

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595

|                     |                  |                             |                           |
|---------------------|------------------|-----------------------------|---------------------------|
| Frame               | : 256TC          | Cooling method              | : IC01 - ODP              |
| 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>3</sup> | : 0.0 kg                  |
| Protection degree   | : IP23           | Moment of inertia (J)       | : 0.0778 kgm <sup>2</sup> |
| Design              | : B              |                             |                           |

|                          |                      |                      |                      |                      |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Output [HP]              | 20                   | 20                   | 20                   | 20                   |
| Poles                    | 4                    | 4                    | 4                    | 4                    |
| Frequency [Hz]           | 60                   | 50                   | 50                   | 50                   |
| Rated voltage [V]        | 230/460              | 380                  | 400                  | 415                  |
| Rated current [A]        | 51.0/25.5            | 31.0                 | 31.7                 | 30.6                 |
| L. R. Amperes [A]        | 286/143              | 115                  | 130                  | 138                  |
| LRC [A]                  | 5.6x(Code G)         | 3.7x(Code C)         | 4.1x(Code E)         | 4.5x(Code E)         |
| No load current [A]      | 21.8/10.9            | 11.1                 | 12.4                 | 13.7                 |
| Rated speed [RPM]        | 1765                 | 1440                 | 1450                 | 1455                 |
| Slip [%]                 | 1.94                 | 4.00                 | 3.33                 | 3.00                 |
| Rated torque [kgfm]      | 8.22                 | 10.1                 | 10.0                 | 9.98                 |
| Locked rotor torque [%]  | 229                  | 160                  | 180                  | 200                  |
| Breakdown torque [%]     | 250                  | 160                  | 180                  | 200                  |
| Service factor           | 1.15                 | 1.00                 | 1.00                 | 1.00                 |
| Temperature rise         | 105 K                | 105 K                | 105 K                | 105 K                |
| Locked rotor time        | 21s (cold) 12s (hot) | 27s (cold) 15s (hot) | 25s (cold) 14s (hot) | 23s (cold) 13s (hot) |
| Noise level <sup>2</sup> | 60.0 dB(A)           |                      |                      |                      |
| Efficiency (%)           | 25%                  |                      |                      |                      |
|                          | 50%                  | 90.2                 | 87.5                 | 87.5                 |
|                          | 75%                  | 91.0                 | 88.5                 | 88.5                 |
|                          | 100%                 | 91.0                 | 87.5                 | 88.5                 |
| Power Factor             | 25%                  |                      |                      |                      |
|                          | 50%                  | 0.64                 | 0.72                 | 0.62                 |
|                          | 75%                  | 0.75                 | 0.81                 | 0.74                 |
|                          | 100%                 | 0.81                 | 0.84                 | 0.78                 |

|                      |                    |               |                            |
|----------------------|--------------------|---------------|----------------------------|
| Bearing type         | Drive end          | Non drive end | Foundation loads           |
|                      | : 6309 Z C3        | : 6209 Z C3   |                            |
| Sealing              | Without            | Without       | Max. traction : 314 kgf    |
|                      | Bearing Seal       | Bearing Seal  |                            |
| Lubrication interval | : 20000 h          | : 20000 h     | Max. compression : 314 kgf |
| Lubricant amount     | : 13 g             | : 9 g         |                            |
| Lubricant type       | : Mobil Polyrex EM |               |                            |

### Notes

USABLE @208V 56.4A SF 1.15 SFA 64.9A

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 |
|--------------|-----------------|-----------|---------|------|
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| Performed by |                 |           |         |      |
| Checked by   |                 |           |         |      |
| Date         | 13/11/2025      |           |         |      |

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Revision

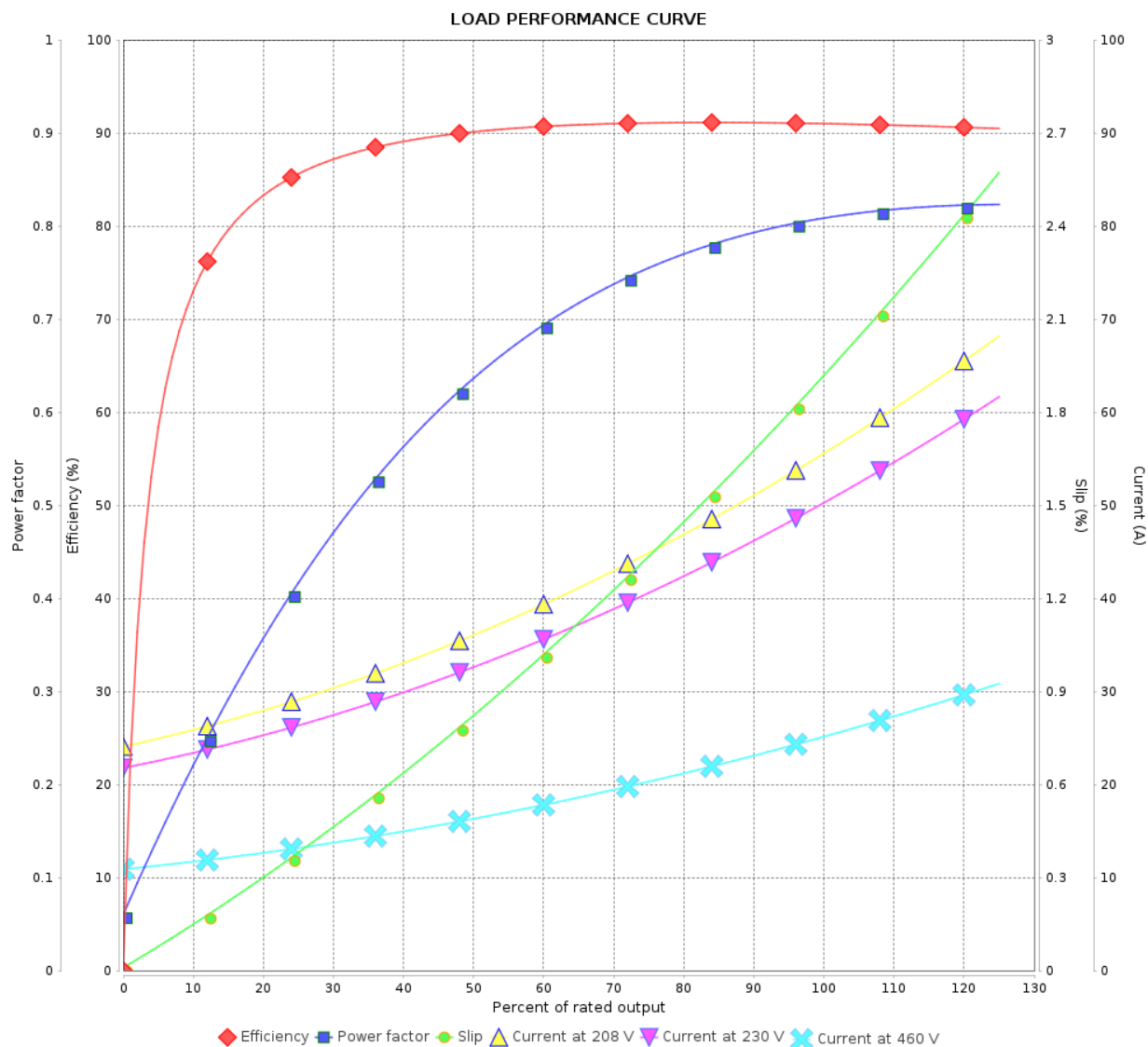
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 230/460 V 60 Hz 4P

Rated current : 51.0/25.5 A  
LRC : 5.6  
Rated torque : 8.22 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 250 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K  
Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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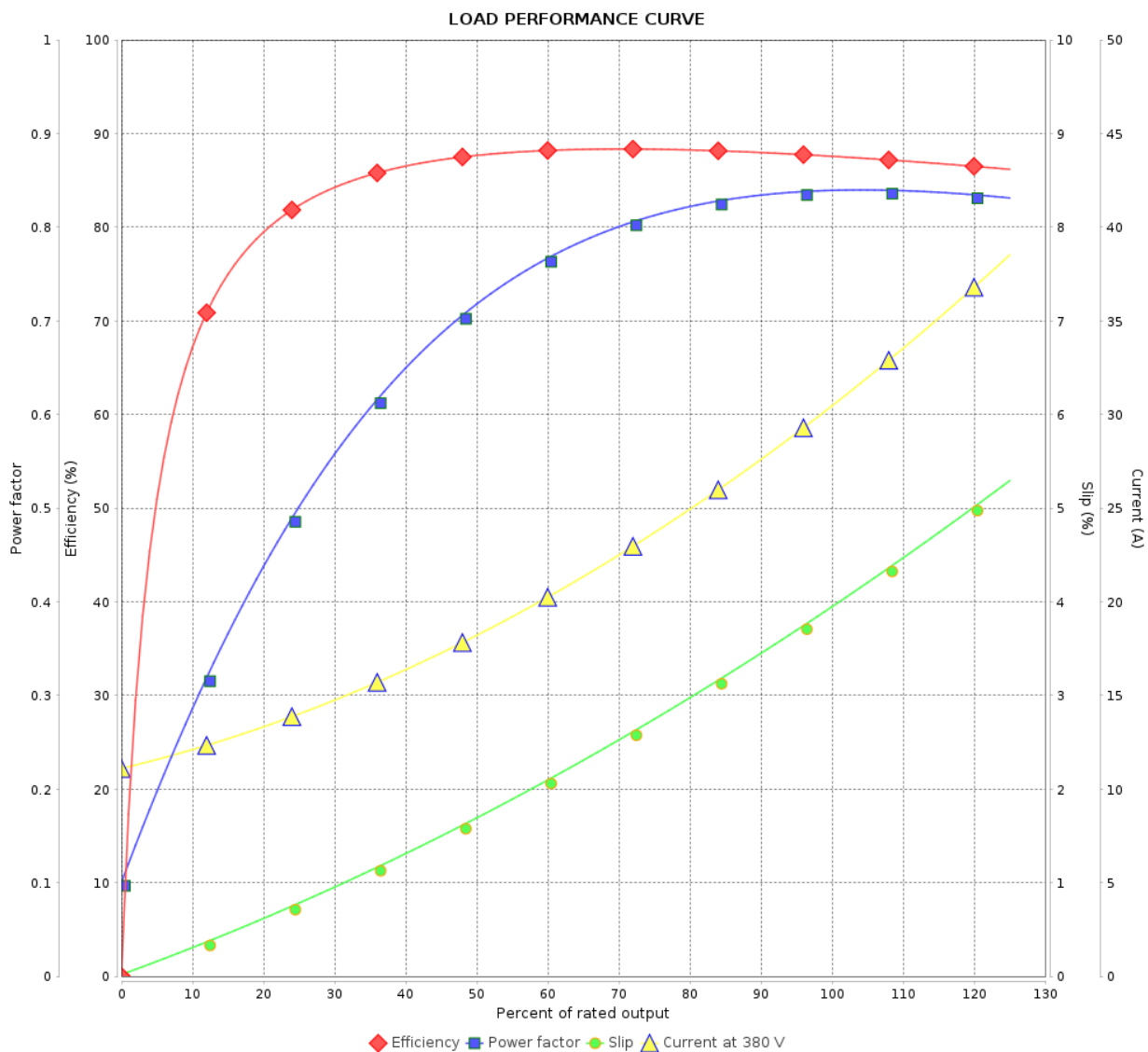
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase      Product code : 11996595



Performance : 380 V 50 Hz 4P

|                     |             |                       |                           |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current       | : 31.0 A    | Moment of inertia (J) | : 0.0778 kgm <sup>2</sup> |
| LRC                 | : 3.7       | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 10.1 kgfm | Insulation class      | : F                       |
| Locked rotor torque | : 160 %     | Service factor        | : 1.00                    |
| Breakdown torque    | : 160 %     | Temperature rise      | : 105 K                   |
| Rated speed         | : 1440 rpm  | Design                | : B                       |

| Rev.         | Changes Summary | Performed                   | Checked | Date |
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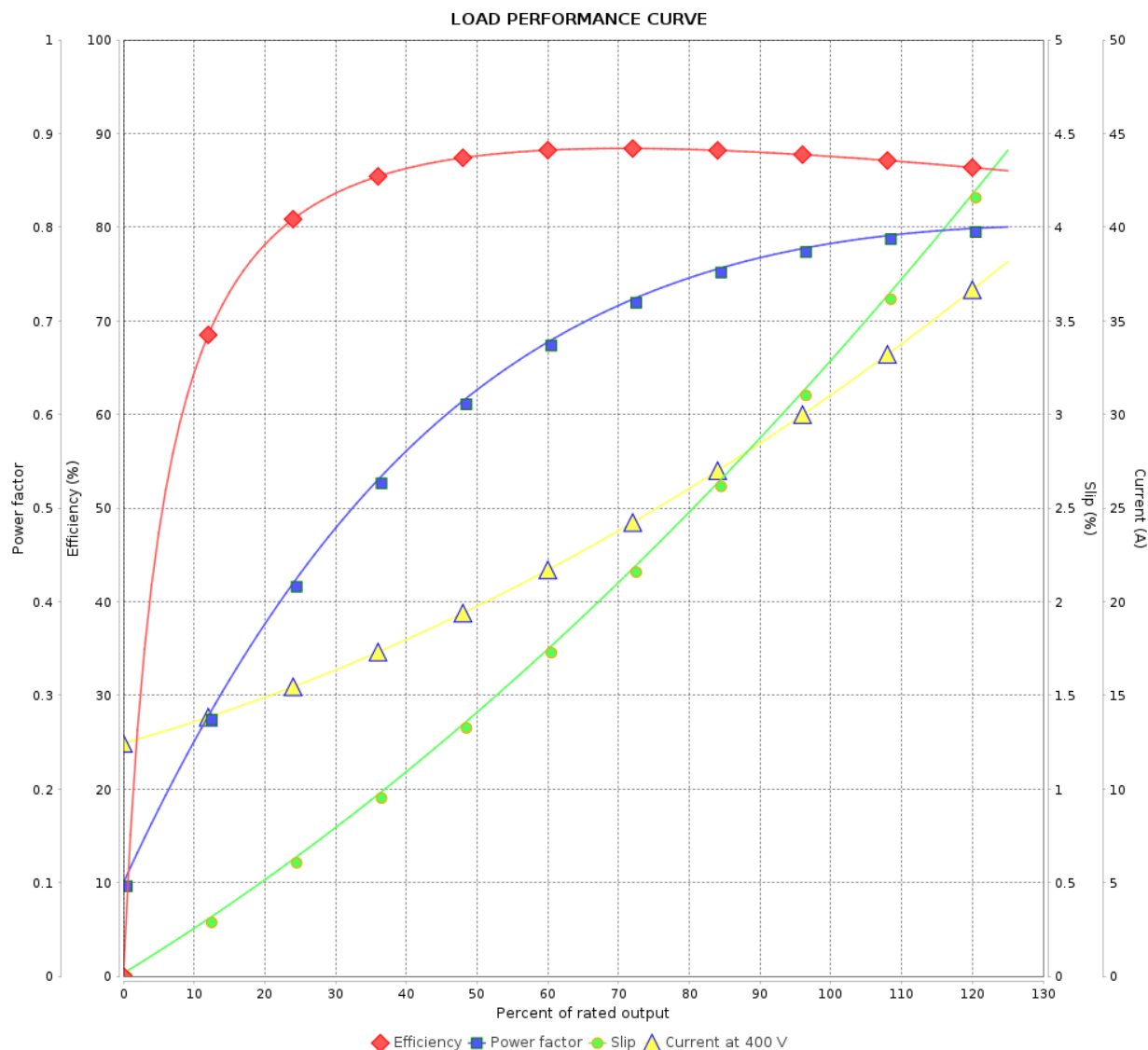
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 400 V 50 Hz 4P

|                     |             |                       |                           |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current       | : 31.7 A    | Moment of inertia (J) | : 0.0778 kgm <sup>2</sup> |
| LRC                 | : 4.1       | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 10.0 kgfm | Insulation class      | : F                       |
| Locked rotor torque | : 180 %     | Service factor        | : 1.00                    |
| Breakdown torque    | : 180 %     | Temperature rise      | : 105 K                   |
| Rated speed         | : 1450 rpm  | Design                | : B                       |

| Rev.         | Changes Summary | Performed             | Checked | Date |
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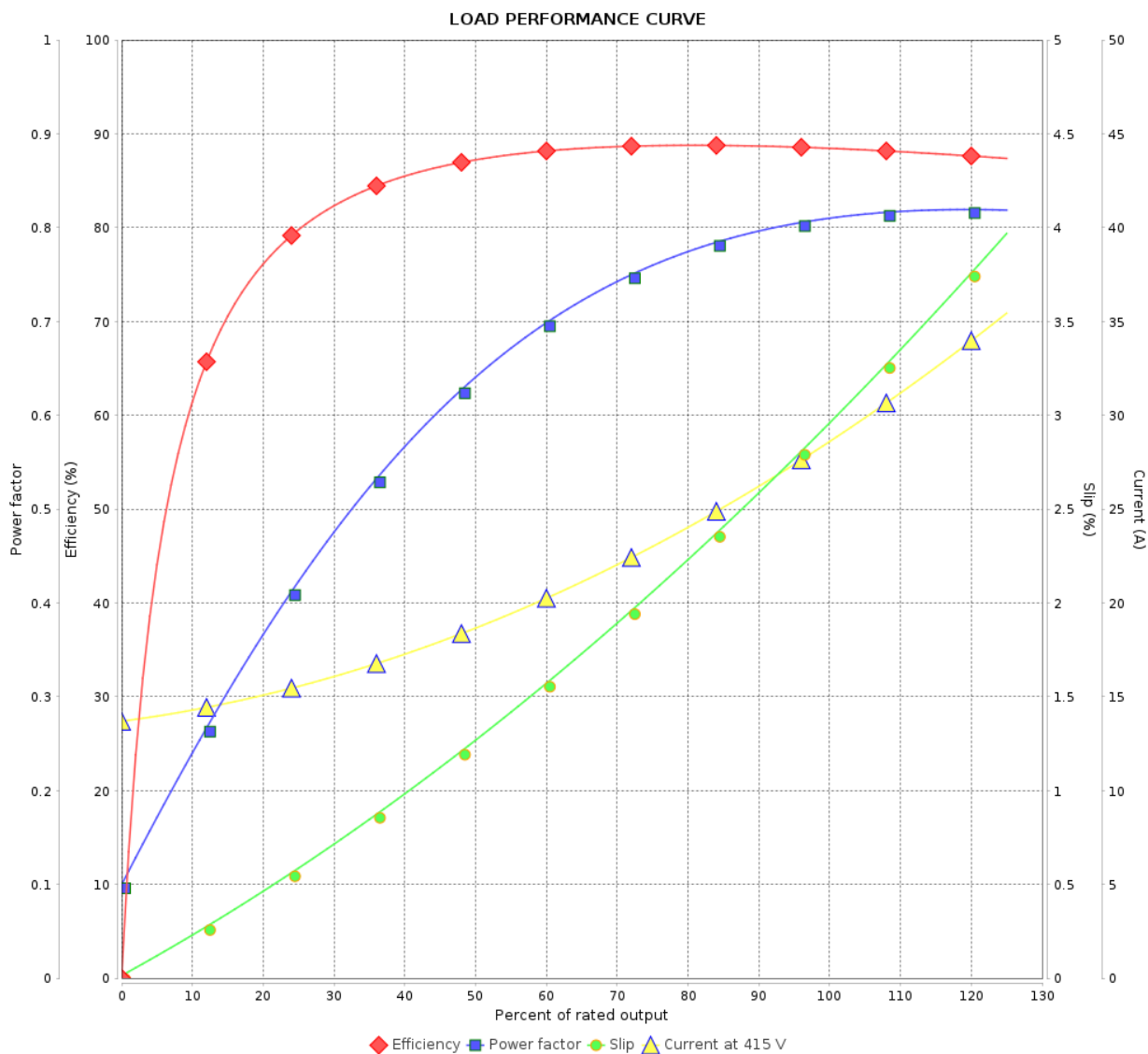
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 415 V 50 Hz 4P

Rated current : 30.6 A  
LRC : 4.5  
Rated torque : 9.98 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 200 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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