

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 143THTR15535

Catalog No: Y283

1 HP Variable Speed Motor, 3 phase, 1800 RPM, 230/460 V, 143TC Frame, TENV
1000:1 with Encoder Motors



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REGAL

Nameplate Specifications

| | | | |
|------------------------|------------|----------------------------|---------------------------------|
| Output HP | 1 Hp | Output KW | 0.75 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 3.0/1.5 A | Speed | 1750 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 84 % | Power Factor | 75 |
| Duty | Continuous | Insulation Class | H |
| Design Code | INV | KVA Code | P |
| Frame | 143TC | Enclosure | Totally Enclosed Non Ventilated |
| Thermal Protection | No | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6205 | Opp Drive End Bearing Size | 6203 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 43 |

Technical Specifications

| | | | |
|-----------------------|-----------------------------|-----------------------|---------------|
| Electrical Type | Squirrel Cage Inverter Duty | Starting Method | Inverter Only |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | 13.5 Ohms | Mounting | Bolt-on Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Rolled Steel |
| Shaft Type | T | Overall Length | 15.04 in |
| Frame Length | 8.56 in | Shaft Diameter | 0.875 in |
| Shaft Extension | 2.12 in | Assembly/Box Mounting | F1 ONLY |
| Outline Drawing | 107391-856 | Connection Drawing | EE7308 |

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Uncontrolled Copy

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TERM. END

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A

NOTE :

1. CONDUIT BOX CAN BE ROTATED IN 180°

2. REMOVABLE BASE

3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF THE MOTOR

4. C-FACE MOUNTING PATTERN TYPICALLY BOTH ENDS

| DASH | C | AG | BS |
|------|---------------|---------------|--------------|
| 706 | 13.54[343.91] | 9.11[239.31] | 3.43[87.12] |
| 756 | 14.04[356.61] | 9.61[244.09] | 3.93[99.82] |
| 806 | 14.54[369.41] | 10.11[256.79] | 4.43[112.52] |
| 856 | 15.04[382.01] | 10.61[269.49] | 4.93[124.96] |
| 906 | 15.54[394.71] | 11.11[282.18] | 5.43[137.92] |
| 956 | 16.04[407.41] | 11.61[294.89] | 5.93[150.62] |

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| | | |
|---|-------------------------------|--------------------|
| DRAWING REVISION C | REVISION BY M. CHATLAPALLI | DATE 01/09/2019 |
| ECO ECO-0159683 | APPROVED BY J DAS | DATE 01/09/2019 |
| ECO DESCRIPTION OUTLINE CONVERSION PROJECT | | |
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| | | |
|--|---------|-----------|
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | |
| DEC. | INCH | mm |
| .X | +0.1 | [+2.5] |
| .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 | | |
| mm SHOWN IN [BRACKETS] | | |

| | |
|----------------------------|---------------------------|
| DRAWN BY RAD | DATE 06-23-2008 |
| APPROVED BY RAD | DATE 06-23-2008 |
| REFERENCE 104059,107388 | THIRD ANGLE PROJECTION |

| | |
|--|--------------------------|
|  Regal Beloit America, Inc. | |
| DESCRIPTION OUTLINE 140T FR. - BB - TENV - DBL C'FACE -3Ø | |
| MATERIAL | PROCESS/FINISH |
| SIZE B | DRAWING NUMBER 107391 |
| SHEET 1 OF 1 | |



| NO. | REVISION | BY & DATE | CHK | ANG | TOLERANCES UNLESS SPECIFIED | | DRAWN RM | 11/20/1990 |
|--|--|----------------|-----|-------|--------------------------------|-----------------|----------|--------------------------|
| | | | | | DEC. | INCHES | | |
| 5 | CHG TO REGAL LOGO | SL 09/10/2015 | AB | | | | CHK | ML 11/21/1990 |
| 4 | REVISED IEC NOTATIONS | MSG 11/15/2011 | CMN | .X | ±.1 | | APPD | SAS 04/24/2003 |
| 3 | ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194 | MSG 5/10/2010 | MJS | .XX | ±.02 | | SCALE | 1=1 |
| 2 | ADDED THE OPTIONAL CORD CONNECTION MU46318 | RDH 04/24/2003 | DRS | .XXX | ±.005 | | REF | |
| 1 | REDRAWN | RM 11/20/1990 | | .XXXX | ±.0005 | | FMF | |
| | | | | | ±7'30" | | PREV | |
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| | | | | | DIST WP | | A | EE7308 5 |

CERTIFICATION DATA SHEET

Model#:

143THTR15535 AA

WINDING#:

ZT472 TR 3

CONN. DIAGRAM:

A-EE7308

ASSEMBLY:

F1 ONLY

OUTLINE:

A-107391-856

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|-----|-----------|----------|-------|-----------|----------|--------|
| 1 | .75 | 1800 | 1750 | 143TC | TENV | P | INV |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|---------|---------|---------------|------------|------|-----|-------|-----------|
| 3 | 60 | 230/460 | 3/1.5 | INVERTER ONLY | CONTINUOUS | H1 | 1.0 | 40 | 3300 |

| | | | | | |
|-------------------|--------------------|--------------------|----------|------------------|--------------|
| FULL LOAD EFF: 84 | 3/4 LOAD EFF: 82.5 | 1/2 LOAD EFF: 78.5 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
| FULL LOAD PF: 75 | 3/4 LOAD PF: 65.5 | 1/2 LOAD PF: 51 | 81.5 | SQ CAGE INV DUTY | 2 / 1 |

| | | | | |
|-------------|-------------------|----------------|--------------|-------------|
| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
| 3 LB-FT | 30 / 15 | 10.8 LB-FT 360 | 15 LB-FT 500 | 65 |

| | | | | | | |
|------------------------|-------------|--------------|-----------|-----------------|--------------|-------------------|
| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
| 62 dBA | 72 dBA | 0.11 LB-FT^2 | 0 LB-FT^2 | 0 SEC. | 0 | 42 LBS. |

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

| R1 | R2 | X1 | X2 | XM |
|-------|--------|---------|--------|---------|
| 8.378 | 5.6232 | 10.7068 | 9.9116 | 278.036 |

| RM | ZREF | XR | TD | TD0 |
|---------|------|-----|--------|-------|
| 11132.8 | 284 | 1.7 | 0.0071 | 0.136 |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------|-------------|--------------------|------------|---------|----------------|
| C-FACE | ENCODER | BOLT-ON | HORIZONTAL | FALSE | NONE | FALSE | NONE | BLACK (POWDER) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE | OPE | POLYREX EM | T | NONE | NONE | 1144 STRESSPROOF (C-223) | ROLLED STEEL |
| BALL | BALL | | | | | | |
| 6205 | 6203 | | | | | | |

| THERMO-PROTECTORS | | | | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS | PROTECTORS | WDG RTDs | BRG RTDs | NONE | FALSE | NONE VOLTS |
| NONE | NOT | NONE | NONE | | | |

If Inverter equals NONE, contact factory for further information

| | |
|---------------------------------------|------|
| INVERTER TORQUE: CONSTANT 1000:1 | |
| INV. HP SPEED RANGE: 2.0 X BASE SPEED | |
| ENCODER: REGAL SUPPLIED - REGAL MOUNT | |
| DYNAPAR HS20 | |
| MS CONNECTOR 1024 PPR | |
| BRAKE: NONE | NONE |

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|------------|--------|---------|--|
| NONE | P/N | NONE | |
| NONE | NONE | | |
| NONE FT-LB | NONE V | NONE Hz | |

DATE: 06/22/2017 05:51:49 AM
FORM 3531 REV.3 02/07/99
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