

PRODUCT INFORMATION PACKET

Model No: 449TTFS6587

Catalog No: E688

Severe Duty Motors, TEFC, 250 HP, 3 Ph, 60 Hz, 460 V, 1190 RPM, 449T Frame



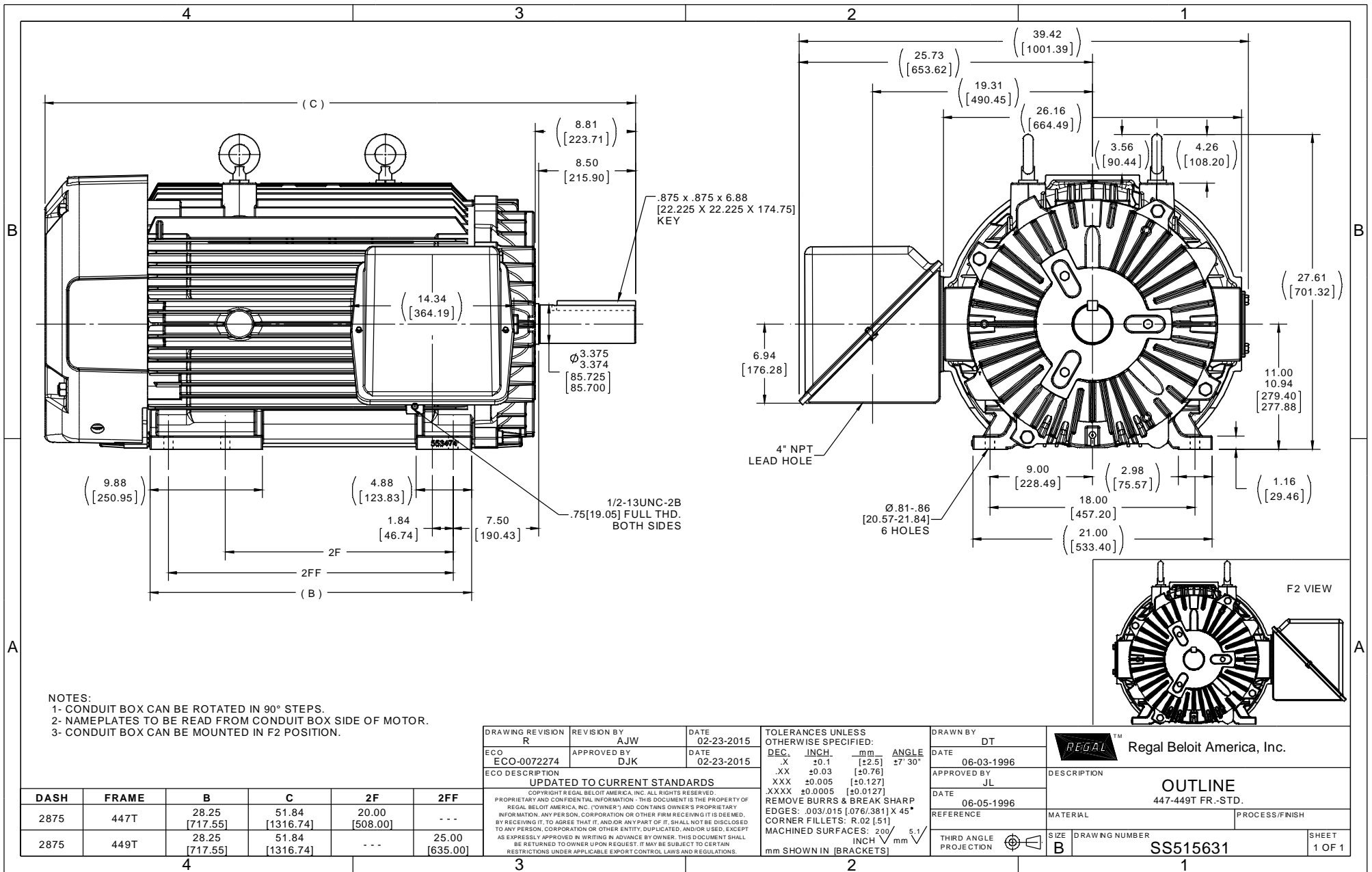
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Nameplate Specifications

| | | | |
|------------------------|-----------------------|----------------------------|------------------------------------|
| Output HP | 250 Hp | Output KW | 187.0 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 300.0 A | Speed | 1190 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 95.8 % | Power Factor | 81 |
| Duty | Continuous | Insulation Class | H |
| Design Code | B | KVA Code | G |
| Frame | 449T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | NU319 | Opp Drive End Bearing Size | 6318 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 54 |
| Hazardous Location | DIVISION 2 T2B | Number of Speeds | 1 |

Technical Specifications

| | | | |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 6 | Rotation | Reversible |
| Resistance Main | .012 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Roller |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 51.84 in |
| Frame Length | 28.75 in | Shaft Diameter | 3.375 in |
| Shaft Extension | 8.81 in | Assembly/Box Mounting | F1/F2 CAPABLE |
| Inverter Load | CONSTANT 2:1 | | |
| Outline Drawing | B-SS515631-2875 | Connection Drawing | A-EE7300U |



NOTES:
 1- CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2- NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
 3- CONDUIT BOX CAN BE MOUNTED IN F2 POSITION.

| DASH | FRAME | B | C | 2F | 2FF |
|------|-------|-------------------|--------------------|-------------------|-------------------|
| 2875 | 447T | 28.25 [717.55] | 51.84 [1316.74] | 20.00 [508.00] | --- |
| 2875 | 449T | 28.25 [717.55] | 51.84 [1316.74] | --- | 25.00 [635.00] |

| DRAWING REVISION | REVISION BY | DATE | TOLERANCES UNLESS OTHERWISE SPECIFIED: |
|--|-------------|------------|--|
| R | AJW | 02-23-2015 | DEC. INCH. mm ANGLE |
| ECO-0072274 | DJK | 02-23-2015 | .X ±0.1 [±2.5] 27° 30' |
| ECO DESCRIPTION | | | .XX ±0.03 [±0.76] |
| UPDATED TO CURRENT STANDARDS | | | .XXX ±0.005 [±0.127] |
| COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. | | | XXXX ±0.0005 [±0.0127] |
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| | | | CORNER FILLETS: R.02 [51] |
| | | | MACHINED SURFACES: 200 / INCH 5.1 / mm |
| | | | mm SHOWN IN [BRACKETS] |

| DRAWN BY | DT | REGAL™ | Regal Beloit America, Inc. |
|------------------------|------------|------------------------------|----------------------------|
| DATE | 06-03-1996 | DESCRIPTION | |
| APPROVED BY | JL | | |
| DATE | 06-05-1996 | OUTLINE 447-449T FR.-STD. | |
| REFERENCE | | | |
| THIRD ANGLE PROJECTION | SIZE B | DRAWING NUMBER | SS515631 |
| | | PROCESS/FINISH | SHEET 1 OF 1 |

IF MOTOR HAS 9 LEADS



IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|---------------------------|--|---------------------------|-----------------------------------|----------------|------------------------|------------------|----------------------------------|------------------------|------|--------|---------|-----|-------|---------|--|------|--------|----------|--|-------|---------|-----------|--|---------------------------|
| DRAWING REVISION L | REVISION BY AJW | DATE 05-04-2015 | TOLERANCES UNLESS OTHERWISE SPECIFIED: | DRAWN BY DRS | Regal Beloit America, Inc. | | | | | | | | | | | | | | | | | | | | | |
| ECO ECO-0077067 | APPROVED BY EWH | DATE 05-05-2015 | <table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table> | <u>DEC.</u> | | | <u>INCH</u> | <u>mm</u> | <u>ANGLE</u> | .X | ±0.1 | [±2.5] | ±7' 30" | .XX | ±0.02 | [±0.51] | | .XXX | ±0.005 | [±0.127] | | .XXXX | ±0.0005 | [±0.0127] | | DATE 09-27-1996 |
| <u>DEC.</u> | <u>INCH</u> | <u>mm</u> | <u>ANGLE</u> | | | | | | | | | | | | | | | | | | | | | | | |
| .X | ±0.1 | [±2.5] | ±7' 30" | | | | | | | | | | | | | | | | | | | | | | | |
| .XX | ±0.02 | [±0.51] | | | | | | | | | | | | | | | | | | | | | | | | |
| .XXX | ±0.005 | [±0.127] | | | | | | | | | | | | | | | | | | | | | | | | |
| .XXXX | ±0.0005 | [±0.0127] | | | | | | | | | | | | | | | | | | | | | | | | |
| ECO DESCRIPTION UPDATED TO SOLIDWORKS <small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. 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> | | | APPROVED BY GK | DATE 09-30-1996 | MATERIAL | PROCESS/FINISH | | | | | | | | | | | | | | | | | | | | |
| | | | REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS] | | | REFERENCE | THIRD ANGLE PROJECTION | SIZE A | DRAWING NUMBER EE7300U | SHEET 1 OF 1 | | | | | | | | | | | | | | | | |

CERTIFICATION DATA SHEET

Model#: 449TTFS6587 EX WINDING#: T449626 NONE 8
 CONN. DIAGRAM: A-EE7300U ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS515631-2875

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-----|-----|-----------|----------|----------|-----------|----------|--------|
| 250 | 187 | 1200 | 1190 | 447/449T | TEFC | G | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|-------|---------|---------------------|----------------|------|------|-------|-----------|
| 3 | 60 | 460 | 300 | LINE OR INVERTER | CONTINUOU S | H1 | 1.15 | 40 | 3300 |

| FULL LOAD EFF: 95.8 | 3/4 LOAD EFF: 96 | 1/2 LOAD EFF: 95.4 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
|---------------------|------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 81 | 3/4 LOAD PF: 79 | 1/2 LOAD PF: 70 | 95.4 | SQ CAGE INV RATED | 115 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|----------------|----------------|-------------|
| 1103 LB-FT | 1825 | 1825 LB-FT 165 | 2825 LB-FT 256 | 65 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|--------------|-----------------|--------------|-------------------|
| 75 dBA | 85 dBA | 138 LB-FT^2 | 3600 LB-FT^2 | 25 SEC. | 2 | 3250 LBS. |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------|------------------------|--------------------|------------|---------|--------------|
| STANDARD | STANDARD | RIGID | HORIZONTAL | PREMIUM SEVERE DUTY | DIVISION 2 T2B | FALSE | NONE | BLUE (EPOXY) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|----------------------------|----------------|
| DE | OPE | | | | | | |
| ROLLER | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| NU319 | 6318 | | | | | | |

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

If Inverter equals NONE, contact factory for further information

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|---|
| INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED |
| ENCODER: NONE NONE NONE NONE NONE PPR |
| BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz |

DATE: 06/21/2017 07:22:32 AM

FORM 3531 REV.3 02/07/99

** Subject to change without notice.

Data Sheet

Date: 29-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



449TTF56587

Submittal

Data @ 460 V

Motor Load Data

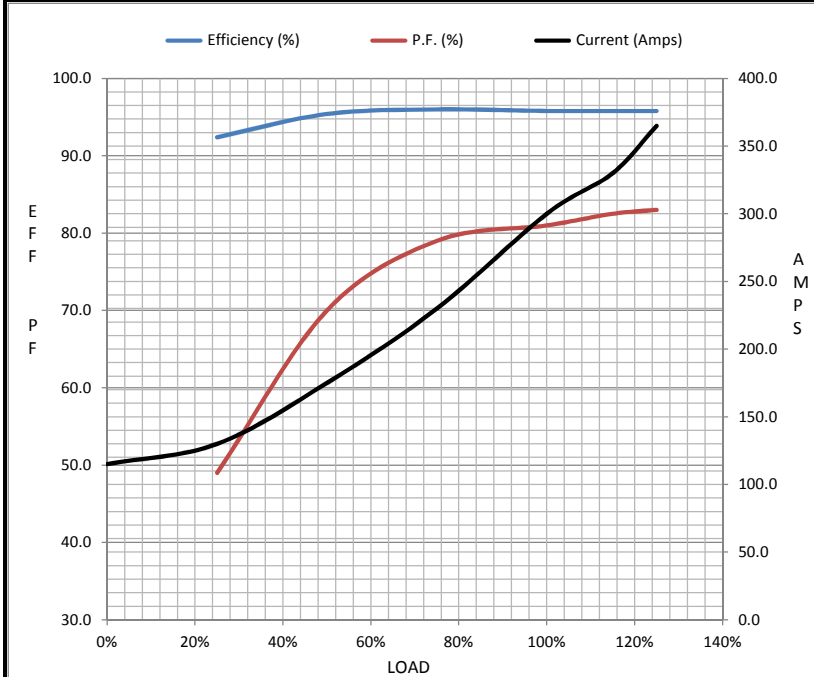
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|-------|-------|-------|-------|
| Current (Amps) | 115 | 130 | 175 | 230 | 300 | 330 | 365 | 1,825 |
| Torque (ft-lb) | 0.00 | 275 | 550 | 825 | 1,103 | 1,245 | 1,385 | 1,825 |
| RPM | 1200 | 1196 | 1194 | 1192 | 1190 | 1,188 | 1186 | 0 |
| Efficiency (%) | | 92.4 | 95.4 | 96.0 | 95.8 | 95.8 | 95.8 | |
| P.F. (%) | 3.5 | 49.0 | 70.0 | 79.0 | 81.0 | 82.5 | 83.0 | 23.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-------|---------|-------|-------|------|
| Speed (RPM) | 0 | 600 | 1150 | 1190 | 1200 |
| Current (Amps) | 1,825 | 1,700 | 1,125 | 300 | 115 |
| Torque (ft-lb) | 1,825 | 1,700 | 2,825 | 1,103 | 0.00 |

Information Block

| | | | | |
|-----------------------------|------------------------|--------|--------|--------|
| HP | 250.0 | | | |
| Sync. RPM | 1200 | | | |
| Frame | 449 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 65 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 138 Lb-Ft ² | | | |
| Ref Wdg | T449626 NONE | | | |
| Sound Pressure @ 1M | 75 dBA | | | |
| VFD Rating | CONSTANT 2:1 | | | |
| Outline Dwg | B-SS515631-2875 | | | |
| Conn. Diag | A-EE7300U | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0080 | 0.0080 | 0.0960 | 0.1290 | 2.1770 |



Speed - Torque Curve

