

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14338081

|                     |                  |                             |                           |
|---------------------|------------------|-----------------------------|---------------------------|
| Frame               | : W56C           | 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> | : 7.6 kg                  |
|                     |                  | Moment of inertia (J)       | : 0.0008 kgm <sup>2</sup> |

|                          |                      |                      |                      |
|--------------------------|----------------------|----------------------|----------------------|
| Output [HP]              | 1                    | 1                    | 1                    |
| Poles                    | 2                    | 2                    | 2                    |
| Frequency [Hz]           | 60                   | 50                   | 50                   |
| Rated voltage [V]        | 230/460              | 190-220/380          | 415                  |
| Rated current [A]        | 2.94/1.47            | 3.52-3.04/1.76       | 1.72                 |
| L. R. Amperes [A]        | 20.6/10.3            | 17.6-15.2/8.80       | 9.80                 |
| LRC [A]                  | 7.0x(Code K)         | 5.0x(Code G)         | 5.7x(Code H)         |
| No load current [A]      | 1.76/0.879           | 1.70-1.47/0.849      | 1.17                 |
| Rated speed [RPM]        | 3420                 | 2715                 | 2770                 |
| Slip [%]                 | 5.00                 | 9.50                 | 7.67                 |
| Rated torque [kgfm]      | 0.212                | 0.267                | 0.262                |
| Locked rotor torque [%]  | 310                  | 220                  | 280                  |
| Breakdown torque [%]     | 330                  | 210                  | 260                  |
| Service factor           |                      | 1.25                 | 1.00                 |
| Temperature rise         | 80 K                 | 105 K                | 105 K                |
| Locked rotor time        | 23s (cold) 13s (hot) | 19s (cold) 11s (hot) | 18s (cold) 10s (hot) |
| Noise level <sup>2</sup> | 62.0 dB(A)           | 60.0 dB(A)           | 60.0 dB(A)           |
| Efficiency (%)           | 25%                  |                      |                      |
|                          | 50%                  | 74.0                 | 70.0                 |
|                          | 75%                  | 75.5                 | 73.0                 |
|                          | 100%                 | 77.0                 | 73.0                 |
| Power Factor             | 25%                  |                      |                      |
|                          | 50%                  | 0.61                 | 0.59                 |
|                          | 75%                  | 0.74                 | 0.74                 |
|                          | 100%                 | 0.83                 | 0.83                 |

|                      |                    |                      |                           |
|----------------------|--------------------|----------------------|---------------------------|
|                      | <u>Drive end</u>   | <u>Non drive end</u> | Foundation loads          |
| Bearing type         | : 6203 ZZ          | 6202 ZZ              | Max. traction : 18 kgf    |
| Sealing              | : Without          | Without              | Max. compression : 25 kgf |
|                      | Bearing Seal       | Bearing Seal         |                           |
| Lubrication interval | : -                | -                    |                           |
| Lubricant amount     | : -                | -                    |                           |
| Lubricant type       | : Mobil Polyrex EM |                      |                           |

### Notes

USABLE @208V 3.25A SF 1.00 SFA 3.25A

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         | 17/05/2022      |           |         |          |
|              |                 |           | Page    | Revision |
|              |                 |           | 1 / 4   |          |

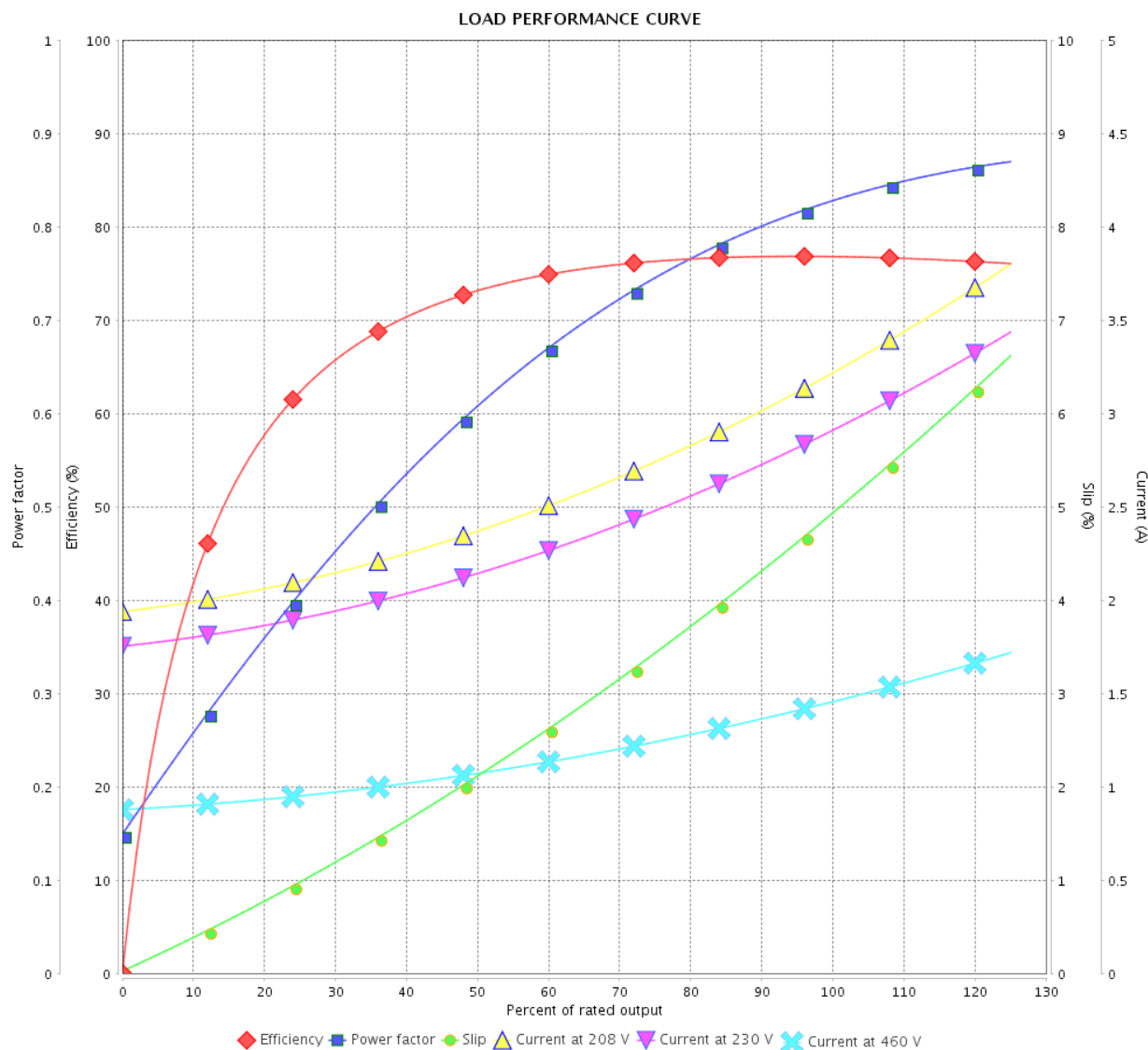
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14338081



Performance : 230/460 V 60 Hz 2P

Rated current : 2.94/1.47 A  
 LRC : 7.0  
 Rated torque : 0.212 kgfm  
 Locked rotor torque : 310 %  
 Breakdown torque : 330 %  
 Rated speed : 3420 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     |
|--------------|-----------------|--|-----------|---------|----------|
|              |                 |  |           |         |          |
| Performed by |                 |  |           | Page    | Revision |
| Checked by   |                 |  |           | 2 / 4   |          |
| Date         |                 |  |           |         |          |

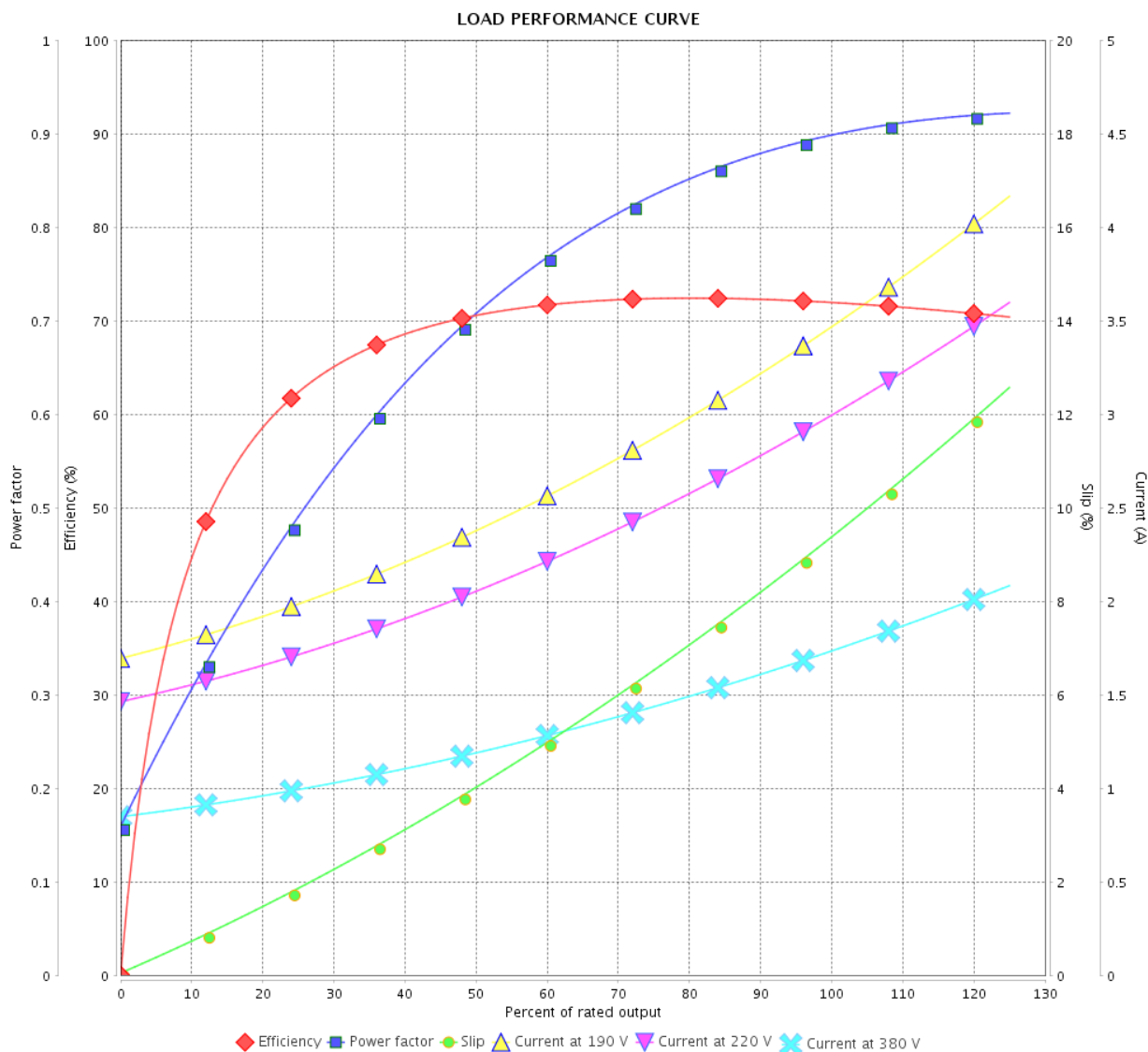
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14338081



Performance : 190-220/380 V 50 Hz 2P

Rated current : 3.52-3.04/1.76 A  
 LRC : 5.0  
 Rated torque : 0.267 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 210 %  
 Rated speed : 2715 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 105 K

| Rev.         | Changes Summary | Performed           | Checked | Date |
|--------------|-----------------|---------------------|---------|------|
|              |                 |                     |         |      |
| Performed by |                 | Page 3 / 4 Revision |         |      |
| Checked by   |                 |                     |         |      |
| Date         | 17/05/2022      |                     |         |      |

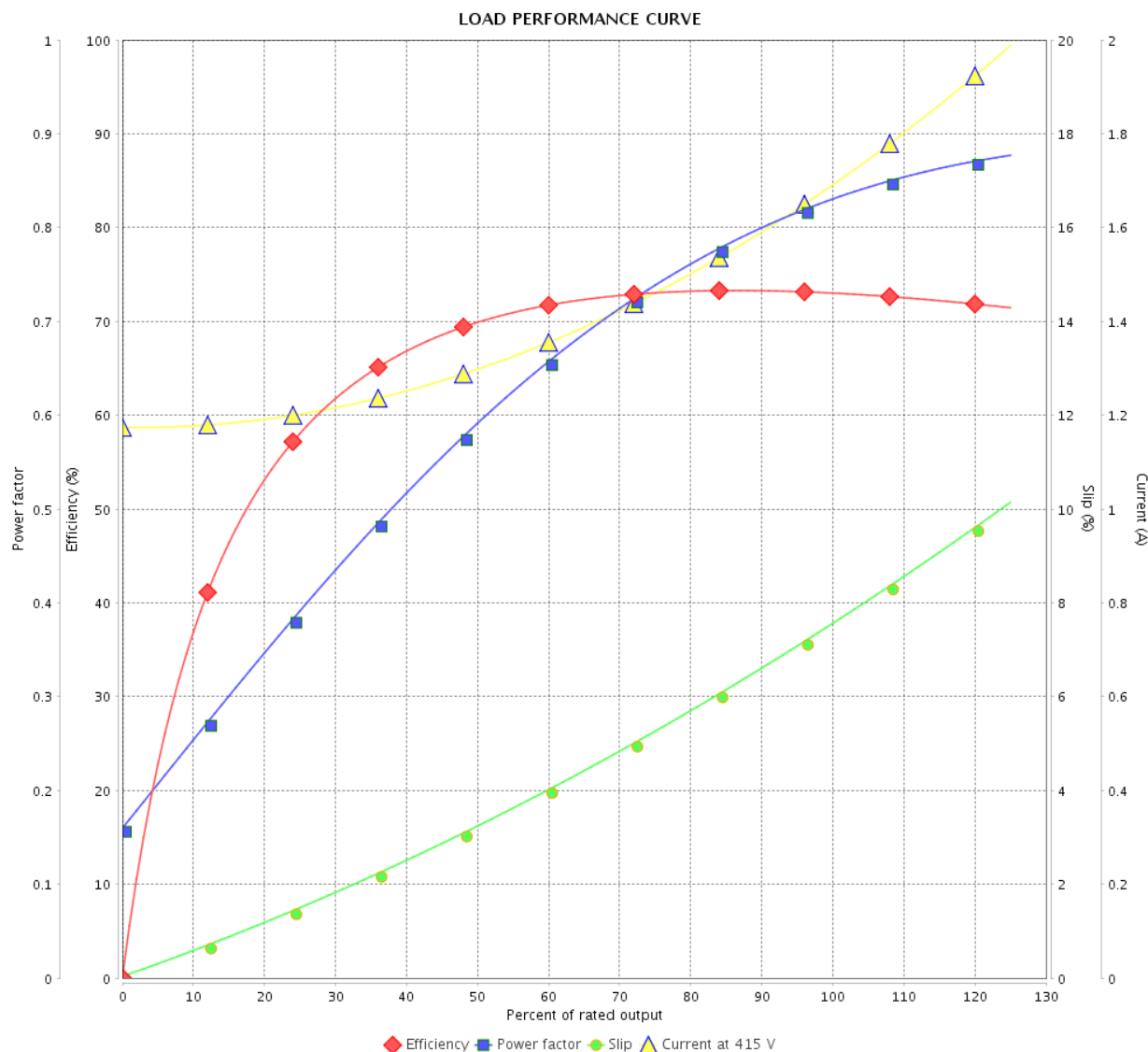
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Three Phase Induction Motor - Squirrel Cage



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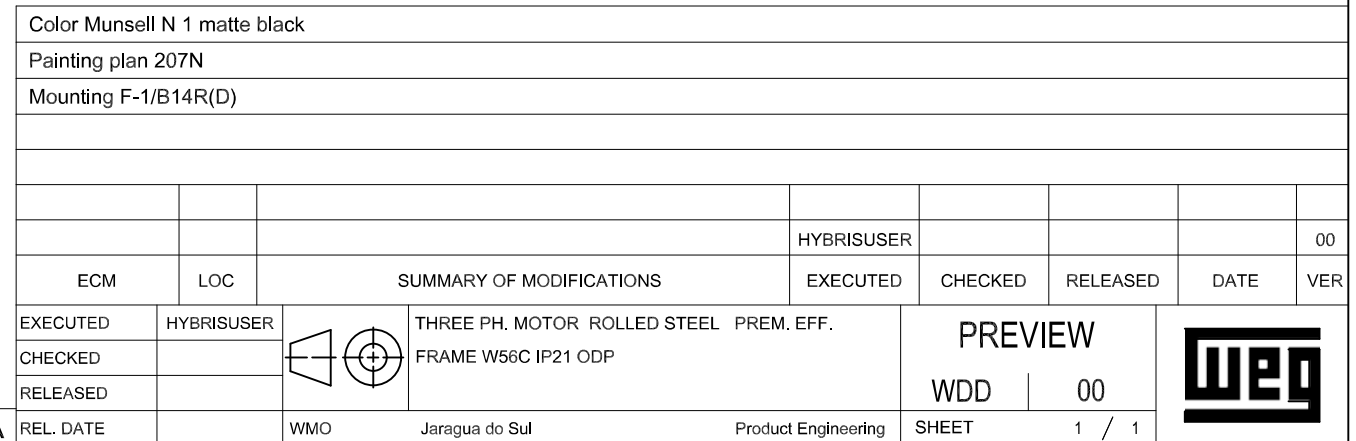
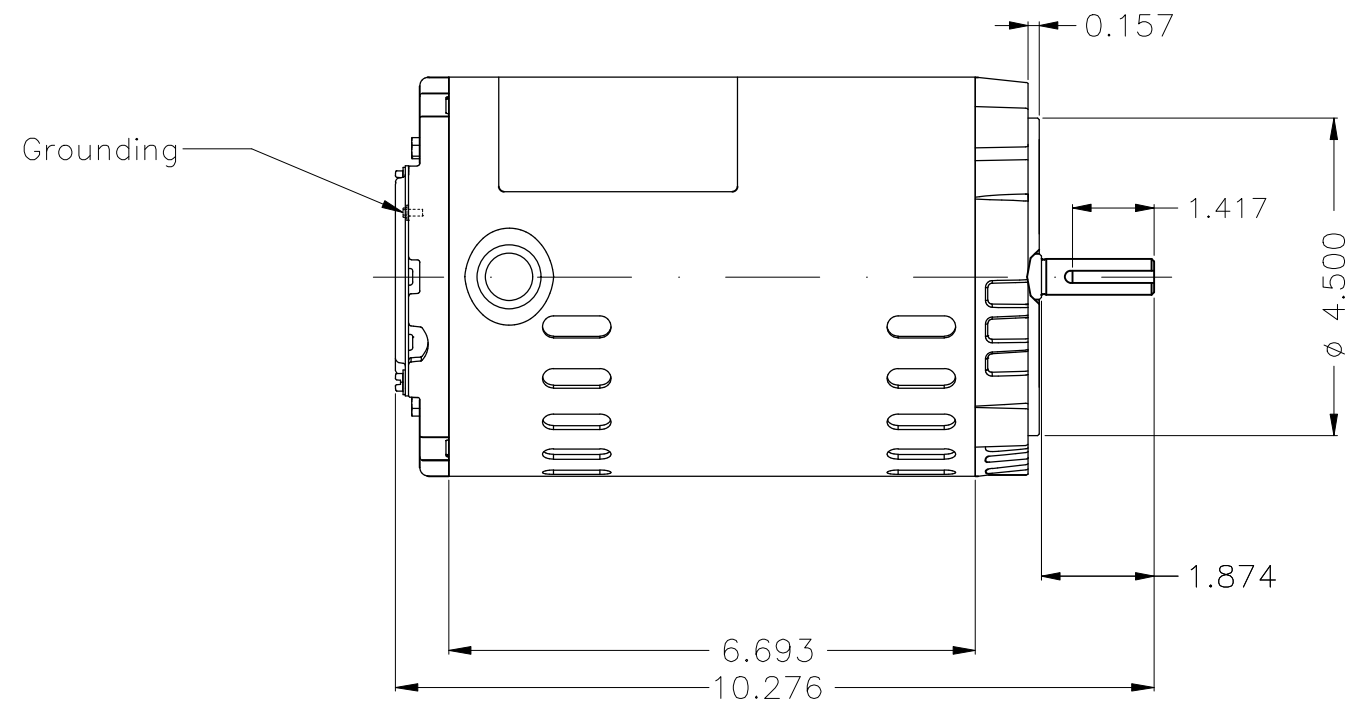


Performance : 415 V 50 Hz 2P

Rated current : 1.72 A  
 LRC : 5.7  
 Rated torque : 0.262 kgfm  
 Locked rotor torque : 280 %  
 Breakdown torque : 260 %  
 Rated speed : 2770 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

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



Dimensions in inches

XME A3