

BALDOR® • RELIANCE 

Product Information Packet

EM2514T-G

20HP,3510RPM,3PH,60HZ,254T,3928M,OPSB,F1

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | S | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 39WGX101 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 39E366 | Layout: | 39LYE366 | Poles: | 02 | Created Date: | 11-29-2011 |
| Base: | RG | Eff. Date: | 05-05-2021 | Leads: | 9#12 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM2514T-G | Heater Indicator: | No Heater |
| Enclosure: | OPSB | Insulation Class: | H |
| Frame: | 254T | Inverter Code: | Inverter Ready |
| Frame Material: | Steel | KVA Code: | G |
| Output @ Frequency: | 20.000 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 12 AWG |
| | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| XP Class and Group: | None | Motor Lead Termination: | Flying Leads |
| XP Division: | Not Applicable | Motor Type: | 3928M |
| Agency Approvals: | UR | Mounting Arrangement: | F1 |
| | CSA EEV | Power Factor: | 88 |
| | CSA | Product Family: | General Purpose |
| Auxillary Box: | No Auxillary Box | Pulley End Bearing Type: | Ball |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Pulley Shaft Indicator: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Rodent Screen: | None |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 23.500 A @ 460.0 V | Shaft Ground Indicator: | Shaft Grounding |
| | 47.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 51.000 A @ 208.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | A | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Direct on line |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Bearing: | None |
| Feedback Device: | NO FEEDBACK | Thermal Device - Winding: | None |
| Front Face Code: | Standard | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Shaft Indicator: | None | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| | | | | | | | | | | |
|----------------------------------|---------------------------|--|-------------|----|-----------------------|------|--|--------------|-----------|----|
| Nameplate NP3553LUA | | | | | | | | | | |
| CAT.NO. | EM2514T-G | | | | | | | | | |
| SPEC. | 39E366X101G1 | | | | | | | | | |
| HP | 20 | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | |
| AMPS | 47/23.5 | | | | | | | | | |
| RPM | 3510 | | | | | | | | | |
| FRAME | 254T | | | | HZ | 60 | | | PH | 3 |
| SF | 1.15 | | CODE | G | DES | A | | CLASS | H | |
| NEMA NOM. EFF | 91 | | PF | 88 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | |
| CC | 010A | | | | USABLE AT 208V | | | | | 51 |
| DE | 6309 | | | | ODE | 6208 | | | | |
| ENCL | OPSB | | SN | | | | | | | |
| VPWM INVERTER READY | | | | | | | | | | |
| CT30-60(2:1) VT3-60(20:1) | | | | | | | | | | |
| USABLE AT | 50HZ 20HP 190/380V 56/28A | | | | | | | | SF1.0 | |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA235026 | SA 39E366X101G1 | 1.000 EA |
| RA221990 | RA 39E366X101G1 | 1.000 EA |
| HA6361A01 | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC | 2.000 EA |
| HA6016 | ADAPTER, CAST CONDUIT BOX | 1.000 EA |
| 09CB3003 | CB W/1.75" DIA LD HL - 37, 39, 307 & 309 | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN | 1.000 EA |
| 39EP3200A01SP | FR/PU ENDPLATE, MACH | 1.000 EA |
| HW5100A08 | W3118-035 WVY WSHR (WB) | 1.000 EA |
| 39EP3201A22 | PU ENDPLATE, MACH | 1.000 EA |
| XY3816A12 | 3/8-16 FINISHED NUT | 8.000 EA |
| 10XN2520K28 | 1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| 09CB3501SP | CONDUIT BOX LID FOR 09CB3001 & 09CB3002 | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| HW2501G25 | KEY, 3/8 SQ X 2.875 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |
| LB1350 | BAR CODE LABEL FOR YORK | 1.000 EA |
| LD7020D09 | LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.030 LB |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.050 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| 39AD2002C01 | BAFFLE PLATE,"X" DIM=2.12 OPEN SLOT BAND | 1.000 EA |
| 39AD2002C01 | BAFFLE PLATE,"X" DIM=2.12 OPEN SLOT BAND | 1.000 EA |
| HA3154A09 | TB STUD 3/8-16 X 16.25 | 4.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0181 | CONNECTION LABEL | 1.000 EA |
| NP3553LUA | ALUM SUPER-E VPWM INVERTER READY UL | 1.000 EA |
| 39PA1000 | PACKAGING GROUP 39 PRINT | 1.000 EA |

AC Induction Motor Performance Data

Record # 36295

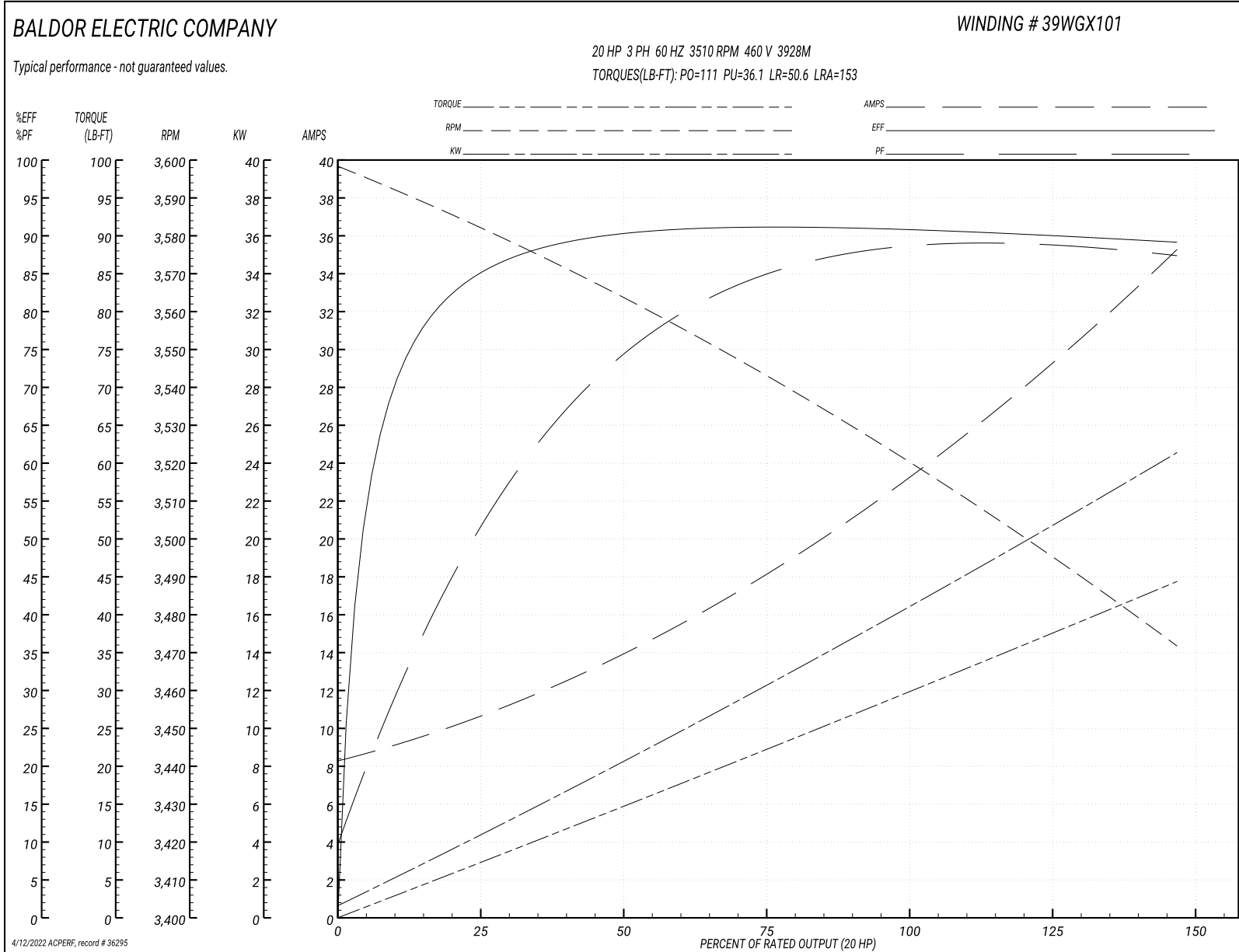
Typical performance - not guaranteed values

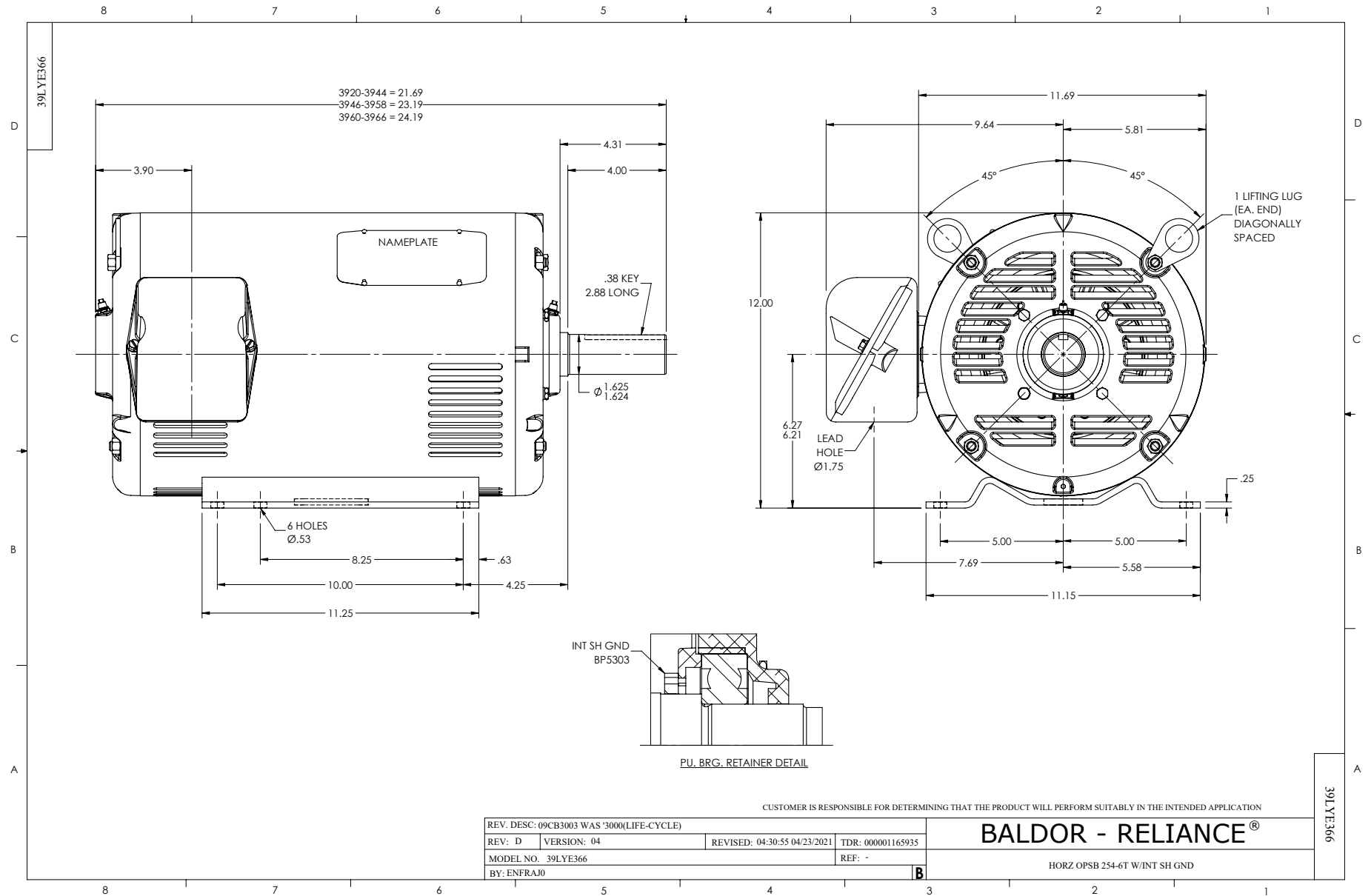
| Winding: 39WGX101-R010 | | | Type: 3928M | | | Enclosure: OPSB | | |
|------------------------|-----------------|----|---------------------------|--|--|-----------------|--|--|
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | | | | |
| Rated Output (HP) | 20 | | Full Load Torque | 29.6 LB-FT | | | | |
| Volts | 230/460 | | Start Configuration | direct on line | | | | |
| Full Load Amps | 47/23.5 | | Breakdown Torque | 111 LB-FT | | | | |
| R.P.M. | 3510 | | Pull-up Torque | 36.1 LB-FT | | | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 50.6 LB-FT | | | | |
| NEMA Design Code | B KVA Code | G | Starting Current | 153 A | | | | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 8.61 A | | | | |
| NEMA Nom. Eff. | 91 Power Factor | 88 | Line-line Res. @ 25°C | 0.512 Ω | | | | |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 44°C | | | | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 54°C | | | | |
| | | | Locked-rotor Power Factor | 30 | | | | |
| | | | Rotor inertia | 0.715 LB-FT ² | | | | |

Load Characteristics 460 V, 60 Hz, 20 HP

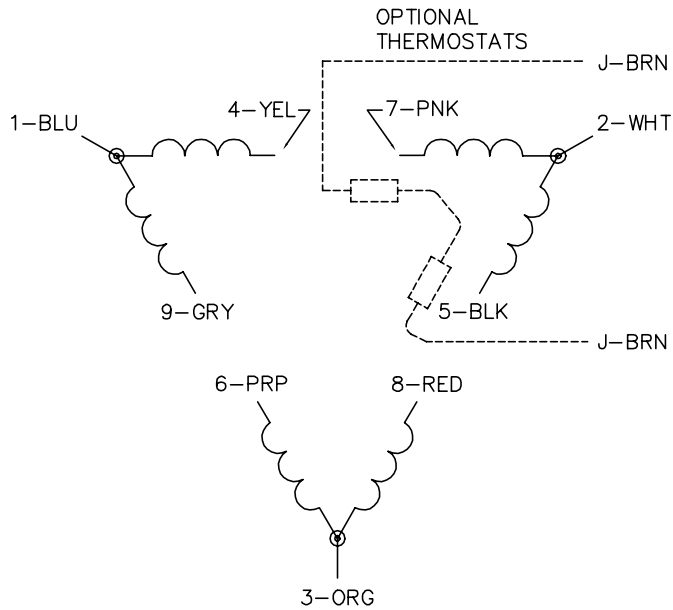
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|-------|
| Power Factor | 52 | 74 | 83 | 87 | 89 | 89 | 88 |
| Efficiency | 84.7 | 90.1 | 91.2 | 91 | 90.1 | 89.1 | 90.5 |
| Speed | 3581 | 3563 | 3544 | 3522 | 3496 | 3472 | 3506 |
| Line amperes | 10.2 | 13.9 | 18.1 | 23.3 | 29.1 | 35 | 26.78 |

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

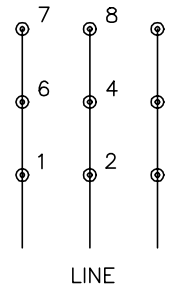




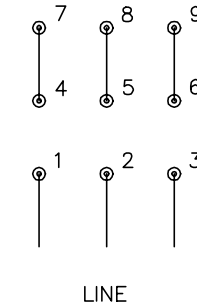
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

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|-----------------------------------|------------------------------|-------------------|
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| REV. LTR: D | VERSION: 01 | TDR: 000001099922 |
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3PH, DV, 9 LEADS, DELTA CONNECTION

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