

PRODUCT INFORMATION PACKET

Model No: 145TTTN16631

Catalog No: E464A

1.50 HP Severe Duty Motor, 3 phase, 1800 RPM, 230/460 V, 145T Frame, TENV
Other Severe Duty Motors





Nameplate Specifications

| | | | |
|------------------------|----------------|----------------------------|---------------------------------|
| Output HP | 1.50 Hp | Output KW | 1.1 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 4.6/2.3 A | Speed | 1755 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 86.5 % | Power Factor | 71 |
| Duty | Continuous | Insulation Class | F |
| Design Code | A | KVA Code | P |
| Frame | 145T | 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 | 54 |
| Hazardous Location | DIVISION 2 T2B | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | 7.9 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 | 11.43 in |
| Frame Length | 6.25 in | Shaft Diameter | 0.875 in |
| Shaft Extension | 2.25 in | Assembly/Box Mounting | F1/F2 CAPABLE |
| Connection Drawing | EE7308 | Outline Drawing | A-100658-625 |

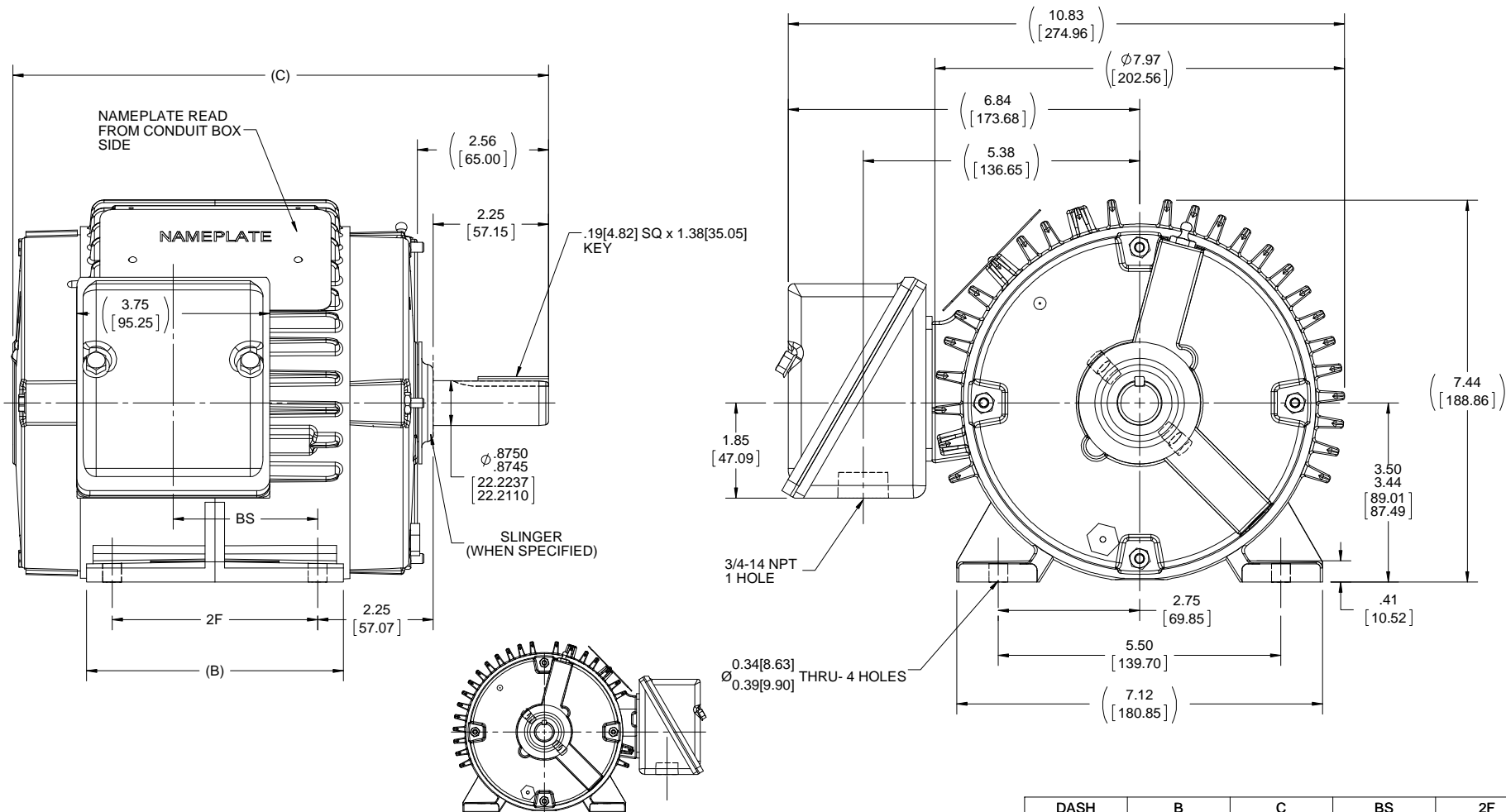
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Uncontrolled Copy

2

1



| DASH | B | C | BS | 2F |
|------|---------------|----------------|--------------|---------------|
| 525 | 5.00 [127.00] | 10.43 [264.92] | 2.81 [71.37] | 4.00 [101.60] |
| 625 | 6.00 [152.4] | 11.43 [29.32] | 3.81 [96.77] | 5.00 [127.00] |

| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DRAWING REVISION C | REVISION BY H. ADIKE | DATE 06/25/2018 | 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] |
| ECO ECO-0147607 | APPROVED BY PST | DATE 06/25/2018 | REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [076/.381] X 45° CORNER FILLETS: R.02 [51] MACHINED SURFACES: 200 INCH mm 5.1 mm SHOWN IN [BRACKETS] |
| ECO DESCRIPTION THE GREASE ZERK ROTATED TO 1 O'CLOCK POSITION <small>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.</small> | | | |

| | | |
|------------------------|-----------------------------------------------------------|-----------------|
| DRAWN BY RM | REGAL™ Regal Beloit America, Inc. | |
| DATE 10/27/1992 | DESCRIPTION OUTLINE 140T FR. - BB- TS - TENV | |
| APPROVED BY JA | MATERIAL | PROCESS/FINISH |
| DATE 11/02/1992 | REFERENCE 100658 | SIZE B |
| THIRD ANGLE PROJECTION | DRAWING NUMBER 100658 | SHEET 1 OF 1 |

- NOTES:
- BOX CAN BE ROTATED IN 90° STEPS.
 - BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 - FRONT GREASE HOLE LOCATION SHOWN WITH HIDDEN LINES.

4

3

2

1



| NO. | REVISION | BY & DATE | CHK | ANG | TOLERANCES UNLESS SPECIFIED | | FINISH | 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 | | TITLE CONNECTION DIAGRAM | SCALE 1=1 | | | | |
| 2 | ADDED THE OPTIONAL CORD CONNECTION MU46318 | RDH 04/24/2003 | DRS | .XXX | ±.005 | | 3Ø - DUAL VOLTAGE MOTOR | REF | | | | |
| 1 | REDRAWN | RM 11/20/1990 | | .XXXX | ±.0005 | | MAT'L. | FMF | | | | |
| | | | | | ±7'30" | | | PREV | | | | |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT | | | | | | | RFP | CAD FILE ee7308 | SIZE A | DRAWING NO. EE7308 | PAGE OF 5 | REV. 5 |
| | | | | | | | DIST WP | | | | | |



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER P.O. #:
 ORDER #: EE7308 REFERENCE MODEL #: 145TTN16631
 CONN. DIAGRAM: A-100658-625 CAT #: E464A
 OUTLINE: ZT4256 R3 3 CUSTOMER PART #:
 WINDING: MOUNTING: F1/F2 CAPABLE
 SPEED:
 TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|-----|-----|----------|--------|-------|-----------|------|----------|--------|
| 1.5 | 1.1 | 1800 | 1755 | 145T | TENV | TTN | P | A |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----------|---------|------------|------------------|------------|------|---------|-------------------|-------|
| 3 | 60 | 230/460 | 4.6/2.3 | LINE OR INVERTER | CONT | F | 1.15 | 40 | 3300 |
| | F.L. EFF | 86.5 | 3/4 LD EFF | 85.5 | 1/2 LD EFF | 82.5 | GTD EFF | ELECT. TYPE | |
| | F.L. PF | 71.0 | 3/4 LD PF | 62.5 | 1/2 LD PF | 49.0 | 84.0 | SO CAGE INV BATED | |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) |
|-------------|-----------------|-------------------------|---------------------------|-----------------|
| 4.5 LB-FT | 24.0 | 21.2 LB-FT | 471% | 26.0 LB-FT |
| @ 3 FT. DBA | POWER | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME |
| 62 DBA | 71 DBA | 0.14 LB-FT ² | 10 LB-FT ² | START/SHOUR |
| | | | | 2 |
| | | | | MOTOR WGT |
| | | | | 50 LB. |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| STANDARD | STANDARD | RIGID | HORIZONTAL | UM SEVERE | DIVISION 272B | NO | NONE | BLUE (POWDER) |

| BEARINGS | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT | MATERIAL | FRAME MATERIAL |
|--------------|------------|------------|------------|-------------|-------|---------------------|----------------|
| DE BALL 6205 | POLYREX EM | T | NONE | NONE | 1144 | STRESSPROOF (C-223) | CAST IRON |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE | 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 |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 4.838 | 3.78 | 7.125 | 7.163 | 189.605 | 0.080 | ODE |

INVERTER TORQUE: CONSTANT 10:1
 INV. HP SPEED RANGE: 1.5 X BASE SPEED

| ENCODER: | BRAKE: | FT-LB: | NA | NONE |
|----------|--------|--------|------|------|
| NONE | NONE | NONE | NONE | NONE |
| NONE | NONE | NONE | NONE | NONE |
| NONE | NONE | NONE | NONE | NONE |

PREPARED BY: FAREEDA DUDEKULA
 DATE: 8/31/2018

FORM: 3531 REV 4 2/27/06

UL: V/INS, CONST UL REC

HZ:

Data Sheet

Date: 12/14/2018

1451TTTN16631

Customer: _____
Attention: _____



Submitted

Submitted by: FAREEDA DUDEKULA

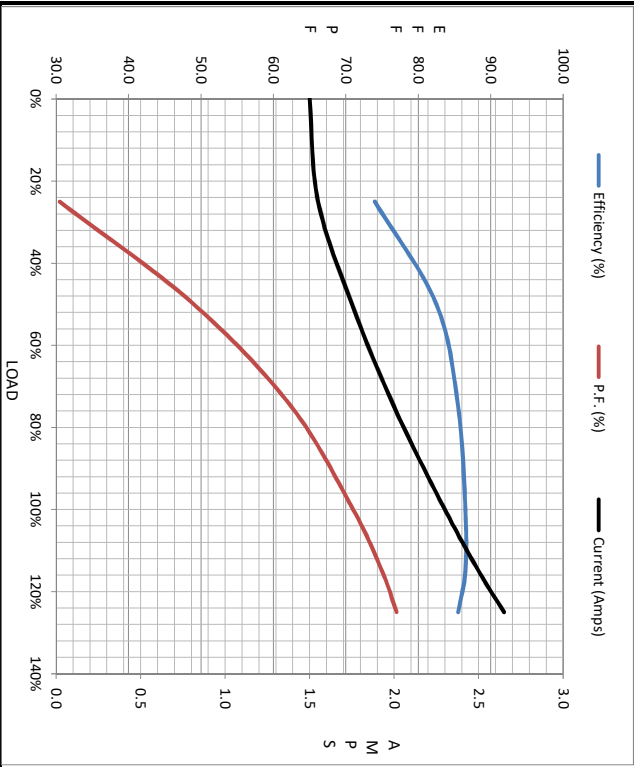
Data @ 460 V

Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 1.50 | 1.55 | 1.75 | 2.00 | 2.30 | 2.50 | 2.65 | 24.0 |
| Torque (ft-lb) | 0.00 | 1.10 | 2.20 | 3.5 | 4.5 | 5.2 | 5.7 | 21.2 |
| RPM | 1800 | 1790 | 1780 | 1765 | 1755 | 1,750 | 1745 | 0 |
| Efficiency (%) | | 74.0 | 82.5 | 85.5 | 86.5 | 86.5 | 85.5 | |
| P.F. (%) | 7.5 | 30.5 | 49.0 | 62.5 | 71.0 | 75.0 | 77.0 | 69.5 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle | Information Block |
|----------------|------|---------|------|-------|------|-----------------------------------------------------|
| Speed (RPM) | 0 | 130 | 1190 | 1755 | 1800 | HP 1.5 |
| Current (Amps) | 24.0 | 23.3 | 16.0 | 2.30 | 1.50 | Sync. RPM 1800 |
| Torque (ft-lb) | 21.2 | 20.2 | 26.0 | 4.5 | 0.00 | Frame 145 |
| | | | | | | Enclosure TENV |
| | | | | | | Construction TTS |
| | | | | | | Voltage 230/460 V |
| | | | | | | Frequency 60 Hz |
| | | | | | | Design A |
| | | | | | | LR Code letter P |
| | | | | | | Service Factor 1.15 |
| | | | | | | Temp Rise @ FL 70 °C |
| | | | | | | Duty CONT |
| | | | | | | Ambient 40 °C |
| | | | | | | Elevation 1,000 feet |
| | | | | | | Rotor/Shaft wk ² 0.14 Lb-Ft ² |
| | | | | | | Ret Wdg ZT4256 R3 |
| | | | | | | Sound Pressure @ 1M 62 dBA |
| | | | | | | VFD Rating CONSTANT 10:1 |
| | | | | | | Outline Dwg A-100658-625 |
| | | | | | | Conn. Diag EE7308 |
| | | | | | | Additional Specifications: |
| | | | | | | 0 |
| | | | | | | 0 |



| EQUIV CKT (OHMS / PHASE) | R1 | R2 | X1 | X2 | Xm |
|--------------------------|--------|--------|--------|--------|----------|
| | 4.8380 | 3.7800 | 7.1250 | 7.1630 | 189.6050 |

Speed - Torque Curve

