

PRODUCT INFORMATION PACKET

Model No: 811637.00

Catalog No: 811637.00

Speed Ratio Motors, TENV, 30 HP, 3 Ph, 60 Hz, 230/460 V, 1772 RPM, 286TC Frame



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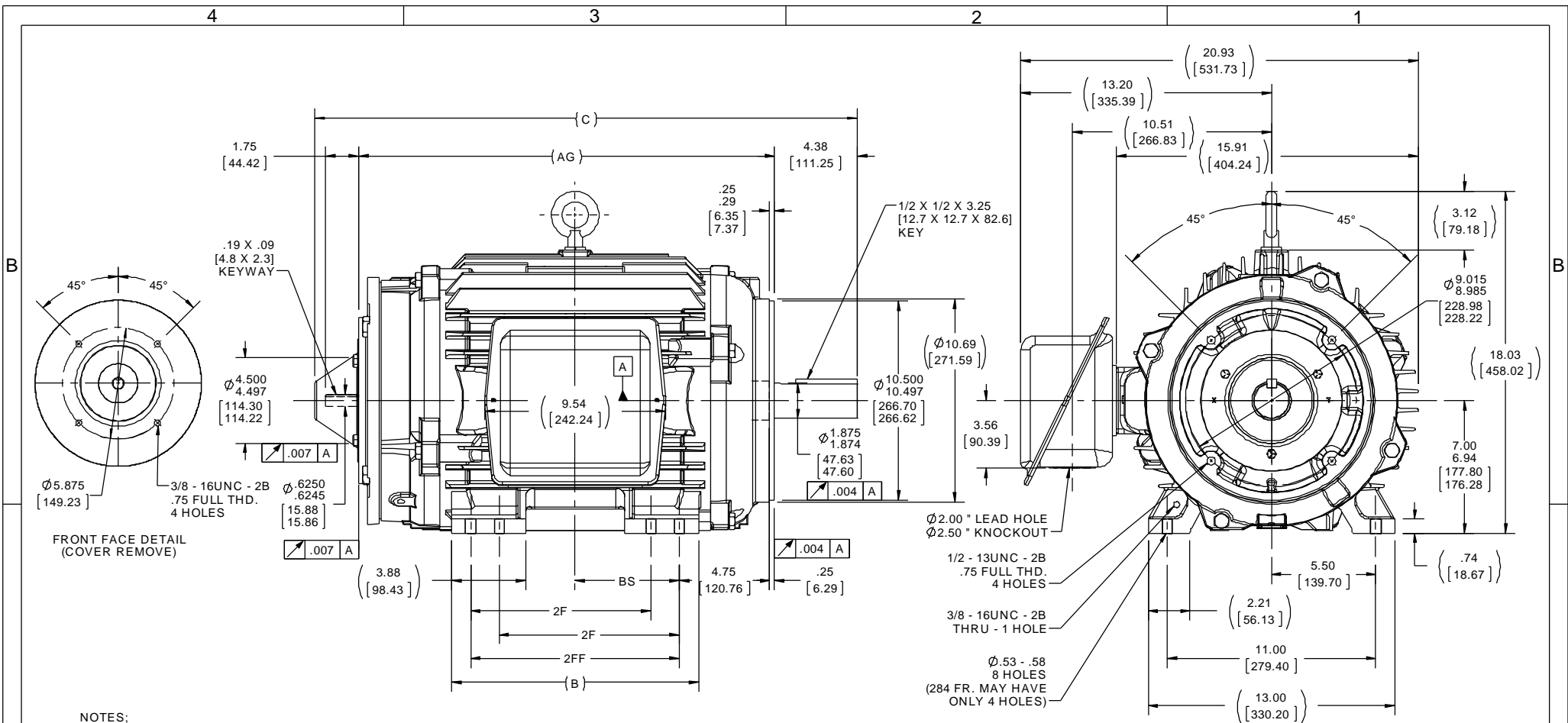
Nameplate Specifications

| | | | |
|------------------------|----------------------|----------------------------|--|
| Output HP | 30 Hp | Output KW | 22.4 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 74.0/37.0 A | Speed | 1772 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 94.5 % | Power Factor | 80 |
| Duty | Continuous | Insulation Class | F |
| Design Code | INV | KVA Code | L |
| Frame | 286TC | Enclosure | Totally Enclosed Non Ventilated |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6311 | Opp Drive End Bearing Size | 6311 |
| 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 | .15 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 | 28.58 in |
| Frame Length | 14.75 in | Shaft Diameter | 1.875 in |
| Shaft Extension | 4.63 in | Assembly/Box Mounting | F1/F2 CAPABLE |
| Inverter Load | CONSTANT 1000:1 | | |
| Connection Drawing | A-EE7308T | Outline Drawing | B-SS311154-1425 |

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

| DASH | FRAME | B | C | 2F | 2FF | BS | AG |
|------|------------------|------------------|-------------------|-----------------|------------------|------------------|-------------------|
| 1275 | 284TC | 12.50 [317.5] | 27.08 [687.83] | --- | 9.50 [241.3] | 4.75 [120.65] | 20.40 [518.16] |
| 1425 | 284TC / 286TC | 13.00 [330.2] | 28.58 [725.93] | 9.50 [241.3] | 11.00 [279.4] | 5.50 [139.7] | 21.90 [556.26] |

| | | | |
|-----------------------|-----------------------|--------------------|---|
| DRAWING REVISION E | REVISION BY TVUE | DATE 12-03-2013 | 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] CORNER FILLETS: .02 [51] MACHINED SURFACES: 200 $\sqrt{\text{mm}}$ 5.1 $\sqrt{\text{INCH}}$ |
| ECO MU115852 | APPROVED BY TBROWN | DATE 12-04-2013 | mm SHOWN IN [BRACKETS] |

| | | | | | | | | |
|---|--------------------|-----------------------|--------------------|----------------------------|---------------------------|-----------|----------------------------|-----------------|
| DRAWN BY MSG | DATE 04-30-2001 | APPROVED BY TBROWN | DATE 05-03-2001 | PROCESS/FINISH MU115852 | THIRD ANGLE PROJECTION | SIZE B | DRAWING NUMBER SS311154 | SHEET 1 OF 1 |
| REGAL™ Regal Beloit America, Inc. DESCRIPTION OUTLINE 280TC FR. - TENV - C'FACE - 12.50 LAM. | | | | MATERIAL | | | | |

HIGH VOLTAGE



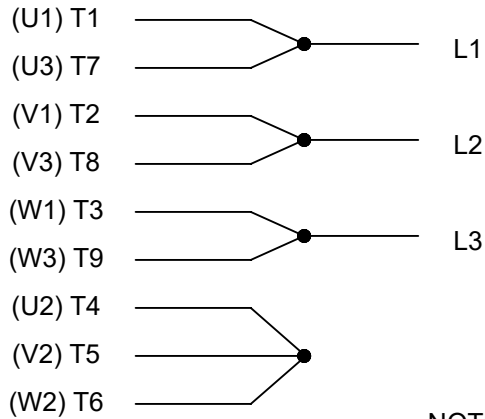
**THREE PHASE
DUAL VOLTAGE MOTOR**

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 |



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7308T
OUTLINE: B-SS311154-1425
WINDING: K2864236

CAT #: 811637.00

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|-----------|------|----------|--------|
| 30 | 22.4 | 1800 | 1772 | 286TC | TENV | TTN | L | INF |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|---------|-------|---------------|------|------|------|-----|-------|
| 3 | 60 | 230/460 | 74/37 | INVERTER ONLY | 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 | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|------------------|
| F.L. PF | 80.0 | 3/4 LD PF | 74.0 | 1/2 LD PF | 62.0 | 93.6 | SQ CAGE INV DUTY |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (° C) |
|-------------|-----------------|----------------|----------------|-----------------|
| 88.9 LB-FT | 375 | 195 LB-FT 219% | 380 LB-FT 427% | 105 |

| PRESSURE @ 3 | SOUND | POWER | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|--------|-------|------------|---------------|-----------------|-------------|-----------|
| 62 dBA | 71 dBA | | 5.2 LB-FT² | 0 LB-FT² | 0 SEC. | 0 | 560 LB. |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|-----------|
| C-FACE | BRAKE OR ENCODER | RIGID | HORIZONTAL | NO | NONE | NO | NONE | WATTSAVER |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE | ODE | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| BALL | BALL | | | | | | |
| 6311 | 6311 | | | | | | |

| 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 |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.113 | 0.123 | 0.543 | 0.557 | 11.186 | 0.150 | ODE |

| | | | | | | |
|---------------------------------|---|--|--|--|--|--|
| * N O T E S * | INVERTER TORQUE: CONSTANT 1000:1 INV. HP SPEED RANGE: 2.0 X BASE SPEED | | | | | |
| | ENCODER: NONE NONE NONE | | | | | |
| | BRAKE: NONE NONE NONE | | | | | |
| | FT-LB: NA VOLTAGE: NONE | | | | | |
| | H.Z: NONE PPR | | | | | |

| | | |
|-------|-----------|-----------------------|
| DATE: | 9/10/2018 | UL: Y-(LEESON UL REC) |
|-------|-----------|-----------------------|

Data Sheet

Date: 9/10/2018

811637.00



Data @ **460 V**

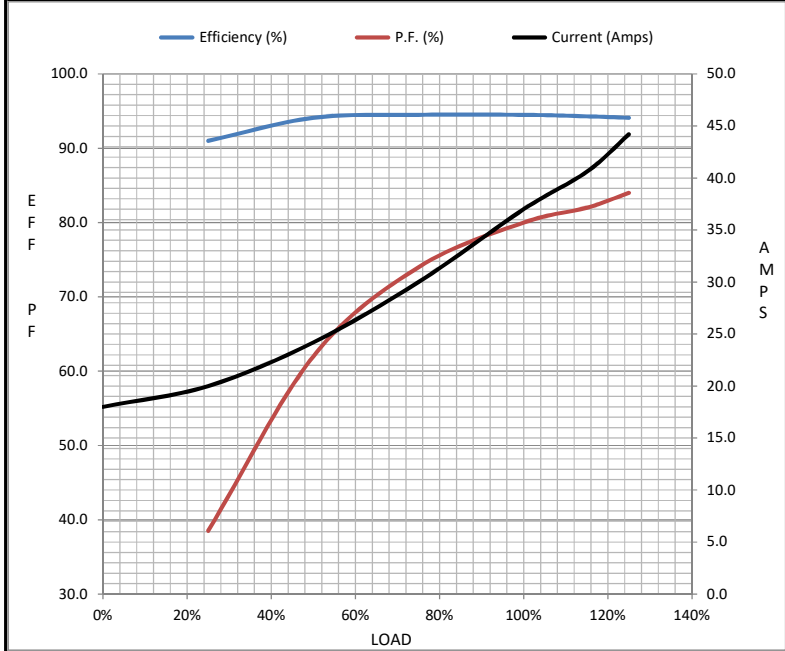
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 18.0 | 20.0 | 24.2 | 30.0 | 37.0 | 40.6 | 44.2 | 375 |
| Torque (ft-lb) | 0.00 | 22.0 | 44.0 | 66.5 | 88.9 | 100 | 112 | 195 |
| RPM | 1800 | 1795 | 1788 | 1780 | 1772 | 1,769 | 1765 | 0 |
| Efficiency (%) | | 91.0 | 94.1 | 94.5 | 94.5 | 94.3 | 94.1 | |
| P.F. (%) | 3.5 | 38.5 | 62.0 | 74.0 | 80.0 | 82.0 | 84.0 | 26.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1525 | 1772 | 1800 |
| Current (Amps) | 375 | 325 | 240 | 37.0 | 18.0 |
| Torque (ft-lb) | 195 | 200 | 380 | 88.9 | 0.00 |

| Information Block | | | | |
|-----------------------------|------------------------|--------|--------|---------|
| HP | 30.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 286 | | | |
| Enclosure | TENV | | | |
| Construction | TTN | | | |
| Voltage | 230/460 V | | | |
| Frequency | 60 Hz | | | |
| Design | A | | | |
| LR Code letter | L | | | |
| Service Factor | 1.0 | | | |
| Temp Rise @ FL | 105 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 5.2 Lb-Ft ² | | | |
| Ref Wdg | K2864236 NONE | | | |
| Sound Pressure @ 1M | 62 dBA | | | |
| VFD Rating | CONSTANT 1000:1 | | | |
| Outline Dwg | B-SS311154-1425 | | | |
| Conn. Diag | A-EE7308T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.1130 | 0.1230 | 0.5430 | 0.5570 | 11.1860 |



Speed - Torque Curve

