

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Three-Phase Product code : 13721750

|                     |                  |                             |                           |
|---------------------|------------------|-----------------------------|---------------------------|
| Frame               | : W56J           | Cooling method              | : IC411 - TEFC            |
| Insulation class    | : F              | Mounting                    | : W-6                     |
| Duty cycle          | : Cont.(S1)      | Rotation <sup>1</sup>       | : CCW                     |
| Ambient temperature | : -20°C to +40°C | Starting method             | : Direct On Line          |
| Altitude            | : 1000 m.a.s.l.  | Approx. weight <sup>3</sup> | : 7.9 kg                  |
| Protection degree   | : IP55           | Moment of inertia (J)       | : 0.0008 kgm <sup>2</sup> |

|                          |                      |                      |                      |
|--------------------------|----------------------|----------------------|----------------------|
| Output [HP]              | 0.5                  | 0.5                  | 0.5                  |
| Poles                    | 2                    | 2                    | 2                    |
| Frequency [Hz]           | 60                   | 50                   | 50                   |
| Rated voltage [V]        | 208-230/460          | 190/380              | 220/415              |
| Rated current [A]        | 1.73-1.57/0.784      | 1.77/0.885           | 1.58/0.836           |
| L. R. Amperes [A]        | 13.3-12.1/6.04       | 10.3/5.13            | 10.7/5.68            |
| LRC [A]                  | 7.7x(Code L)         | 5.8x(Code H)         | 6.8x(Code K)         |
| No load current [A]      | 0.719-0.834/0.417    | 0.816/0.408          | 0.879/0.466          |
| Rated speed [RPM]        | 3435                 | 2780                 | 2825                 |
| Slip [%]                 | 4.58                 | 7.33                 | 5.83                 |
| Rated torque [kgfm]      | 0.106                | 0.131                | 0.128                |
| Locked rotor torque [%]  | 330                  | 240                  | 300                  |
| Breakdown torque [%]     | 360                  | 250                  | 310                  |
| Service factor           |                      | 1.15                 | 1.15                 |
| Temperature rise         | 80 K                 | 80 K                 | 80 K                 |
| Locked rotor time        | 32s (cold) 18s (hot) | 32s (cold) 18s (hot) | 25s (cold) 14s (hot) |
| Noise level <sup>2</sup> | 65.0 dB(A)           | 64.0 dB(A)           | 64.0 dB(A)           |
| Efficiency (%)           | 25%                  |                      |                      |
|                          | 50%                  | 68.0                 | 72.0                 |
|                          | 75%                  | 72.0                 | 75.0                 |
|                          | 100%                 | 74.0                 | 74.7                 |
| Power Factor             | 25%                  |                      |                      |
|                          | 50%                  | 0.64                 | 0.70                 |
|                          | 75%                  | 0.75                 | 0.81                 |
|                          | 100%                 | 0.80                 | 0.85                 |

|   |                  |               |  |
|---|------------------|---------------|--|
| Bearing type<br>Sealing<br>Lubrication interval<br>Lubricant amount<br>Lubricant type | Drive end        | Non drive end | Foundation loads<br>Max. traction : 8 kgf<br>Max. compression : 16 kgf |
|   | 6203 2RS         | 6202 2RS      |  |
|   | V'Ring           | V'Ring        |  |
|   | -                | -             |  |
|   | -                | -             |  |
|   | Mobil Polyrex EM |               |  |

Notes  
USABLE @208V SF 1.00

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (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 | Date |
|--------------|-----------------|---------------------------|---------|------|
|              |                 |                           |         |      |
| Performed by |                 | Page<br>1 / 4<br>Revision |         |      |
| Checked by   |                 |                           |         |      |
| Date         | 16/05/2022      |                           |         |      |

# LOAD PERFORMANCE CURVE

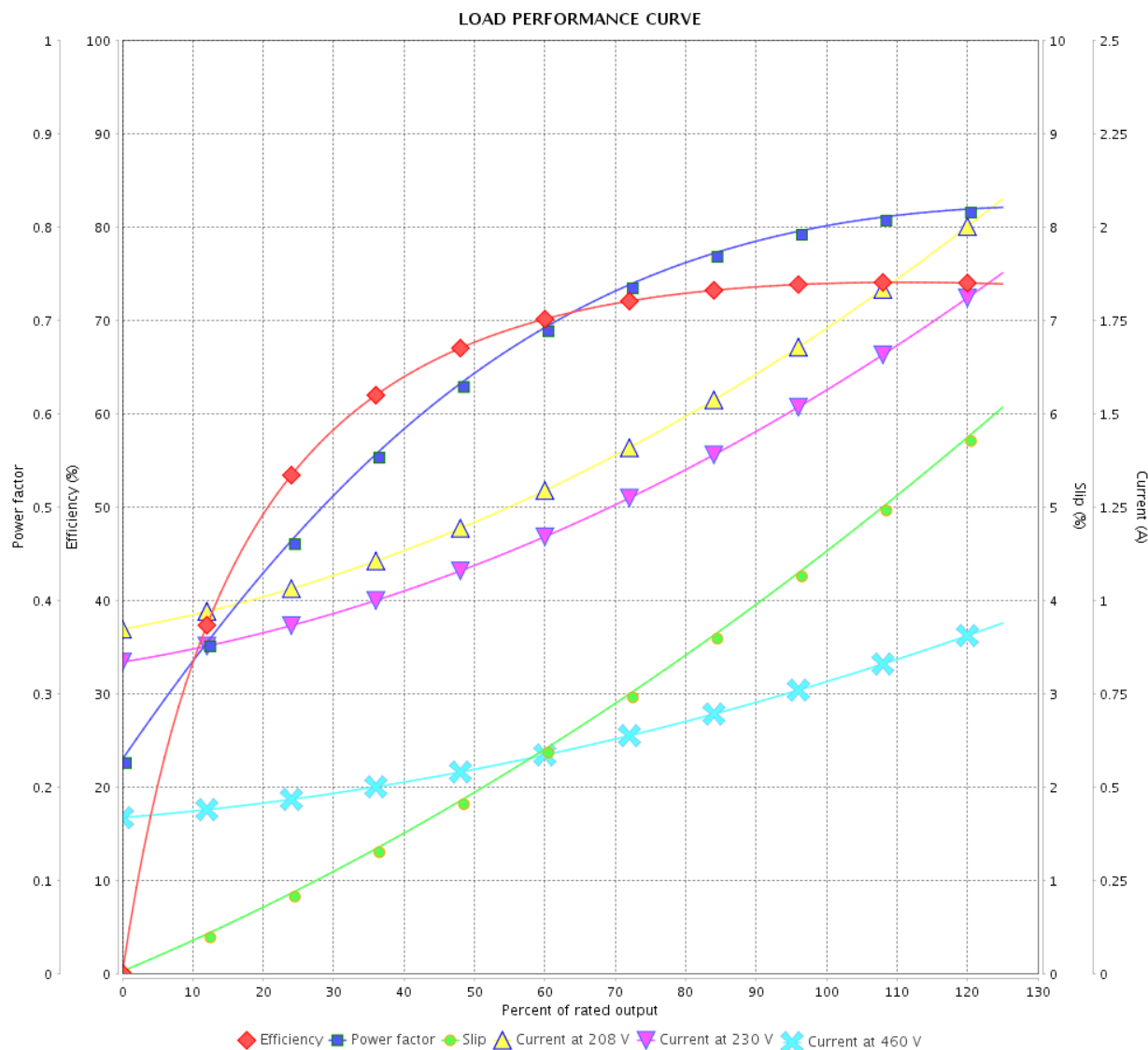
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Three-Phase

Product code : 13721750



Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.73-1.57/0.784 A  
 LRC : 7.7  
 Rated torque : 0.106 kgfm  
 Locked rotor torque : 330 %  
 Breakdown torque : 360 %  
 Rated speed : 3435 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

| Rev.         | Changes Summary | Performed                                 | Checked | Date |
|--------------|-----------------|---|---------|------|
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| Checked by   |                 |   |         |      |
| Date         | 16/05/2022      |   |         |      |

# LOAD PERFORMANCE CURVE

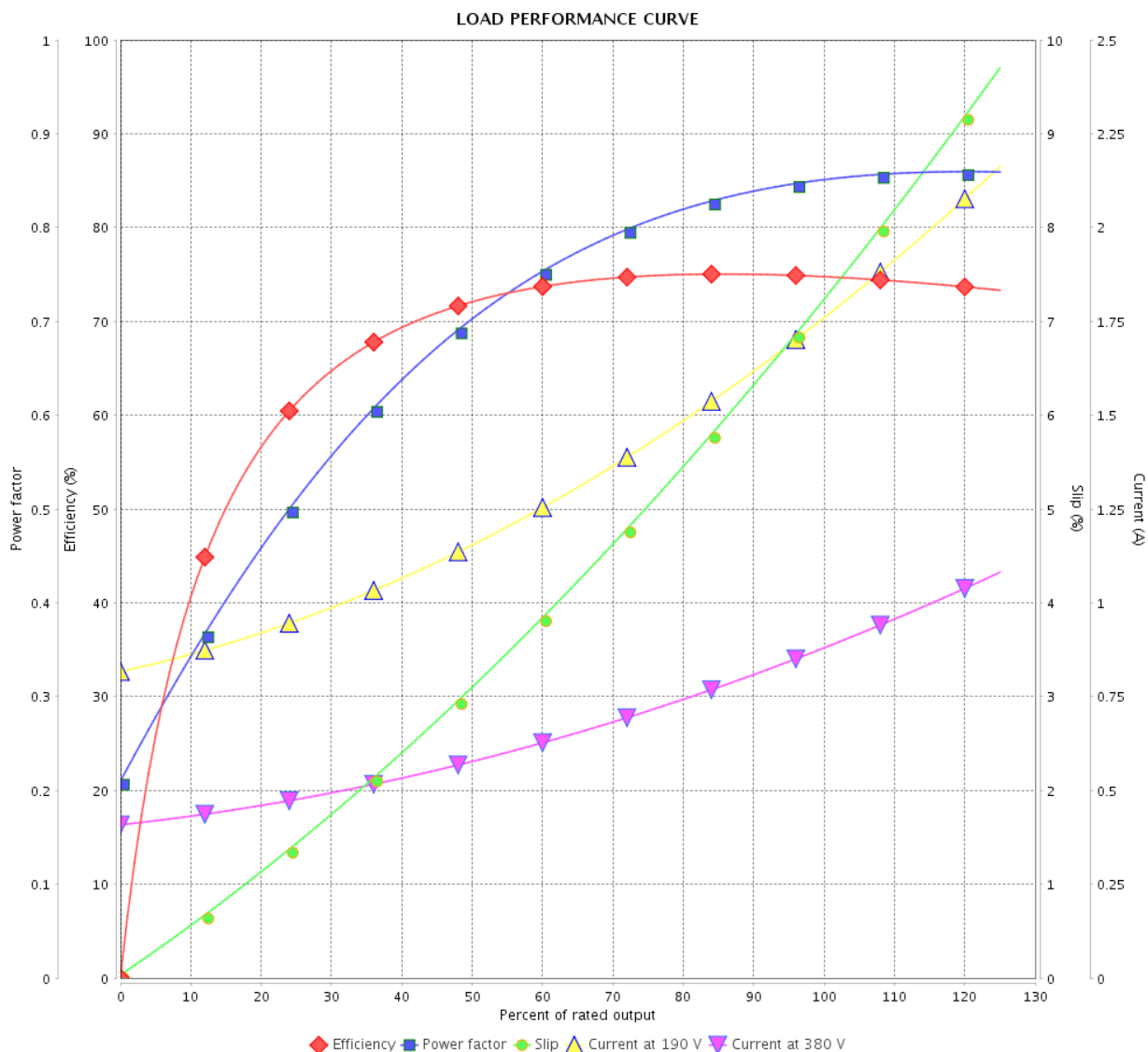
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Three-Phase

Product code : 13721750



Performance : 190/380 V 50 Hz 2P

Rated current : 1.77/0.885 A  
 LRC : 5.8  
 Rated torque : 0.131 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 250 %  
 Rated speed : 2780 rpm

Moment of inertia (J) : 0.0008 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>3 / 4Revision |         |      |
| Checked by   |                 |                       |         |      |
| Date         | 16/05/2022      |                       |         |      |

# LOAD PERFORMANCE CURVE

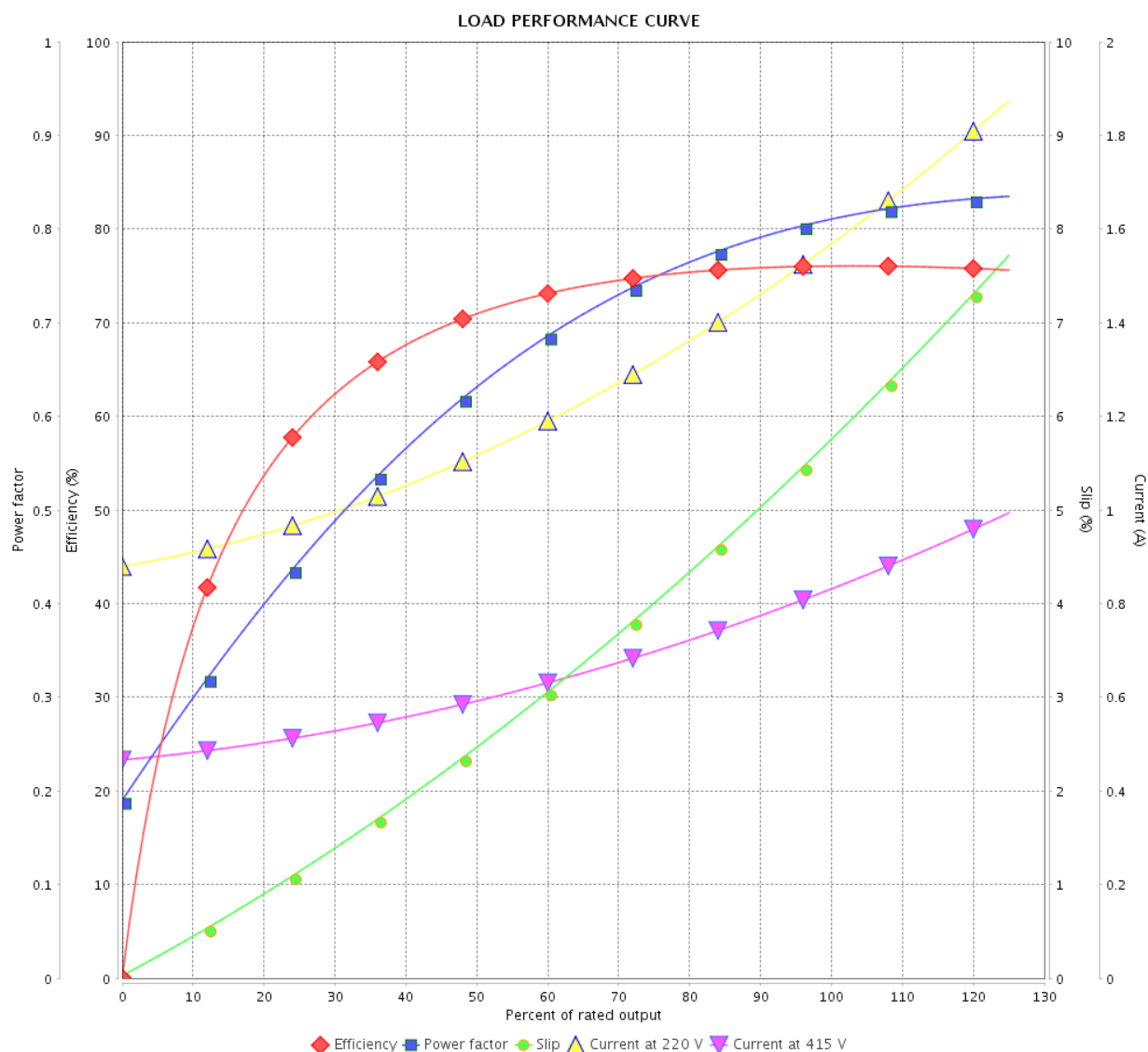
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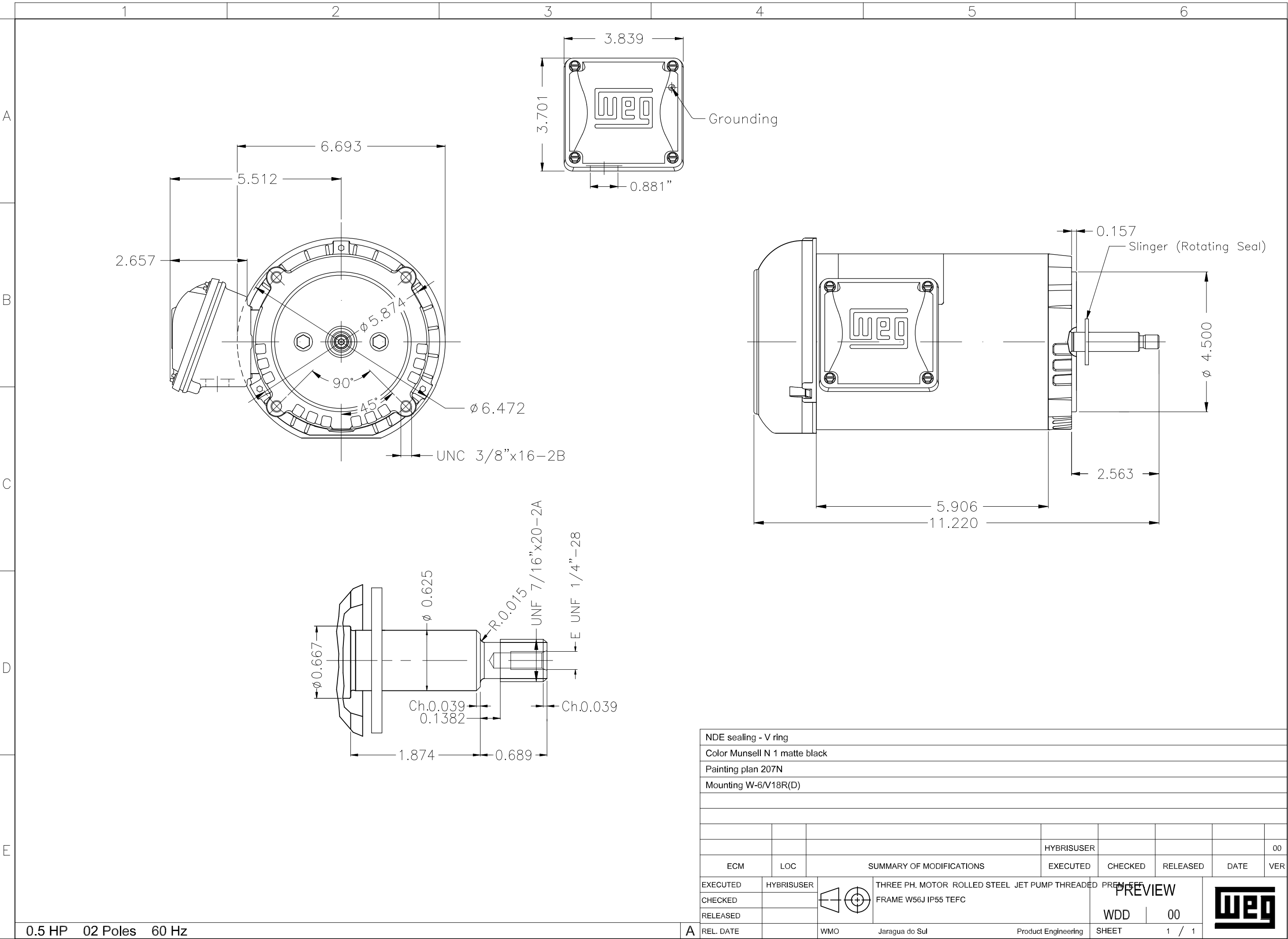


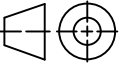

Performance : 220/415 V 50 Hz 2P

Rated current : 1.58/0.836 A  
 LRC : 6.8  
 Rated torque : 0.128 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 310 %  
 Rated speed : 2825 rpm

Moment of inertia (J) : 0.0008 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 |                 | <div>Page 4 / 4</div> <div>Revision</div> |         |      |
| Checked by   |                 |   |         |      |
| Date         | 16/05/2022      |   |         |      |



|                               |            |  |                |                     |  |         |   |      |     |
|-------------------------------|------------|--|----------------|---------------------|--|---------|---|------|-----|
| NDE sealing - V ring          |            |  |                |                     |  |         |   |      |     |
| Color Munsell N 1 matte black |            |  |                |                     |  |         |   |      |     |
| Painting plan 207N            |            |  |                |                     |  |         |   |      |     |
| Mounting W-6/V18R(D)          |            |  |                |                     |  |         |   |      |     |
|                               |            |  |                |                     |  |         |   |      |     |
|                               |            |  |                |                     |  |         |   |      |     |
|                               |            |  |                |                     |  |         |   |      |     |
|                               |            |  |                |                     |  |         |   |      |     |
|                               |            |  |                | HYBRISUSER          |  |         |   |      | 00  |
| ECM                           | LOC        | SUMMARY OF MODIFICATIONS   |                |                     | EXECUTED                               | CHECKED | RELEASED  | DATE | VER |
| EXECUTED                      | HYBRISUSER |  <div>THREE PH. MOTOR ROLLED STEEL JET PUMP THREADED PREM EFF</div> <div>FRAME W56J IP55 TEFC</div> |                |                     | <div>PREVIEW</div> <div>WDD   00</div> |         |  |      |     |
| CHECKED                       |            |  |                |                     |  |         |   |      |     |
| RELEASED                      |            |  |                |                     |  |         |   |      |     |
| REL. DATE                     |            |  |                |                     |  |         |   |      |     |
|                               |            | WMO  | Jaragua do Sul | Product Engineering | SHEET                                  | 1 / 1   |   |      |     |