Control Systems

Control systems allow for quick electrical installation of all HOTSTART engine heaters. They are designed as a time and labor saving component. Control systems are especially useful on installations that require two coolant heaters or combinations of a coolant heater and oil heater/hydraulic heater etc.

All control boxes on this page are NEMA 4, 12 & IP66.

CONTROL SYSTEMS

CONTROL SYSTEMS featuring AUTOMATIC SHUTDOWN DEVICES With 24 V DC Relay

Amps	Volts	1 Heater, 1 Thermostat per application	2 Heaters, 2 Thermostats per application
30A Max	120	JBC11-100	JBC21-100
30A Max	208	JBC18-100	JBC28-100
30A Max	240	JBC12-100	JBC22-100
30A Max	400	JBC1A-100	JBC2A-100
30A Max	480	JBC14-100	JBC24-100
30A Max	575	JBC15-100	JBC25-100



Model JBC14-100 See wiring schematic page 31



Model JBC24-100 See wiring schematic page 31

All HOTSTART heaters with thermostat, operating on three phase current (at any voltage), require the use of a control system with a 3-pole contactor. All HOTSTART heaters with thermostat, operating over 480 V (single or three phase) require a control system to reduce the primary voltage to 120 V for the control circuit. For increased thermostat life, use a control system on all heaters above 277 V either single or three phase.

All control boxes can be used with either single or three phase heaters. Control boxes are available in Hazardous Location models - contact factory for part number.

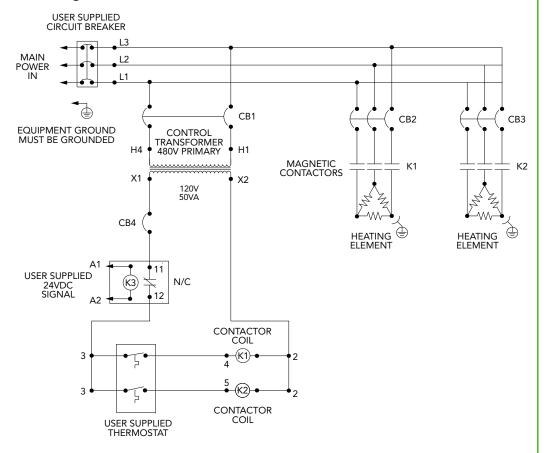
For heater protection and power savings, HOTSTART recommends de-energizing the heater when engine is running. Control boxes are supplied with a 24 V relay to de-energize the heater upon engine start-up.

Wiring Schematic for JBC14-100

USER SUPPLIED CIRCUIT BREAKER MAIN L2 POWER L1 IN MAGNETIC CB1 **CONTACTORS** EQUIPMENT GROUND MUST BE GROUNDED CONTROL TRANSFORMER 480V PRIMARY X1 ♦ X2 120V 50VA CB2 HEATING ELEMENT **USER SUPPLIED** 24VDC SIGNAL **∮**12 CONTACTOR COIL •(K1) **USER SUPPLIED THERMOSTAT**

To control one 480 V heater at maximum 30 amps on manual start engine.

Wiring Schematic for JBC24-100



To control two 480 V heaters at maximum 30 amps on automatic start engines.

Control Systems



Model JBC14-100



Model JBC24-100