V 3Ø	480V 3Ø	600V 3Ø	Package #1	Package #2	Package #3	Package #4
1	2.5	✓				CPXD1-025R	CPXD1-025TR	CPX1-025SR	CPXD1-025STR
	3.75	✓				CPXD1-038R	CPXD1-038TR	CPX1-038SR	CPXD1-038STR
	5	✓				CPXD1-050R	CPXD1-050TR	CPX1-050SR	CPXD1-050STR
	6.25	✓				CPXD1-063R	CPXD1-063TR	CPX1-063SR	CPXD1-063STR
	7.5	✓				CPXD1-075R	CPXD1-075TR	CPX1-075SR	CPXD1-075STR
	10	✓	✓			CPXD1-100R	CPXD1-100TR	CPX1-100SR	CPXD1-100STR
	12.5	✓				CPXD1-125R	CPXD1-125TR	CPX1-125SR	CPXD1-125STR
	15	✓				CPXD1-150R	CPXD1-150TR	CPX1-150SR	CPXD1-150STR
	20	✓				CPXD1-200R	CPXD1-200TR	CPX1-200SR	CPXD1-200STR
	25	-				CPXD1-250R	CPXD1-250TR	CPX1-250SR	CPXD1-250STR
2	5	✓	✓	✓	✓	CPXD2-050R	CPXD2-050TR	CPX2-050SR	CPXD2-050STR
	7.5	✓	✓	✓		CPXD2-075R	CPXD2-075TR	CPX2-075SR	CPXD2-075STR
	10	✓	✓	✓		CPXD2-100R	CPXD2-100TR	CPX2-100SR	CPXD2-100STR
	12.5	✓	✓	✓		CPXD2-125R	CPXD2-125TR	CPX2-125SR	CPXD2-125STR
	15	✓	✓	✓		CPXD2-150R	CPXD2-150TR	CPX2-150SR	CPXD2-150STR
	20	✓	✓	✓		CPXD2-200R	CPXD2-200TR	CPX2-200SR	CPXD2-200STR
	25	-	✓	✓		CPXD2-250R	CPXD2-250TR	CPX2-250SR	CPXD2-250STR
	30	-	-	-		CPXD2-300R	CPXD2-300TR	CPX2-300SR	CPXD2-300STR
	40	-	-	-		CPXD2-400R	CPXD2-400TR	CPX2-400SR	CPXD2-400STR
	50	-	-	-		CPXD2-500R	CPXD2-500TR	CPX2-500SR	CPXD2-500STR

**Note:** For optional disconnect switch, add 'D' to end of catalog number.

# Control Packages

## Package #1 - Basic Unit (“ON/OFF” Control)

All standard features. Terminals are provided for connection to a remote “ON/OFF” temperature control and connection of differential air pressure switch.

## Package #2 - Built-in Temperature Controller

Same features as Package #1 except with factory installed digital temperature controller for control of outlet air temperature.

## Package #3 - SCR with Remote Temperature Controller

All standard features and a factory installed full load zero fired SCR with terminals provided for remote 4-20 mA temperature control signal and connection of differential air pressure switch.

## Package #4 - SCR with Built-in Temperature Controller

Same features as Package #3 except with factory installed digital temperature controller for control of outlet air temperature.

Table 14 – Control Panel Specifications: Explosion-Proof Class I, Group C, D, Class II, Group E, F, G

No. of Circuits	kW	Package #1 Basic Unit without Disconnect				Catalog No.			
		208V 3Ø	240V 3Ø	480V 3Ø	600V 3Ø	Package #1	Package #2	Package #3	Package #4
1	2.5	✓	✓			CPXD1-025X	CPXD1-025TX	CPX1-025SX	CPXD1-025STX
	3.75	✓	✓			CPXD1-038X	CPXD1-038TX	CPX1-038SX	CPXD1-038STX
	5	✓	✓			CPXD1-050X	CPXD1-050TX	CPX1-050SX	CPXD1-050STX
	6.25	✓	✓			CPXD1-063X	CPXD1-063TX	CPX1-063SX	CPXD1-063STX
	7.5	✓	✓			CPXD1-075X	CPXD1-075TX	CPX1-075SX	CPXD1-075STX
	10	✓	✓	✓	✓	CPXD1-100X	CPXD1-100TX	CPX1-100SX	CPXD1-100STX
	12.5	✓	✓			CPXD1-125X	CPXD1-125TX	CPX1-125SX	CPXD1-125STX
	15	✓	✓			CPXD1-150X	CPXD1-150TX	CPX1-150SX	CPXD1-150STX
	20	✓	✓			CPXD1-200X	CPXD1-200TX	CPX1-200SX	CPXD1-200STX
25	–	–			CPXD1-250X	CPXD1-250TX	CPX1-250SX	CPXD1-250STX	
2	5	✓	✓	✓	✓	CPXD2-050X	CPXD2-050TX	CPX2-050SX	CPXD2-050STX
	7.5	✓	✓	✓	✓	CPXD2-075X	CPXD2-075TX	CPX2-075SX	CPXD2-075STX
	10	✓	✓	✓	✓	CPXD2-100X	CPXD2-100TX	CPX2-100SX	CPXD2-100STX
	12.5	✓	✓	✓	✓	CPXD2-125X	CPXD2-125TX	CPX2-125SX	CPXD2-125STX
	15	✓	✓	✓	✓	CPXD2-150X	CPXD2-150TX	CPX2-150SX	CPXD2-150STX
	20	✓	✓	✓	✓	CPXD2-200X	CPXD2-200TX	CPX2-200SX	CPXD2-200STX
	25	–	✓	✓	✓	CPXD2-250X	CPXD2-250TX	CPX2-250SX	CPXD2-250STX
	30	–	–	–	✓	CPXD2-300X	CPXD2-300TX	CPX2-300SX	CPXD2-300STX
	40	–	–	–	–	CPXD2-400X	CPXD2-400TX	CPX2-400SX	CPXD2-400STX
50	–	–	–	–	CPXD2-500X	CPXD2-500TX	CPX2-500SX	CPXD2-500STX	

Note: For optional disconnect switch, add 'D' to end of catalog number.

# Wiring Diagrams

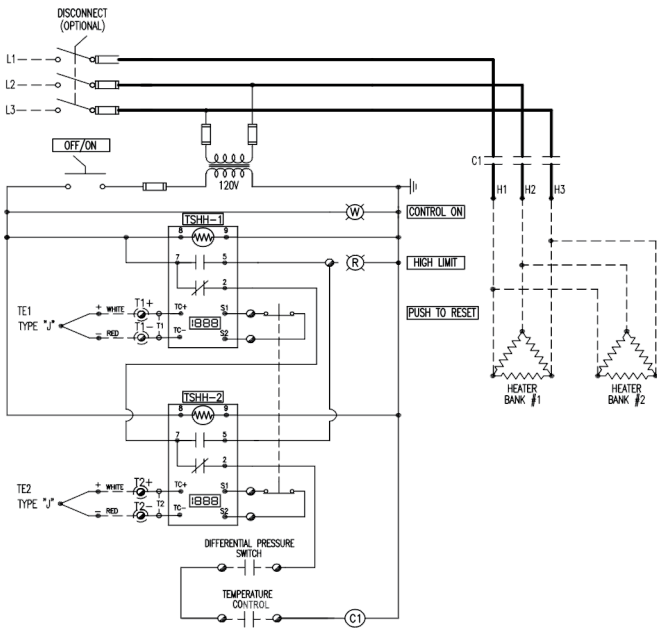


Figure 21 – Package #1 Basic Unit (“ON/OFF” Control)

**Note:**

- One high limit control provided on single bank heaters.
- Two high limit controls provided on double bank heaters.

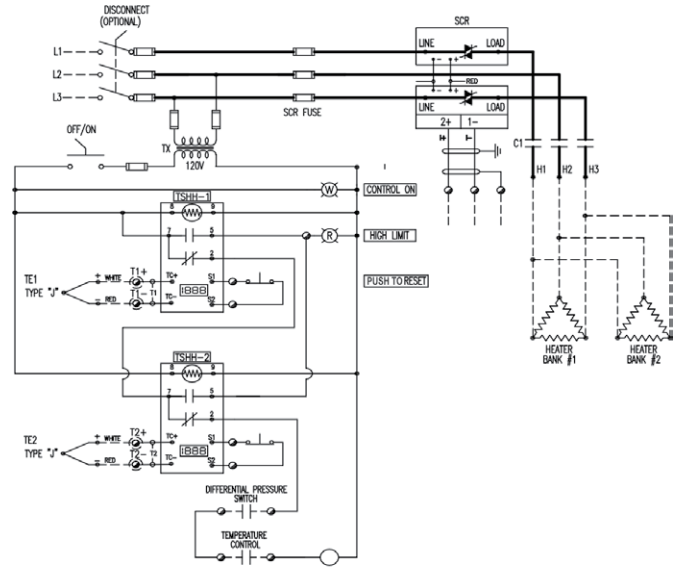


Figure 23 – Package #3 SCR with Remote Temperature Controller

**Note:**

- One high limit control provided on single bank heaters.
- Two high limit controls provided on double bank heaters.

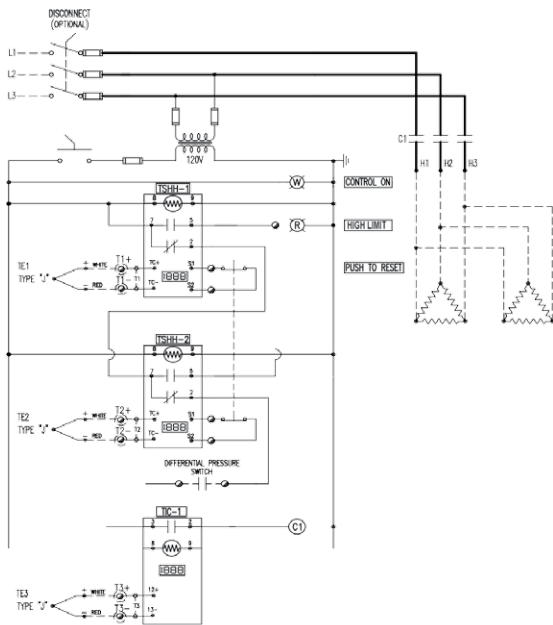


Figure 22 – Package #2 Built-in Temperature Controller

**Note:**

- One high limit control provided on single bank heaters.
- Two high limit controls provided on double bank heaters.

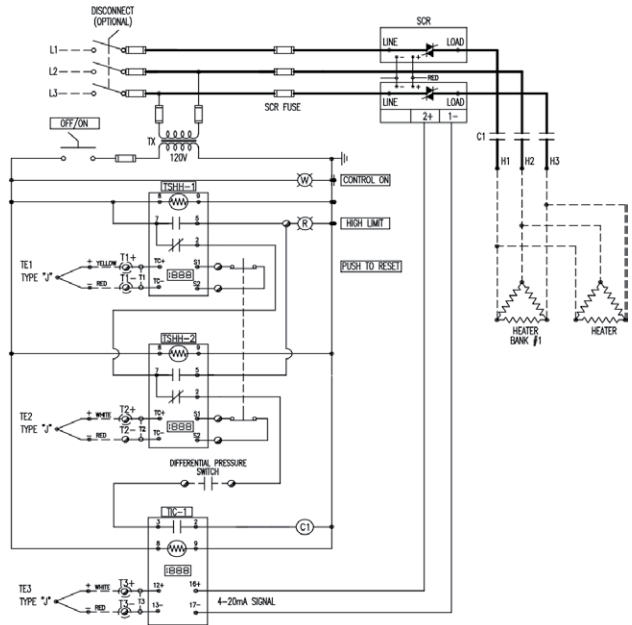


Figure 24 – Package #4 SCR with Built-in Temperature Controller

**Note:**

- One high limit control provided on single bank heaters.
- Two high limit controls provided on double bank heaters.