



# Dealers Industrial Equipment

No.:

Date: 27-SEP-2016

Customer :

## TECHNICAL PROPOSAL

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

Product line : W22 NEMA Premium - Ball Bearings

Catalog Number : 10018ET3G405T-W22

List Price : \$11,689

#### Notes:

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# Dealers Industrial Equipment

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

Customer :  
 Product line : W22 NEMA Premium - Ball Bearings

Frame : 404/5T  
 Output : 100 HP  
 Frequency : 60 Hz  
 Poles : 4  
 Full load speed : 1775 rpm  
 Slip : 1.39 %  
 Voltage : 460 V  
 Rated current : 111 A  
 Locked rotor current : 810 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 7.3  
 No-load current : 38.0 A  
 Full load torque : 292 lb.ft  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Design : B  
 Insulation class : F  
 Temperature rise : 80 K  
 Locked rotor time : 13 s (hot)  
 Service factor : 1.25  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000 m  
 Degree of Protection : IP55  
 Approximate weight : 1140 lb  
 Moment of inertia : 29.894 sq.ft.lb  
 Noise level : 68 dB(A)

|                     | D.E.    | N.D.E.  |
|---------------------|---------|---------|
| Bearings            | 6316 C3 | 6314 C3 |
| Regreasing interval | 10000 h | 12000 h |
| Grease amount       | 34 g    | 27 g    |

| Load | Power factor | Efficiency (%) |
|------|--------------|----------------|
| 100% | 0.88         | 95.4           |
| 75%  | 0.84         | 95.0           |
| 50%  | 0.77         | 95.0           |

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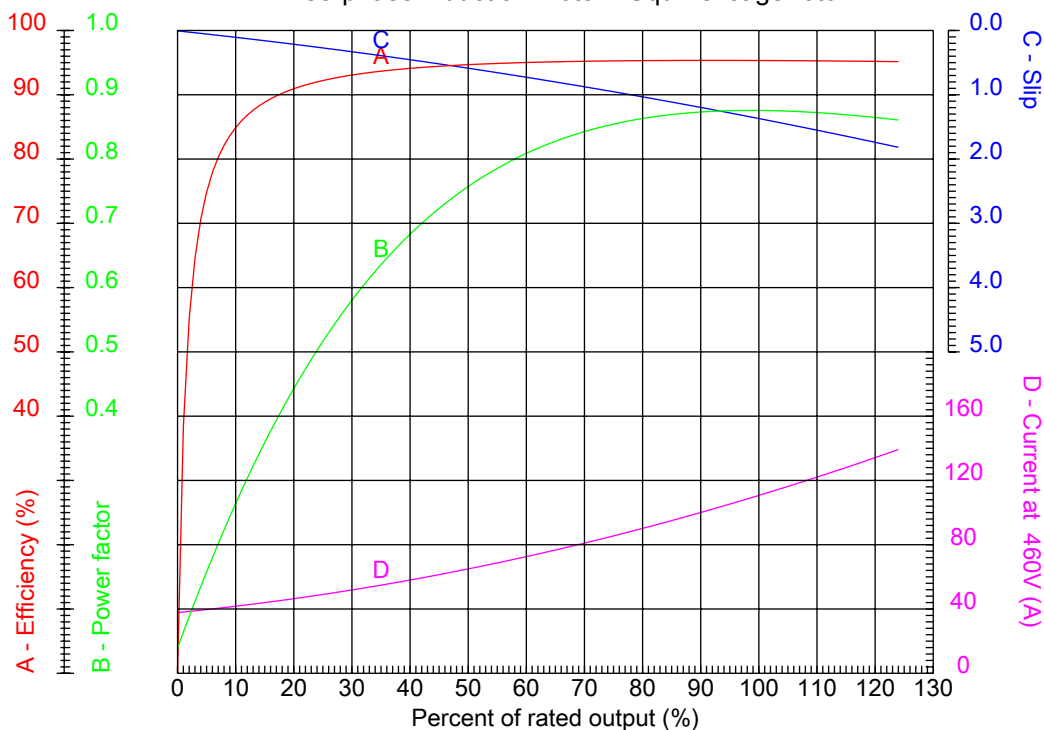


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## PERFORMANCE CURVES RELATED TO RATED OUTPUT Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : W22 NEMA Premium - Ball Bearings

|                            |  |
|----------------------------|--|
| Frame : 404/5T             | Locked rotor current (I <sub>L</sub> /I <sub>n</sub> ) : 7.3 |
| Output : 100 HP            | Duty cycle : S1  |
| Frequency : 60 Hz          | Service factor : 1.25  |
| Full load speed : 1775 rpm | Design : B   |
| Voltage : 460 V            | Locked rotor torque : 240 %                                  |
| Rated current : 111 A      | Breakdown torque : 260 %                                     |
| Insulation class : F       |  |

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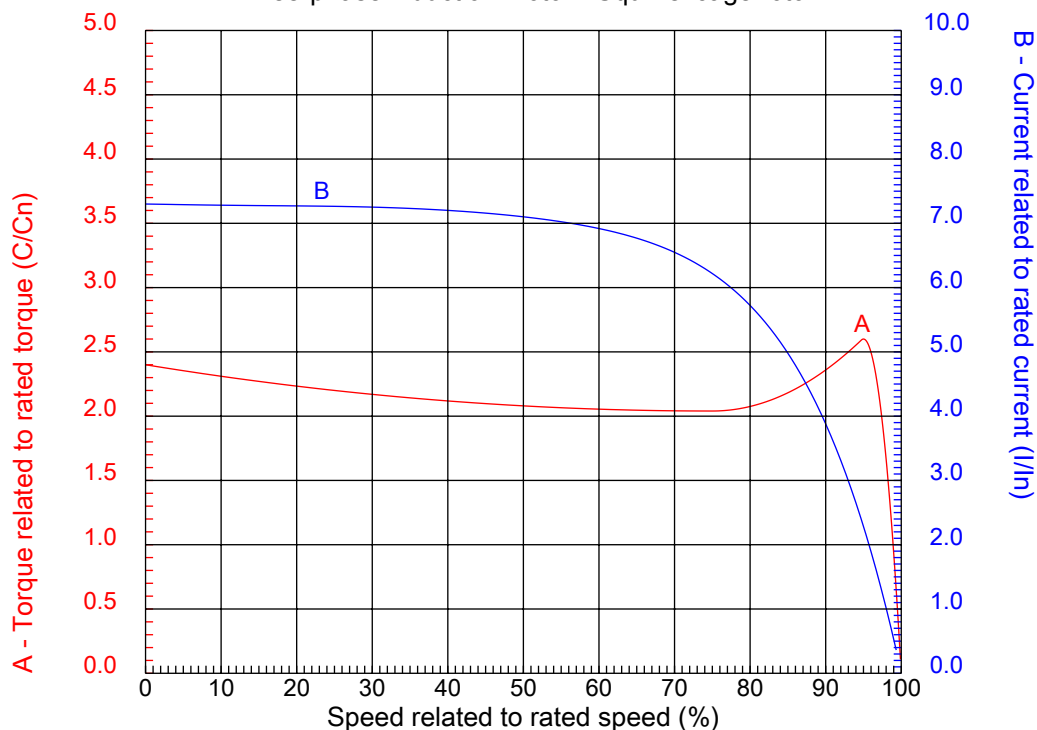
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## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : W22 NEMA Premium - Ball Bearings

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 404/5T   | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 7.3   |
| Output           | : 100 HP   | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.25  |
| Full load speed  | : 1775 rpm | Design   | : B     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 240 % |
| Rated current    | : 111 A    | Breakdown torque                                       | : 260 % |
| Insulation class | : F        |  |         |

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1 2 3 4 5 6 7 8

A

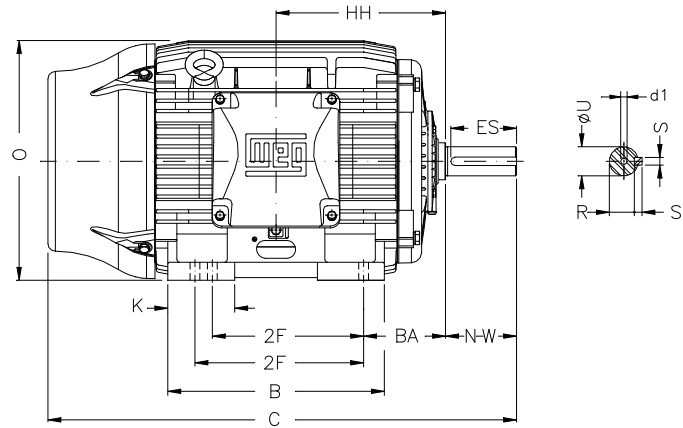
B

C

D

E

F



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Checked:

Customer:

W22 NEMA Premium - Ball Bearings

Three-phase induction motor  
Frame 404/5T - IP55

27-SEP-2016



|                     |              |              |              |                    |
|---------------------|--------------|--------------|--------------|--------------------|
| 2E<br>15.984        | J<br>3.937   | A<br>19.921  | P<br>19.134  | AB<br>16.016       |
| 2F<br>12.244/13.740 | K<br>5.669   | B<br>18.386  | BA<br>6.625  | FBA<br>13.926      |
| U<br>2.875          | N-W<br>7.250 | ES<br>5.512  | S<br>0.750   | R<br>2.449         |
| depth<br>0.750      | D<br>10.000  | G<br>1.811   | HB<br>5.252  | O<br>19.566        |
| HH<br>13.496        | HK<br>6.024  | EV<br>2.323  | H<br>0.810   | C<br>39.730        |
| FC<br>45.295        | LL<br>10.591 | LM<br>11.267 | AA<br>NPT 3" | d1<br>DUNC 3/4"-10 |

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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Customer:

W22 NEMA Premium - Ball Bearings

Three-phase induction motor  
 Frame 404/5T - IP55

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