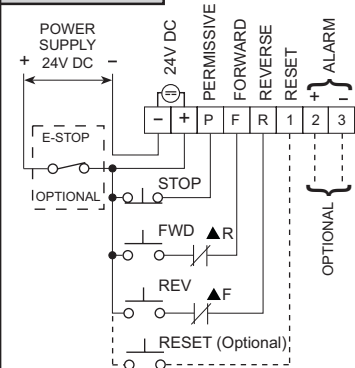


## NEMA

## Reversing Starter

## Size 2

## 3-Wire Control



## ▲ FORWARD - STOP - REVERSE

Optional auxiliaries R & F are needed if a stop command is required before changing the motor direction.

R = N.C. logic level auxiliary contact (EMA70) attached to the reversing contactor.

F = N.C. logic level auxiliary contact (EMA70) attached to the forward contactor.

## CONTROL POWER / 24 VOLTS DC ONLY

## POWER REQUIRED PER DEVICE @ 20°C (68°F)

Inrush: 130 watts, 5.4 amps, 65 msec duration

Sealed: 5.0 watts, 0.21 amps

At other temperatures (T) in °C

$$\left. \begin{aligned} \text{Watts} &= W_{20}[1.1 - .005(T)] \\ \text{Amps} &= A_{20}[1.1 - .005(T)] \end{aligned} \right\} \begin{array}{l} \text{Inrush} \\ \text{or} \\ \text{Sealed} \end{array}$$

Example: Inrush watts @ -25°C

$$130[1.1 - .005(-25)] = 160 \text{ watts}$$

## 24V DC POWER SUPPLY REQUIRED

Select supply based on power required per device  
Recommend Cutler-Hammer PS Series

## 24V DC CONTROLS REQUIRED

24V DC, 3-5mA

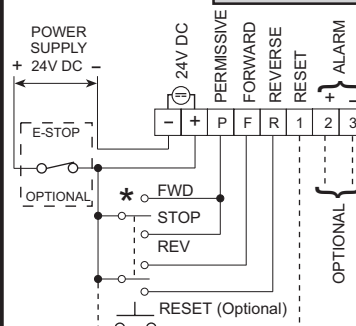
Recommend Cutler-Hammer Logic Level Series or contact blocks with reliability "nibs".

## ALARM OUTPUT (optional)

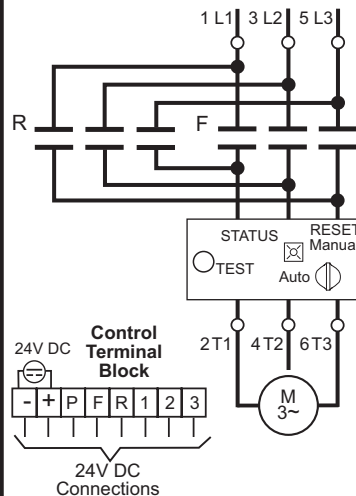
Open collector or emitter type  
24V DC @ 0.25 amps



## 2-Wire Control



\* MAINTAINED ONLY  
2-WIRE REMOTE PILOT DEVICE



Note: Remove Control Terminal Block before wiring of T1, T2, & T3.

**DISCONNECT AC POWER BEFORE WORKING ON THIS PRODUCT**

## AUXILIARY CONTACTS

Max. Qty.	Cat. No.	Description
6	EMA13	1 N.O.
6	EMA14	1 N.C.
6	EMA15	1 N.O. - 1 N.C.
6	EMA16	2 N.O.
6	EMA17	2 N.C.
6	EMA70	1 N.O.-1 N.C. (Logic)

## CONTROL TERMINAL BLOCK

Wire	- +	P F R 1 2 3
1 per Terminal	1.5 - 2.5mm <sup>2</sup> [14 - 12 Awg]	0.5 - 2.5mm <sup>2</sup> [22 - 12 Awg]
2 per Terminal	1.5mm <sup>2</sup> [14 Awg]	0.75 - 1.5mm <sup>2</sup> [18 - 14 Awg]
Strip Length	Driver	Torque (Max.)
7mm [0.27 in]	3.5mm [1/8 in]	0.5 N-m [4.5 LB-IN]

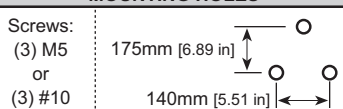
## CONTROL CIRCUIT FUSEHOLDER

Cat. No. C320FB or C320FBR

## L1, L2, L3 / T1, T2, T3

75°C Copper Wire only

## MOUNTING HOLES



1 Wire per Terminal	1.5 - 10mm <sup>2</sup> [14 - 8 Awg]	Torque (Max.)	5.0 N-m [45 LB-IN]
1 Wire per Terminal	16 - 35mm <sup>2</sup> [6 - 1 Awg]	Torque (Max.)	11.0 N-m [100 LB-IN]
2 Wires per Terminal	1.5 - 25mm <sup>2</sup> [14 - 2 Awg]	Torque (Max.)	11.0 N-m [100 LB-IN]

## AMBIENT TEMPERATURE

Operating: -40°C to 65°C [-40°F to 149°F]  
Storage: -50°C to 80°C [-58°F to 176°F]

Strip Length	18mm [0.7 in]	Hex Key Driver	4mm [5/32 in]
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## SHORT CIRCUIT WITHSTAND RATING

## UL 508 and CSA C22.2 No. 14-95

SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 10000 rms SYMMETRICAL AMPERES, 600 VOLTS MAXIMUM WHEN PROTECTED BY CLASS K5 FUSES OR INVERSE-TIME CIRCUIT BREAKERS (THERMAL MAGNETIC).

pub50163 (A) Mar. 2002 - Also refer to pub50200 or [www.cutler-hammer.eaton.com/it](http://www.cutler-hammer.eaton.com/it)