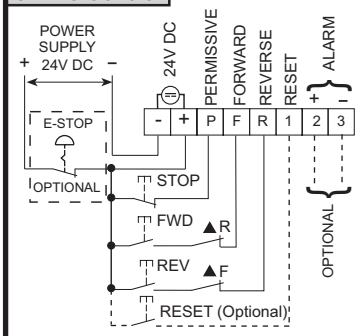
EATON | Cutler-Hammer — INTELLIGENT TECHNOLOGIES

IEC — Reversing Starter — B - Frame 45mm

3-Wire Control



= MOMENTARY = MAINTAINED

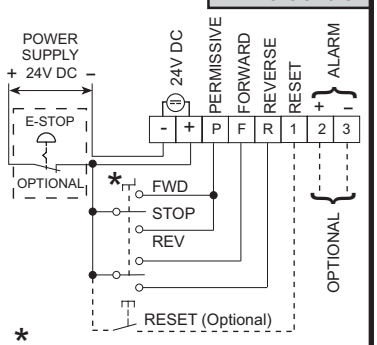
▲FORWARD - STOP - REVERSE

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

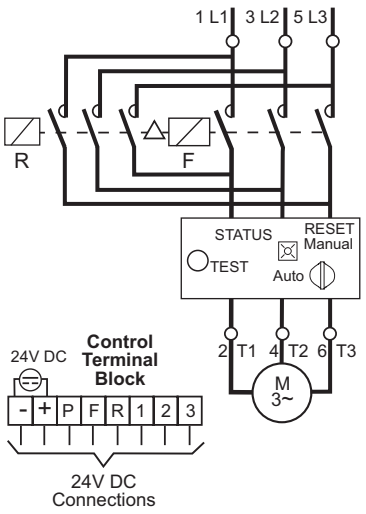
R = N.C. logic level auxiliary contact (EMA70) attached to the reversing contactor.

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

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

CONTROL POWER / 24 VOLTS DC ONLY

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

Inrush: 80 watts, 3.3 amps, 50 msec duration
Sealed: 3.2 watts, 0.13 amps

At other temperatures (T) in °C

$Watts = W_{20}[1.1 - .005(T)]$
$Amps = A_{20}[1.1 - .005(T)]$
} Inrush or Sealed

Example: Inrush watts @ -25°C
80[1.1 - .005(-25)] = 98 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

AUXILIARY CONTACTS

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

CONTROL TERMINAL BLOCK

Wire	- +	P F R 1 2 3
1 per Terminal	1.5 - 2.5mm² [14 - 12 Awg]	0.5 - 2.5mm² [22 - 12 Awg]
2 per Terminal	1.5mm² [14 Awg]	0.75 - 1.5mm² [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

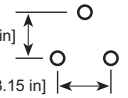
1 Wire per Terminal 1.5 - 10mm² [14 - 8 Awg]

2 Wires per Terminal 1.5 - 4mm² [14 - 10 Awg]

Strip Length	Driver	Torque (Max.) per	Wire Range
11mm [0.45 in]	Hex Key 2.5mm	2.2 N-m [20 LB-IN]	1.5 - 6mm² [14-10 Awg]
		2.8 N-m [25 LB-IN]	10mm² [8 Awg]

MOUNTING HOLES

Screws:
(3) M5
or
(3) #10



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'	3000A @ 480V 3000A @ 600V	FW3125L - 125A - 690V FW3080L - 80A - 690V	OTS125 K5 - 125A - 600V OTS80 K5 - 80A - 600V

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

SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 5000 rms SYMMETRICAL AMPERES, 600 VOLTS MAXIMUM WHEN PROTECTED BY CLASS K5-FUSES, TIME DELAY FUSES PER NEC/CEC OR INVERSE-TIME CIRCUIT BREAKERS (THERMAL MAGNETIC).