

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 213TTGN6528

Catalog No: C366A

Hazardous Duty® Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
1800 & 1500 RPM, 213TC Frame, EPFC



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RegalRexnord

Nameplate Specifications

| | | | |
|------------------------|--|----------------------------|--------------------------------------|
| Phase | 3 | Output HP | 7.50 & 5 Hp |
| Output KW | 5.6 & 3.7 kW | Voltage | 230/460 & 190/380 V |
| Speed | 1770 & 1475 rpm | Service Factor | 1.15 & 1.15 |
| Frame | 213TC | Enclosure | Explosion Proof Fan cooled |
| Thermal Protection | Thermostat | Efficiency | 91.7 & 91 % |
| Ambient Temperature | 40 °C | Frequency | 60 & 50 Hz |
| Current | 20/10 & 17.4/8.7 A | Power Factor | 76.5 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | H |
| Drive End Bearing Size | 6309 | Opp Drive End Bearing Size | 6208 |
| UL | UL Listed; also, UL Certified for Canada | CSA | N |
| CE | N | IP Code | 54 |
| Number of Speeds | 1 | Hazardous Location | EXP PROOF CL I GR D CL II GR F&G T3B |

Technical Specifications

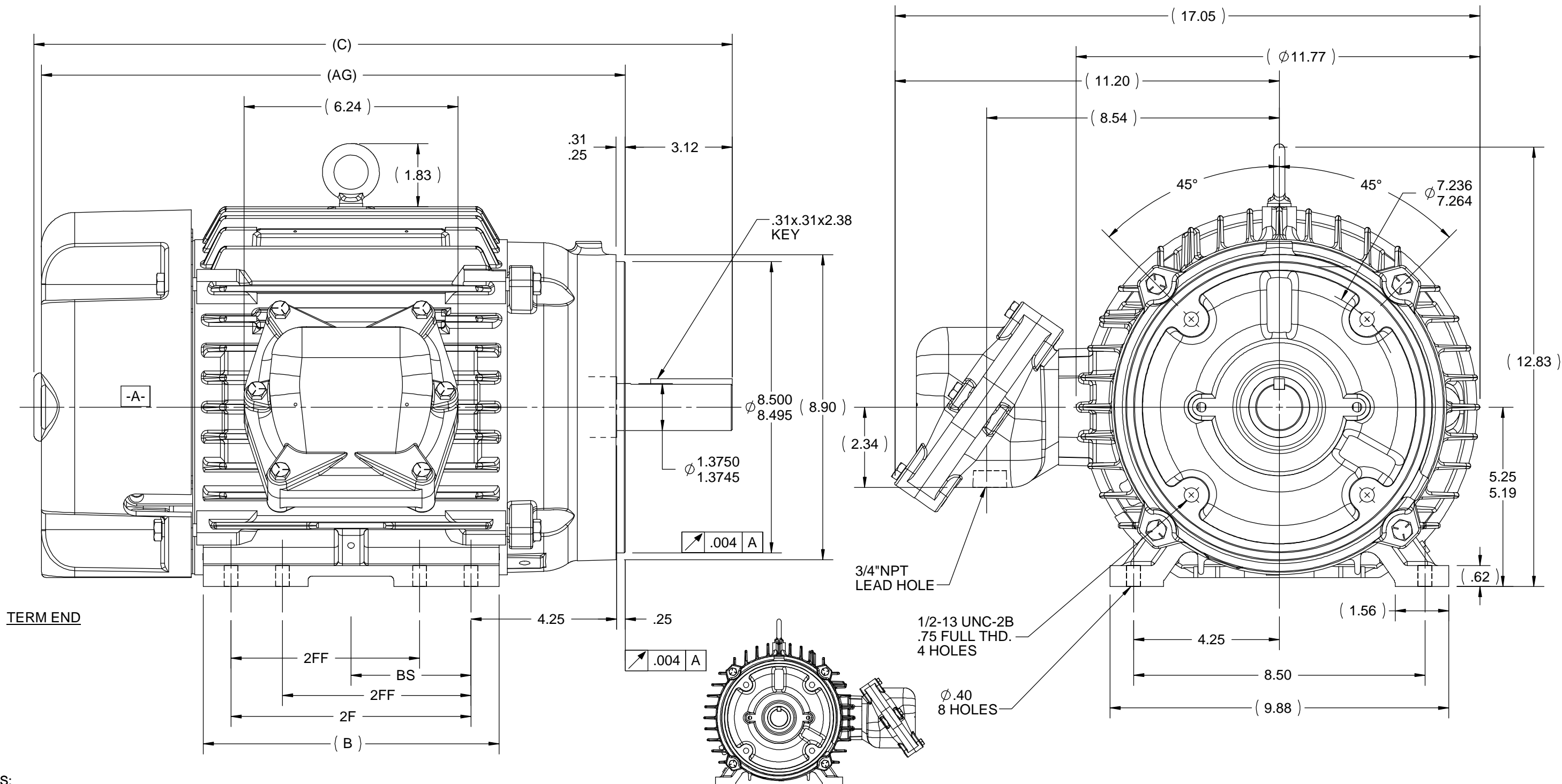
| | | | |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | 1.18 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 20.45 in |
| Frame Length | 9.12 in | Shaft Diameter | 1.375 in |
| Shaft Extension | 3.12 in | Assembly/Box Mounting | F1 ONLY |
| Connection Drawing | A-EE7308T | Outline Drawing | 037702-912 |

B

B

A

A





NOTES:

1. CONDUIT BOX CAN BE ROTATED IN 90 ° STEPS.
2. CONDUIT BOX CAN BE MOUNTED IN OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180 °. THIS MODIFICATION CAN BE PERFORMED ONLY BY THE ORIGINAL EQUIPMENT MANUFACTURER, OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATORIES INC. CATEGORY PTKQ, TITLED "MOTOR AND GENERATORS,. REBUILT FOR USE IN HAZARDOUS LOCATION".
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| | | | | | | | |
|------|---------|-------|-------|----|-----|-----|-------|
| 1212 | 215 | 23.45 | 11.76 | 10 | 7 | 5 | 20.11 |
| 912 | 213/215 | 20.45 | 8.63 | 7 | 5.5 | 3.5 | 17.11 |
| DASH | FRAME | C | B | 2F | 2FF | BS | AG |

| | | |
|---|--------------------|--------------------|
| DRAWING REVISION F | REVISION BY MVG | DATE 02/14/2018 |
| ECO ECO-0139688 | APPROVED BY ST | DATE 02/14/2018 |
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| | | | |
|--|---------|-----------|---------|
| 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] X 45 ° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1 | | | |
| mm SHOWN IN [BRACKETS] | | | |

| | | | |
|--|---|---------------------------------|-----------------|
| DRAWN BY PN 9/2/2010 |  Regal ™ Regal Beloit America, Inc. | | |
| DATE | | | |
| APPROVED BY | DESCRIPTION OUTLINE 210 FR. - EPFC | | |
| DATE | | | |
| REFERENCE 037660 | MATERIAL | PROCESS/FINISH | |
| THIRD ANGLE PROJECTION  | SIZE B | DRAWING NUMBER 037702 | SHEET 1 OF 1 |

HIGH VOLTAGE



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

THREE PHASE
DUAL VOLTAGE MOTOR

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 |
| ECO ECO-0159915 | APPROVED BY DR | DATE 01-15-2019 |

ECO DESCRIPTION
ADDED TERMINAL CONNECTION DIAGRAM

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DRAWN BY
SMC

DATE
05-13-1992

APPROVED BY
TB

DATE
05-13-1992

REFERENCE
EE7308/EE7300

THIRD ANGLE
PROJECTION



Regal Beloit America, Inc.

DESCRIPTION

CONN DIAGRAM-INTERNAL
 3 PHASE - DUAL VOLTAGE MOTOR

MATERIAL

PROCESS/FINISH

SIZE
A

DRAWING NUMBER

EE7308T

SHEET
1 OF 1

CERTIFICATION DATA SHEET

Model#: 213TTGN6528 AC

WINDING#: K2134268 NONE 1

CONN. DIAGRAM: A-EE7308T

ASSEMBLY: F1 ONLY

OUTLINE: 037702-912

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|---------|---------|-----------|-----------|-------|-----------|----------|--------|
| 7 1/2&5 | 5.6&3.7 | 1800 | 1770&1475 | 213TC | EPFC | H | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|-------|---------------------|--------------------|---------------------|----------------|------|-----------|-------|-----------|
| 3 | 60/50 | 230/460#190/ 380 | 20/10&17.4/8. 7 | LINE OR INVERTER | CONTINUOU S | F3 | 1.15/1.15 | 40 | 3300 |

| | | | | | |
|----------------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD EFF: 91.7&91 | 3/4 LOAD EFF: 91.4 | 1/2 LOAD EFF: 90.6 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
| FULL LOAD PF: 76.5&71.2 | 3/4 LOAD PF: 68.1 | 1/2 LOAD PF: 56 | 91 | SQ CAGE INV RATED | 11 / 5.5 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|----------------|--------------|-------------|
| 22.2 LB-FT | 135 / 67.5 | 52.9 LB-FT 238 | 75 LB-FT 338 | 45 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|---------------------------|-------------|--------------|------------|-----------------|-----------------|----------------------|
| 62 dBA | 72 dBA | 0.85 LB-FT^2 | 45 LB-FT^2 | 25 SEC. | 2 | 140 LBS. |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|--------------------|---------------------|---------------|-------------|----------------|--|---------------|---------|--------------|
| C-FACE | STANDARD | RIGID | HORIZONTAL | TRUE | EXP PROOF CL I GR D CL II GR F&G T3B | FALSE | NONE | BLUE (EPOXY) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|----------------------------|-------------------|
| DE | OPE | | | | | | |
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| 6309 | 6208 | | | | | | |

| THERMO-PROTECTORS | | | | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS | PROTECTORS | WDG RTDs | BRG RTDs | | | |
| TSTATS (N/C) | NOT | NONE | NONE | NONE | FALSE | NONE VOLTS |

If Inverter equals NONE, contact factory for further information

| | |
|---------------------------------|--------------------------------|
| * N O T E S * | INVERTER TORQUE: CONSTANT 10:1 |
| | INV. HP SPEED RANGE: NONE |
| | ENCODER: NONE |
| | NONE NONE NONE NONE PPR |
| | BRAKE: NONE NONE |
| | NONE P/N NONE |
| | NONE NONE |
| | - FT-LB NONE V NONE Hz |

DATE: 06/22/2017 06:43:19 AM
FORM 3531 REV.3 02/07/99

** Subject to change without notice.

Data Sheet

Date: 1/7/2019

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA

213TTGN6528



Submittal

Data @ 460 V

Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 5.5 | 5.8 | 6.9 | 8.4 | 10.0 | 11.4 | 12.1 | 67.5 | |
| Torque (ft-lb) | 0.00 | 5.5 | 11.0 | 16.5 | 22.2 | 25.5 | 28.0 | 52.9 | |
| RPM | 1800 | 1794 | 1785 | 1779 | 1770 | 1,765 | 1762 | 0 | |
| Efficiency (%) | | 85.5 | 90.6 | 91.4 | 91.7 | 91.1 | 91.6 | | |
| P.F. (%) | 5.0 | 35.5 | 56.0 | 68.1 | 76.5 | 77.3 | 79.4 | 42.6 | |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1600 | 1770 | 1800 |
| Current (Amps) | 67.5 | 57.0 | 41.0 | 10.0 | 5.5 |
| Torque (ft-lb) | 52.9 | 49.0 | 75.0 | 22.2 | 0.00 |

Information Block

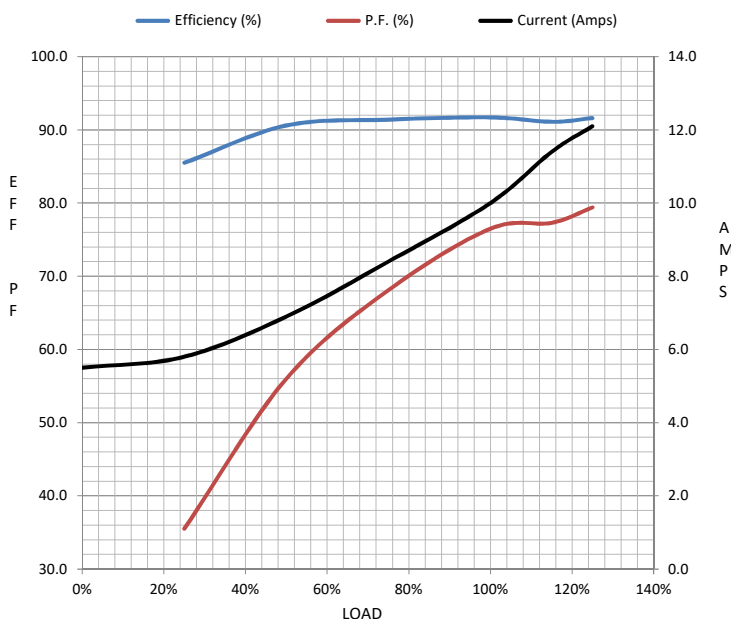
| | |
|-----------------------------|-------------------------|
| HP | 7.5 |
| Sync. RPM | 1800 |
| Frame | 213 |
| Enclosure | EPFC |
| Construction | TGS |
| Voltage | 230/460#190/380 V |
| Frequency | 60 Hz |
| Design | B |
| LR Code letter | H |
| Service Factor | 1.15 |
| Temp Rise @ FL | 45 °C |
| Duty | CONT |
| Ambient | 40 °C |
| Elevation | 3,300 feet |
| Rotor/Shaft wk ² | 0.85 Lb-Ft ² |
| Ref Wdg | K2134268 NONE |
| Sound Pressure @ 1M | 62 dBA |
| VFD Rating | CONSTANT 10:1 |
| Outline Dwg | 037702-912 |
| Conn. Diag | A-EE7308T |

Additional Specifications:

| |
|---|
| 0 |
| 0 |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|--------|--------|--------|--------|---------|
| 0.7600 | 1.1080 | 2.4580 | 3.1730 | 50.4140 |



Speed -Torque Curve

