

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: TCA0373AP211GAA009

Catalog No: R450

Cast Iron Motor, 50 HP, 3 Ph, 60 Hz, 575 V, 1200 RPM, 250M Frame, TEFC



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RegalRexnord

Nameplate Specifications

| | | | |
|------------------------|---------------|----------------------------|-----------------------------|
| Output HP | 50 Hp | Output KW | 37.0 kW |
| Frequency | 60 Hz | Voltage | 575 V |
| Current | 49.5 A | Speed | 1190 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 94.1 % | Power Factor | 80 |
| Duty | Continuous | Insulation Class | F |
| Design Code | N (IEC) | KVA Code | J |
| Frame | 250M | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6314 | Opp Drive End Bearing Size | 6314 |
| UL | Recognized | CSA | N |
| CE | Y | IP Code | 55 |
| Number of Speeds | 1 | Efficiency Class | IE3 |

Technical Specifications

| | | | |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 6 | Rotation | Reversible |
| Resistance Main | .14 Ohms | Mounting | B3 |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | IEC | Overall Length | 37.05 in |
| Frame Length | 18.11 in | Shaft Diameter | 2.560 in |
| Shaft Extension | 5.51 in | Assembly/Box Mounting | F3 |
| Inverter Load | CONSTANT 2:1/VARIABLE 10:1 | | |
| Outline Drawing | SS557724 | Connection Drawing | 8442000685 |

4

3

Uncontrolled Copy

2

1

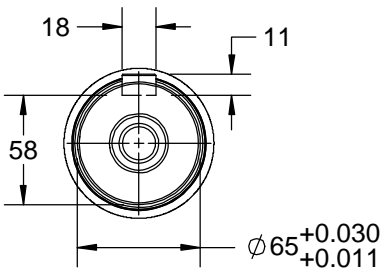
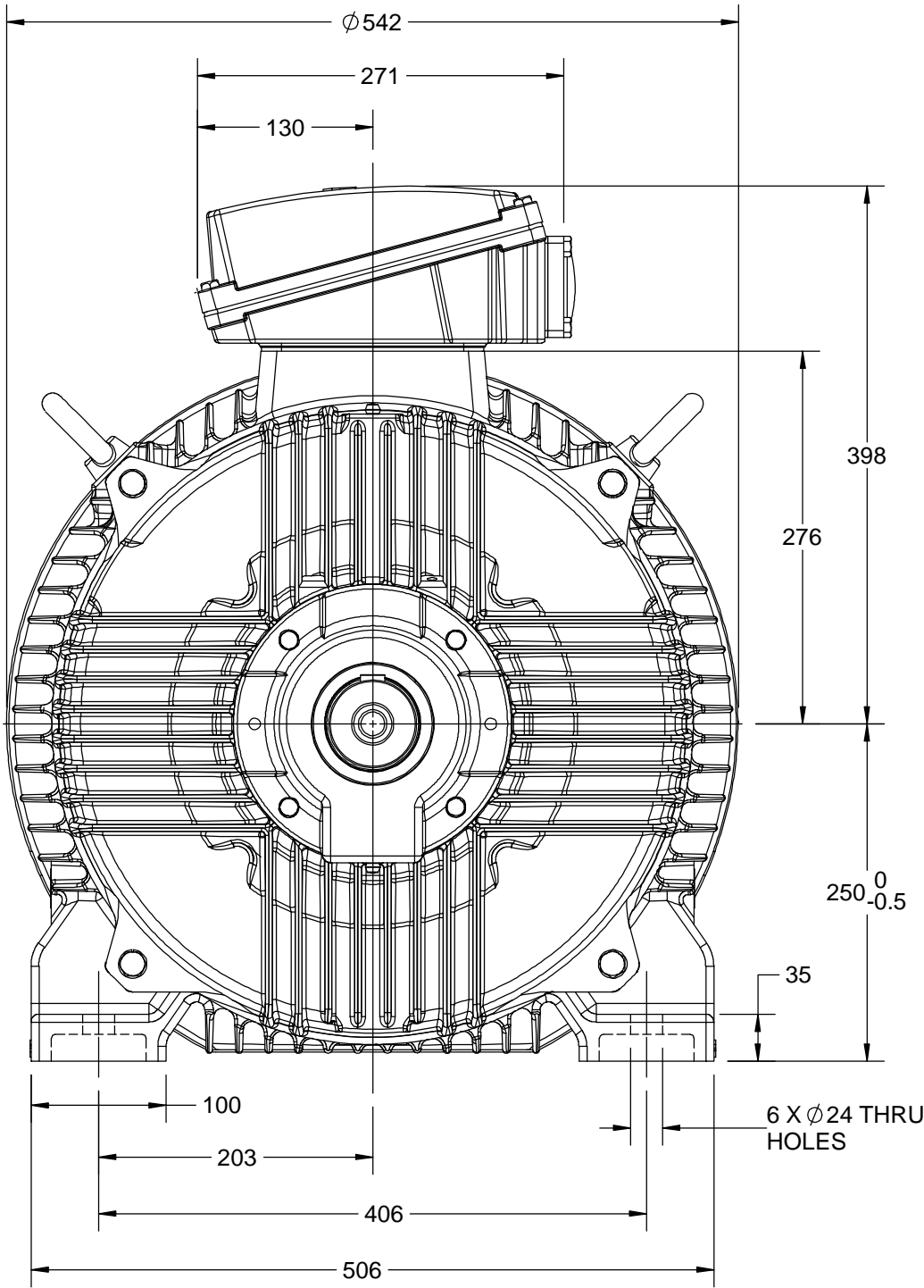
OUTLINE

B

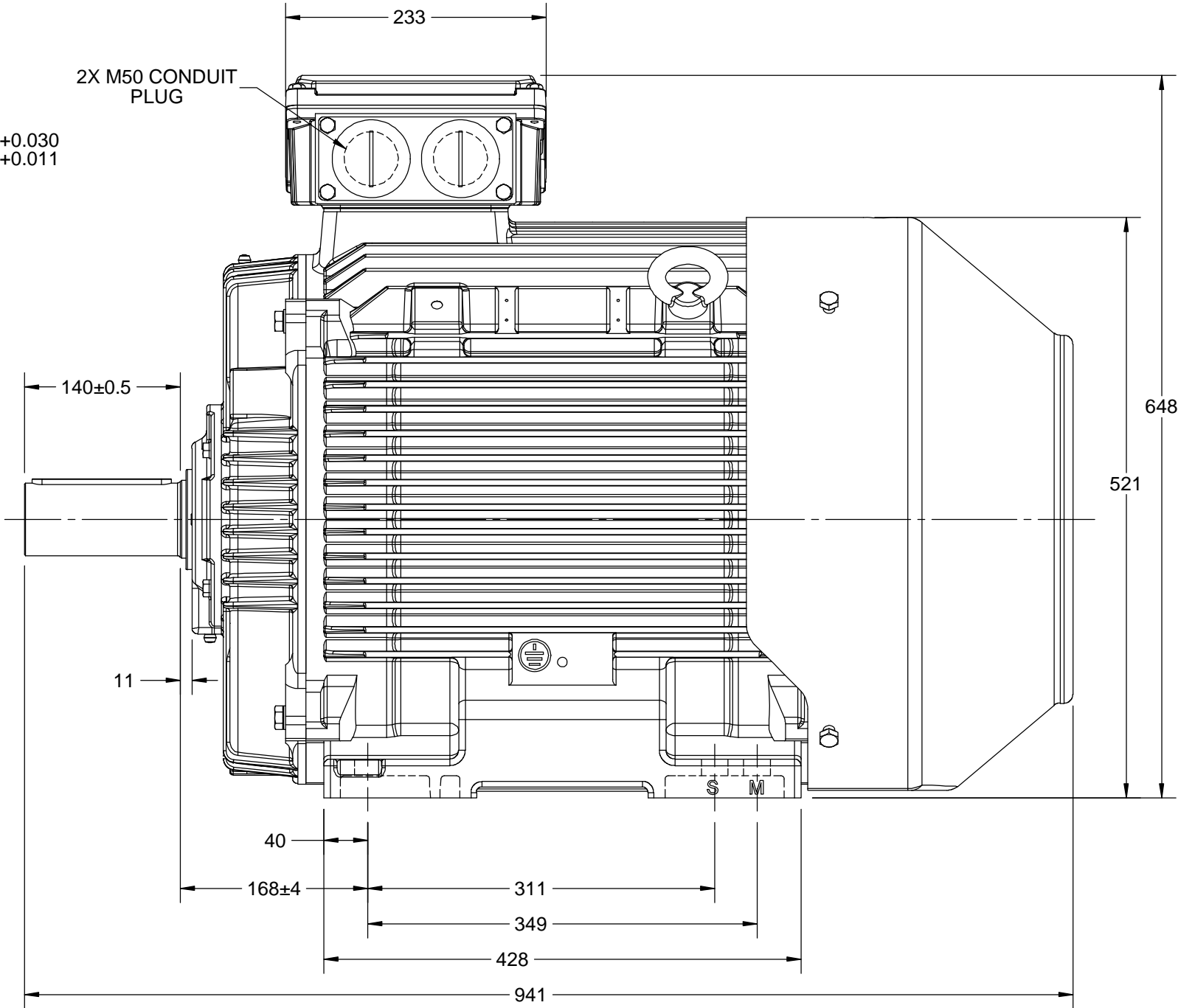
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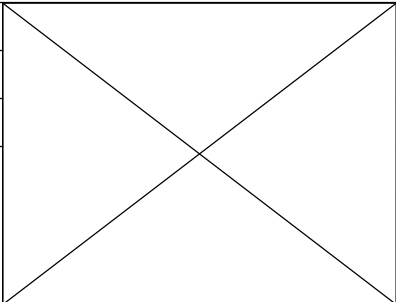
A



2X M50 CONDUIT PLUG



| | | |
|--|--------------------|--------------------|
| DRAWING REVISION A | REVISION BY LK | DATE 05/12/2018 |
| ECO ECO-0157830 | APPROVED BY JAY | DATE 05/12/2018 |
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| | | | |
|---------------------------|--|----------------------------|-----------------|
| DRAWN BY LK | marathon™ Motors | | |
| DATE 05/12/2018 | | | |
| APPROVED BY JAY | DESCRIPTION OUTLINE | | |
| DATE 05/12/2018 | IEC-250FR-4P-B3 MOTOR TYPE: TEFC-CAST IRON | | |
| REFERENCE | MATERIAL | PROCESS/FINISH | |
| THIRD ANGLE PROJECTION | SIZE B | DRAWING NUMBER SS557724 | SHEET 1 OF 1 |

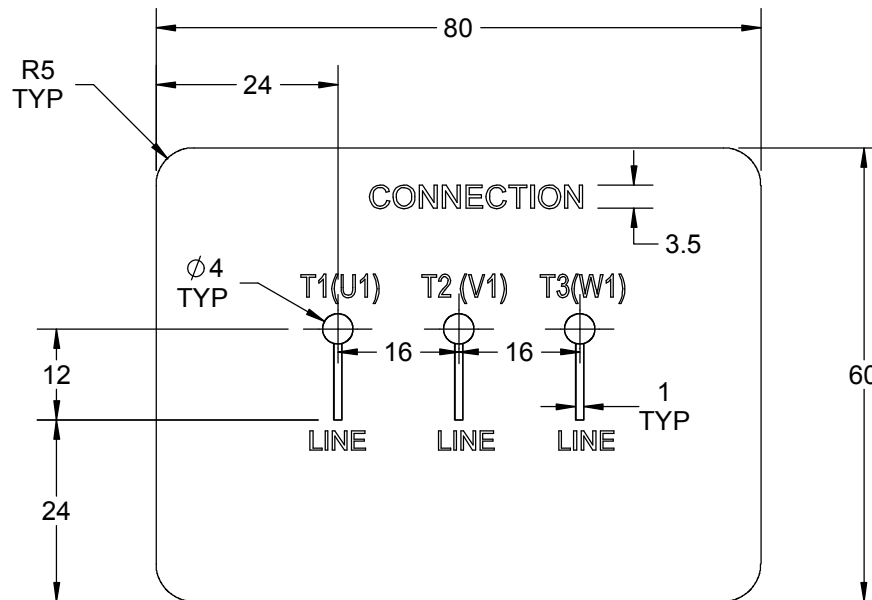
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3

2


1

| GENERAL TOLERANCE | | |
|-------------------|---------|------|
| LINEAR DIM | >0~6 | ±0.1 |
| | >6~30 | ±0.2 |
| | >30~120 | ±0.3 |



NOTES:

1. PRESSURE-SENSITIVE ADHESIVE TAPE COATED WITH ANTI-ADHESIVE.
2. YELLOW COLOR BACK GROUND LETTERS WILL BE BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T2 - T3 & U1-V1-W1 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

| | | | | | | | |
|---|--------------------------|--------------------|-------------|-----------------------|---|----------------|--|
| DRAWING REVISION A | REVISION BY A. KEETHA | DATE 25/07/2019 | <div></div> | DRAWN BY A. KEETHA | <div><div>REGALTM</div><div>Regal Beloit America, Inc.</div></div> | | |
| ECO ECO-0171114 | APPROVED BY SN | DATE 25/07/2019 | | DATE 24/07/2019 | | | |
| ECO DESCRIPTION NEW DRAWING RELEASE | | | | APPROVED BY SN | DESCRIPTION CONNECTION DIAGRAM 3 LEAD CONNECTION | | |
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| | | | | REFERENCE | MATERIAL | PROCESS/FINISH | |
| | | | | | | | THIRD ANGLE PROJECTION  |

Data Sheet

Date: 7/19/2019
Customer: _____
Attention: _____
Submitted by: SHERYL KUEHMICHEL

TCA0373AP211GAA009

Submittal

Data @ 575 V

Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 23.7 | 28.1 | 32.8 | 41.1 | 49.6 | 56.2 | 60.3 | 396 | |
| Torque(ft-lb) | 0.00 | 54.8 | 110 | 165 | 221 | 254 | 277 | 604 | |
| RPM | 1200 | 1197 | 1195 | 1192 | 1190 | 1,187 | 1186 | 0 | |
| Efficiency (%) | | 88.0 | 92.5 | 94.1 | 94.1 | 93.6 | 93.5 | | |
| P.F. (%) | 4.0 | 38.0 | 62.0 | 73.0 | 80.0 | 82.0 | 83.0 | 63.4 | |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 400 | 1102 | 1190 | 1200 |
| Current (Amps) | 396 | 377 | 227 | 49.6 | 23.7 |
| Torque(ft-lb) | 604 | 573 | 707 | 221 | 0.00 |

Information Block

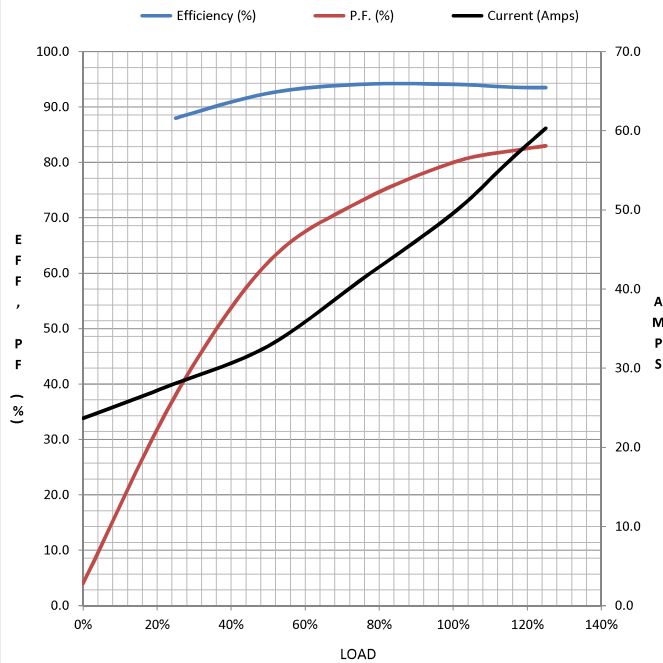
| | |
|-----------------------------|-------------------------|
| HP | 50.0 |
| Sync. RPM | 1200 |
| Frame | 250M |
| Enclosure | TEFC |
| Construction | TFN |
| Voltage | 575 V |
| Frequency | 60 Hz |
| Design | N |
| LR Code letter | J |
| Service Factor | 1.15 |
| Temp Rise @ FL | 80 ° C |
| Duty | CONT |
| Ambient | 40 ° C |
| Elevation | 3,300 feet |
| Rotor/Shaft wk ² | 40.0 Lb-Ft ² |
| Ref Wdg | IE3L2506201 |
| Sound Pressure @ 1M | 69 dBA |
| VFD Rating | NA |
| Outline Dwg | SS557724 |
| Conn. Diag | 8442000677 |

Additional Specifications:

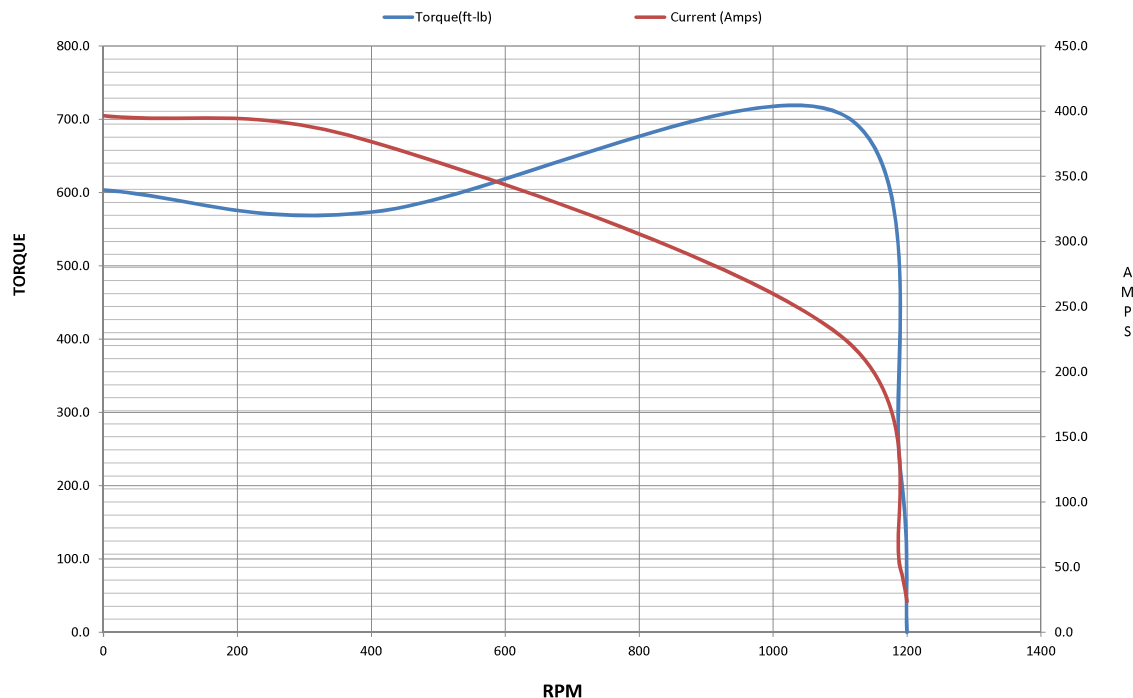
RATED FOR CONSTANT 2:1/VARIABLE 10:1 ON VFD POWER(1.0SF)

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|--------|--------|--------|--------|---------|
| 0.1330 | 0.0709 | 0.4521 | 0.6825 | 13.6507 |



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 : TCA0373AP211GAA009

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

Catalog No : R450

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