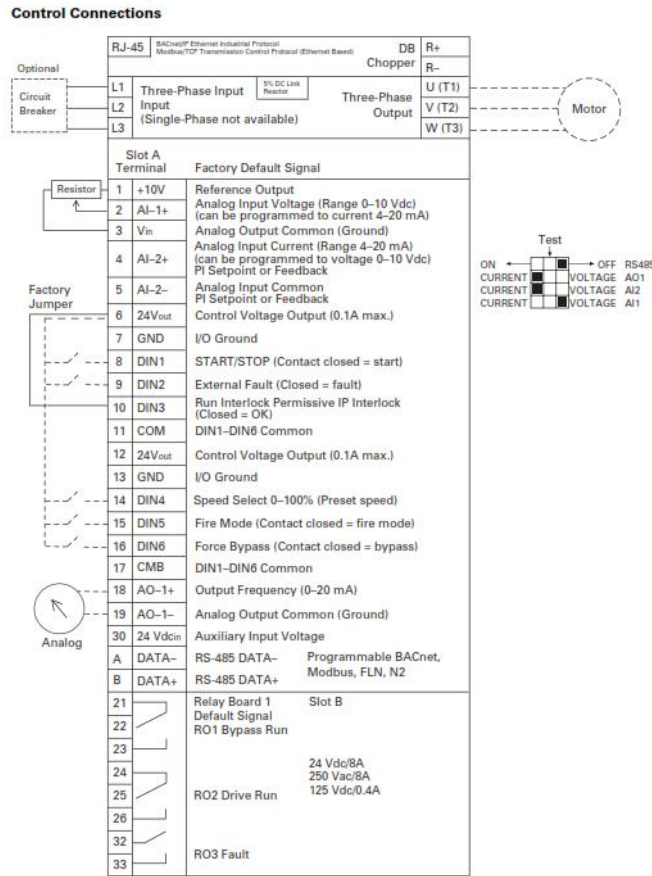# H-Max Series fire mode function

Introduction

Fire mode is used in applications where the VFD maintaining operation is critical to safety. Fire Mode is used in applications such as stairwell pressurization and Tunnel exhaust fans. Fire Mode is activated with a digital input and when activated the H-max series VFD will follow a programmable Fire Mode Speed. Fire Mode disables all interlocks, enable signals and faults and runs the Motor at the programmed Fire mode Speed.

Configuration

The H-Max Series VFD is configured out of the box for fire mode operation. Digital Input 5 is assigned to the Fire mode function and the Drive will run at the preset Fire mode Frequency of 60Hz when Digital input 5 is on. See wiring diagram Below.

 If operation other than the default operation of Fire Mode is desired The table below are the parameters for configuring the Fire Mode.

Parameter Number	Parameter Name	Change while running	Minimum	Maximum	Default	ID Number	Values
P2.3.2.2	DIN2 Function	Y	1	33	2	1320	0=Not Used 1=3-Wire Off 2=External Fault 3=Fault Reset 4=Run Enable 5=HOA ON/OFF 6=HOA Hand/Auto 7=Reverse 8=Preset Freq SEL0 9=Preset Freq SEL1 10=Preset Freq SEL2 11=Fire Mode 12=Interlock 1 13=Interlock 2 14=Interlock 3 15=Reserved 16=Reserved 17=Preheat Function 18=Accel/Decel Sel 19=Parameter Lock 20=Unattended Start Prot 21=Second Param Set 22=Timer 1 23=Timer 2 24=Timer 3 25=Enable PID 26=PID1 Select SetPt 27=PID2 Select SetPt 28=Motor 1 Interlock 29=Motor 2 Interlock 30=Motor 3 Interlock 31=Motor 4 Interlock 32=Motor 5 Interlock 33=Force Bypass
P2.3.3.2	DIN3 Function	Y	1	33	12	1321	See P2.3.2.2
P2.3.4.2	DIN4 Function	Y	1	33	8	1322	See P2.3.2.2
P2.3.5.2	DIN5 Function	Y	1	33	11	1323	See P2.3.2.2
P2.3.6.2	DIN6 Function	Y	1	33	33	1324	See P2.3.2.2
P2.11.1	Fire mode Freq	Y	0.00Hz	Max Freq	60.00Hz	1598	See P2.3.2.2
P2.11.2	Fire Mode Freq Source	Y	1	7	1		1=Firemode Freq 2=Preset Speed 3=Keypad Ref 4=Fieldbus 5=AI1 6=AI2 7=AI1+AI2

P2.11.2 Selects the Reference source for the fire mode

1. Fire mode Frequency - This setting will use P2.11.1
2. Preset Speed – This setting will follow the selected preset speed from DIN's
3. Keypad Reference – This setting will use P2.6.5
4. Fieldbus – This setting will use the Fieldbus speed reference
5. AI1 – This setting will use Analog input 1 and follow the reference scaling set in P2.2.1
6. AI2 - This setting will use Analog input 2 and follow the reference scaling set in P2.2.2
7. AI1+AI2 – This setting adds Analog input 1 and Analog input 2 and follows the scaling set in P2.2.1 and 2.2.2

When Fire Mode is enabled the keypad will flash and display alarm Fire Mode Active. When the input for fire mode is removed the alarm will stop being displayed and the drive will resume normal operation.

Additional Help

In the US or Canada: please contact the Technical Resource Center at 1-877-ETN-CARE
or 1-877-326-2273 option 2, option 6.

All other supporting documentation is located on the Eaton web site at www.eaton.com/Drives

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