# PRODUCT INFORMATION PACKET

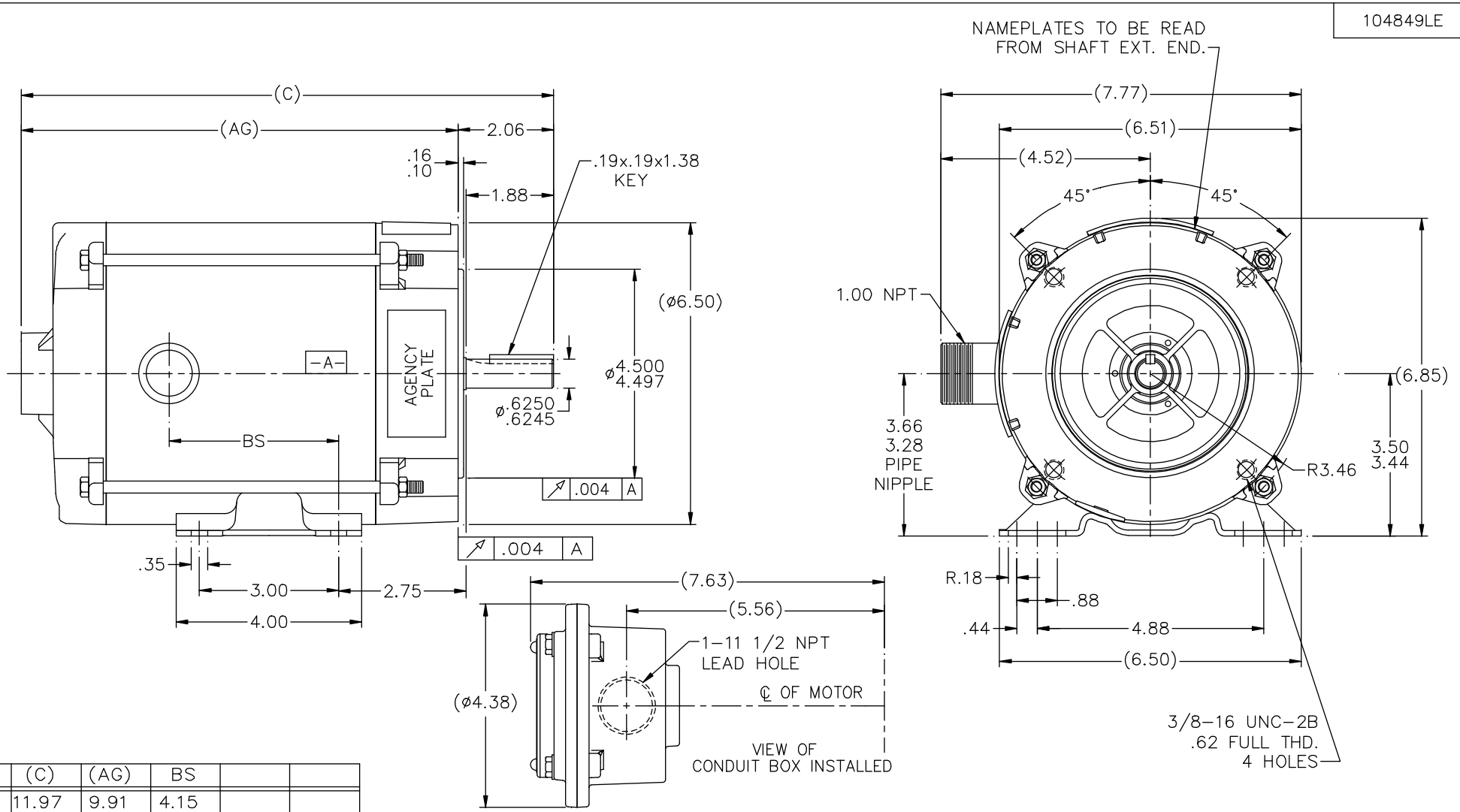
Model No: 114628.00
Catalog No: 114628.00
Explosion Proof Motor, 0.50 & 0.50 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM, 56C Frame, EPNV

## Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | 3 | Output HP | 0.50 & 0.50 Hp |
| Output KW | 0.37 & 0.37 kW | Voltage | 208-230/460 & 190/380 V |
| Speed | 1725 & 1425 rpm | Service Factor | 1.0 & 1.0 |
| Frame | 56C | Enclosure | Explosion Proof Non Ventilated |
| Thermal Protection | Automatic | Efficiency | 80 & 78.5 % |
| Ambient Temperature | 40 °C | Frequency | 60 & 50 Hz |
| Current | 1.8-1.6/.8 & 1.8/.91 A | Power Factor | 72 |
| Duty | Continuous | Insulation Class | B |
| Design Code | B | KVA Code | L |
| Drive End Bearing Size | 6203 | Opp Drive End Bearing Size | 6203 |
| UL | UL Listed And CSA Certified | CSA | Y |
| CE | N | IP Code | 54 |
| Number of Speeds | 1 | Hazardous Location | DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C |

## Technical Specifications

| | | | |
|---|---|---|---|
| Electrical Type | Squirrel Cage Induction Run | Starting Method | Across The Line |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | 36.24 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Rolled Steel |
| Shaft Type | NEMA 56 | Overall Length | 12.47 in |
| Frame Length | 6.81 in | Shaft Diameter | 0.625 in |
| Shaft Extension | 1.88 in | Assembly/Box Mounting | F1 ONLY |
| Connection Drawing | A-EE7335-LE | Outline Drawing | B-104849LE-681 |




| DASH | (C) | (AG) | BS | | |
|---|---|---|---|---|---|
| 631 | 11.97 | 9.91 | 4.15 | | |
| 681 | 12.47 | 10.41 | 4.65 | | |
| 731 | 12.97 | 10.91 | 5.15 | | |
| 781 | 13.47 | 11.41 | 5.65 | | |
| 831 | 13.97 | 11.91 | 6.15 | | |
| 881 | 14.47 | 12.41 | 6.65 | | |
| 931 | 14.97 | 12.91 | 7.15 | | |
| 981 | 15.47 | 13.41 | 7.65 | | |

| NO. | REVISION | BY & DATE | CHK |
|---|---|---|---|
| 1 | COND. BOX INSTALLED VIEW UPDATED PER ECR-0044571 | UD 10/16/13 | ST |

TOLERANCES UNLESS SPECIFIED

| DEC. | INCHES |
|---|---|
| .X | ±.1 |
| .XX | ±.03 |
| .XXX | ±.005 |
| .XXXX | ±.0005 |
| ANG | ±1/2° |

LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES

TITLE OUTLINE – 'C' FACE
56 FR. – EXP. PR.

MAT'L.

FINISH

CAD FILE 104849LE

RFP 06-25-2007

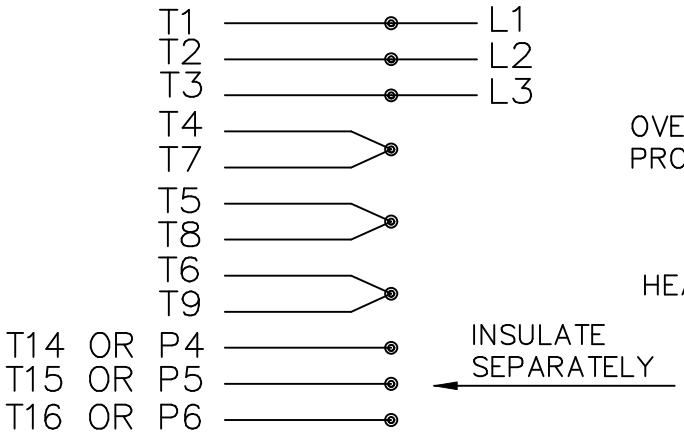
DIST WP

DRAWN RJW 06-25-2007
CHK ML 06-25-2007
APPD GK 06-25-2007
SCALE 1=2
REF
FMF
PREV

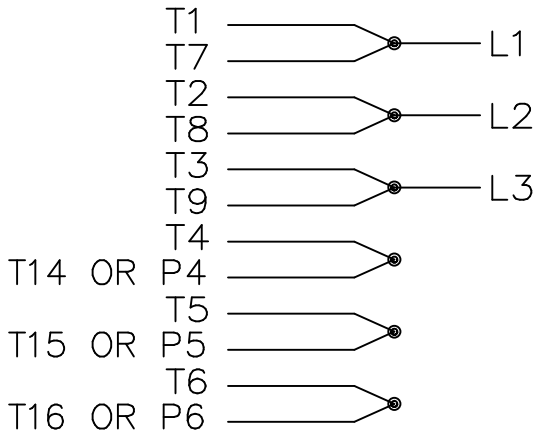
SIZE B | DRAWING NO. 104849LE | PAGE OF | REV. 1

EE7335-LE

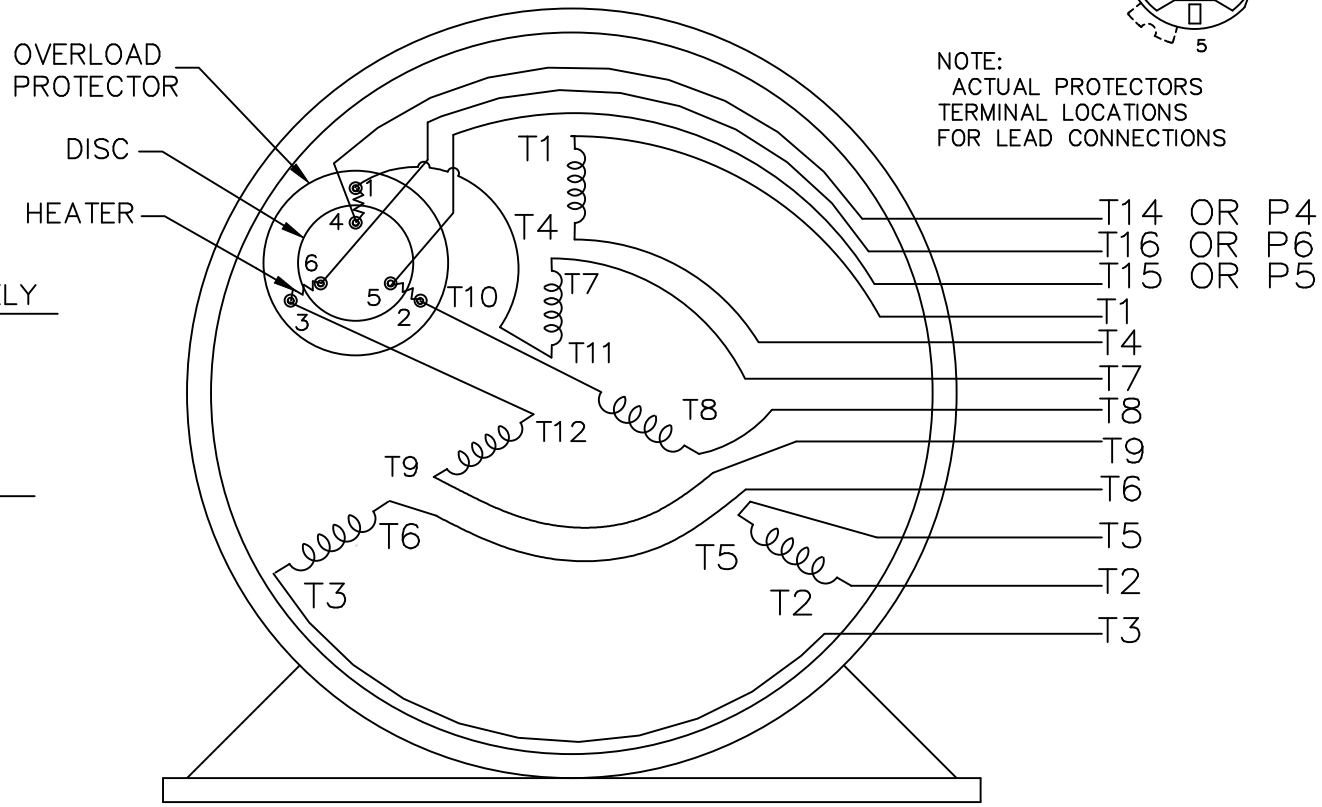
## HIGH VOLTAGE CONNECTIONS

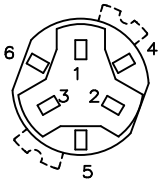



## LOW VOLTAGE CONNECTIONS




## THREE PHASE – DUAL VOLTAGE MOTOR WITH OVERLOAD PROTECTOR




NOTE:
ACTUAL PROTECTORS TERMINAL LOCATIONS FOR LEAD CONNECTIONS

## VIEW OF TERMINAL END

| |
|---|
| T2K |
| T4D |
| T6AN |

| NO. | REVISION | BY & DATE | CHK |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TOLERANCES UNLESS SPECIFIED

| DEC. | INCHES |
|---|---|
| .X | ± – |
| .XX | ± – |
| .XXX | ± – |
| .XXXX | ± – |
| ANG | ± – |

LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES

TITLE CONNECTION DIAGRAM
3Ø– DUAL VOLTAGE W/OVERLOAD PROTECTOR

MAT'L.
FINISH
CAD FILE EE7335_LE

RFP 04–20–2005
DIST WP

| | |
|---|---|
| DRAWN | NJS 04–20–2005 |
| CHK | ML 04–20–2005 |
| APPD | MJS 04–20–2005 |
| SCALE | |
| REF | |
| FMF | |
| PREV | |

SIZE A | DRAWING NO. EE7335–LE | PAGE OF | REV.



7/19/2007 9:27:17 AM -

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

**DATA VOLTS:** 460

# CERTIFICATION DATA SHEET

**CONN. DIAGRAM:** A-EE7335-LE **CAT #:** 114628.00
**OUTLINE:** B-104849LE-681
**WINDING:** ZT471 R16 3

## TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|---|---|---|---|---|---|---|---|---|
| 0.5 | 0.37 | 1800 | 1725 | 56C | EPNV | TTR | L | B |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 60/50 | 208-230/460#190/380 | 1.8-1.6/.8&1.8/.91 | ACROSS THE LINE | CONT | B | 1.15 | 40 | 3300 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F.L. EFF | 82.8 | 3/4 LD EFF | 78.6 | 1/2 LD EFF | 75.6 | GTD EFF | ELECT. TYPE |
| F.L. PF | 70.6 | 3/4 LD PF | 62.8 | 1/2 LD PF | 52.3 | 77.0 | SQ CAGE IND RUN |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) | |
|---|---|---|---|---|---|
| 1.52 LB-FT | 5.6 | 4.6 LB-FT 303% | 5.8 LB-FT 382% | 50 | |

| PRESSURE @ 3 | POWER | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|---|---|---|---|---|---|---|
| 60 dBA | 69 dBA | 0.06 LB-FT² | 0 LB-FT² | 15 SEC. | 0 | 25 LB. |

### *** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|---|---|---|---|---|---|---|---|---|
| C-FACE | STANDARD | RIGID | HORIZONTAL | NO | DF CL I GR C&D CL II GF | NO | NONE | JE - LEESON (ENAM |

| BEARINGS DE | BEARINGS ODE | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|---|---|---|---|---|---|---|---|
| BALL 6203 | BALL 6203 | POLYREX EM | STANDARD 56 | NONE | NONE | 1144 STRESSPROOF (C-223) | ROLLED STEEL |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|---|---|---|---|---|---|---|
| NONE | AUTOMATIC | NONE | NONE | NONE | FALSE | NA |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|---|---|---|---|---|---|---|
| 20.377 | 15.041 | 24.237 | 17.936 | 518.219 | 0.150 | ODE |

*
**NOTES**
*

**INVERTER TORQUE:** NONE
**INV. HP SPEED RANGE:** NONE

**ENCODER:** NONE
NONE
NONE NONE **PPR**

**BRAKE:** NONE
NONE NONE
**FT-LB:** NA
**VOLTAGE:** NONE **HZ:**
**UL:** Y-(LEESON UL REC)

**DATE:** 1/23/2018

# Data Sheet

**Date:** 1/23/2018

LEESON

114628.00

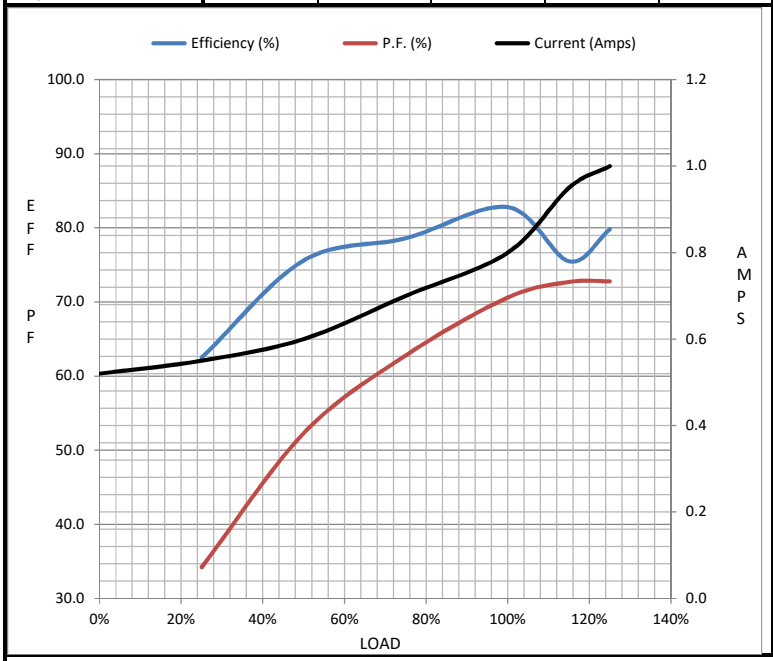
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 0.52 | 0.55 | 0.60 | 0.70 | 0.80 | 0.95 | 1.00 | 5.6 | |
| Torque (ft-lb) | 0.00 | 0.37 | 0.75 | 1.10 | 1.52 | 1.70 | 1.90 | 4.6 | |
| RPM | 1800 | 1785 | 1775 | 1760 | 1725 | 1,720 | 1715 | 0 | |
| Efficiency (%) | | 62.5 | 75.6 | 78.6 | 82.8 | 75.5 | 79.8 | | |
| P.F. (%) | 12.1 | 34.2 | 52.3 | 62.8 | 70.6 | 72.7 | 72.8 | 69.5 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 800 | 1330 | 1725 | 1800 |
| Current (Amps) | 5.6 | 5.0 | 3.5 | 0.80 | 0.52 |
| Torque (ft-lb) | 4.6 | 4.2 | 5.8 | 1.52 | 0.00 |




## Information Block

| | | |
|---|---|---|
| HP | 0.5 | |
| Sync. RPM | 1800 | |
| Frame | 56 | |
| Enclosure | EPNV | |
| Construction | TTR | |
| Voltage | 208-230/460#190/380 | V |
| Frequency | 60 | Hz |
| Design | B | |
| LR Code letter | L | |
| Service Factor | 1.15 | |
| Temp Rise @ FL | 50 | ° C |
| Duty | CONT | |
| Ambient | 40 | ° C |
| Elevation | 1,000 | feet |
| Rotor/Shaft wk² | 0.06 | Lb-Ft² |
| Ref Wdg | ZT471 R16 | |
| Sound Pressure @ 1M | 60 | dBA |
| VFD Rating | NONE | |
| Outline Dwg | B-104849LE-681 | |
| Conn. Diag | A-EE7335-LE | |
| Additional Specifications: | | |
| 0 | | |
| 0 | | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 20.3770 | 15.0410 | 24.2370 | 17.9360 | 518.2190 |