

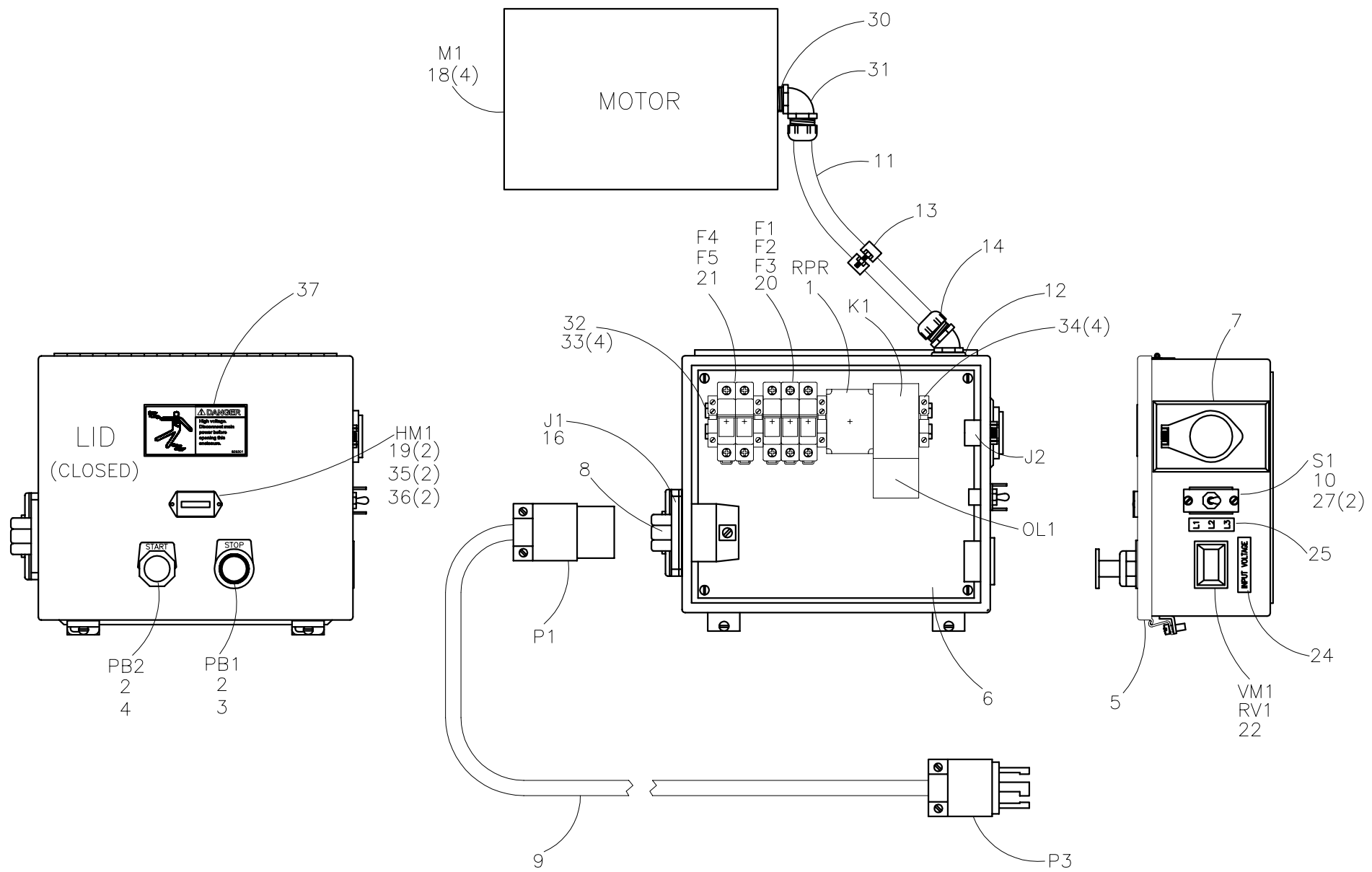


McElroy Manufacturing, Inc.
 The leader by design.
 Tulsa, Oklahoma U.S.A.

DRAWN: AH	CHECK: SWB	APPRV'D: B	DATE: 2/17/97	DWG No.: 1243500	SHT No.: 1	REV No.: H	PART No.: 1243501
#412 ELECTRICAL POWER ASSEMBLY 220-240V, 50/60Hz, 3Ph							CAD No.: 1243501

NOTE: THIS DRAWING AND THE INFORMATION CONTAINED THEREIN IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF McElroy Manufacturing, Inc. THE DRAWING IS NOT TO BE REPRODUCED IN ANY MANNER, SUBMITTED OUTSIDE PARTIES FOR EXAMINATION, OR USED DIRECTLY OR INDIRECTLY FOR THE PURPOSES OTHER THAN THOSE FOR WHICH IT WAS FURNISHED WITHOUT WRITTEN PERMISSION OF McElroy Manufacturing, Inc.

- NOTES:
1. WIRE PER DRAWING 1855701.
 2. ITEMS 15, 17 AND 23 ARE NOT SHOWN.
 3. ITEMS SHOWN IN PARENTHESIS REFLECT QUANTITIES IN A LOCAL GROUP AND MAY NOT INDICATE TOTAL ASSEMBLY QUANTITIES.



**#412 ELECTRICAL POWER ASSEMBLY
220-240V, 50/60HZ, 3PH**

Parts List

ITEM	PART NO.	QTY.	DESCRIPTION
	1243501		ASSEMBLY
F1,F2,F3	MLN00251	6	15 AMP FUSE, FNQ-R-15 (+ SPARES)
F4,F5	MLQ00032	4	15 AMP FUSE, KTK-R-15 (+ SPARES)
HM1	MKH00005	1	HOUR METER
J1	MLB00015	1	FLANGED INLET
J2	MLB00006	1	ELECTRICAL RECEPTACLE
K1	MKJ00010	1	MOTOR STARTER
M1	MDB00078	1	3hp INDUCTION MOTOR
OL1	MLV00019	1	9-13A OVERLOAD
P1	MLF00010	1	ELECTRICAL CONNECTOR
P3	MLF00009	1	ELECTRICAL PLUG
PB1,PB2	MKC00001	2	PUSHBUTTON
RPR	MKB00003	1	REVERSE PHASE RELAY
RV1	MQH00031	1	METAL OXIDE VARISTOR
S1	MKE00009	1	TOGGLE SWITCH
VM1	MKH00080	1	DIGITAL VOLTMETER
1	MKB00014	1	RELAY SOCKET
2	MKC00002	2	CONTACT BLOCK
3	MKC00003	1	RED PROTECTIVE CAP
4	MKC00004	1	GREEN PROTECTIVE CAP
5	1823304	1	ELECTRICAL BOX MODIFICATION
6	1823305	1	ELECTRICAL PANEL MODIFICATION
7	MLB00004	1	RECEPTACLE COVER
8	MLB00016	1	RECEPTACLE COVER
9	MLE00006	30 FT	ELECTRICAL CABLE
10	MLG00001	1	SWITCH GUARD
11	MLI00001	3 FT	1/2" FLEXIBLE CONDUIT
12	MLJ00004	1	1/2" SEALING RING
13	MLJ00008	1	CONDUIT HANGER
14	MLJ00006	1	1/2" X 45° CONDUIT CONNECTOR
15	MLL00002	20 FT	#14 AWG WIRE
16	MLL00011	1.25 FT	#10 AWG WIRE
17	MLM00001	8	RING TERMINAL
18	MLM00016	4	TWISTLOCK CONNECTOR
19	MLM00017	2	QUICK-SLIDE CONNECTOR
20	MLR00025	1	FUSE HOLDER
21	MLR00023	1	FUSE HOLDER
22	MLN00384	1	VOLTMETER BEZEL
23	1824201	1	#412/618 ELECTRIC BELT DRIVE

**#412 ELECTRICAL POWER ASSEMBLY
220-240V, 50/60HZ, 3PH**

Parts List

ITEM	PART NO.	QTY.	DESCRIPTION
24	816326	1	VOLTMETER PLACARD
25	816328	1	SWITCH PLACARD
26			
27	MAH00036	2	#6-32NC x 3/8"LG HHWF TYPE 'F'ST SCR
28			
29			
30	MLN00024	1	3/4-1/2 REDUCER BUSHING
31	MLJ00017	1	1/2 X 90° CONDUIT CONNECTOR
32	MLM00061	.75 FT	STEEL DIN RAIL
33	MAL00009	4	#10-24NC x 3/4 LG HWH TF SCREW
34	MLM00056	4	END CLAMP
35	MAE00004	2	#4-40NC x 3/8 LG BHSCS SS
36	MBC00001	2	#4-40NC NYLON LOCK NUT
37	829201	1	DANGER HIGH VOLTAGE LABEL

DRAWING REVISION HISTORY LISTING

PART NO: 1243501

DESCRIPTION: #412 ELECTRICAL POWER ASSEMBLY 220-240V, 50/60Hz, 3Ph

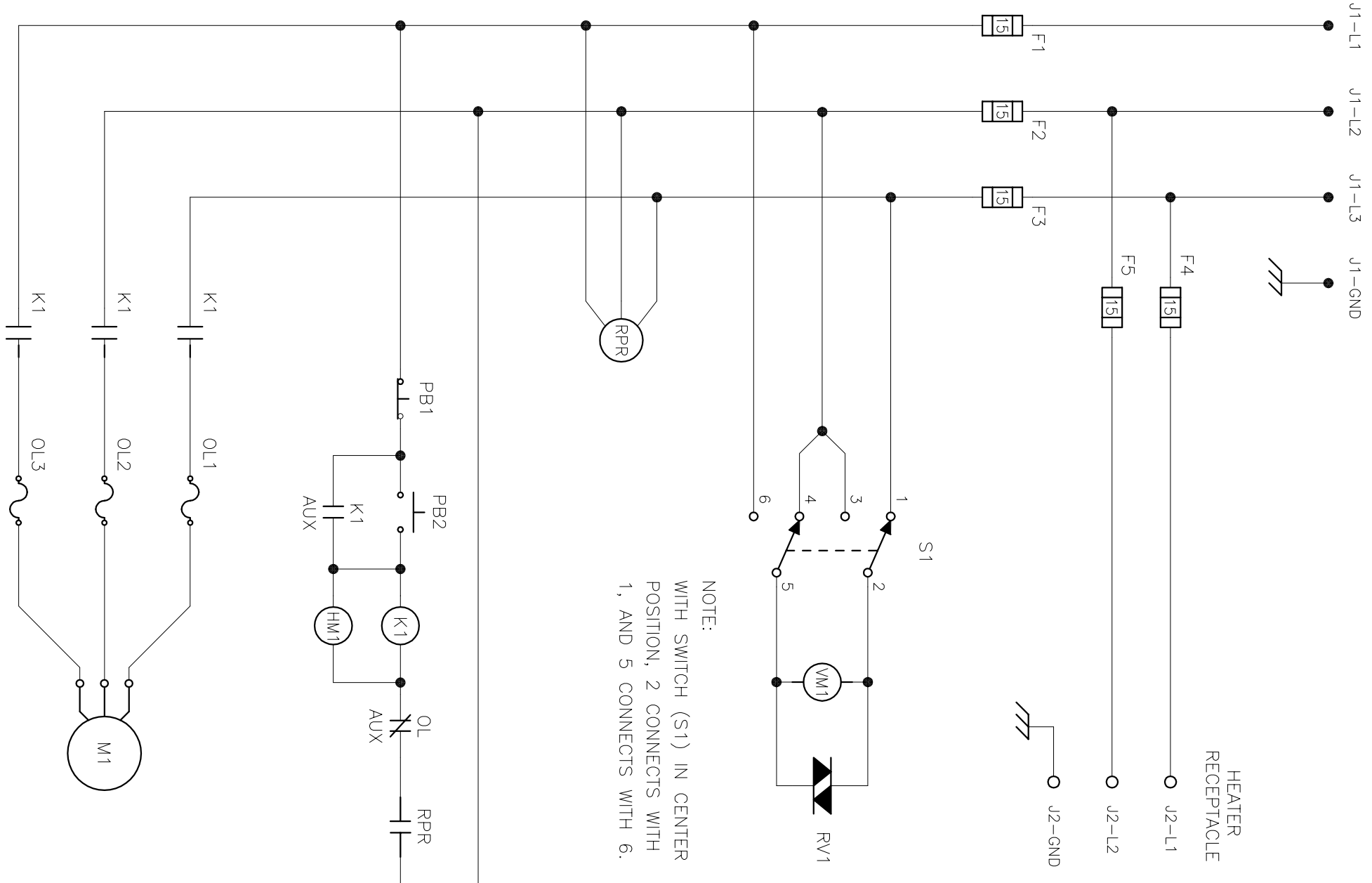
<u>APPR.</u>	<u>REV</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF REVISION</u>
RAD	A	05/09/97	BEA	REDRAWN FOR NEW BOX SIZE WITH ACCURATELY DIMENSIONED PARTS.
TMT	B	09/24/97	DJL	ITEM 5 WAS ELECTRICAL BOX (MLA00114). ITEM 6 WAS ELECTRICAL PANEL (MLA00115). MADE ELECTRICAL BOX AND PANEL MODIFICATION DRAWING TO DOCUMENT HOLES. ITEM 14 WAS 90DEG CONDUIT CONNECTOR (MLJ00017). ITEM 16 WAS #12 WIRE (MLL00003). REMOVED ITEM 19 GROUND LUG (MLM00037), NOT NEEDED. ADDED ITEMS 26-29 (MTG HARDWARE).
RAD	C	01/20/98	DJL	M1 MOTOR WAS MDB00010. REPLACED BY MDB00078 UNIVERSAL WIDE BAND MOTOR.
TLW	D	07/21/00	BWW	REVISED ITEM HM1 HOUR METER FROM MLN00089 TO MKH00005 WHICH IS NOW A MULTI-RANGE METER. REDUCED QTY OF ITEM 17 MLM00001 RING TERMINAL FROM 10 TO 8 & ADDED IN IT'S PLACE (2) ITEM 19 MLM00017 QUICK SLIDE CONNECTORS. SEE PCR 99037.
PJB	E	12/29/03	BEA	MADE THE FOLLOWING CHANGES TO IMPROVE MOTOR WIRING: CHANGED QTY OF ITEM 12 (MLJ00004) SEAL RING FROM 2 TO 1. CHANGED QTY OF ITEM 14 (MLJ00006) 1/2 X 45° CONDUIT CONNECTOR FROM 2 TO 1. ADDED ITEM 30 (MLN00024) REDUCER BUSHING. ADDED ITEM 31 (MLJ00017) 1/2 X 90° CONDUIT CONNECTOR.
BEA	F	08/25/05	MAC	REDESIGN OF ELECTRICAL SYSTEM IN SMALLER ENCLOSURE. K1 WAS: MLN00034, NOW: MKJ00010. OL1, OL2, OL3 WERE: MLN00002, NOW: OL1 IS MLV00019, OL2, OL3 ARE DELETED. ITEM 1 WAS: MKB00004, NOW: MKB00014. ITEM 5 WAS: 1823302, NOW: 1823304. ITEM 6 WAS: 1823303, NOW: 1823305. ITEM 20 WAS: MLN00003, NOW: MLR00025. ITEM 21 WAS: MLN00004, QTY 2, NOW: MLR00023, QTY 1. ITEM 26 WAS: MAH00034, QTY 6, NOW: DELETED. ITEM 27 WAS: QTY 4, NOW: QTY 2. ITEM 28 WAS: MAH00026, QTY 2, NOW: DELETED. ITEM 29 WAS: MAC00278, QTY 1, NOW: DELETED. ADDED ITEM 32, MLM00061, QTY .75 FT. ADDED ITEM 33, MAL00009, QTY 4. ADDED ITEM 34, MLM00056, QTY 4. ADDED ITEM 35, MAE00004, QTY 2. ADDED ITEM 36, MBC00001, QTY 2. ADDED ITEM 37, 829201, QTY 1. REMOVED NOTE #3, WAS: F6 THRU F10 ARE SPARES. DELETED REFERENCE DESIGNATORS FOR SPARE FUSES (F6 - F10).
SWB	G	11/23/05	JAB	MOVED NOTES TO FACE OF DRAWING. ADDED NOTE 3 FOR CLARITY.
DWP	H	6/2/06	MAC	CORRECTED FUSE CALLOUTS FOR F1-F5: F1-F3 P/N WAS: MLN00157, NOW: MLN00251. F4, F5 P/N WAS: MLN00006, NOW: MLQ00032.



McElroy Manufacturing, Inc.
The leader by design.
Tulsa, Oklahoma U.S.A.

DRAWN: AH	CHECK: SWB	APPRV'D: B	DATE: 2/19/97	DWG No: 1855700	SHT No: 1A	REV No: B	PART No:
#412/#618 ELECTRICAL SCHEMATIC 240V, 60Hz, 3Ph / 220V, 50Hz, 3Ph							CAD No: 1855701

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NOTE:
WITH SWITCH (S1) IN CENTER
POSITION, 2 CONNECTS WITH
1, AND 5 CONNECTS WITH 6.

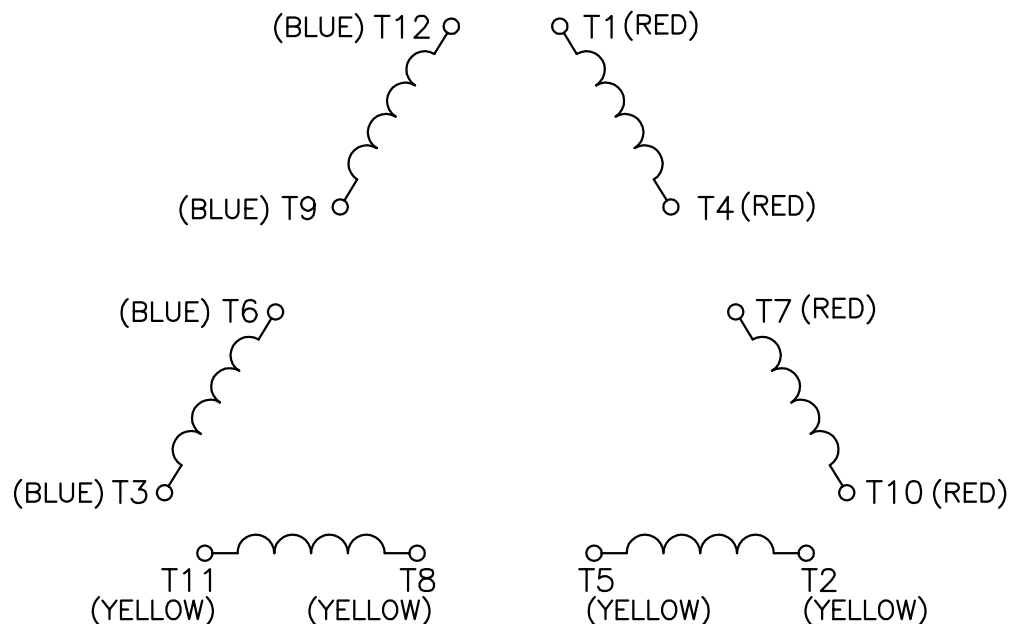


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DRAWN: AH	CHECK: SWB	APPRV'D: B	DATE: 2/19/97	DWG No: 1855700	SHT No: 1B	REV No: B	PART No:
#412/#618 ELECTRICAL SCHEMATIC 240V, 60Hz, 3Ph / 220V, 50Hz, 3Ph							CAD No: 1855701

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WHEN APPLICABLE COLORED LEADS / AS SHOWN WITHIN BRACKETS



CONNECTION DIAGRAM FOR A THREE PHASE MOTOR WITH
 12 WIRE OUT FOR TRIPLE VOLTAGE CONNECTION
 NEMA MARKINGS

50 HZ SUPPLY	60 HZ SUPPLY	LINK TOGETHER
LOW	LOW	T1-T12-T6-T7 T2-T10-T4-T8 T3-T11-T5-T9
HIGH	MEDIUM	T1-T12 T2-T10 T3-T11 T4-T7 T5-T8 T6-T9
- - -	HIGH	T4-T7-T12 T5-T8-T10 T6-T9-T11
ALL	ALL	CONNECT SUPPLY TO T1 T2 T3
TO REVERSE DIRECTION OF ROTATION INTERCHANGE ANY TWO SUPPLY LEADS		

DRAWING REVISION HISTORY LISTING

PART NO: 1855701

DESCRIPTION: #412/#618 ELECTRICAL SCHEMATIC 240V, 60z, 3Ph/220V, 50Hz, 3Ph

<u>APPR.</u>	<u>REV</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF REVISION</u>
RAD	A	5/9/97	BEA	MOVED VOLTMETER CIRCUIT DOWNSTREAM OF FUSES.
RAD	B	1/23/98	DJL	ADDED SHEET 1B WHICH INCLUDES THE CONNECTION DIAGRAM FOR THREE PHASE MOTOR FOR TRIPLE VOLTAGE CONNECTION.