

PRODUCT INFORMATION PACKET

Model No: 444THFS9101

Catalog No: W597

Severe Duty Motors, TEFC, 75 HP, 3 Ph, 60 Hz, 460 V, 890 RPM, 444T Frame



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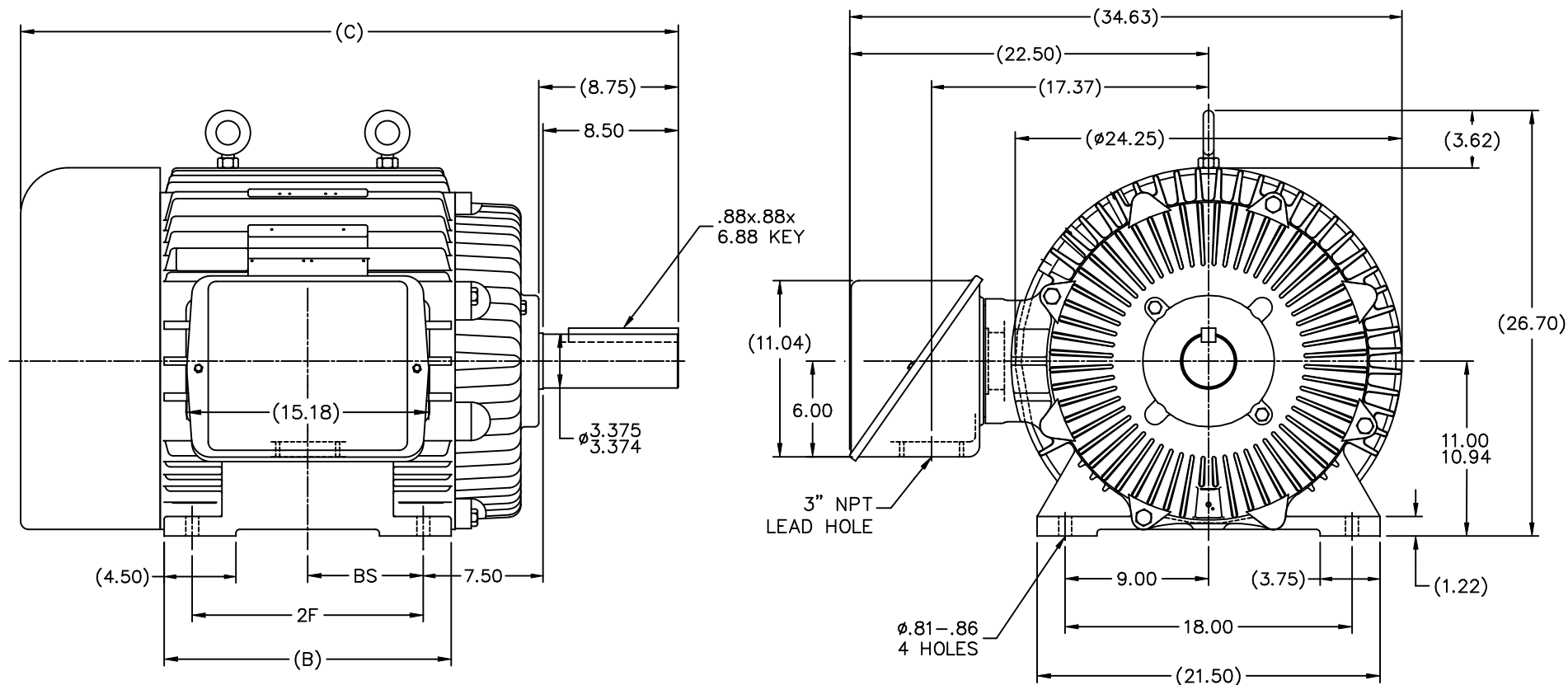
Nameplate Specifications

| | | | |
|------------------------|---------------|----------------------------|-----------------------------|
| Output HP | 75 Hp | Output KW | 56.0 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 100.0 A | Speed | 890 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 93.6 % | Power Factor | 75.5 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Frame | 444T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6318 | Opp Drive End Bearing Size | 6316 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 56 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 8 | Rotation | Reversible |
| Resistance Main | .1 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 | 41.27 in |
| Frame Length | 18.50 in | Shaft Diameter | 3.375 in |
| Shaft Extension | 8.5 in | Assembly/Box Mounting | F1/F2 Capable |
| Connection Drawing | A-EE7300 | Outline Drawing | B-SS551837-1850 |

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NOTES:

1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| | | | | | | TOLERANCES UNLESS SPECIFIED | | MARATHON ELECTRIC | DRAWN RJW 04-13-2006 | | | |
|------|-------|-------|-------|-------|------|--|----------|--|----------------------------------|----|------------|----------------------|
| | | | | | | DEC. | INCHES | | CHK | ML | 04-17-2006 | |
| | | | | | | .X | ±.1 | | APPD | TB | 04-17-2006 | |
| | | | | | | .XX | ±.03 | TITLE | SCALE 5-32 | | | |
| | | | | | | .XXX | ±.005 | 440T FR. - TEFC - TFS - OVERSIZE C'BOX | REF | | | |
| | | | | | | .XXX | ±.0005 | MAT'L | FMF CH40156 | | | |
| | | | | | | NO. | REVISION | BY & DATE | PREV | | | |
| | | | | | | CHK | ANG | ±7'30" | RFP 04-17-2006 CAD FILE SS551837 | | | |
| | | | | | | 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 | | | | | | SIZE B |
| | | | | | | | | | | | | DRAWING NO. SS551837 |
| | | | | | | | | | | | | PAGE OF |
| | | | | | | | | | | | | REV. |
| DASH | FRAME | B | C | 2F | BS | | | | | | | |
| 1850 | 444T | 18.00 | 41.25 | 14.50 | 7.25 | | | | | | | |
| 2050 | 445T | 20.00 | 43.25 | 16.50 | 8.25 | | | | | | | |

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OFFENDING COMMAND: --nostringval--

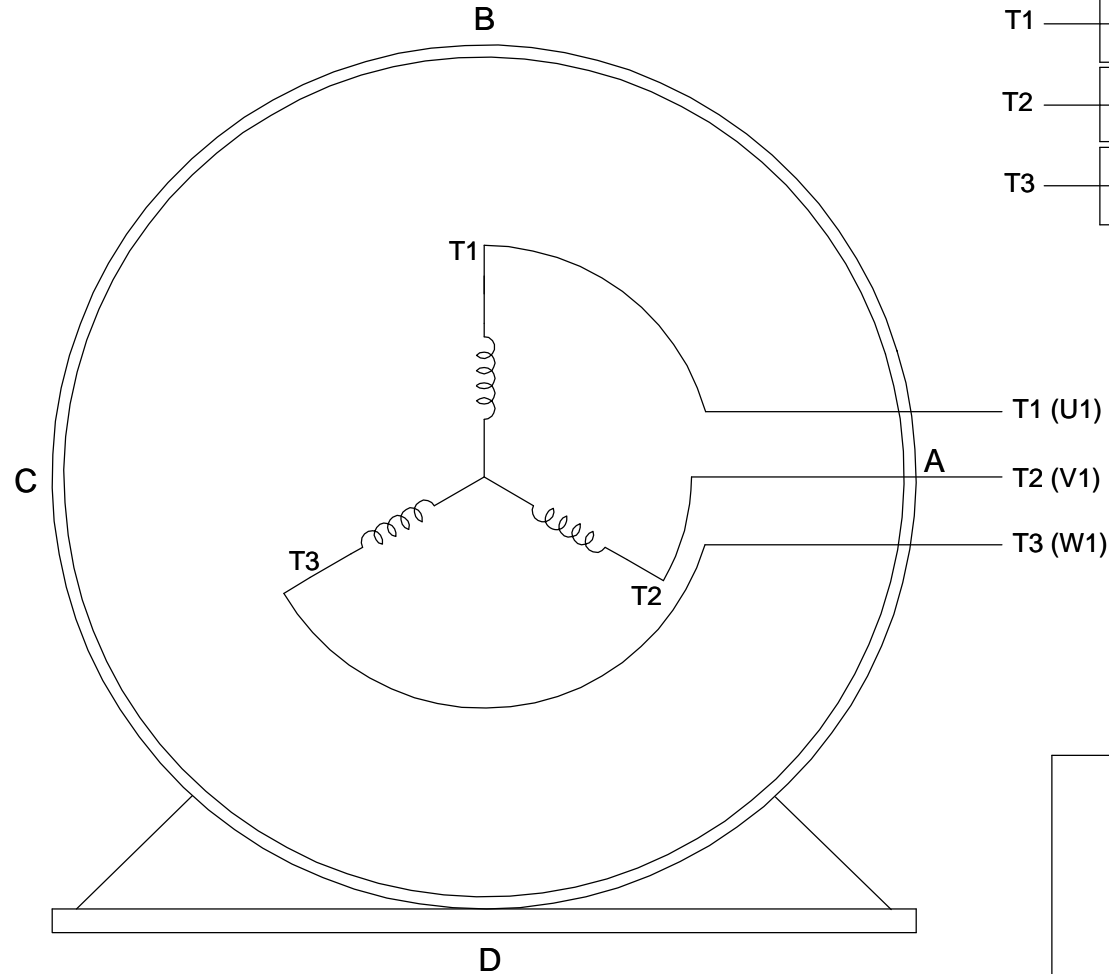
STACK:

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/Udieresis
220
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213
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212
/Oacute

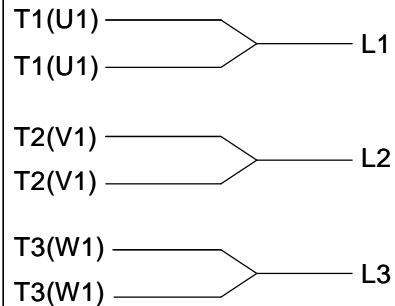
THREE PHASE - SINGLE VOLTAGE MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

TERMINAL BLOCK WHEN SPECIFIED



IF MOTOR HAS 6 LEADS



A-9806 DECAL

OPTIONAL CORD CONNECTION



VIEW OF TERMINAL END

| | | |
|---|--------------------|--------------------|
| DRAWING REVISION AB | REVISION BY JJB | DATE 06-27-2017 |
| ECO ECO-0125361 | APPROVED BY TB | DATE 06-27-2017 |
| ECO DESCRIPTION UPDATED TO CURRENT STANDARDS | | |
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| |
|---------------------------|
| DRAWN BY DA |
| DATE 03-26-1993 |
| APPROVED BY TB |
| DATE 03-26-1993 |
| REFERENCE |
| THIRD ANGLE PROJECTION |



Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL PROCESS/FINISH

| | | |
|-----------|--------------------------|-----------------|
| SIZE A | DRAWING NUMBER EE7300 | SHEET 1 OF 1 |
|-----------|--------------------------|-----------------|

CERTIFICATION DATA SHEET

Model#: 444THFS9101 AP
 CONN. DIAGRAM: A-EE7300
 OUTLINE: B-SS551837-1850

WINDING#: T444821 NONE 2
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|----|-----------|----------|-------|-----------|----------|--------|
| 75 | 56 | 900 | 890 | 444T | TEFC | G | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|-------|---------|---------------------|------------|------|------|-------|-----------|
| 3 | 60 | 460 | 100 | LINE OR INVERTER | CONTINUOUS | F1 | 1.15 | 40 | 3300 |

| | | | | | |
|---------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD EFF: 93.6 | 3/4 LOAD EFF: 94.1 | 1/2 LOAD EFF: 94.1 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
| FULL LOAD PF: 75.5 | 3/4 LOAD PF: 71.5 | 1/2 LOAD PF: 62 | 93 | SQ CAGE INV RATED | 44 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|---------------|---------------|-------------|
| 443 LB-FT | 500 | 725 LB-FT 164 | 900 LB-FT 203 | 70 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|---------------------------|-------------|------------|-----------|-----------------|-----------------|----------------------|
| 68 dBA | 78 dBA | 72 LB-FT^2 | - LB-FT^2 | 20 SEC. | - | 1750 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 | | | | | | |
| BALL | BALL | | | | | | |
| 6318 | 6316 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |

| 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

INVERTER TORQUE: CONSTANT 2:1
 INV. HP SPEED RANGE: NONE

ENCODER: NONE
 NONE NONE
 NONE NONE PPR

BRAKE: NONE NONE
 NONE P/N NONE
 NONE NONE
 NONE FT-LB NONE V NONE Hz

*
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*

DATE: 06/21/2017 03:45:22 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/19/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



444THFS9101

Submittal

Data @ 460 V

Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|----------------|------|------|------|------|------|------|------|------|--|
| Current (Amps) | 44.0 | 47.0 | 60.5 | 78.0 | 100 | 113 | 124 | 500 | |
| Torque (ft-lb) | 0.00 | 110 | 220 | 331 | 443 | 511 | 557 | 725 | |
| RPM | 900 | 898 | 895 | 892 | 890 | 886 | 884 | 0 | |
| Efficiency (%) | | 91.7 | 94.1 | 94.1 | 93.6 | 93.0 | 92.4 | | |
| P.F. (%) | 3.5 | 40.5 | 62.0 | 71.5 | 75.5 | 76.5 | 76.5 | 34.0 | |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------|---------|--------|--------|------|---------------------|----------------|----------|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|-----|----|----|----|-------|-----|--|--|--|
| Speed (RPM) | 0 | 450 | 845 | 890 | 900 | Information Block | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current (Amps) | 500 | 450 | 265 | 100 | 44.0 | HP | 75.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Torque (ft-lb) | 725 | 495 | 900 | 443 | 0.00 | Sync. RPM | 900 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</div><table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>92</td><td>40</td><td>52</td></tr><tr><td>40</td><td>93</td><td>55</td><td>58</td></tr><tr><td>60</td><td>95</td><td>68</td><td>68</td></tr><tr><td>80</td><td>94</td><td>74</td><td>80</td></tr><tr><td>100</td><td>93</td><td>76</td><td>90</td></tr><tr><td>125</td><td>93</td><td>77</td><td>93</td></tr></tbody></table></div> | | | | | | Load (%) | Efficiency (%) | P.F. (%) | Current (Amps) | 25 | 92 | 40 | 52 | 40 | 93 | 55 | 58 | 60 | 95 | 68 | 68 | 80 | 94 | 74 | 80 | 100 | 93 | 76 | 90 | 125 | 93 | 77 | 93 | Frame | 444 | | | |
| | | | | | | Load (%) | Efficiency (%) | P.F. (%) | Current (Amps) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 25 | 92 | 40 | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 40 | 93 | 55 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 60 | 95 | 68 | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 80 | 94 | 74 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 100 | 93 | 76 | 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 125 | 93 | 77 | 93 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Enclosure | TEFC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Construction | TFS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Voltage | 460 | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Frequency | 60 | Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Design | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | LR Code letter | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Service Factor | 1.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Temp Rise @ FL | 70 | ° C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Duty | CONT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Ambient | 40 | ° C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Elevation | 1,000 feet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Rotor/Shaft wk² | 72.0 Lb-Ft² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Ref Wdg | T444821 | NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Sound Pressure @ 1M | 68 | dBA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | VFD Rating | CONSTANT 2:1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Outline Dwg | B-SS551837-1850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conn. Diag | A-EE7300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Additional Specifications: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R1 | R2 | X1 | X2 | Xm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0650 | 0.0250 | 0.3060 | 0.5670 | 5.1260 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Speed -Torque Curve

