

PRODUCT INFORMATION PACKET

Model No: 825415.00

Catalog No: 825415.00

Explosion Proof Motor, 50 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 365T Frame, EPFC



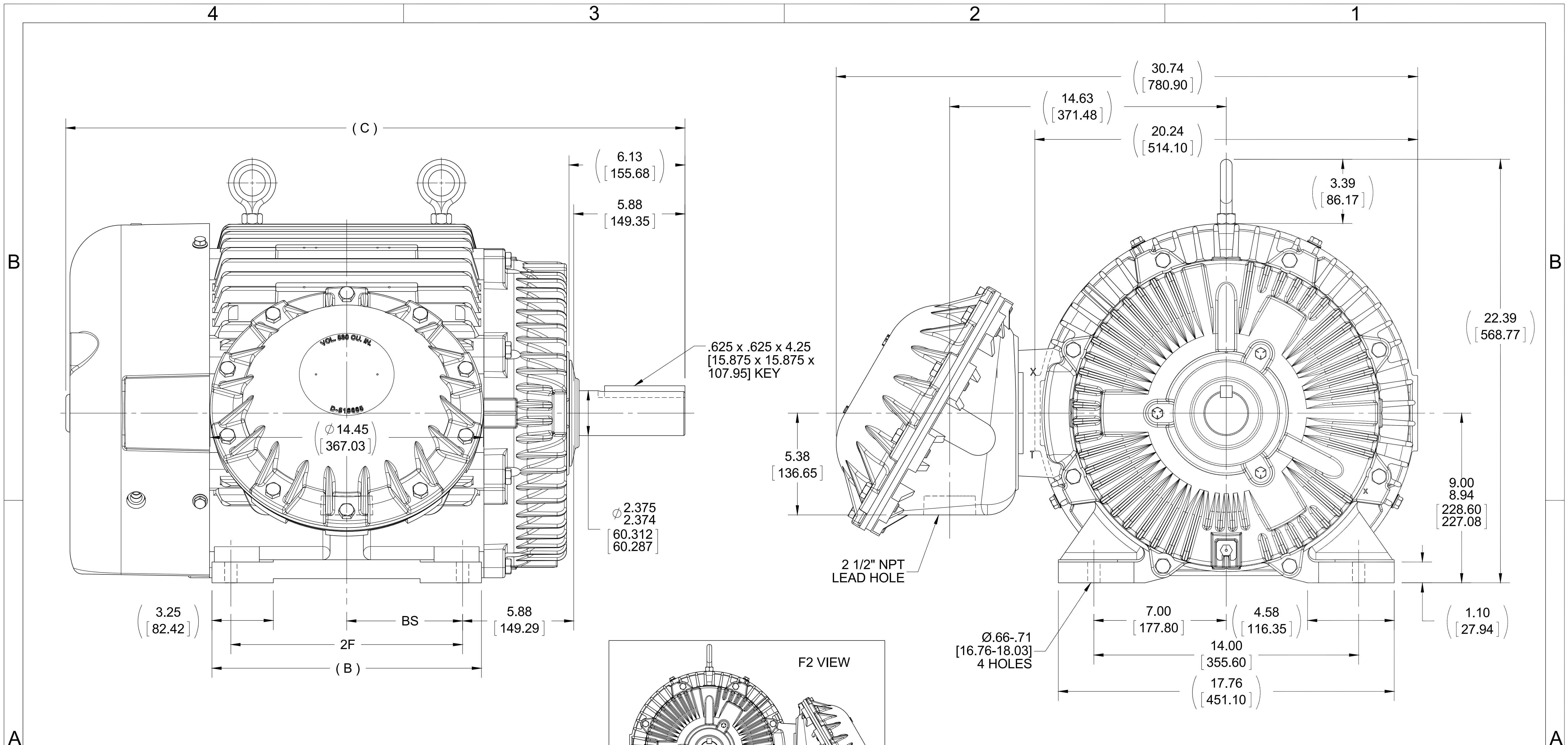
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Nameplate Specifications

| | | | |
|------------------------|---|----------------------------|-----------------------------------|
| Output HP | 50 Hp | Output KW | 37.0 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 123.0/61.5 A | Speed | 1182 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 94.5 % | Power Factor | 80.5 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Frame | 365T | Enclosure | Explosion Proof Fan cooled |
| Thermal Protection | Thermostat | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6314 | Opp Drive End Bearing Size | 6312 |
| UL | UL Listed And CSA Certified | CSA | Y |
| CE | N | IP Code | 54 |
| Hazardous Location | EXP PROOF CL I GR C&D CL II GR F&G T3B | Number of Speeds | 1 |

Technical Specifications

| | | | |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 6 | Rotation | Reversible |
| Resistance Main | .12 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 32.74 in |
| Frame Length | 14.50 in | Shaft Diameter | 2.375 in |
| Shaft Extension | 5.88 in | Assembly/Box Mounting | F1 ONLY |
| Connection Drawing | A-EE7308T | Outline Drawing | B-SS518459-1450 |



- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| DASH | FRAME | B | C | 2F | BS |
|------|-------|-------------------|-------------------|-------------------|------------------|
| 1350 | 364T | 13.25 [336.55] | 31.74 [806.20] | 11.25 [285.75] | 5.62 [142.75] |
| 1450 | 365T | 14.25 [361.95] | 32.74 [831.60] | 12.25 [311.15] | 6.12 [155.45] |

DRAWING REVISION G
 ECO ECO-0082089
 ECO DESCRIPTION
 UPDATED TO CURRENT STD'S
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TOLERANCES UNLESS OTHERWISE SPECIFIED:
 DEC. .X ±0.1 [±2.5] ANGLE ±7° 30"
 .XX ±0.03 [±0.76]
 .XXX ±0.005 [±0.127]
 .XXXX ±0.0005 [±0.0127]
 REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°
 CORNER FILLETS: R.02 [51]
 MACHINED SURFACES: 200 INCH/mm 5.1
 mm SHOWN IN [BRACKETS]

DRAWN BY TJB
 DATE 05-14-2001
 APPROVED BY GK
 DATE 09-07-2001
 REFERENCE
 THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.
 DESCRIPTION
OUTLINE
 360T FR. - EXP. PROOF
 MATERIAL PROCESS/FINISH
 SIZE B DRAWING NUMBER **SS518459** SHEET 1 OF 1

HIGH VOLTAGE



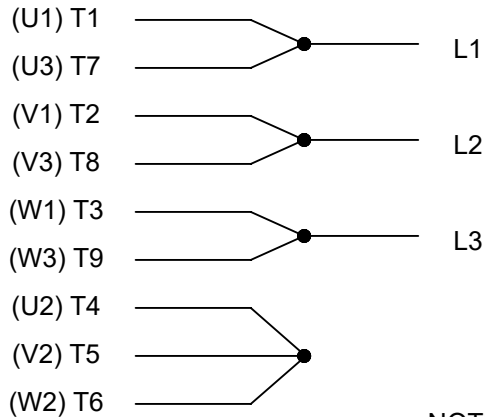
**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

| | | | | | |
|---|-------------------|--------------------|----------------------------|---------------------------|---|
| DRAWING REVISION T | REVISION BY ZR | DATE 01-14-2019 | | DRAWN BY SMC | Regal Beloit America, Inc. |
| ECO ECO-0159915 | APPROVED BY DR | DATE 01-15-2019 | | DATE 05-13-1992 | |
| ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM | | | | APPROVED BY TB | DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR |
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| | | | REFERENCE EE7308/EE7300 | THIRD ANGLE PROJECTION | SIZE A |

P.O. BOX 8003
 WAUSAU, WI 54401-8003
 PH. 715-675-3311



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM A-EE7308T
 OUTLINE: B-SS518459-1450
 WINDING: T367601

CAT #: 825415.00

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|----|----------|--------|-------|-----------|------|----------|--------|
| 50 | 37 | 1200 | 1182 | 365T | TEFC | TFS | G | BC |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|---------|----------|------------------|------|------|------|-----|-------|
| 3 | 60 | 230/460 | 123/61.5 | LINE OR INVERTER | CONT | F | 1.15 | 40 | 3300 |

| F.L. EFF | 94.5 | 3/4 LD EFF | 94.5 | 1/2 LD EFF | 94.1 | GTD EFF | 93.6 | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|------|-------------------|
| F.L. PF | 80.5 | 3/4 LD PF | 76.0 | 1/2 LD PF | 66.0 | | | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) |
|-------------|-----------------|----------------|----------------|----------------|
| 222 LB-FT | 362 | 445 LB-FT 200% | 625 LB-FT 282% | 70 |

| PRESSURE @ | POWER | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|------------|--------|-------------------------|---------------------------|-----------------|-------------|-----------|
| 58 dBA | 67 dBA | 17.2 LB-FT ² | 0 LB-FT ² | 25 SEC. | 0 | 1025 LB. |

***** SUPPLEMENTAL INFORMATION *****

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|-------------------------|------------|---------|--------------|
| STANDARD | STANDARD | RIGID | HORIZONTAL | UM SEVERE | DF CL I GR C&D CL II GF | NO | NONE | BLUE (EPOXY) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE | ODE | | | | | | |
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| 6314 | 6312 | | | | | | |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|--------------|------------|-----------|-----------|-------------|---------|---------------|
| TSTATS (N/C) | NOT | NONE | NONE | NONE | FALSE | NA |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.079 | 0.071 | 0.414 | 0.675 | 9.991 | 0.080 | ODE |

| | | |
|---------------------------------|--|--|
| * N O T E S * | INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED | |
| | ENCODER: NONE NONE NONE | |
| | NONE PPR | |
| | BRAKE: NONE NONE | |

| | |
|-----------------|---|
| DATE: 1/31/2018 | NONE NONE FT-LB: NA VOLTAGE: NONE HZ: |
| UL: NONE | |

Data Sheet

Date: 1/31/2018

825415.00



Data @ **460 V**

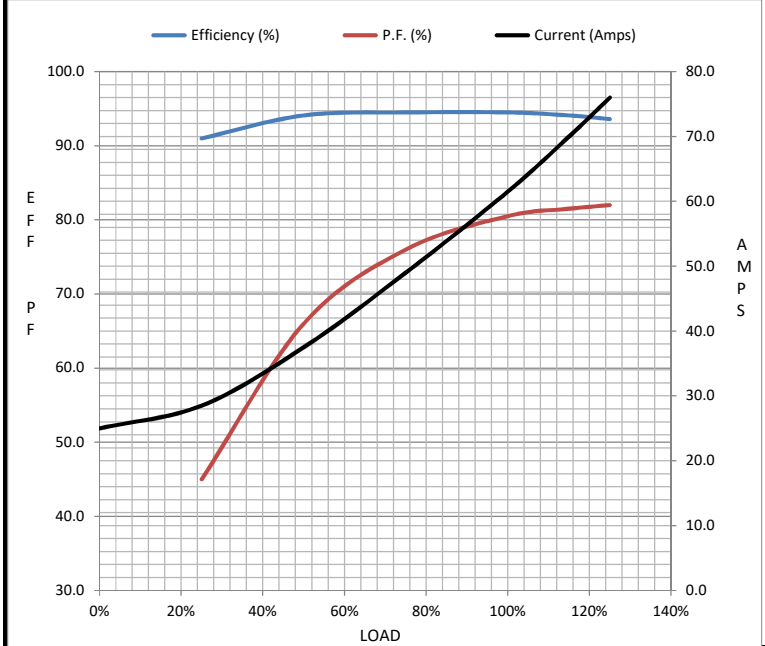
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 25.0 | 28.5 | 37.5 | 49.0 | 61.5 | 70.0 | 76.0 | 362 |
| Torque (ft-lb) | 0.00 | 55.0 | 110 | 166 | 222 | 256 | 280 | 445 |
| RPM | 1200 | 1195 | 1192 | 1188 | 1182 | 1,178 | 1175 | 0 |
| Efficiency (%) | | 91.0 | 94.1 | 94.5 | 94.5 | 94.1 | 93.6 | |
| P.F. (%) | 4.0 | 45.0 | 66.0 | 76.0 | 80.5 | 81.5 | 82.0 | 34.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 600 | 1125 | 1182 | 1200 |
| Current (Amps) | 362 | 325 | 225 | 61.5 | 25.0 |
| Torque (ft-lb) | 445 | 425 | 625 | 222 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 50.0 | | | |
| Sync. RPM | 1200 | | | |
| Frame | 365 | | | |
| Enclosure | TEFC | | | |
| Construction | TFS | | | |
| Voltage | 230/460 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 70 °C | | | |
| Duty | CONT | | | |
| Ambient | 40 °C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 17.2 Lb-Ft ² | | | |
| Ref Wdg | T367601 NONE | | | |
| Sound Pressure @ 1M | 58 dBA | | | |
| VFD Rating | CONSTANT 2:1 | | | |
| Outline Dwg | B-SS518459-1450 | | | |
| Conn. Diag | A-EE7308T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0790 | 0.0710 | 0.4140 | 0.6750 | 9.9910 |



Speed - Torque Curve

