



Dealers Industrial Equipment

No.:

Date: 27-SEP-2016

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Product line : Close Coupled Pump : Three-Phase - "JM" Type - ODP - NEMA Premium

Catalog Number : 05036OT3G324JM

List Price : \$4,607

Notes:

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## DATA SHEET Three-phase induction motor - Squirrel cage rotor

Customer :  
 Product line : Close Coupled Pump : Three-Phase - "JM" Type - ODP - NEMA Premium

Frame : 324JM  
 Output : 50 HP  
 Frequency : 60 Hz  
 Poles : 2  
 Full load speed : 3555 rpm  
 Slip : 1.25 %  
 Voltage : 460 V  
 Rated current : 59.1 A  
 Locked rotor current : 378 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 6.4  
 No-load current : 17.0 A  
 Full load torque : 72.9 lb.ft  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Design : B  
 Insulation class : F  
 Temperature rise : 80 K  
 Locked rotor time : 28 s (hot)  
 Service factor : 1.15  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000 m  
 Degree of Protection : IP23  
 Approximate weight : 496 lb  
 Moment of inertia : 3.8312 sq.ft.lb  
 Noise level : 74 dB(A)

|                     | D.E.      | N.D.E.    |
|---------------------|-----------|-----------|
| Bearings            | 6312 Z-C3 | 6212 Z-C3 |
| Regreasing interval | 19658 h   | 20000 h   |
| Grease amount       | 21 g      | 13 g      |

| Load | Power factor | Efficiency (%) |
|------|--------------|----------------|
| 100% | 0.84         | 93.6           |
| 75%  | 0.82         | 93.6           |
| 50%  | 0.74         | 92.4           |

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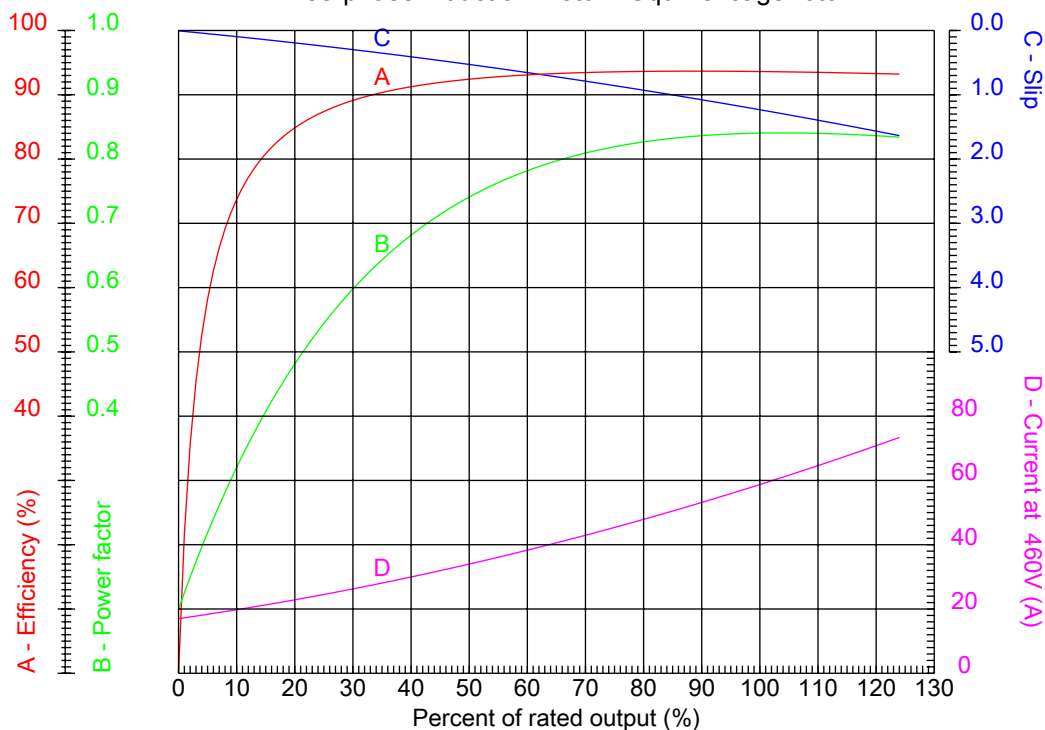
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No.:

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## PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Close Coupled Pump : Three-Phase - "JM" Type - ODP - NEMA Premium

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 324JM    | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 6.4   |
| Output           | : 50 HP    | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.15  |
| Full load speed  | : 3555 rpm | Design   | : B     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 220 % |
| Rated current    | : 59.1 A   | Breakdown torque                                       | : 260 % |
| Insulation class | : F        |  |         |

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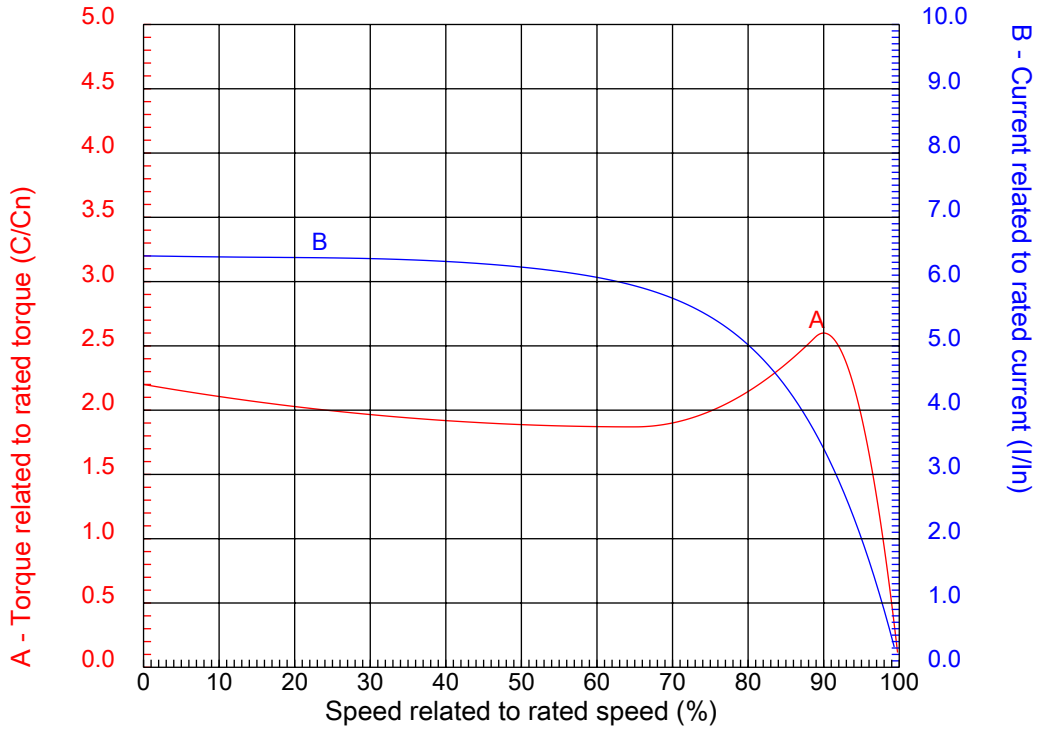
# Dealers Industrial Equipment

No.:

Date: 27-SEP-2016

## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Close Coupled Pump : Three-Phase - "JM" Type - ODP - NEMA Premium

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 324JM    | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 6.4   |
| Output           | : 50 HP    | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.15  |
| Full load speed  | : 3555 rpm | Design   | : B     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 220 % |
| Rated current    | : 59.1 A   | Breakdown torque                                       | : 260 % |
| Insulation class | : F        |  |         |

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|   |                  |              |              |              |                    |
|---|------------------|--------------|--------------|--------------|--------------------|
| E | 2E<br>12.500     | A<br>15.160  | 2F<br>10.500 | B<br>13.070  | J<br>3.230         |
|   | BA<br>5.500      | D<br>8.000   | K<br>3.350   | G<br>1.299   | O<br>15.551        |
|   | P<br>15.118      | T<br>2.559   | AB<br>11.496 | H<br>0.657   | AA<br>NPT 2"       |
|   | ER<br>5.250      | EQ<br>0.630  | ET<br>3.006  | U<br>1.249   | EM<br>1.375        |
|   | EL<br>1.750      | S<br>0.250   | EP<br>2.360  | R<br>1.110   | d1<br>EUNC 1/2"-13 |
| F | ES<br>2.480      | t1<br>0.984  | t2<br>1.496  | C<br>26.431  | CH<br>2.716        |
|   | Flange<br>FC-279 | AJ<br>11.000 | AK<br>12.500 | BD<br>13.189 | BF<br>UNC 5/8"x11  |
|   | BB<br>0.250      | AH<br>5.250  |              |              |                    |

Performed by:


Checked:

Customer:

Close Coupled Pump : Three-Phase - "JM" Type - ODP - NEMA Premium

Three-phase induction motor  
Frame 324JM - IP23

27-SEP-2016



1 2 3 4 5 6 7 8

A

### PART-WINDING

### WYE-DELTA

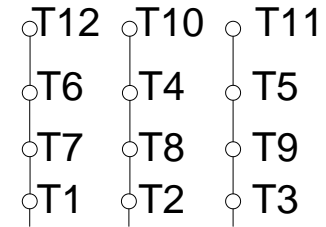
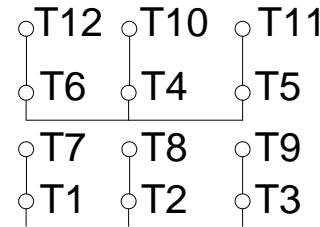
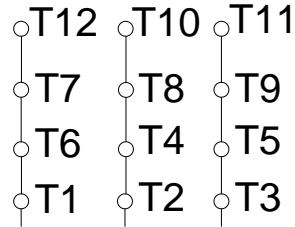
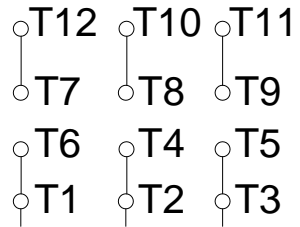
#### START

#### RUN

#### START

#### RUN

B



C

L1 L2 L3

L1 L2 L3

L1 L2 L3

L1 L2 L3

D

E

F

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