

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 13827079

|                     |                  |                             |                           |
|---------------------|------------------|-----------------------------|---------------------------|
| 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> | : 7.0 kg                  |
|                     |                  | Moment of inertia (J)       | : 0.0013 kgm <sup>2</sup> |

|                          |                      |                    |                    |
|--------------------------|----------------------|--------------------|--------------------|
| Output [HP]              | 0.5                  | 0.5                | 0.5                |
| Poles                    | 4                    | 4                  | 4                  |
| Frequency [Hz]           | 60                   | 50                 | 50                 |
| Rated voltage [V]        | 208-230/460          | 190/380            | 220/415            |
| Rated current [A]        | 2.10-1.90/0.948      | 2.04/1.02          | 2.04/1.08          |
| L. R. Amperes [A]        | 11.3-10.2/5.12       | 8.57/4.28          | 8.96/4.75          |
| LRC [A]                  | 5.4x(Code K)         | 4.2x(Code G)       | 4.4x(Code H)       |
| No load current [A]      | 1.41-1.64/0.820      | 1.58/0.788         | 1.99/1.06          |
| Rated speed [RPM]        | 1730                 | 1385               | 1410               |
| Slip [%]                 | 3.89                 | 7.67               | 6.00               |
| Rated torque [kgfm]      | 0.210                | 0.262              | 0.257              |
| Locked rotor torque [%]  | 229                  | 170                | 200                |
| Breakdown torque [%]     | 280                  | 190                | 229                |
| Service factor           |                      | 1.00               | 1.00               |
| Temperature rise         | 80 K                 | 105 K              | 105 K              |
| Locked rotor time        | 27s (cold) 15s (hot) | 0s (cold) 0s (hot) | 0s (cold) 0s (hot) |
| Noise level <sup>2</sup> | 50.0 dB(A)           | 49.0 dB(A)         | 49.0 dB(A)         |
| Efficiency (%)           | 25%                  |                    |                    |
|                          | 50%                  | 59.5               | 61.0               |
|                          | 75%                  | 66.0               | 64.0               |
|                          | 100%                 | 70.0               | 67.0               |
| Power Factor             | 25%                  |                    |                    |
|                          | 50%                  | 0.47               | 0.57               |
|                          | 75%                  | 0.60               | 0.71               |
|                          | 100%                 | 0.70               | 0.82               |

|                      |                    |               |                           |
|----------------------|--------------------|---------------|---------------------------|
| Bearing type         | : Drive end        | Non drive end | Foundation loads          |
|                      | : 6203 ZZ          | 6202 ZZ       |                           |
| Sealing              | : Without          | Without       | Max. traction : 15 kgf    |
|                      | : Bearing Seal     | Bearing Seal  |                           |
| Lubrication interval | : -                | -             | Max. compression : 22 kgf |
| Lubricant amount     | : -                | -             |                           |
| Lubricant type       | : 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 Revision<br>1 / 4 |         |      |
| Checked by   |                 |                        |         |      |
| Date         | 17/05/2022      |                        |         |      |

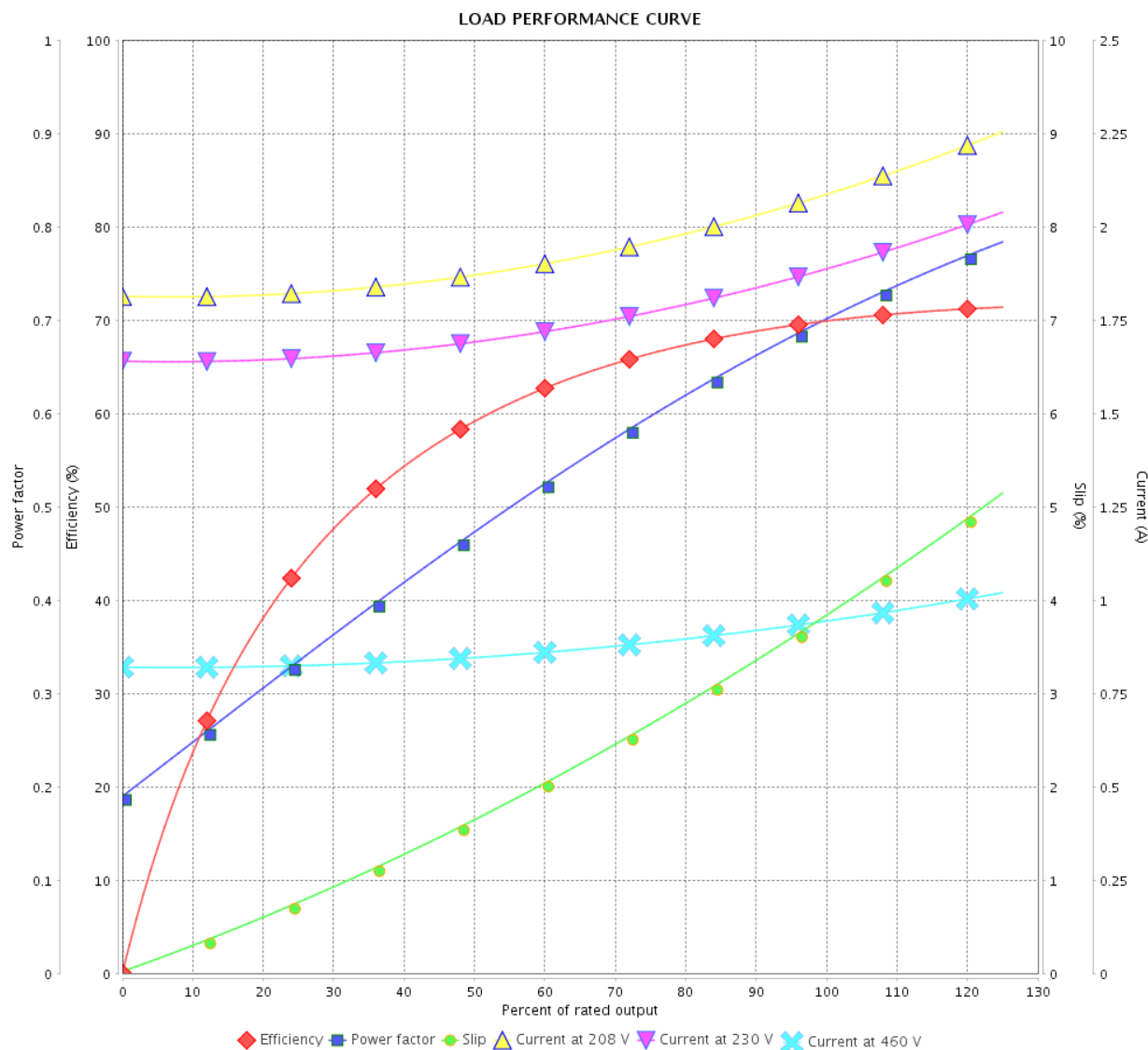
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 13827079



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

Rated current : 2.10-1.90/0.948 A  
 LRC : 5.4  
 Rated torque : 0.210 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1730 rpm

Moment of inertia (J) : 0.0013 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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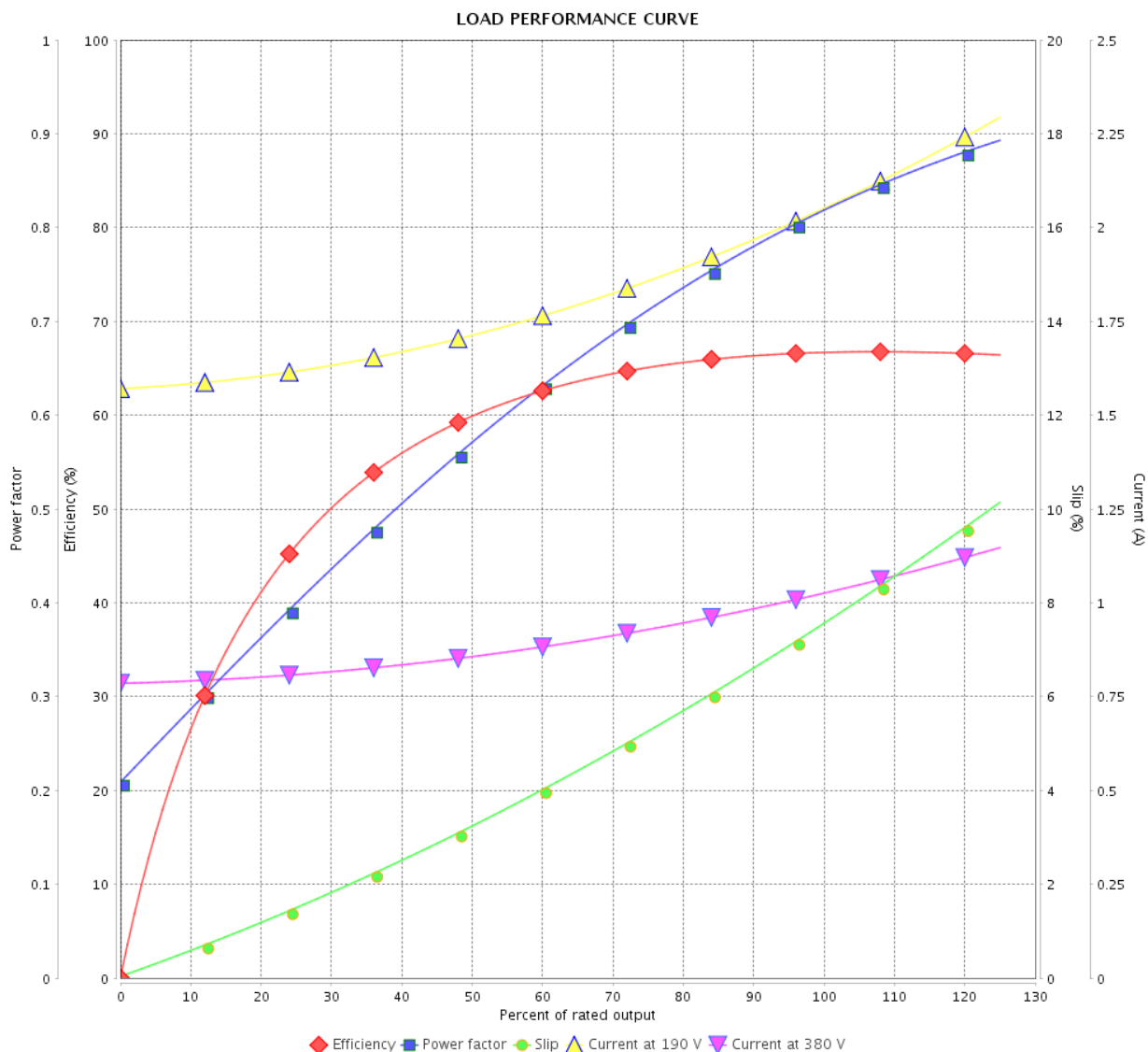
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 13827079



Performance : 190/380 V 50 Hz 4P

Rated current : 2.04/1.02 A  
 LRC : 4.2  
 Rated torque : 0.262 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 190 %  
 Rated speed : 1385 rpm

Moment of inertia (J) : 0.0013 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 |
|--------------|-----------------|-----------------------|---------|------|
|              |                 |                       |         |      |
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| Date         | 17/05/2022      |                       |         |      |

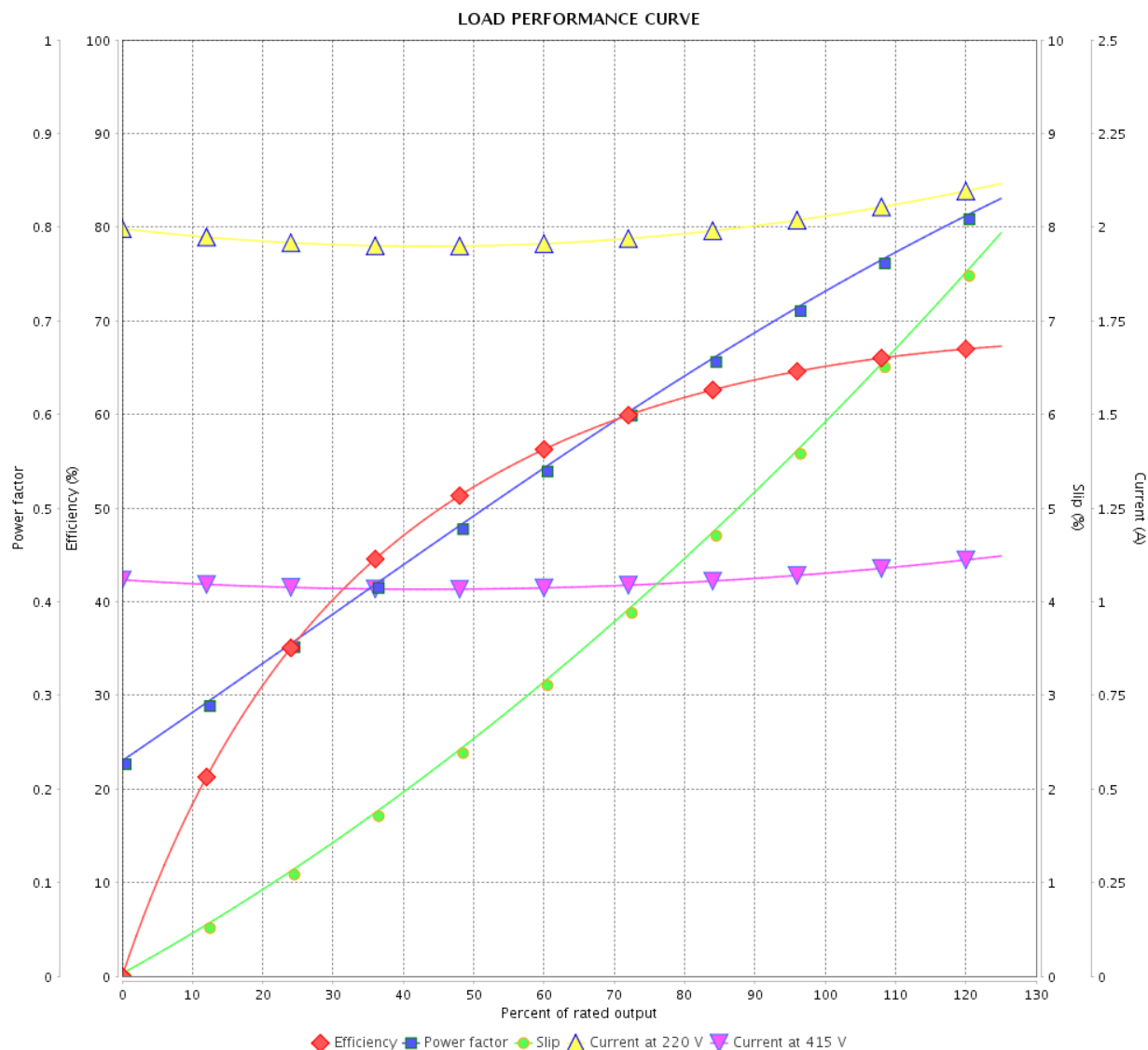
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 13827079

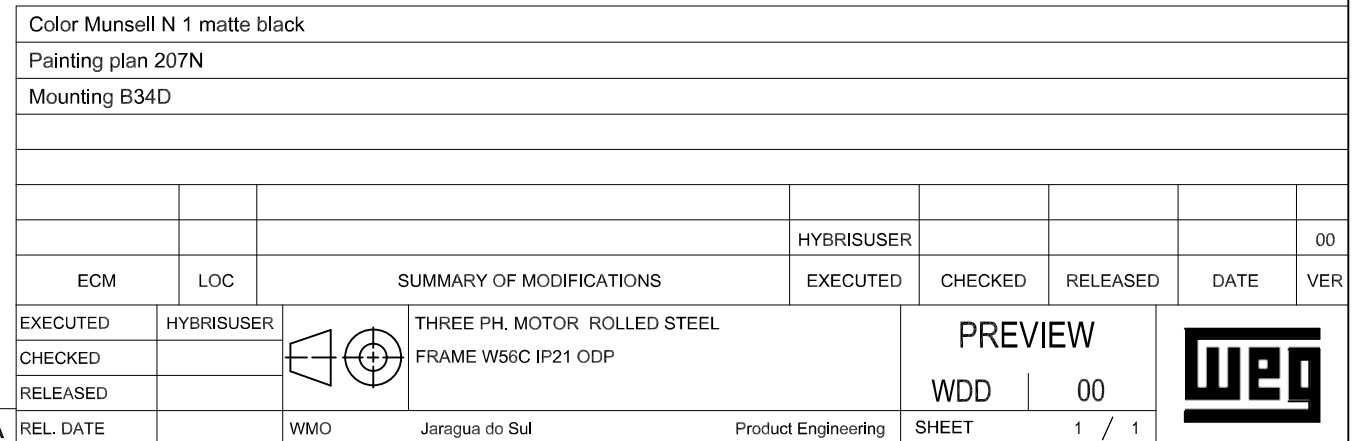
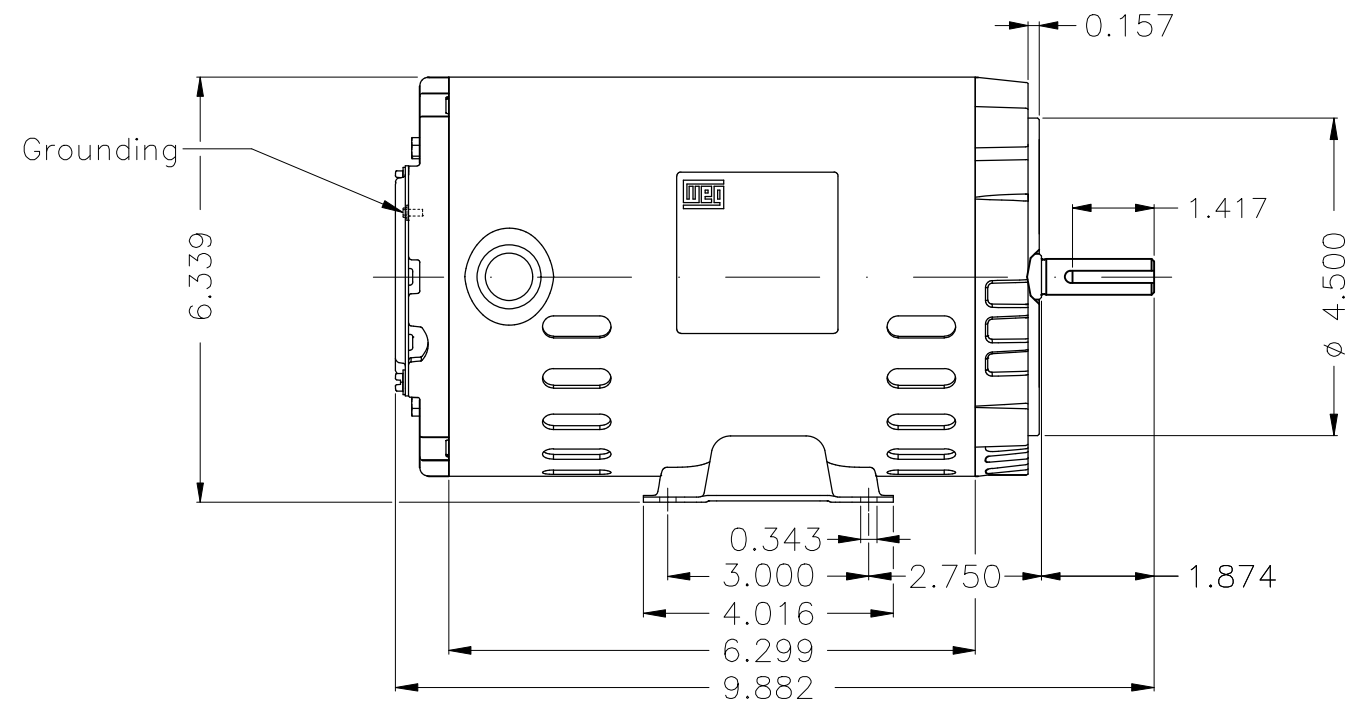


Performance : 220/415 V 50 Hz 4P

Rated current : 2.04/1.08 A  
 LRC : 4.4  
 Rated torque : 0.257 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 1410 rpm

Moment of inertia (J) : 0.0013 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 |
|--------------|-----------------|-------------------------------------|---------|------|
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Product Engineering

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Dimensions in inches

| XME | A3 |
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