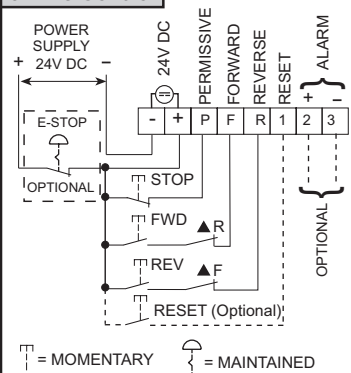


## IEC

## Reversing Starter

E - Frame  
105mm

## 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: 140 watts, 5.8 amps, 85 msec duration

Sealed: 5.6 watts, 0.23 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

$$140[1.1 - .005(-25)] = 172 \text{ watts}$$

## 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

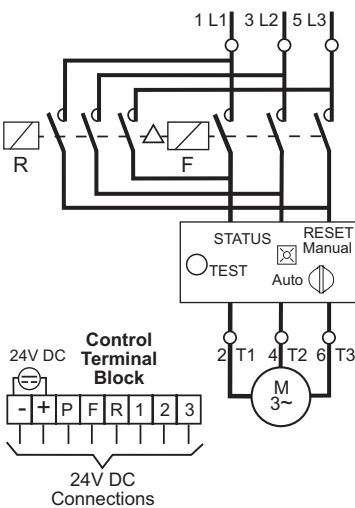
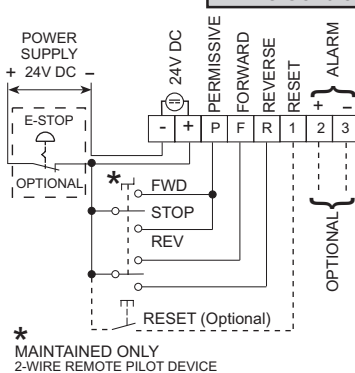
Recommend Cutler-Hammer Logic Level Series or contact blocks with reliability "nibs".

## ALARM OUTPUT (optional)

Open collector or emitter type  
24V DC @ 0.25 amps



## 2-Wire Control



## 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]

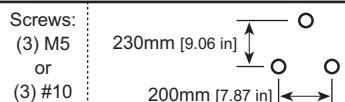
## CONTROL CIRCUIT FUSEHOLDER




Cat. No. C320FB or C320FBR

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

75°C Copper Wire only

## MOUNTING HOLES



1 Wire per Terminal	16 - 120mm <sup>2</sup>	[6 - 250 MCM]
2 Wires per Terminal	16 - 70mm <sup>2</sup>	[6 - 3/0 Awg]
Strip Length	Driver	Torque (Max.)
		
21mm [0.8 in]	Hex Key 8mm [5/16 in]	28 N-m [250 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]

## TYPE 1 SHORT CIRCUIT WITHSTAND RATING

## IEC 60947-4-1, EN 60947-4-1, CE

	Maximum Value	Maximum Breaker Cutler-Hammer	Maximum Fuse Ferraz-Shawmut
'r'	10000A @ 480V	LD3600 - 600A - 600V	AJT450 Class J - 450A - 600V A4BY800 Class L - 800A - 600V
	10000A @ 600V	KW3400 - 400A - 690V	AJT300 Class J - 300A - 600V OTS350 K5 - 350A - 600V

## 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 THE MAXIMUM FUSE PER THE ABOVE TABLE OR INVERSE-TIME CIRCUIT BREAKERS (THERMAL MAGNETIC).