WIRE COLOR SCHEME
BLACK – LINE VOLTAGE
RED – AC CONTROL
WHITE – AC GROUNDED
CIRCUIT CONDUCTOR
BLUE – DC CONTROL
GREEN – CHASSIS GROUND

VLT
ADJUSTABLE FREQUENCY
DRIVE
(AFD)

NOTES:
1.  * INDICATES COMPONENTS NOT SUPPLIED BY MANUFACTURER.
2.  REFER TO THE INSTALLATION AND OPERATION MANUAL FOR DRIVE FUNCTIONS AND PARAMETER SETTINGS.
3.  BRANCH CIRCUIT PROTECTION, INPUT POWER AND   MOTOR WIRING MUST BE SELECTED IN ACCORDANCE
     WITH THE N.E.C., ANY APPLICATION LOCAL CODES AND THE LOAD CURRENT RATING.
4.  REPLACE JUMPER 'J1' WITH NORMALLY CLOSED SAFETY INTERLOCK CONTACT  AS NECESSARY. CONTACT
     MUST BE RATED 1/4 HP @ 120VAC MINIMUM.
5.  PANEL MAY REQUIRE DERATING, CONSULT DRIVE MANUAL OR FACTORY FOR  FOLLOWING CONDITIONS:
     5.1.   HIGHER SWITCHING FREQUENCY THEN DRIVE DEFAULT
     5.2.   HIGHER THEN PANEL LISTED AMBIENT TEMPERATURES
     5.3.   ELEVATION ABOVE 3300 FEET (1000 METERS)
     5.4.   LONG MOTOR LEAD LENGTHS

WARNING!
THE FOLLOWING TABLE LIST THE PARAMETERS THAT ARE
SET DIFFERENT FROM THE DRIVE DEFAULT SETTINGS.
ADDITIONAL PARAMETER SETTINGS MAY BE REQUIRED
FOR YOUR APPLICATION.

DRIVE PARAMETER SETTINGS

| PARAMETER # | NAME | SETTING | VALUE |
|---|---|---|---|
| 0–02 | MOTOR SPEED UNIT | 1 | HZ |
| 0–03 | REGIONAL SETTINGS | 1 | NORTH AMERICA |
| 1–03 | TORQUE CHAR. | 3 | AUTO ENERGY OPTIM VT |
| 5–02 | TERMINAL 29 TYPE | 1 | OUTPUT |
| 5–31 | TERMINAL 29 | 5 | RUNNING |
| 14–20 | RESET MODE | 13 | INFINITE AUTO REST |
|  |  |  |  |
|  |  |  |  |

| REV | ECN | DATE | | | DRN | NAME | NEMA 3R,240V,3C | | |
|---|---|---|---|---|---|---|---|---|---|
| B | | | | | DTM | | ,MAIN DISC,DRIVE FUSE | | |
| A | | | | | APR | | ,3MB2,SINGLE MOTOR,2 FAN | | |
| | | | | | DTM | MODEL | VLT | PAGE 1 OF 2 | SIZE A | DWG NO. 174N4684 |

## WIRE COLOR SCHEME

BLACK – LINE VOLTAGE
RED – AC CONTROL
WHITE – AC GROUNDED
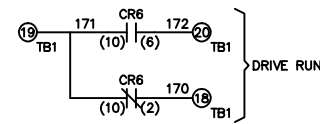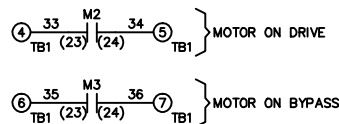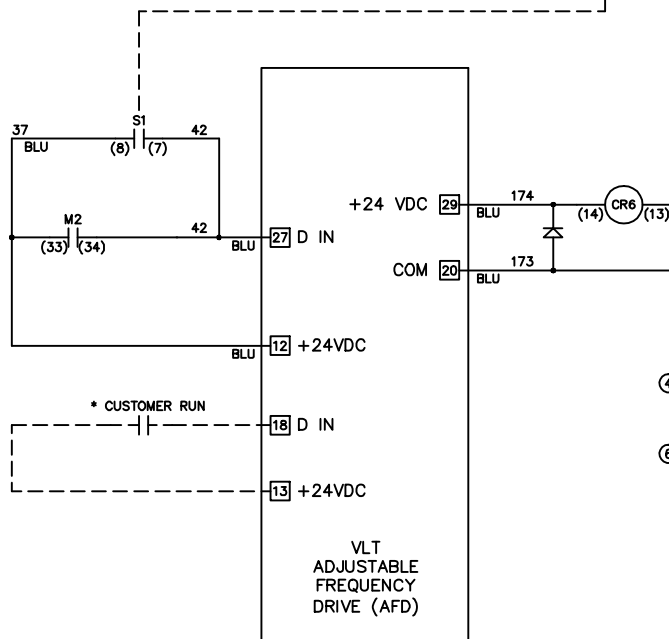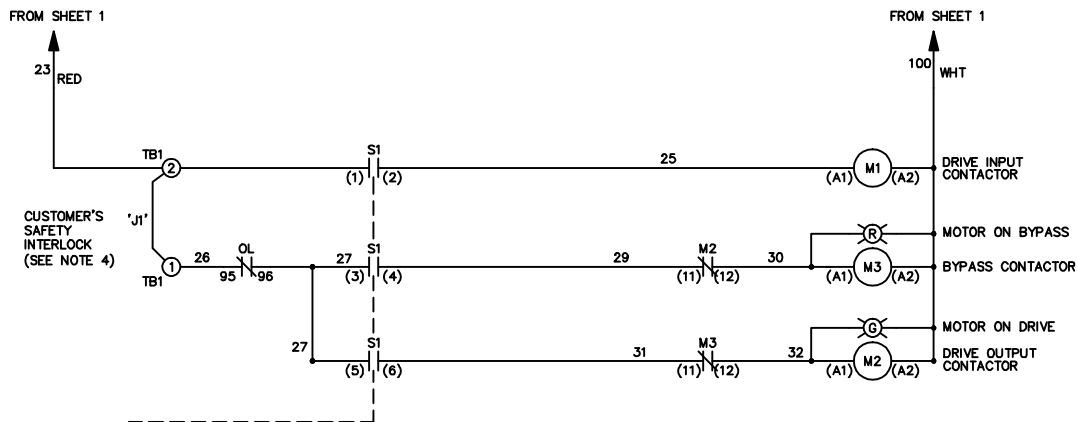       CIRCUIT CONDUCTOR
BLUE – DC CONTROL
GREEN – CHASSIS GROUND

## TERMINAL IDENTIFCATION

| | |
|---|---|
| ☒ – DRIVE TREMINAL | |
| ⊗ – CUSTOMER TERMINAL | |

## CUSTOMER DRY CONTACT RATINGS

| RELAY | CONTACT RATING |
|---|---|
| CR6 | 5A @ 120VAC<br>1/10 HP @ 120VAC |
| M1, M2, M3 | 10A @ 120/240VAC |

## CONTACT SEQUENCE CHART FOR S1
### X INDICATES CONTACT CLOSED

| CONTACT \ POSITION | DRIVE | OFF | BYPASS | TEST |
|---|---|---|---|---|
| 1-2 | X | | | X |
| 3-4 | | | X | X |
| 5-6 | X | | | |
| 7-8 | | | | X |

FROM SHEET 1

23 RED

CUSTOMER'S SAFETY INTERLOCK (SEE NOTE 4)

TB1 2 'J1' TB1 1 26 OL 95 96 27

S1 (1)(2) 25 (A1) M1 (A2) DRIVE INPUT CONTACTOR

FROM SHEET 1

100 WHT

S1 (3)(4) 27 29 M2 (11)(12) 30 R (A1) M3 (A2) MOTOR ON BYPASS / BYPASS CONTACTOR

27 S1 (5)(6) 31 M3 (11)(12) 32 G (A1) M2 (A2) MOTOR ON DRIVE / DRIVE OUTPUT CONTACTOR

37 BLU S1 (8)(7) 42

M2 (33)(34) 42 BLU

27 D IN

12 +24VDC BLU

+24 VDC 29 BLU 174 CR6 (14)(13)

COM 20 BLU 173

* CUSTOMER RUN

18 D IN

13 +24VDC

VLT ADJUSTABLE FREQUENCY DRIVE (AFD)

4 33 TB1 (23) M2 (24) 34 TB1 5 } MOTOR ON DRIVE

6 35 TB1 (23) M3 (24) 36 TB1 7 } MOTOR ON BYPASS

19 171 TB1 (10) CR6 (6) 172 TB1 20

CR6 (10)(2) 170 TB1 18 } DRIVE RUN

| REV | ECN | DATE |
|---|---|---|
| B | | |
| A | | |
| DR | ECNSP09001 | 1/09 |

DRN DTM

APR DTM

NAME NEMA 3R,240V,3C ,MAIN DISC,DRIVE FUSE ,3MB2,SINGLE MOTOR,2 FAN

MODEL VLT

PAGE 2 OF 2

SIZE A

DWG NO. 174N4684

THE TRANE COMPANY
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