

# PRODUCT INFORMATION PACKET

Model No: 213THTL7726

Catalog No: Y545

Black Max® Inverter Duty Speed Ratio Motor, 7.50 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 213TC Frame,  
TENV



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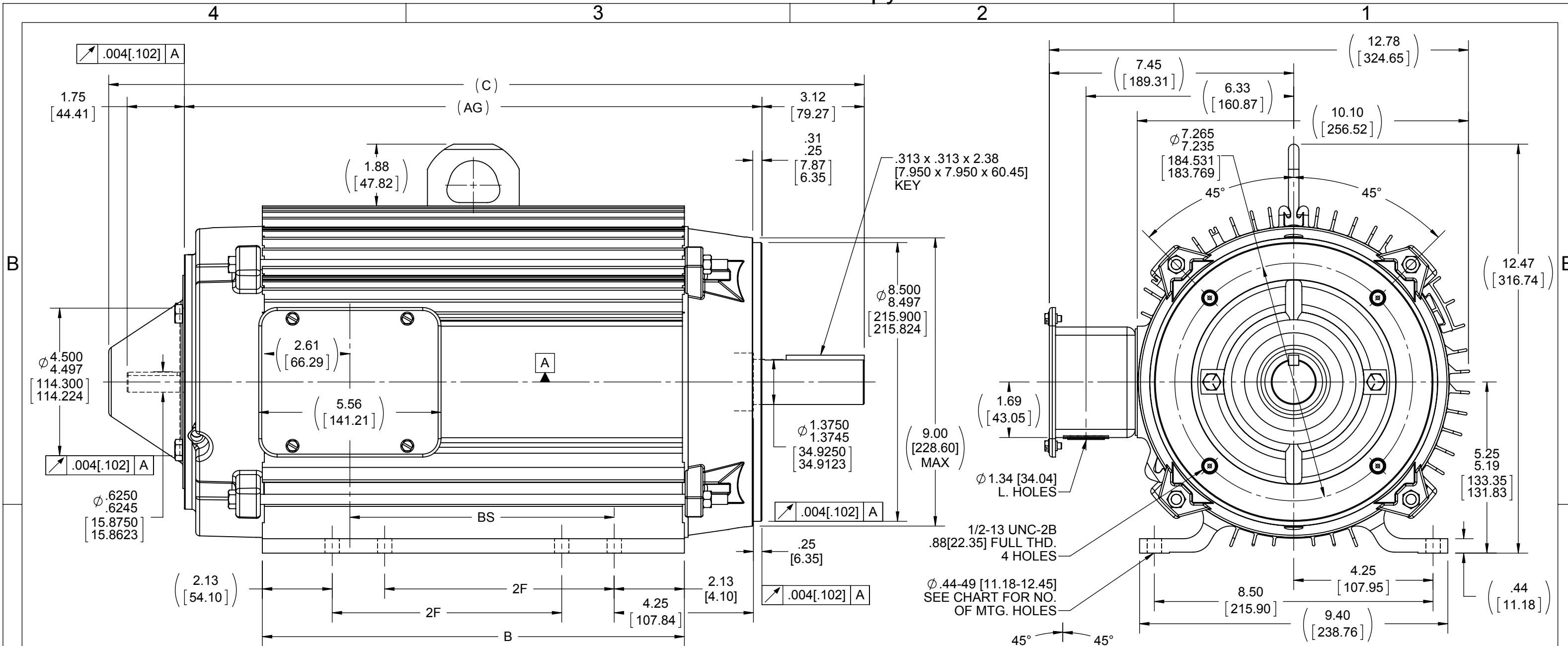
### Nameplate Specifications

|                        |                    |                            |  |
|------------------------|--------------------|----------------------------|--|
| Output HP              | <b>7.50 Hp</b>     | Output KW                  | <b>5.6 kW</b>                          |
| Frequency              | <b>60 Hz</b>       | Voltage                    | <b>230/460 V</b>                       |
| Current                | <b>21.0/10.5 A</b> | Speed                      | <b>1765 rpm</b>                        |
| Service Factor         | <b>1</b>           | Phase                      | <b>3</b>                               |
| Efficiency             | <b>90.2 %</b>      | Power Factor               | <b>76</b>                              |
| Duty                   | <b>Continuous</b>  | Insulation Class           | <b>F</b>                               |
| Design Code            | <b>INV</b>         | KVA Code                   | <b>L</b>                               |
| Frame                  | <b>213TC</b>       | Enclosure                  | <b>Totally Enclosed Non Ventilated</b> |
| Thermal Protection     | <b>Thermostat</b>  | Ambient Temperature        | <b>40 °C</b>                           |
| Drive End Bearing Size | <b>6309</b>        | Opp Drive End Bearing Size | <b>6206</b>                            |
| UL                     | <b>Recognized</b>  | CSA                        | <b>Y</b>                               |
| CE                     | <b>Y</b>           | IP Code                    | <b>43</b>                              |
| Number of Speeds       | <b>1</b>           |                            |  |

### Technical Specifications

|                       |                                    |                       |                      |
|-----------------------|------------------------------------|-----------------------|----------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Duty</b> | Starting Method       | <b>Inverter Only</b> |
| Poles                 | <b>4</b>                           | Rotation              | <b>Reversible</b>    |
| Resistance Main       | <b>1.02 Ohms</b>                   | Mounting              | <b>Rigid Base</b>    |
| Motor Orientation     | <b>Horizontal</b>                  | Drive End Bearing     | <b>Ball</b>          |
| Opp Drive End Bearing | <b>Ball</b>                        | Frame Material        | <b>Aluminum</b>      |
| Shaft Type            | <b>T</b>                           | Overall Length        | <b>20.54 in</b>      |
| Frame Length          | <b>10.25 in</b>                    | Shaft Diameter        | <b>1.375 in</b>      |
| Shaft Extension       | <b>3.12 in</b>                     | Assembly/Box Mounting | <b>F1/F2 CAPABLE</b> |
| Inverter Load         | <b>CONSTANT 1000:1</b>             |                       |                      |
| Outline Drawing       | <b>B-SS330105-1025</b>             | Connection Drawing    | <b>A-EE7308T</b>     |

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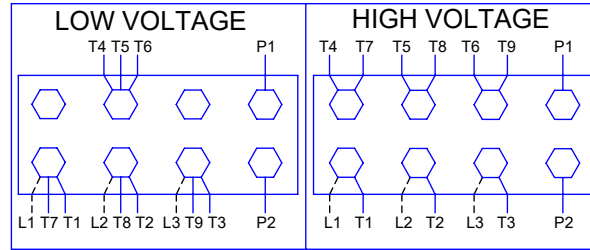
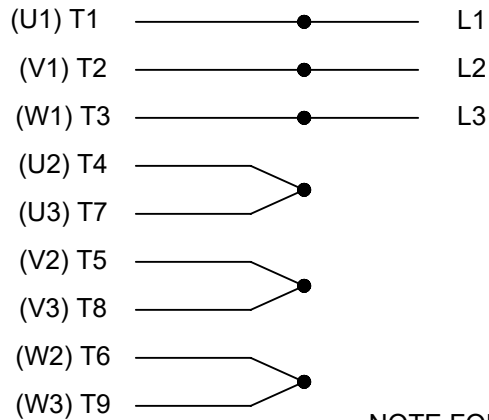


| DASH | FR.         | B                 | C                 | 2F                           | AG                | BS               | F2 CAP. | # HOLES |
|------|-------------|-------------------|-------------------|------------------------------|-------------------|------------------|---------|---------|
| 875  | 213         | 8.87<br>[225.30]  | 19.04<br>[483.62] | 5.50<br>[139.70]             | 13.61<br>[345.69] | 4.05<br>[102.87] | YES     | 8       |
| 950  | 213         | 9.62<br>[244.35]  | 19.79<br>[502.67] | 5.50<br>[139.70]             | 14.36<br>[364.74] | 4.80<br>[121.92] | NO      | 4       |
| 1025 | 213         | 10.37<br>[263.40] | 20.54<br>[521.72] | 5.50<br>[139.70]             | 15.11<br>[383.79] | 5.55<br>[140.97] | YES     | 8       |
| 1025 | 215         | 10.37<br>[263.40] | 20.54<br>[521.72] | 7.00<br>[177.80]             | 15.11<br>[383.79] | 5.55<br>[140.97] | YES     | 8       |
| 1115 | 213/<br>215 | 11.27<br>[286.26] | 21.44<br>[544.58] | 5.50[139.70]<br>7.00[177.80] | 16.01<br>[406.65] | 6.45<br>[163.83] | YES     | 8       |
| 1175 | 213         | 11.87<br>[301.50] | 22.04<br>[559.82] | 5.50<br>[139.70]             | 16.61<br>[421.89] | 7.05<br>[179.07] | YES     | 8       |
| 1175 | 215         | 11.87<br>[301.50] | 22.04<br>[559.82] | 7.00<br>[177.80]             | 16.61<br>[421.89] | 7.05<br>[179.07] | NO      | 4       |
| 1275 | 213         | 12.87<br>[326.90] | 23.04<br>[585.22] | 5.50<br>[139.70]             | 17.61<br>[447.29] | 8.05<br>[204.47] | YES     | 8       |
| 1275 | 215         | 12.87<br>[326.90] | 23.04<br>[585.22] | 7.00<br>[177.80]             | 17.61<br>[447.29] | 8.05<br>[204.47] | YES     | 8       |

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

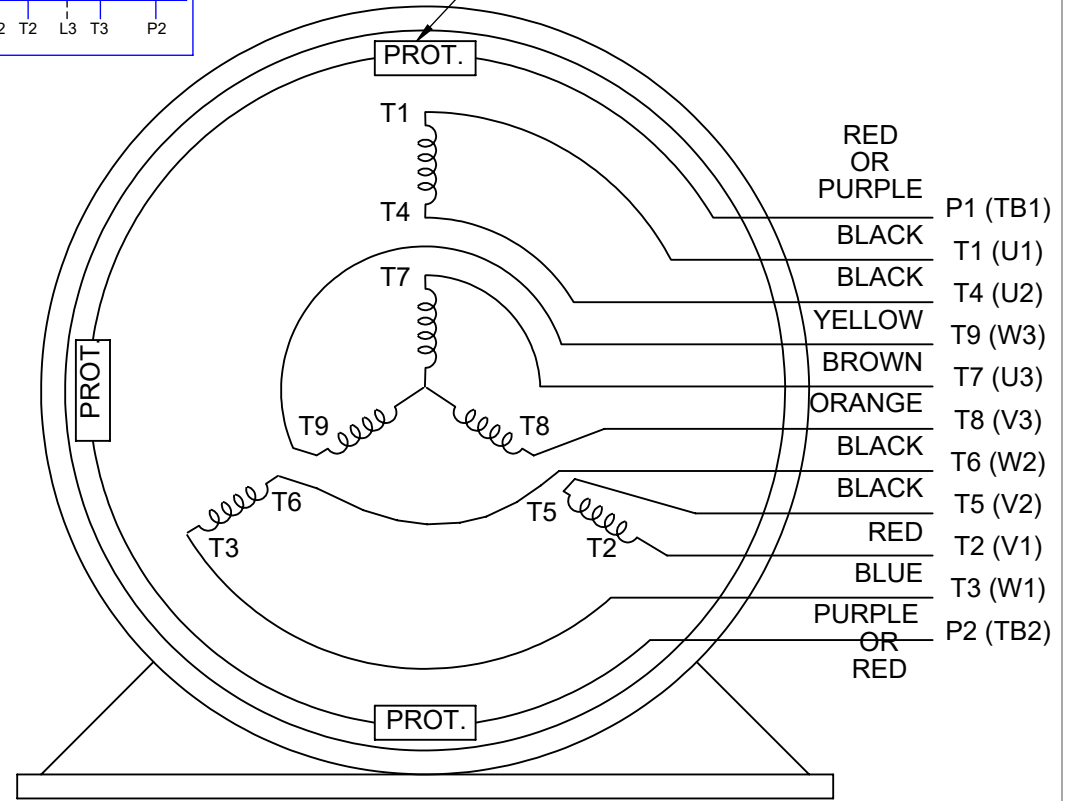
|   |                    |                    |  |                        |   |
|---|--------------------|--------------------|--|------------------------|---|
| DRAWING REVISION<br>A   | REVISION BY<br>JWO | DATE<br>09-29-2014 | TOLERANCES UNLESS OTHERWISE SPECIFIED:<br>DEC. INCH mm ANGLE<br>.X ±0.1 [±2.5] ±7° 30"<br>.XX ±0.03 [±0.76]<br>.XXX ±0.005 [±0.127]<br>.XXXX ±0.0005 [±0.0127] | DRAWN BY<br>MKLEIST    | Regal Beloit America, Inc.  |
| ECO<br>ECO-0060878  | APPROVED BY<br>TB  | DATE<br>09-30-2014 | REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381]<br>CORNER FILLETS: .02 [0.51]<br>MACHINED SURFACES: 200 INCH mm 5.1<br>mm SHOWN IN [BRACKETS]         | DATE<br>02-22-2005     |   |
| ECO DESCRIPTION<br>MU118296, NMR-0067007<br>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.<br>PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS. |                    |                    |  | APPROVED BY<br>CDG     | DESCRIPTION<br><b>OUTLINE</b><br>210 FR. - ALUMINUM FRAME - TENV - DBL. C' FACE |
|   |                    |                    |  | DATE<br>09-29-2005     | MATERIAL<br>PROCESS/FINISH  |
|   |                    |                    |  | THIRD ANGLE PROJECTION | SIZE<br>DRAWING NUMBER<br><b>B</b> <b>SS330105</b>                              |
|   |                    |                    |  |                        | SHEET<br>1 OF 1   |

**HIGH VOLTAGE**



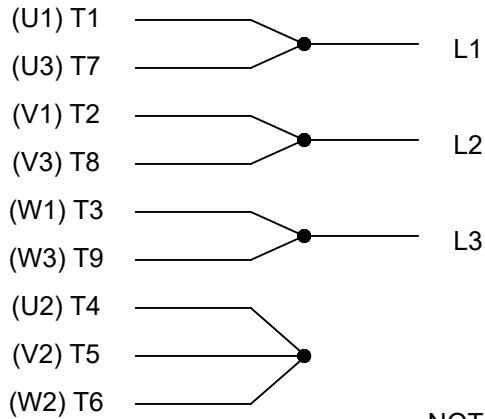
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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

CERTIFICATION DATA SHEET

Model#: 213THTL7726 CE WINDING#: K2134177 NONE 1  
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE  
 OUTLINE: B-SS330105-1025

TYPICAL MOTOR PERFORMANCE DATA

|                        |                    |                    |                |                 |                  |                   |        |       |           |
|------------------------|--------------------|--------------------|----------------|-----------------|------------------|-------------------|--------|-------|-----------|
| HP                     | KW                 | SYNC. RPM          | F.L. RPM       | FRAME           | ENCLOSURE        | KVA CODE          | DESIGN |       |           |
| 7 1/2                  | 5,60               | 1800               | 1765           | 213TC           | TENV             | L                 | INV    |       |           |
| PH                     | Hz                 | VOLTS              | FL AMPS        | START TYPE      | DUTY             | INSL              | S.F    | AMB°C | ELEVATION |
| 3                      | 60                 | 230/460            | 21/10.5        | INVERTER ONLY   | CONTINUOUS       | F3                | 1.0    | 40    | 3300      |
| FULL LOAD EFF: 90.2    | 3/4 LOAD EFF: 89.5 | 1/2 LOAD EFF: 87.5 | GTD. EFF       |                 | ELEC. TYPE       | NO LOAD AMPS      |        |       |           |
| FULL LOAD PF: 76       | 3/4 LOAD PF: 69    | 1/2 LOAD PF: 56.5  | 88.5           |                 | SQ CAGE INV DUTY | 11 / 5.5          |        |       |           |
| F.L. TORQUE            | LOCKED ROTOR AMPS  | L.R. TORQUE        | B.D. TORQUE    |                 | F.L. RISE°C      |                   |        |       |           |
| 22.3 LB-FT             | 180 / 90           | 59.5 LB-FT 267     | 95.5 LB-FT 428 |                 | 80               |                   |        |       |           |
| SOUND PRESSURE @ 3 FT. | SOUND POWER        | ROTOR WK^2         | MAX. WK^2      | SAFE STALL TIME | STARTS /HOUR     | APPROX. MOTOR WGT |        |       |           |
| 62 dBA                 | 72 dBA             | 0.9 LB-FT^2        | 0 LB-FT^2      | 0 SEC.          | 0                | 135 LBS.          |        |       |           |

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

|        |       |         |         |        |
|--------|-------|---------|---------|--------|
| R1     | R2    | X1      | X2      | XM     |
| 0.6993 | 0.567 | 1.76526 | 2.26044 | 38.178 |
| RM     | ZREF  | XR      | TD      | TD0    |
| 1946.7 | 37.8  | 3.2     | 0.0108  | 0.189  |

\*\*\* 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  | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | ALUMINUM       |
| BALL     | BALL |            |            |            |             |                         |                |
| 6309     | 6206 |            |            |            |             |                         |                |

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

If Inverter equals NONE, contact factory for further information

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

\*  
N  
O  
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\*

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

DATE: 06/22/2017 04:03:46 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 16-06-2017

213THTL726

Customer: \_\_\_\_\_



Attention: \_\_\_\_\_

Submittal

Submitted by: FAREEDA DUDEKULA

Data @ 460 V

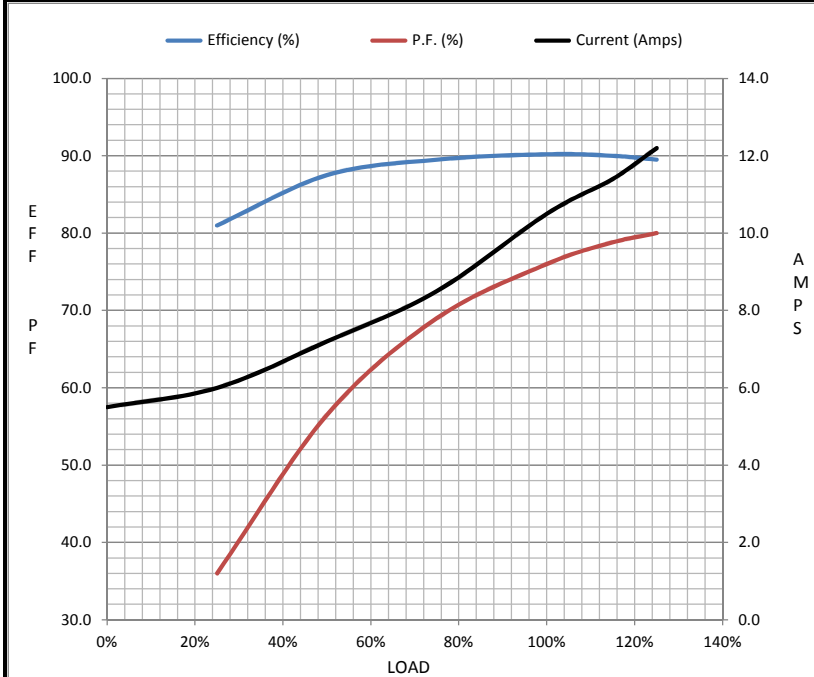
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 5.5  | 6.0  | 7.2  | 8.5  | 10.5 | 11.4  | 12.2 | 90.0 |
| Torque (ft-lb) | 0.00 | 5.5  | 11.0 | 16.8 | 22.3 | 25.7  | 28.0 | 59.5 |
| RPM            | 1800 | 1792 | 1782 | 1772 | 1765 | 1,760 | 1755 | 0    |
| Efficiency (%) |      | 81.0 | 87.5 | 89.5 | 90.2 | 90.0  | 89.5 |      |
| P.F. (%)       | 6.5  | 36.0 | 56.5 | 69.0 | 76.0 | 78.8  | 80.0 | 41.5 |

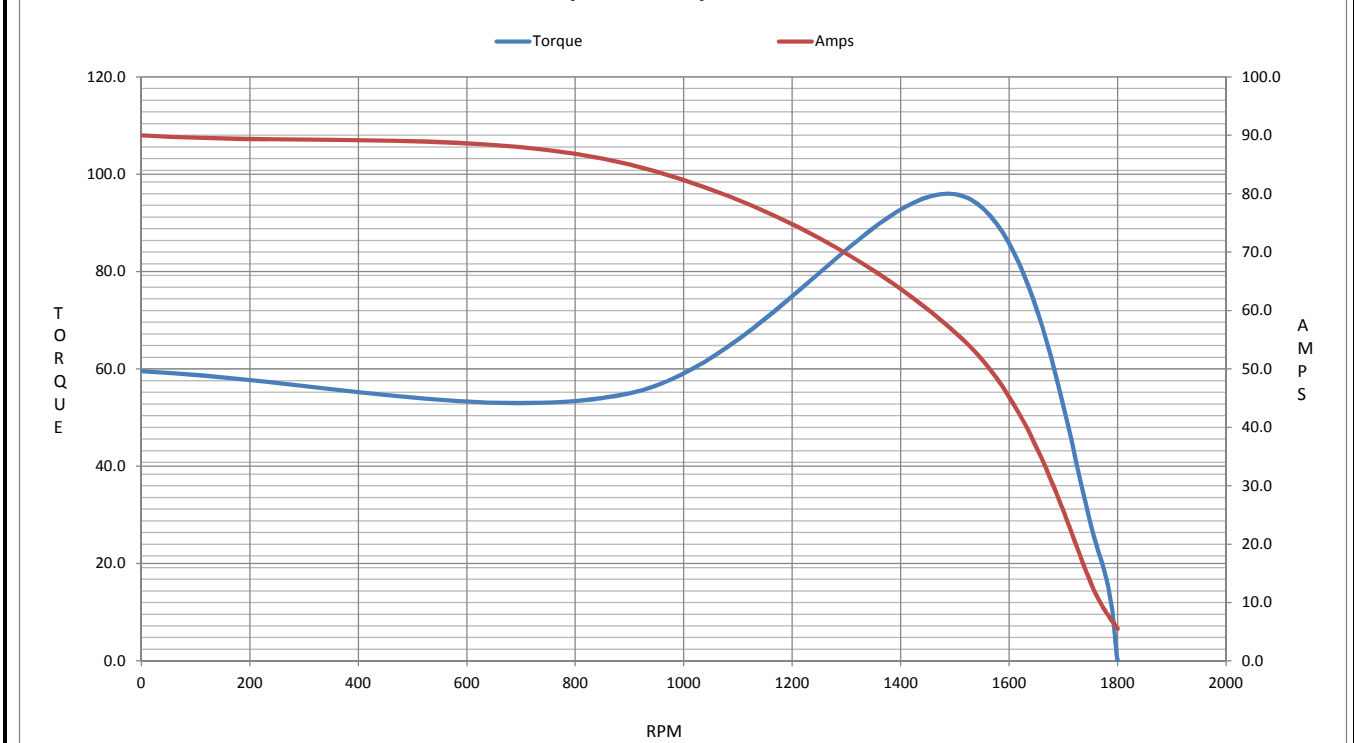
Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 900     | 1515 | 1765  | 1800 |
| Current (Amps) | 90.0 | 85.0    | 55.0 | 10.5  | 5.5  |
| Torque (ft-lb) | 59.5 | 55.0    | 95.5 | 22.3  | 0.00 |

| Information Block           |                         |        |        |         |
|-----------------------------|-------------------------|--------|--------|---------|
| HP                          | 7.5                     |        |        |         |
| Sync. RPM                   | 1800                    |        |        |         |
| Frame                       | 213                     |        |        |         |
| Enclosure                   | TENV                    |        |        |         |
| Construction                | TTL                     |        |        |         |
| Voltage                     | 230/460 V               |        |        |         |
| Frequency                   | 60 Hz                   |        |        |         |
| Design                      | A                       |        |        |         |
| LR Code letter              | L                       |        |        |         |
| Service Factor              | 1.15                    |        |        |         |
| Temp Rise @ FL              | 80 °C                   |        |        |         |
| Duty                        | CONT                    |        |        |         |
| Ambient                     | 40 °C                   |        |        |         |
| Elevation                   | 1,000 feet              |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 0.90 Lb-Ft <sup>2</sup> |        |        |         |
| Ref Wdg                     | K2134177 NONE           |        |        |         |
| Sound Pressure @ 1M         | 62 dBA                  |        |        |         |
| VFD Rating                  | CONSTANT 1000:1         |        |        |         |
| Outline Dwg                 | B-SS330105-1025         |        |        |         |
| Conn. Diag                  | A-EE7308T               |        |        |         |
| Additional Specifications:  |                         |        |        |         |
| 0                           |                         |        |        |         |
| 365THFS8036                 |                         |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |         |
| R1                          | R2                      | X1     | X2     | Xm      |
| 0.6990                      | 0.5670                  | 1.7650 | 2.2600 | 38.1780 |



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 : 213THTL7726

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

Catalog No : Y545

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**