

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase Product code : 13485858

|                     |                  |                             |                           |
|---------------------|------------------|-----------------------------|---------------------------|
| Frame               | : 182/4JM        | 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> | : 39.5 kg                 |
| Protection degree   | : IP55           | Moment of inertia (J)       | : 0.0144 kgm <sup>2</sup> |
| Design              | : B              |                             |                           |

|                          |                      |                    |                    |
|--------------------------|----------------------|--------------------|--------------------|
| Output [HP]              | 2                    | 2                  | 2                  |
| Poles                    | 6                    | 6                  | 6                  |
| Frequency [Hz]           | 60                   | 50                 | 50                 |
| Rated voltage [V]        | 230/460              | 190-220/380        | 415                |
| Rated current [A]        | 6.00/3.00            | 7.00-6.05/3.50     | 3.41               |
| L. R. Amperes [A]        | 45.0/22.5            | 42.7-36.9/21.3     | 24.2               |
| LRC [A]                  | 7.5x(Code K)         | 6.1x(Code H)       | 7.1x(Code K)       |
| No load current [A]      | 3.74/1.87            | 3.69-3.19/1.85     | 2.15               |
| Rated speed [RPM]        | 1170                 | 955                | 965                |
| Slip [%]                 | 2.50                 | 4.50               | 3.50               |
| Rated torque [kgfm]      | 1.24                 | 1.52               | 1.50               |
| Locked rotor torque [%]  | 260                  | 210                | 280                |
| Breakdown torque [%]     | 370                  | 280                | 350                |
| Service factor           | 1.15                 | 1.15               | 1.15               |
| Temperature rise         | 80 K                 | 80 K               | 80 K               |
| Locked rotor time        | 79s (cold) 44s (hot) | 0s (cold) 0s (hot) | 0s (cold) 0s (hot) |
| Noise level <sup>2</sup> | 52.0 dB(A)           | 50.0 dB(A)         | 50.0 dB(A)         |
| Efficiency (%)           | 25%                  |                    |                    |
|                          | 50%                  | 84.0               | 83.7               |
|                          | 75%                  | 86.5               | 86.0               |
|                          | 100%                 | 88.5               | 86.2               |
| Power Factor             | 25%                  |                    |                    |
|                          | 50%                  | 0.50               | 0.50               |
|                          | 75%                  | 0.62               | 0.63               |
|                          | 100%                 | 0.71               | 0.71               |

|                      |                    |                      |                  |           |
|----------------------|--------------------|----------------------|------------------|-----------|
|                      | <u>Drive end</u>   | <u>Non drive end</u> | Foundation loads |           |
| Bearing type         | : 6207 ZZ          | 6205 ZZ              | Max. traction    | : 90 kgf  |
| Sealing              | : V'Ring           | Without Bearing Seal | Max. compression | : 130 kgf |
| Lubrication interval | : -                | -                    |                  |           |
| Lubricant amount     | : -                | -                    |                  |           |
| Lubricant type       | : Mobil Polyrex EM |                      |                  |           |

### Notes

USABLE @208V 6.63A SF 1.00 SFA 6.63A

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 |                 |           |               |          |
| Checked by   |                 |           |               |          |
| Date         | 16/05/2022      |           | Page<br>1 / 4 | Revision |

# LOAD PERFORMANCE CURVE

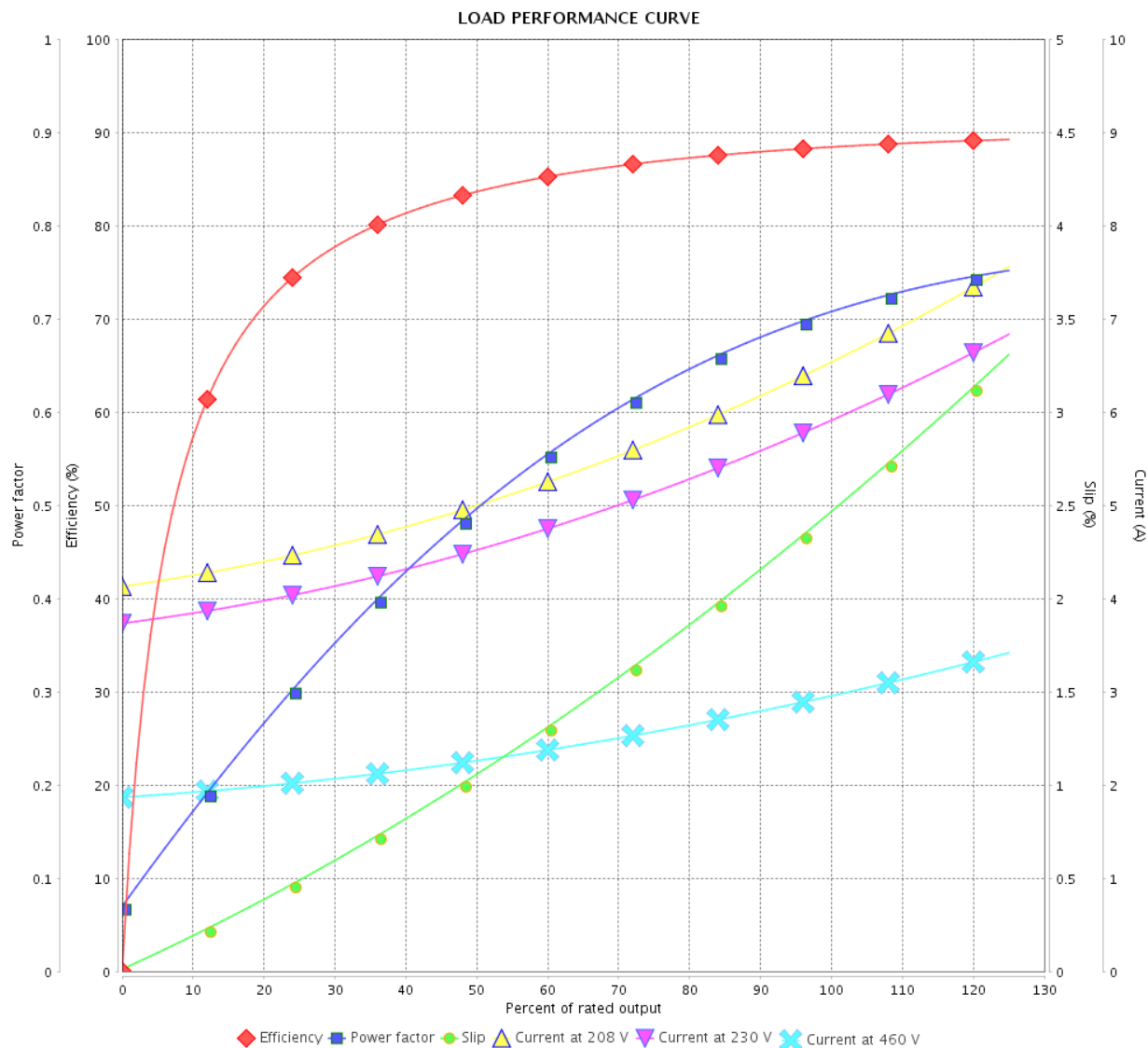
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13485858



Performance : 230/460 V 60 Hz 6P

Rated current : 6.00/3.00 A  
 LRC : 7.5  
 Rated torque : 1.24 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 370 %  
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.0144 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
|--------------|-----------------|--|-----------|---------|----------|
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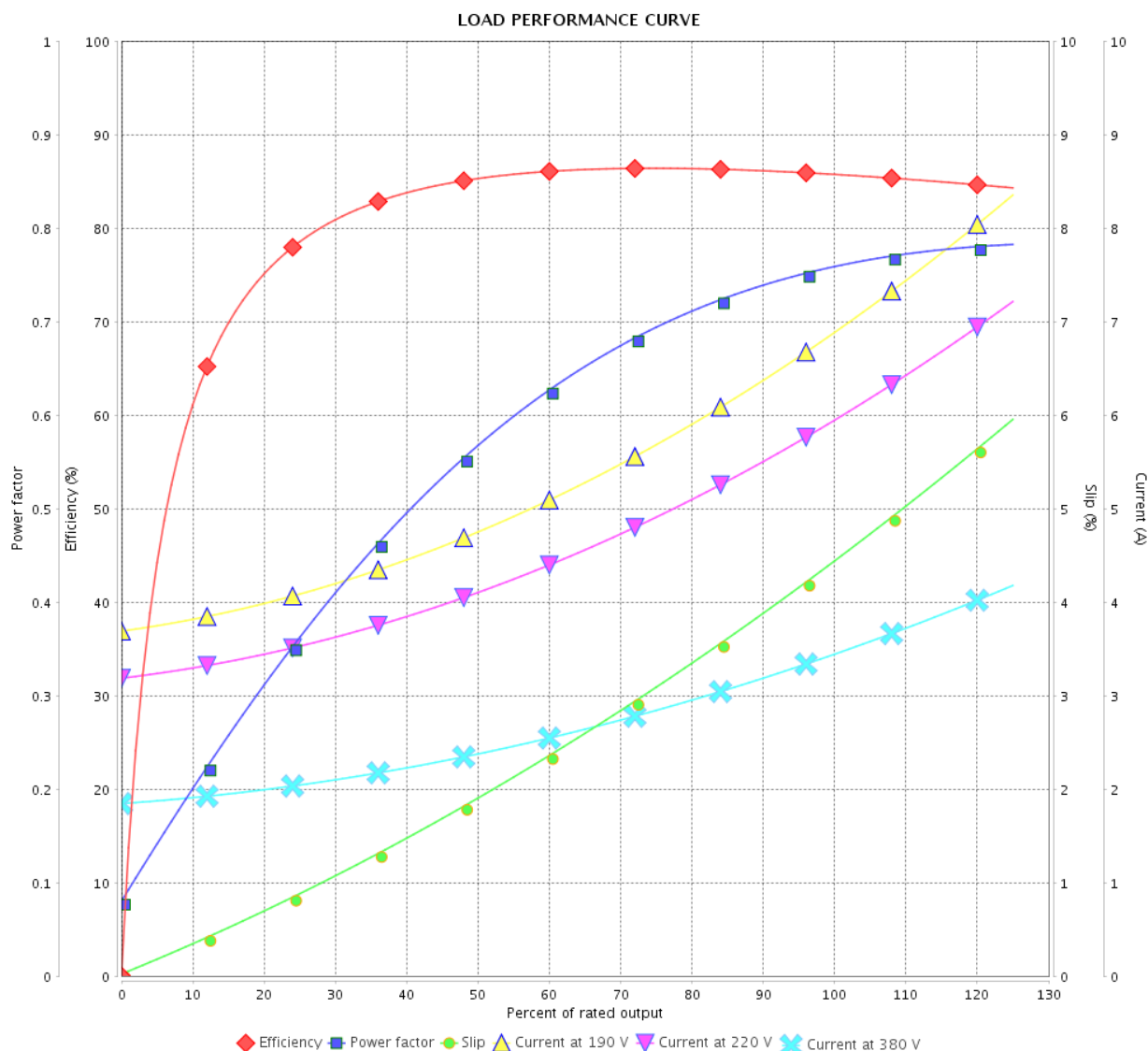
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13485858



Performance : 190-220/380 V 50 Hz 6P

Rated current : 7.00-6.05/3.50 A  
LRC : 6.1  
Rated torque : 1.52 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 280 %  
Rated speed : 955 rpm

Moment of inertia (J) : 0.0144 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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

# LOAD PERFORMANCE CURVE

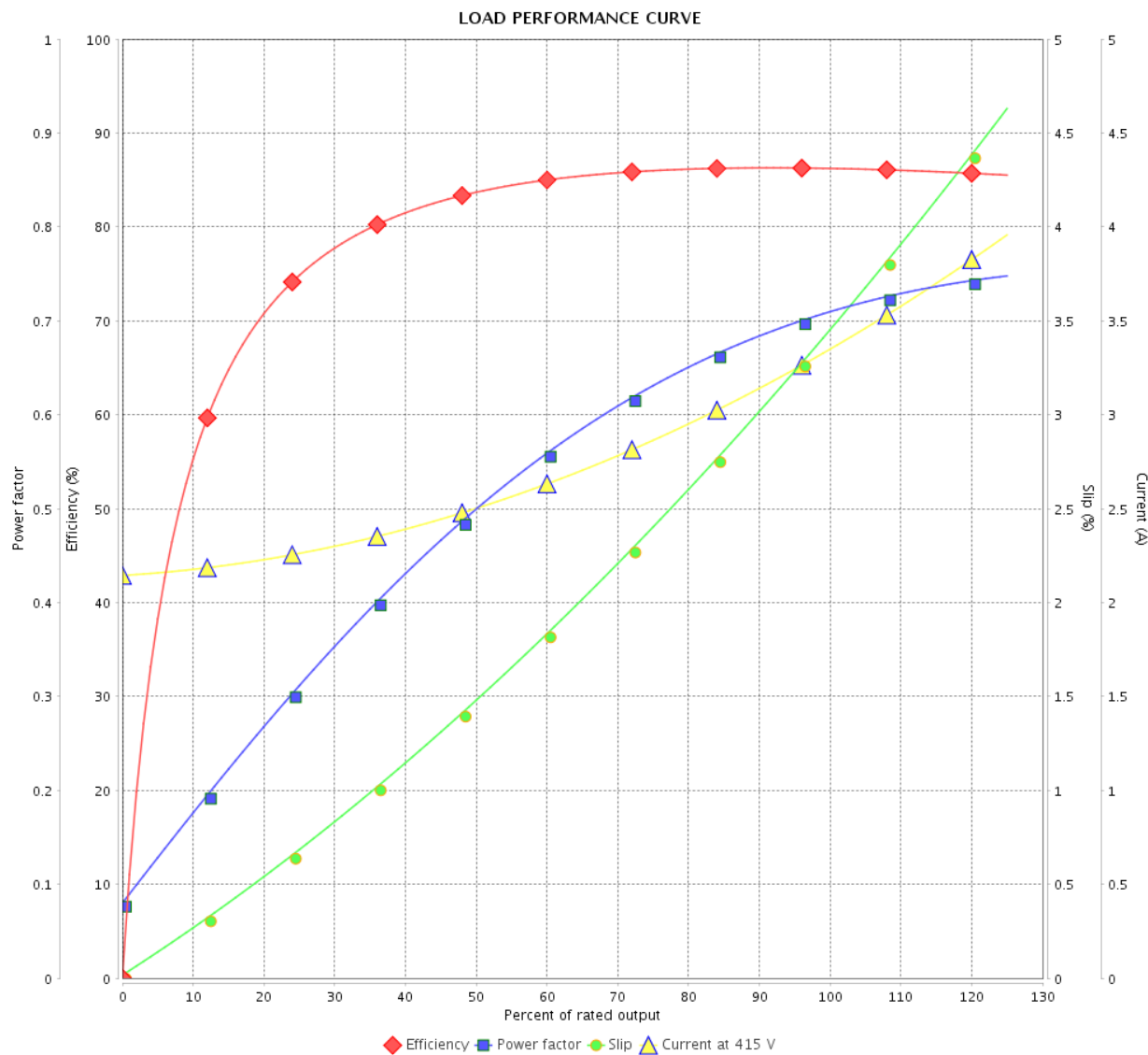
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13485858



Performance : 415 V 50 Hz 6P

Rated current : 3.41 A  
 LRC : 7.1  
 Rated torque : 1.50 kgfm  
 Locked rotor torque : 280 %  
 Breakdown torque : 350 %  
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0144 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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