

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 254THTL5726

Catalog No: Y549

Black Max® Inverter Duty Speed Ratio Motor, 15 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 254TC Frame,
TENV



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RegalRexnord

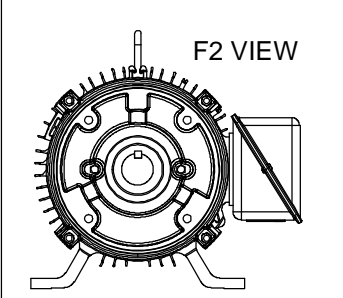
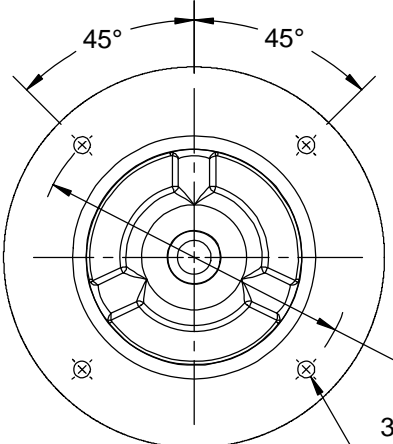
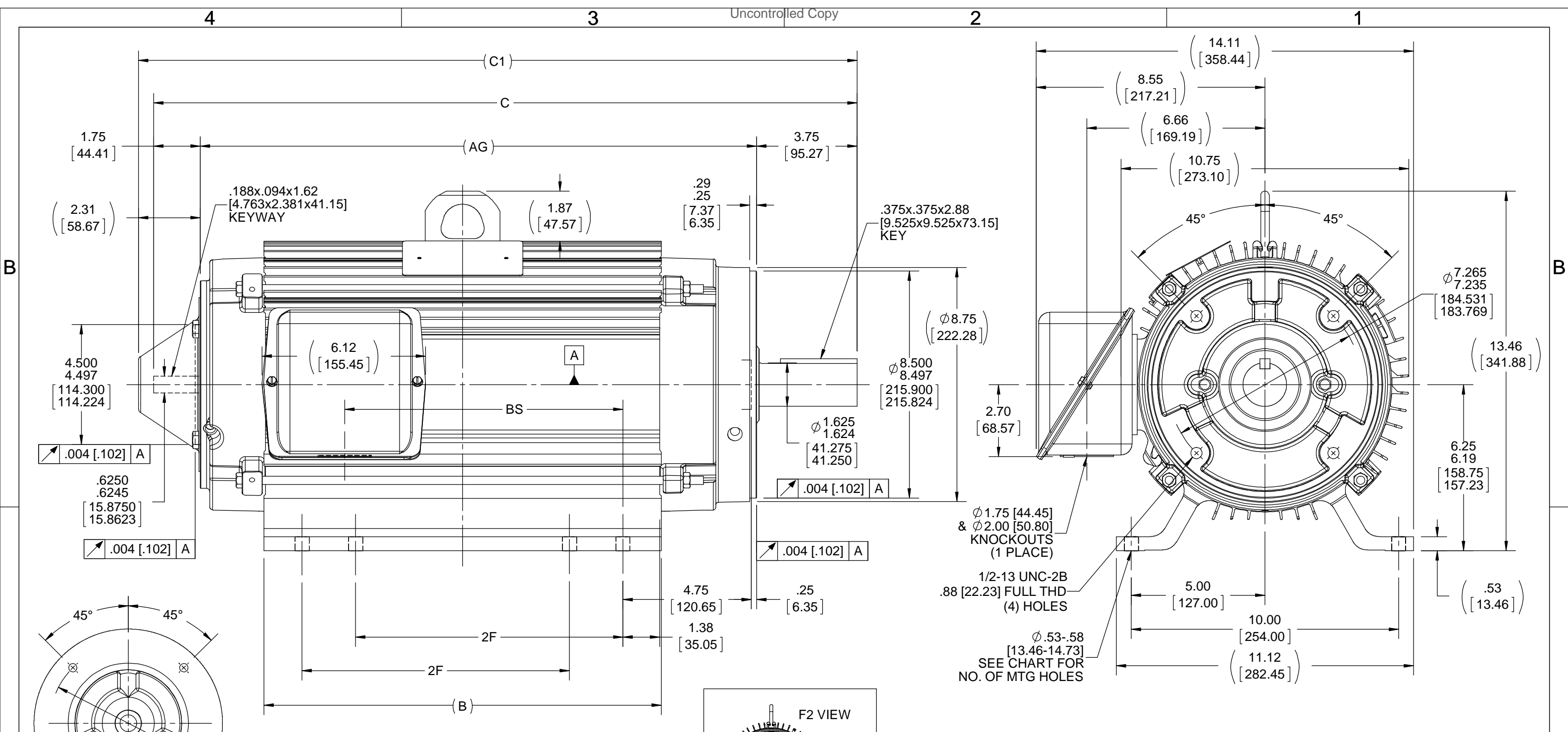
Nameplate Specifications

| | | | |
|------------------------|----------------------|----------------------------|--|
| Output HP | 15 Hp | Output KW | 11.2 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 40.0/20.0 A | Speed | 1765 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 91.7 % | Power Factor | 76 |
| Duty | Continuous | Insulation Class | H |
| Design Code | INV | KVA Code | K |
| Frame | 254TC | Enclosure | Totally Enclosed Non Ventilated |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6309 | Opp Drive End Bearing Size | 6206 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 43 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------------|-----------------------|------------------------|
| Electrical Type | Squirrel Cage Inverter Duty | Starting Method | Inverter Only |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .448 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Aluminum |
| Shaft Type | T | Overall Length | 26.87 in |
| Frame Length | 14.75 in | Shaft Diameter | 1.625 in |
| Shaft Extension | 3.75 in | Assembly/Box Mounting | F1/F2 Capable |
| Inverter Load | CONSTANT 1000:1 | | |
| Connection Drawing | A-EE7308T | Outline Drawing | B-SS330110-1475 |

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| | | | | | | | | | |
|------|-------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------|-----------|
| 1325 | 254 | 25.37 [644.44] | 24.81 [630.17] | 19.31 [490.50] | 13.37 [339.60] | 8.25 [209.55] | 8.90 [226.06] | YES | 8 |
| 1475 | 254 | 26.87 [682.54] | 26.31 [668.27] | 20.81 [528.60] | 14.87 [377.70] | 8.25 [209.55] | 10.40 [264.16] | YES | 8 |
| DASH | FRAME | C1 | C | AG | B | 2F | BS | F1/F2 | MTG HOLES |

FRONT END VIEW (SHAFT COVER REMOVED)

- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. SEE CHART FOR "F2" CAPABILITY. IF YES, BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATE READ FROM CONDUIT BOX SIDE OF MOTOR.

| | | |
|---|---------------------------|--------------------|
| DRAWING REVISION F | REVISION BY W. JOERGER | DATE 01-19-2018 |
| ECO ECO-0131008 | APPROVED BY E. HEIL | DATE 01-19-2018 |
| ECO DESCRIPTION REMOVED 256 FRAME DASH -1475 | | |
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

| DEC. | INCH | mm | ANGLE |
|-------|---------|-----------|---------|
| X | ±0.1 | [±2.5] | ±7° 30" |
| .XX | ±0.03 | [±0.76] | |
| .XXX | ±0.005 | [±0.127] | |
| .XXXX | ±0.0005 | [±0.0127] | |

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1

| |
|------------------------|
| DRAWN BY MJK |
| DATE 04-18-2005 |
| APPROVED BY CGD |
| DATE 08-18-2005 |
| REFERENCE |
| THIRD ANGLE PROJECTION |

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
210 FR. - 254 MTG - ALUMINUM FRAME

MATERIAL
SS330110

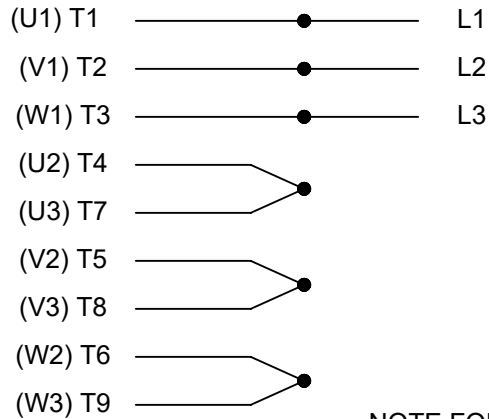
PROCESS/FINISH

SIZE
B

DRAWING NUMBER
SS330110

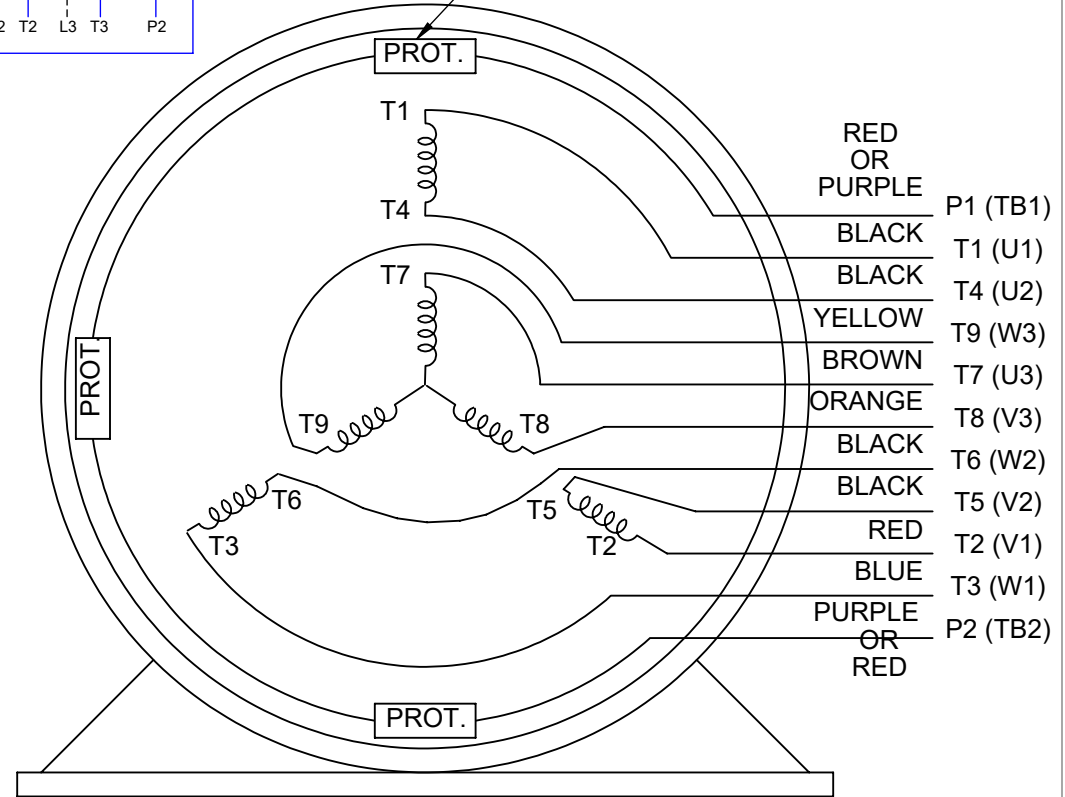
SHEET
1 OF 1

HIGH VOLTAGE



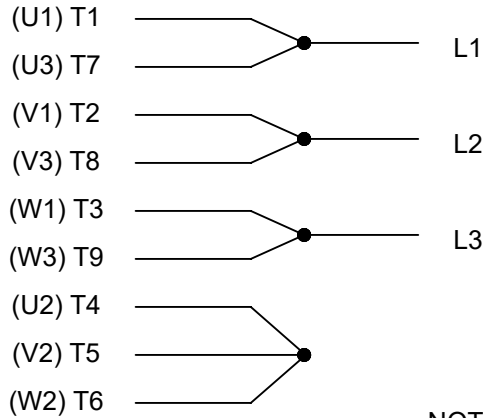
**THREE PHASE
DUAL VOLTAGE MOTOR**

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 | SIZE A | DRAWING NUMBER EE7308T |

CERTIFICATION DATA SHEET

Model#: 254HTL5726 FH WINDING#: K2154371 NONE 1
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS330110-1475

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN | | | | |
|------------------------|-------------|--------------------|-----------|-------------------|--------------|-------------------|--------|------------------|-----------|--------------|--|
| 15 | 11.2 | 1800 | 1765 | 254TC | TENV | K | INV | | | | |
| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION | | |
| 3 | 60 | 230/460 | 40/20 | INVERTER ONLY | CONTINUOUS | H4 | 1.0 | 40 | 3300 | | |
| FULL LOAD EFF: 91.7 | | 3/4 LOAD EFF: 91.8 | | 1/2 LOAD EFF: 90 | | GTD. EFF | | ELEC. TYPE | | NO LOAD AMPS | |
| FULL LOAD PF: 76 | | 3/4 LOAD PF: 70 | | 1/2 LOAD PF: 56.4 | | 91 | | SQ CAGE INV DUTY | | 22 / 11 | |
| F.L. TORQUE | | LOCKED ROTOR AMPS | | L.R. TORQUE | | B.D. TORQUE | | F.L. RISE°C | | | |
| 44.6 LB-FT | | 310 / 155 | | 140 LB-FT 314 | | 170 LB-FT 381 | | 105 | | | |
| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT | | | | | |
| 62 dBA | 72 dBA | 1.6 LB-FT^2 | 0 LB-FT^2 | 0 SEC. | 0 | 229 LBS. | | | | | |

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

| R1 | R2 | X1 | X2 | XM |
|---------|---------|---------|--------|---------|
| 0.31374 | 0.31563 | 1.04706 | 1.5687 | 22.1508 |
| RM | ZREF | XR | TD | TD0 |
| 2079 | 18.9 | 4 | 0.0115 | 0.2 |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------|-------------|--------------------|------------|---------|----------------|
| C-FACE | BRAKE OR ENCODER | RIGID | HORIZONTAL | FALSE | NONE | FALSE | NONE | BLACK (ENAMEL) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE | OPE | | | | | | |
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | ALUMINUM |
| 6309 | 6206 | | | | | | |

| THERMO-PROTECTORS | | | | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS | PROTECTORS | WDG RTDs | BRG RTDs | | | |
| TSTATS (N/C) | NOT | NONE | NONE | NONE | FALSE | NONE VOLTS |

If Inverter equals NONE, contact factory for further information

| |
|---------------------------------------|
| INVERTER TORQUE: CONSTANT 1000:1 |
| INV. HP SPEED RANGE: 2.0 X BASE SPEED |
| ENCODER: PROVISIONS ONLY |
| NORTHSTAR ST56 |
| NONE NONE PPR |
| BRAKE: PROVISIONS ONLY NONE |
| NONE P/N NONE |

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| | | | |
|------------|--------|---------|--|
| NONE | NONE | | |
| NONE FT-LB | NONE V | NONE Hz | |

DATE: 06/23/2017 01:53:21 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



254THTL5726

Submittal

Data @ 460 V

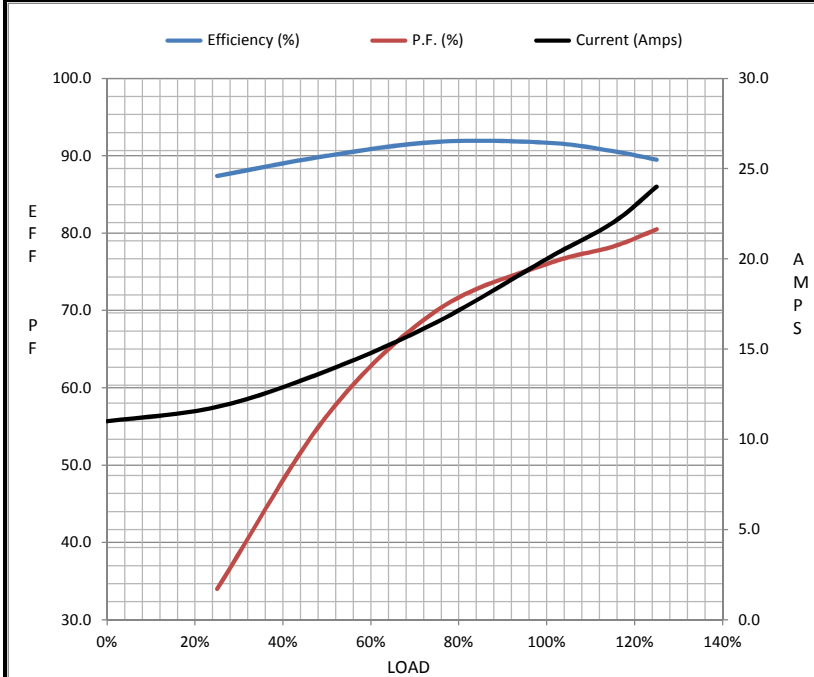
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 11.0 | 11.8 | 13.8 | 16.5 | 20.0 | 22.0 | 24.0 | 155 |
| Torque (ft-lb) | 0.00 | 11.0 | 22.0 | 33.5 | 44.6 | 48.1 | 51.5 | 140 |
| RPM | 1800 | 1790 | 1785 | 1775 | 1765 | 1,761 | 1755 | 0 |
| Efficiency (%) | | 87.4 | 90.0 | 91.8 | 91.7 | 90.6 | 89.5 | |
| P.F. (%) | 5.7 | 34.0 | 56.4 | 70.0 | 76.0 | 78.3 | 80.5 | 43.5 |

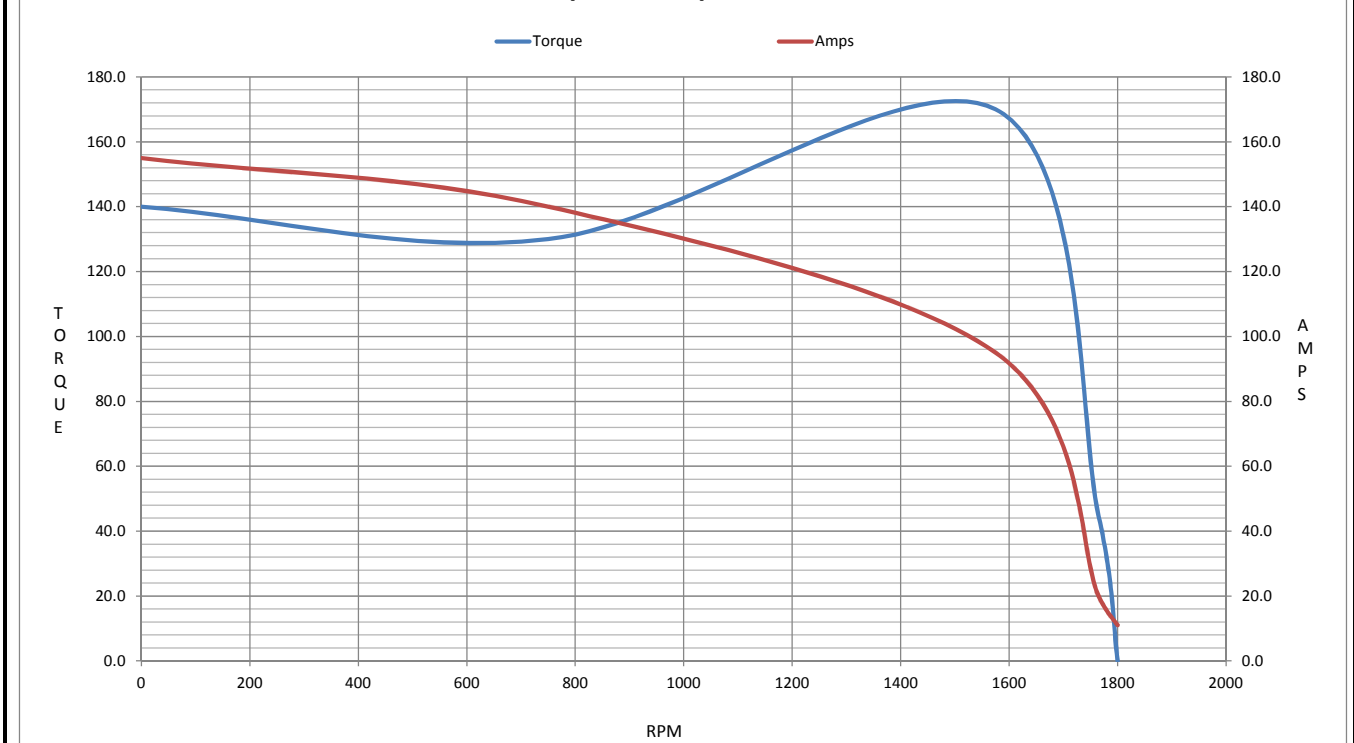
Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 750 | 1575 | 1765 | 1800 |
| Current (Amps) | 155 | 140 | 95.0 | 20.0 | 11.0 |
| Torque (ft-lb) | 140 | 130 | 170 | 44.6 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|---------|
| HP | 15.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 254 | | | |
| Enclosure | TENV | | | |
| Construction | TTL | | | |
| Voltage | 230/460 V | | | |
| Frequency | 60 Hz | | | |
| Design | A | | | |
| LR Code letter | K | | | |
| Service Factor | 1.0 | | | |
| Temp Rise @ FL | 105 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 1.60 Lb-Ft ² | | | |
| Ref Wdg | K2154371 NONE | | | |
| Sound Pressure @ 1M | 62 dBA | | | |
| VFD Rating | CONSTANT 1000:1 | | | |
| Outline Dwg | B-SS330110-1475 | | | |
| Conn. Diag | A-EE7308T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.3140 | 0.3160 | 1.0470 | 1.5690 | 22.1510 |



Speed - Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 254THTL5726

(Model No. may contain prefix and/or suffix characters)

Catalog No : Y549

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22