

BALDOR® • RELIANCE 

Product Information Packet

EM4316T-12

75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC

| Part Detail | | | | | | | |
|-------------|----|-------------|------------|-------------|------------|---------------|------------|
| Revision: | R | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | A36WG1521 | CD Diagram: | 416820-020 | Mfg Plant: | |
| Mech. Spec: | | Layout: | 617428-012 | Poles: | 04 | Created Date: | 12-17-2010 |
| Base: | | Eff. Date: | 04-24-2020 | Leads: | 12#6 | | |

| Specs | | | |
|--------------------------------|-------------------------|--------------------------------|--------------------|
| Catalog Number: | EM4316T-12 | Feedback Device: | NO FEEDBACK |
| Enclosure: | TEFC | Heater Indicator: | No Heater |
| Frame: | 365T | Insulation Class: | F |
| Frame Material: | Iron | Inverter Code: | Inverter Ready |
| Output @ Frequency: | 75.000 HP @ 60 HZ | KVA Code: | G |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Lifting Lugs: | No Lifting Lugs |
| Voltage @ Frequency: | 230.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 12 @ 6 AWG |
| | 460.0 V @ 60 HZ | Motor Type: | A36070M |
| XP Class and Group: | None | Mounting Arrangement: | F1 |
| XP Division: | Not Applicable | Power Factor: | 86 |
| Agency Approvals: | CCSA US | Product Family: | Other |
| | CSA EEV | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Shaft Ground Indicator: | No Shaft Grounding |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Rotation: | Reversible |
| Current @ Voltage: | 171.000 A @ 230.0 V | Shaft Slinger Indicator: | No Slinger |
| | 85.900 A @ 460.0 V | Speed Code: | Single Speed |
| Design Code: | B | Motor Standards: | NEMA |

| | | | |
|---------------------|---------------|----------------------------------|-----------------------|
| Drip Cover: | No Drip Cover | Starting Method: | Wye Start - Delta Run |
| Duty Rating: | CONT | Thermal Device - Bearing: | None |
| | | Thermal Device - Winding: | None |

| Nameplate NP2383L | | | | | | | | | | |
|-------------------------|------------|------|----------|---------------|----------|---------|-----------------------|--------|-------------|---|
| CAT.NO. | EM4316T-12 | | | SPEC NO. | P36G3433 | | | | | |
| HP | 75 | AMPS | 172/85.9 | | VOLTS | 230/460 | | DESIGN | B | |
| FRAME | 365T | RPM | 1780 | HZ | 60 | AMB | 40 | SF | 1.15 | |
| DRIVE END BEARING | 65BC03J30X | | | PHASE | 3 | DUTY | CONT | | INSUL.CLASS | F |
| OPP D.E. BEARING | 65BC03J30X | | | TYPE | P | ENCL | TEFC | CODE | G | |
| SER.NO. | | | | POWER FACTOR | 86 | | NEMA-NOM-EFFICIENCY | 95.4 | | |
| NEMA NOM/CSA QUOTED EFF | | | | MAX CORR KVAR | 16.0 | | GUARANTEED EFFICIENCY | 95.0 | | |
| | | | | MOTOR WEIGHT | | | | | | |

| Parts List | | |
|-------------|---------------------------------------|----------|
| Part Number | Description | Quantity |
| SA213579 | SA P36G3433 | 1.000 EA |
| RA200799 | RA P36G3433 | 1.000 EA |
| 421948038R | LABEL, MYLAR | 1.000 EA |
| 000692000VD | LABEL WARNING | 1.000 EA |
| NP2383L | SUPER-E ,SS, CC, CSA-C US, CSA EEV | 1.000 EA |
| 085922073B | BRKT 360 085922072WCC KB | 1.000 EA |
| 415072001B | CLAMP | 1.000 EA |
| 078559001A | +FANCV - 360 | 1.000 EA |
| 034180012DA | KEY 1X4X1/4X1-1/2 L | 1.000 EA |
| 004824015A | GREASE POLYREX EM | 0.540 LB |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. | 4.000 EA |
| 032018008AK | HHCS 1/4-20X1 PLATED | 4.000 EA |
| 032018024CK | HHCS 3/8-16X3 PLTD. | 3.000 EA |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 EA |
| 410700004F | WSHR | 1.000 EA |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 034530052AB | P/NIP 1/8X6-1/2 GALV. | 1.000 EA |
| 034690001AB | 1/8" NPT SQHDPLG | 1.000 EA |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 EA |
| 034690001AB | 1/8" NPT SQHDPLG | 1.000 EA |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 EA |
| 085922073B | BRKT 360 085922072WCC KB | 1.000 EA |
| 415045002E | SLGR | 1.000 EA |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. | 4.000 EA |

| Parts List (continued) | | |
|------------------------|---|----------|
| Part Number | Description | Quantity |
| 032018024CK | HHCS 3/8-16X3 PLTD. | 3.000 EA |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 077176000L | C/BOX, 360-400 | 1.000 EA |
| 077176001A | CBOXC, PAINTED 360-400 | 1.000 EA |
| 043292000AJ | GASK 320-400 | 1.000 EA |
| 402731001A | GASK 360-440 | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| MG1025Y17 | WILKOFASST, 789.701, SUPER E PEARL GOLD | 0.250 GA |
| 033775004EA | DRSCR #6-1/4 304 S.S. | 2.000 EA |
| 032018005AK | HHCS 1/4-20X5/8 PLATED | 4.000 EA |
| 032018008CK | HHCS 3/8-16X1L PLATED | 4.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 415000103D | T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT | 1.000 EA |
| 406099000A | PLUG - FAN COVER 320-440 | 1.000 EA |
| 033512004LB | HHTTS 1/4-20X1/2 PLTD. | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| 034180034HA | KEY 5/8X5/8X4-1/4 L | 1.000 EA |
| 702676001C | FAN 360 | 1.000 EA |
| 14PA1000 | PACKAGING 314 GROUP COMBINED PRINT | 1.000 EA |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 EA |

| Accessories | | |
|--------------------|-------------------------------------|-------------------|
| Part Number | Description | Multiplier |
| K36G2 | C-FACE KIT | A8 |
| 085922068B | BRKT,E360,D-FLG,313,FINISHED-TURNED | P1 |

| | | | | | | |
|-----------|-------------|-------------------|-----------|--|-------------|---------|
| REL. S.O. | FRAME | HP | TYPE | PHASE/HERTZ | RPM | VOLTS |
| | 365T | 75 | P | 3/60 | 1780 | 230/460 |
| AMPS | DUTY | AMB °C/ INSUL. | S.F. | NEMA DESIGN | CODE LETTER | ENCL. |
| 171/85.9 | CONT | 40/F | 1.15 | B | G | FOXE |
| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES. @25 °C (OHMS (BETWEEN LINES)) | | |
| 892211 | 418141043EE | --- | --- | .0210/.0843 | | |

PERFORMANCE

| LOAD | HP | AMPERES | RPM | POWER FACTOR % | EFFICIENCY % |
|---------|------|---------|------|----------------|--------------|
| NO LOAD | 0 | 26.1 | 1800 | 3.86 | 0 |
| 1/4 | 18.8 | 33.4 | 1796 | 56.1 | 93.8 |
| 2/4 | 37.5 | 47.7 | 1791 | 77.0 | 95.7 |
| 3/4 | 56.2 | 65.8 | 1786 | 83.5 | 95.8 |
| 4/4 | 75.0 | 85.9 | 1781 | 85.6 | 95.4 |
| 5/4 | 93.8 | 107 | 1776 | 86.7 | 94.8 |

SPEED TORQUE

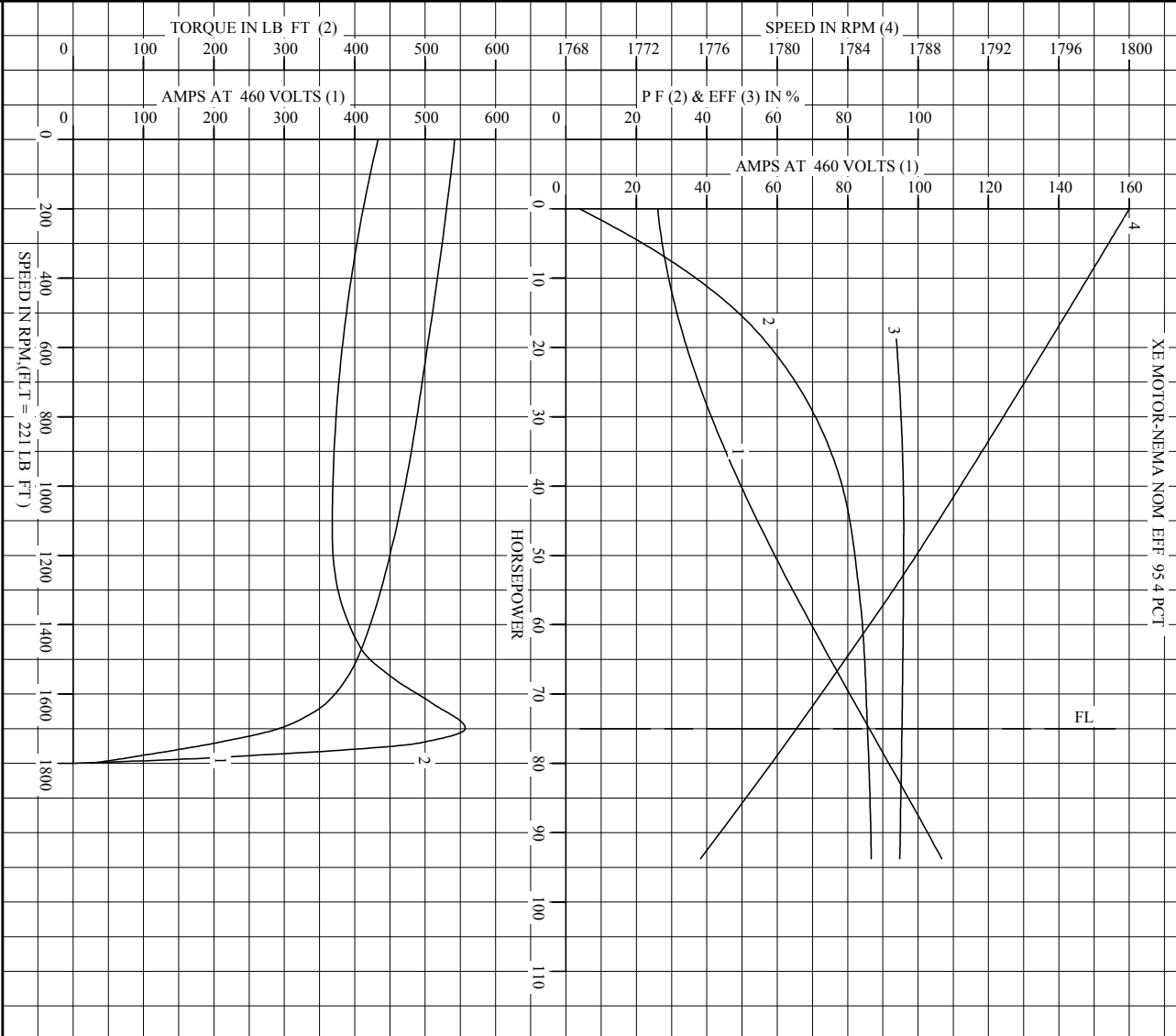
| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|--------------|------|--------------------|----------------|---------|
| LOCKED ROTOR | 0 | 196 | 433 | 542 |
| PULL UP | 1130 | 166 | 368 | 458 |
| BREAKDOWN | 1699 | 252 | 557 | 293 |
| FULL LOAD | 1781 | 100 | 221 | 85.9 |

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: CALCULATED DATA
XE MOTOR-NEMA NOM. EFF. 95.4 PCT.

| | | | |
|---|---------|----------------|--|
|  | DR. BY | W. L. SMITH | A-C MOTOR PERFORMANCE DATA A36WG1521-R001 ISSUE DATE 12/20/05 |
| | CK. BY | J. J. HARRISON | |
| | APP. BY | W. L. SMITH | |
| DATE | | 12/20/05 | |

REL S.O. _____ RPM 1780 S.F. 1.15 ROTOR 418141043EE
 FRAME 365T VOLTS 230/460 NEMA DESIGN B TEST S.O. CALCULATED DATA
 HP 75 AMPS 171/85.9 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE FCXE STATOR RES. @ 25 °C .0210/.0843
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 892211 OHMS (BETWEEN LINES)



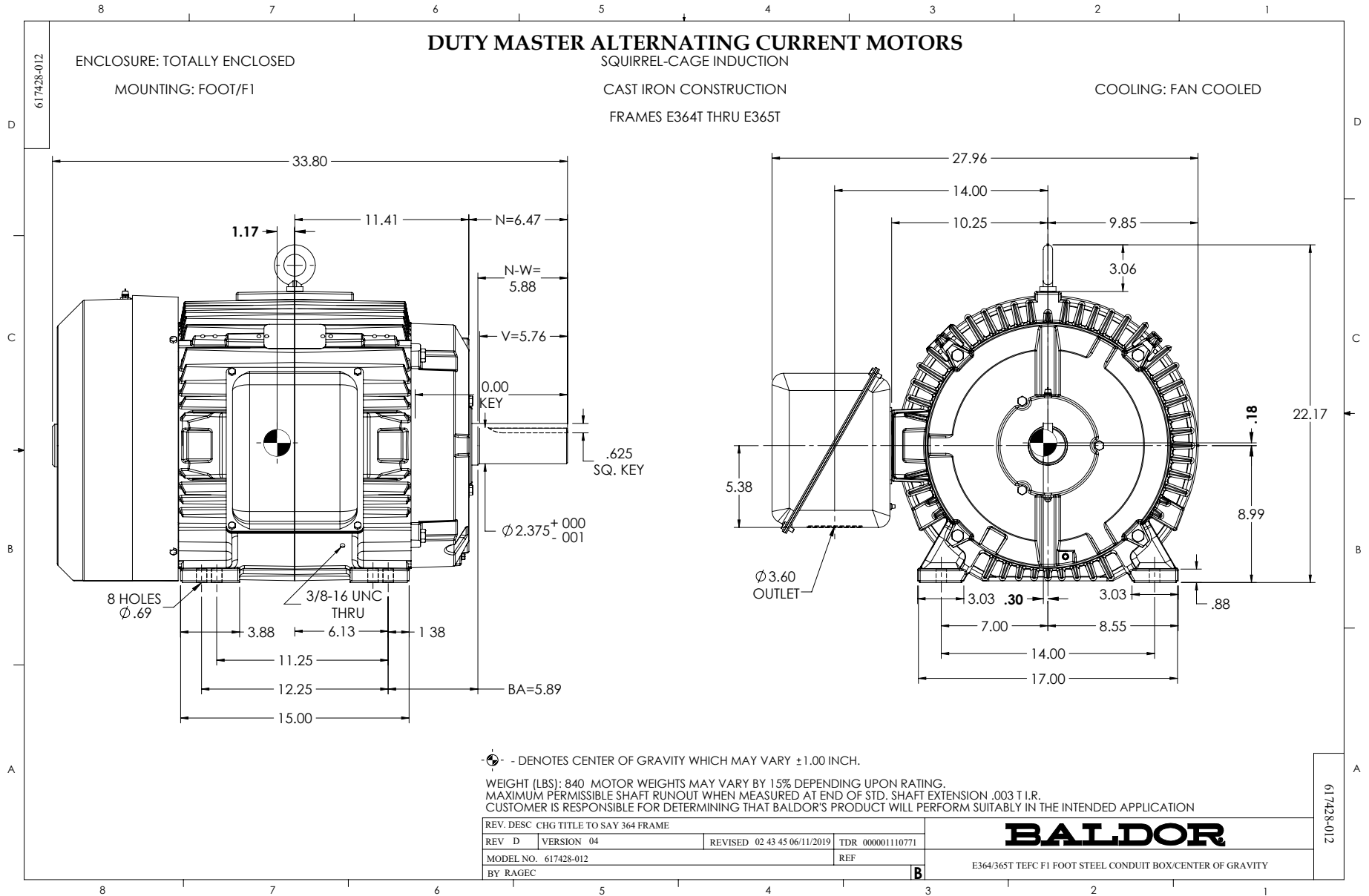
AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



DR. BY W.L. SMITH
 CK. BY J.J. HARRISON
 APP. BY W.L. SMITH
 DATE 12/20/05

A-C MOTOR
PERFORMANCE
CURVES
 A36WG1S21-R001
 ISSUE DATE 12/20/05

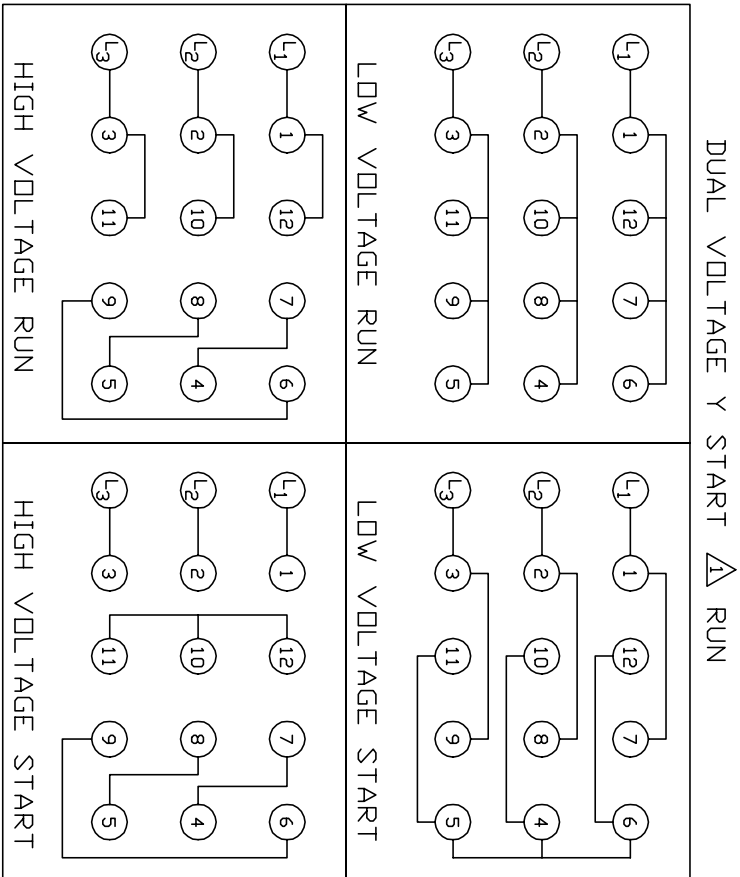
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416820-020

416820-020

A-C MOTOR
CONNECTION DIAGRAM



<410961-39/ 1575-AC>

CUSTOMER _____ CUSTOMER ORDER NO. _____ S. D. NO. _____

| | | | |
|--------------------------|-------------|------------------------------|--|
| REV. DESC: LOADED TO BUS | | | |
| REV. LTR: A | VERSION: 01 | TDR: 000000553773 | |
| FILE: \RAG\00011\270 | | REVISED: 01:15:19 08/12/2010 | |
| MTL: - | | BY: RAGMTC | |

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A-C MOTOR CONNECTION DIAGRAM

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