

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|  |   |  |                           |
|--|---|--|---------------------------|
| Customer :   |   |  |                           |
| Product line   | : Premium Efficiency Three-Phase                        | Product code :   | 15311780                  |
| Frame  | : 56C   | Cooling method   | : IC411 - TEFC            |
| Insulation class   | : F   | Mounting   | : F-1                     |
| Duty cycle   | : Cont.(S1)   | Rotation <sup>1</sup>  | : Both (CW and CCW)       |
| Ambient temperature  | : -20°C to +40°C  | Starting method  | : Direct On Line          |
| Altitude   | : 1000 m.a.s.l.   | Approx. weight <sup>2</sup>  | : 12.5 kg                 |
| Protection degree  | : IP55  | Moment of inertia (J)  | : 0.0036 kgm <sup>2</sup> |
| Output [HP]  | 0.75  | 0.75   | 0.75                      |
| Poles  | 4   | 4  | 4                         |
| Frequency [Hz]   | 60  | 50   | 50                        |
| Rated voltage [V]  | 208-230/460   | 190-220/380  | 415                       |
| Rated current [A]  | 2.63-2.38/1.19  | 2.64-2.28/1.32   | 1.31                      |
| L. R. Amperes [A]  | 20.3-18.3/9.16  | 16.1-13.9/8.05   | 8.91                      |
| LRC [A]  | 7.7x(Code L)  | 6.1x(Code H)   | 6.8x(Code K)              |
| No load current [A]  | 1.42-1.64/0.822   | 1.62-1.40/0.809  | 0.950                     |
| Rated speed [RPM]  | 1760  | 1450   | 1460                      |
| Slip [%]   | 2.22  | 3.33   | 2.67                      |
| Rated torque [kgfm]  | 0.309   | 0.375  | 0.373                     |
| Locked rotor torque [%]  | 240   | 180  | 220                       |
| Breakdown torque [%]   | 360   | 250  | 310                       |
| Service factor   |   | 1.15   | 1.15                      |
| Temperature rise   | 80 K  | 80 K   | 80 K                      |
| Locked rotor time  | 28s (cold) 16s (hot)                                    | 27s (cold) 15s (hot)   | 23s (cold) 13s (hot)      |
| Noise level <sup>2</sup>   | 52.0 dB(A)  | 49.0 dB(A)   | 49.0 dB(A)                |
| Efficiency (%)   | 25%   |  |                           |
|  | 50%   | 75.5   | 77.9                      |
|  | 75%   | 80.0   | 80.3                      |
|  | 100%  | 81.5   | 80.0                      |
| Power Factor   | 25%   |  |                           |
|  | 50%   | 0.49   | 0.56                      |
|  | 75%   | 0.62   | 0.70                      |
|  | 100%  | 0.71   | 0.79                      |
| Bearing type   | : <u>Drive end</u> 6203 ZZ <u>Non drive end</u> 6202 ZZ | Foundation loads   |                           |
| Sealing  | : V'Ring Without Bearing Seal                           | Max. traction  | : 31 kgf                  |
|  |   | Max. compression   | : 43 kgf                  |
| Lubrication interval   | : -   |  |                           |
| Lubricant amount   | : -   |  |                           |
| Lubricant type   | : Mobil Polyrex EM                                      |  |                           |
| Notes<br>USABLE @208V SF 1.00  |   |  |                           |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(4) At 100% of full load. |   | These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1. |                           |
| Rev.   | Changes Summary   | Performed  | Checked                   |
|  |   |  |                           |
| Performed by   |   |  |                           |
| Checked by   |   |  |                           |
| Date   | 17/05/2022  |  |                           |
|  |   | Page   | Revision                  |
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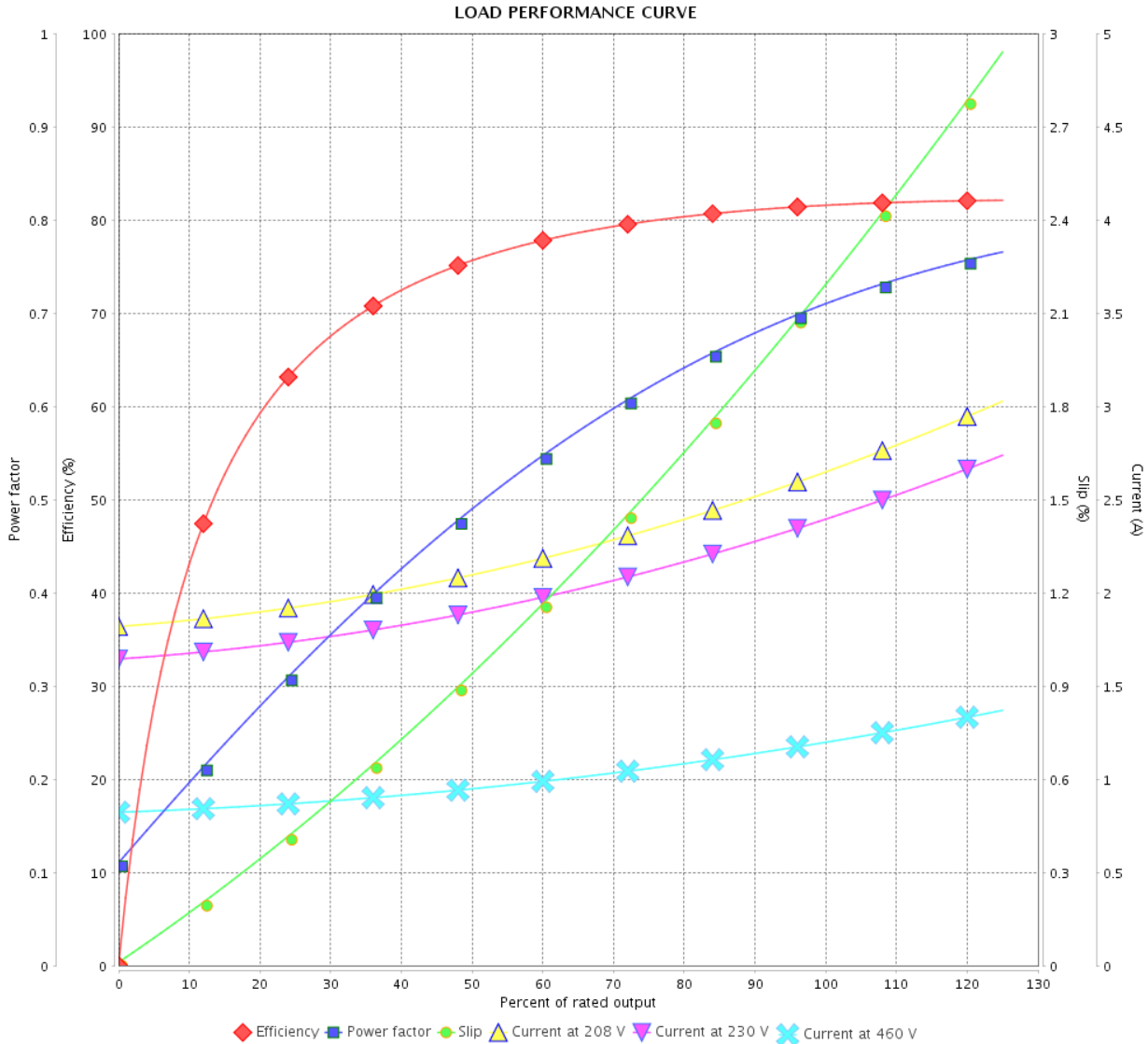
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 15311780



Performance : 208-230/460 V 60 Hz 4P

Rated current : 2.63-2.38/1.19 A  
 LRC : 7.7  
 Rated torque : 0.309 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 360 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0036 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |

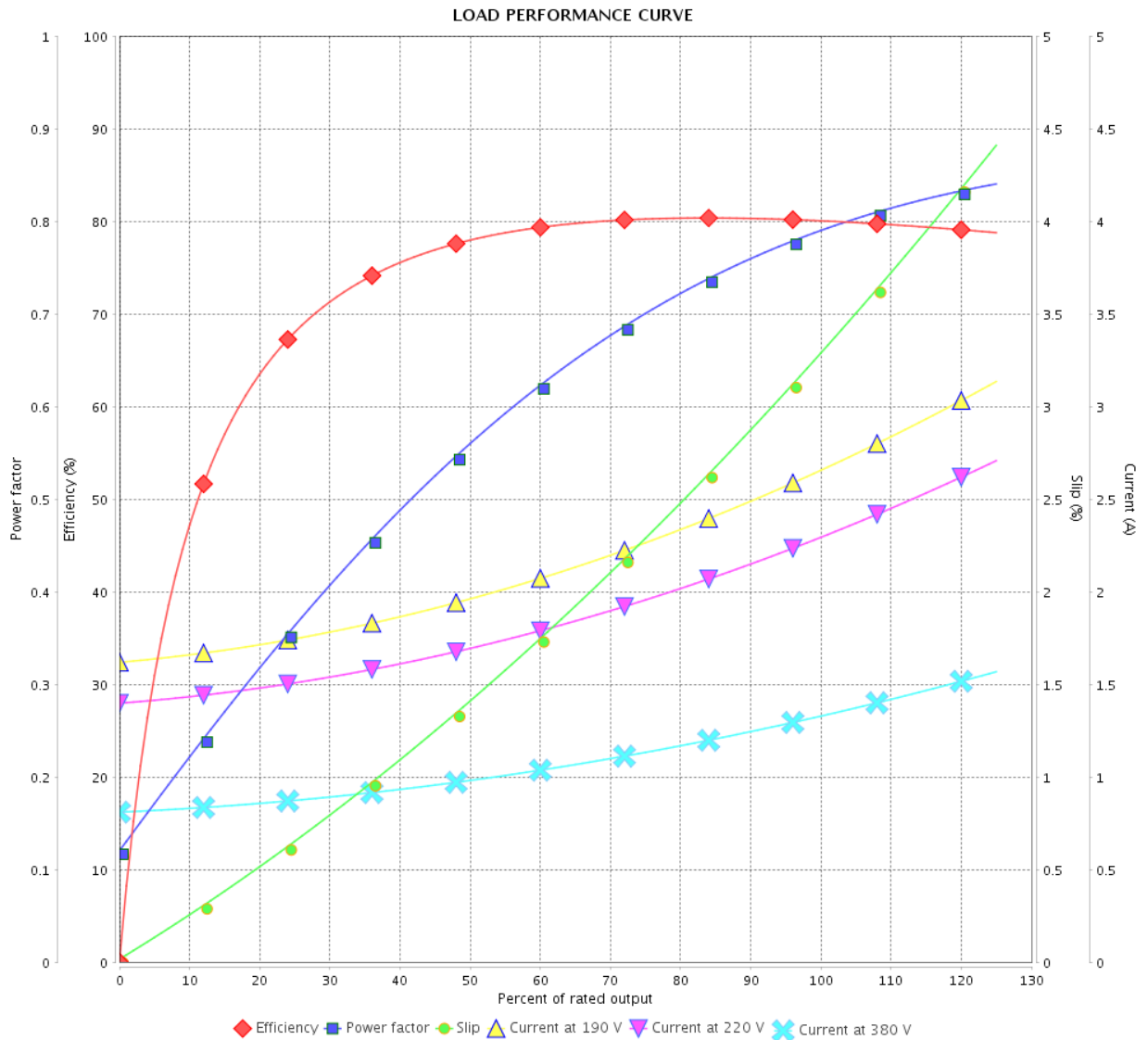
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : Premium Efficiency Three-Phase      Product code : 15311780



Performance : 190-220/380 V 50 Hz 4P

Rated current : 2.64-2.28/1.32 A  
 LRC : 6.1  
 Rated torque : 0.375 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 250 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0036 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |

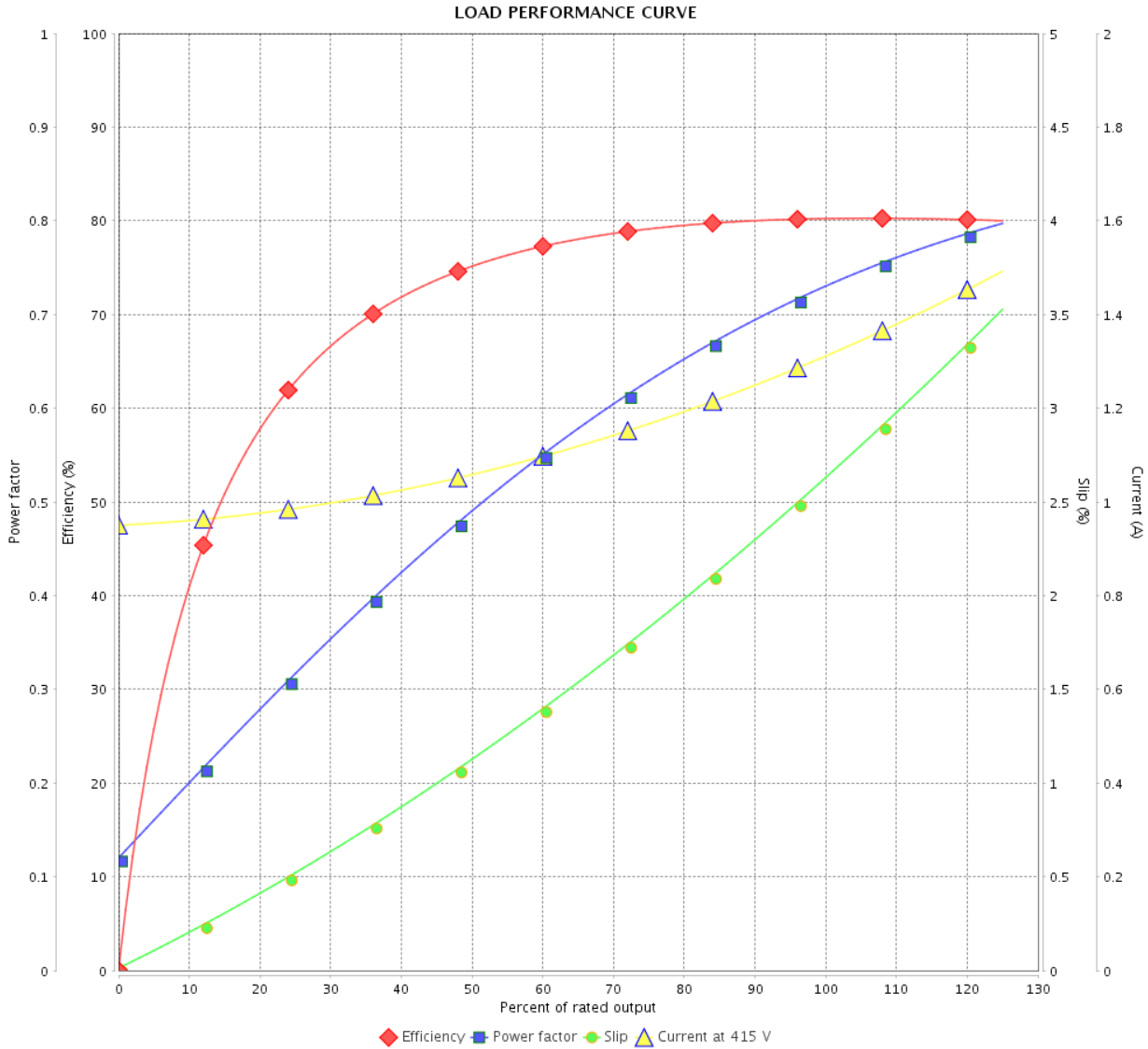
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 15311780



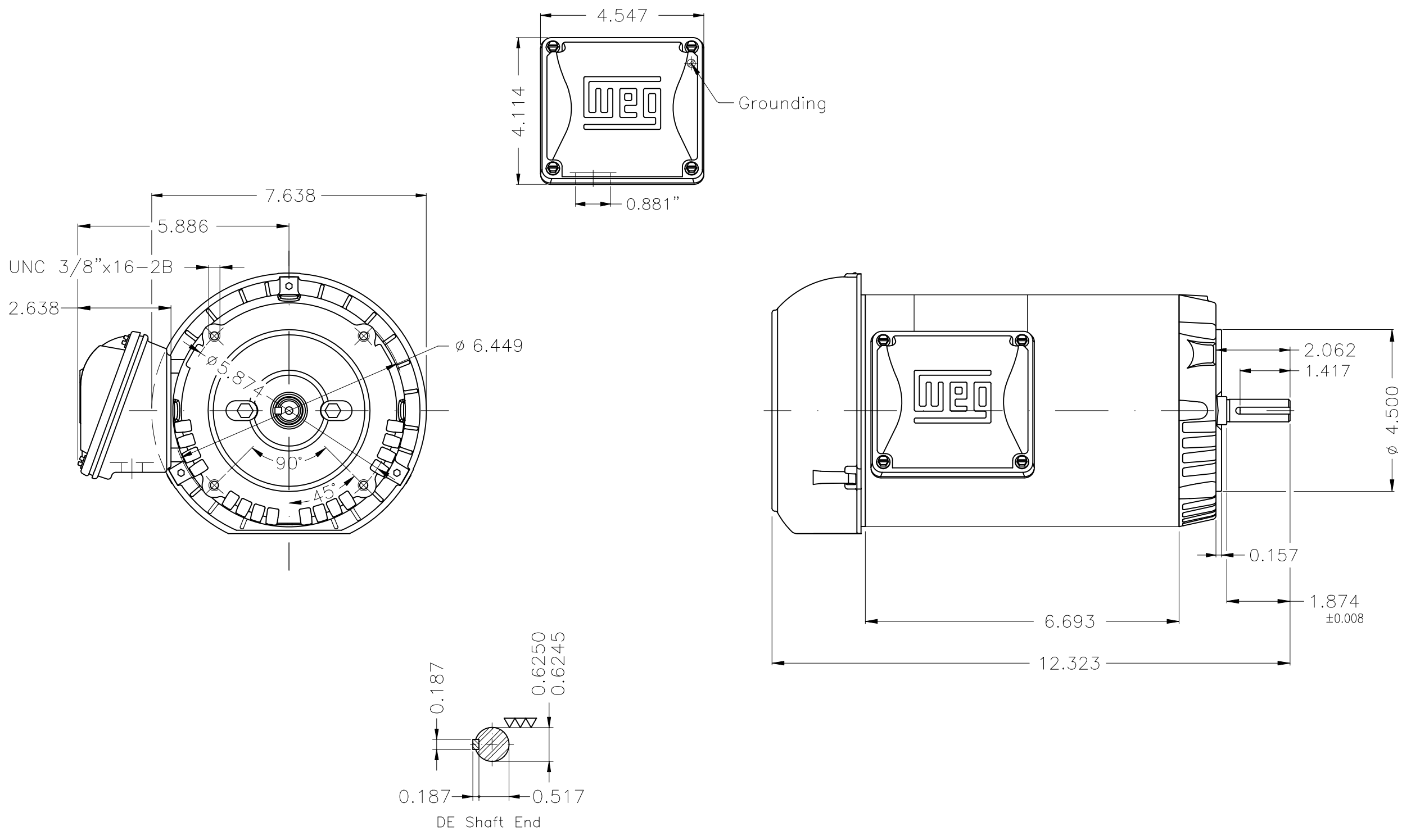
Performance : 415 V 50 Hz 4P

Rated current : 1.31 A  
 LRC : 6.8  
 Rated torque : 0.373 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 310 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0036 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>4 / 4 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 17/05/2022      |           |               |          |

A  
B  
C  
D  
E



|                               |            |   |                     |       |          |         |          |      |     |
|-------------------------------|------------|---|---------------------|-------|----------|---------|----------|------|-----|
| Color Munsell N 1 matte black |            |   |                     |       |          |         |          |      |     |
| Painting plan 207N            |            |   |                     |       |          |         |          |      |     |
| Mounting F-1/B14R(D)          |            |   |                     |       |          |         |          |      |     |
|                               |            |   |                     |       |          |         |          |      |     |
|                               |            |   |                     |       |          |         |          |      |     |
|                               |            |   |                     |       |          |         |          |      |     |
|                               |            |   |                     |       |          |         |          |      |     |
|                               |            |   |                     |       |          |         |          |      |     |
| HYBRISUSER 00                 |            |   |                     |       |          |         |          |      |     |
| ECM                           | LOC        | SUMMARY OF MODIFICATIONS                |                     |       | EXECUTED | CHECKED | RELEASED | DATE | VER |
| EXECUTED                      | HYBRISUSER | THREE PH. MOTOR ROLLED STEEL PREM. EFF. |                     |       | PREVIEW  |         | WDD 00   |      |     |
| CHECKED                       |            | FRAME 56C IP55 TEFC                     |                     |       |          |         |          |      |     |
| RELEASED                      |            |   |                     |       |          |         |          |      |     |
| REL. DATE                     | WMO        | Jaragua do Sul                          | Product Engineering | SHEET |          | 1 / 1   |          |      |     |

0.75 HP 04 Poles 60 Hz



Dimensions in inches XME A3