



# Dealers Industrial Equipment

No.:

Date: 28-SEP-2016

Customer :

## TECHNICAL PROPOSAL

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

Product line : W22 NEMA Premium - Roller Bearings

Catalog Number : 20012ET3GRB447T-W22

List Price : \$25,133

#### Notes:

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# Dealers Industrial Equipment

No.:

Date: 28-SEP-2016

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

Customer :  
 Product line : W22 NEMA Premium - Roller Bearings

Frame : 445/7T  
 Output : 200 HP  
 Frequency : 60 Hz  
 Poles : 6  
 Full load speed : 1185 rpm  
 Slip : 1.25 %  
 Voltage : 460 V  
 Rated current : 237 A  
 Locked rotor current : 1490 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 6.3  
 No-load current : 100 A  
 Full load torque : 874 lb.ft  
 Locked rotor torque : 230 %  
 Breakdown torque : 240 %  
 Design : B  
 Insulation class : F  
 Temperature rise : 80 K  
 Locked rotor time : 15 s (hot)  
 Service factor : 1.15  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000 m  
 Degree of Protection : IP55  
 Approximate weight : 2247 lb  
 Moment of inertia : 144.52 sq.ft.lb  
 Noise level : 69 dB(A)

|                     | D.E.      | N.D.E.  |
|---------------------|-----------|---------|
| Bearings            | NU-319 C3 | 6316 C3 |
| Regreasing interval | 9000 h    | 16000 h |
| Grease amount       | 45 g      | 34 g    |

| Load | Power factor | Efficiency (%) |
|------|--------------|----------------|
| 100% | 0.83         | 95.8           |
| 75%  | 0.79         | 95.4           |
| 50%  | 0.68         | 95.0           |

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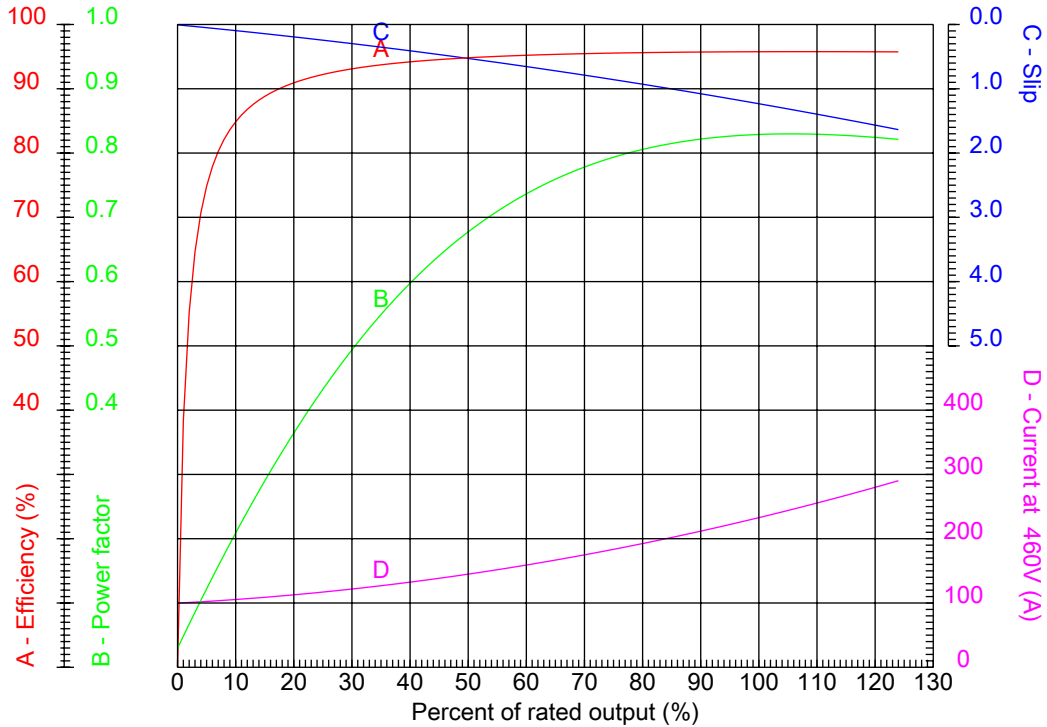
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## PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : W22 NEMA Premium - Roller Bearings

|                            |  |
|----------------------------|--|
| Frame : 445/7T             | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) : 6.3 |
| Output : 200 HP            | Duty cycle : S1  |
| Frequency : 60 Hz          | Service factor : 1.15  |
| Full load speed : 1185 rpm | Design : B   |
| Voltage : 460 V            | Locked rotor torque : 230 %                                  |
| Rated current : 237 A      | Breakdown torque : 240 %                                     |
| Insulation class : F       |  |

Notes:  
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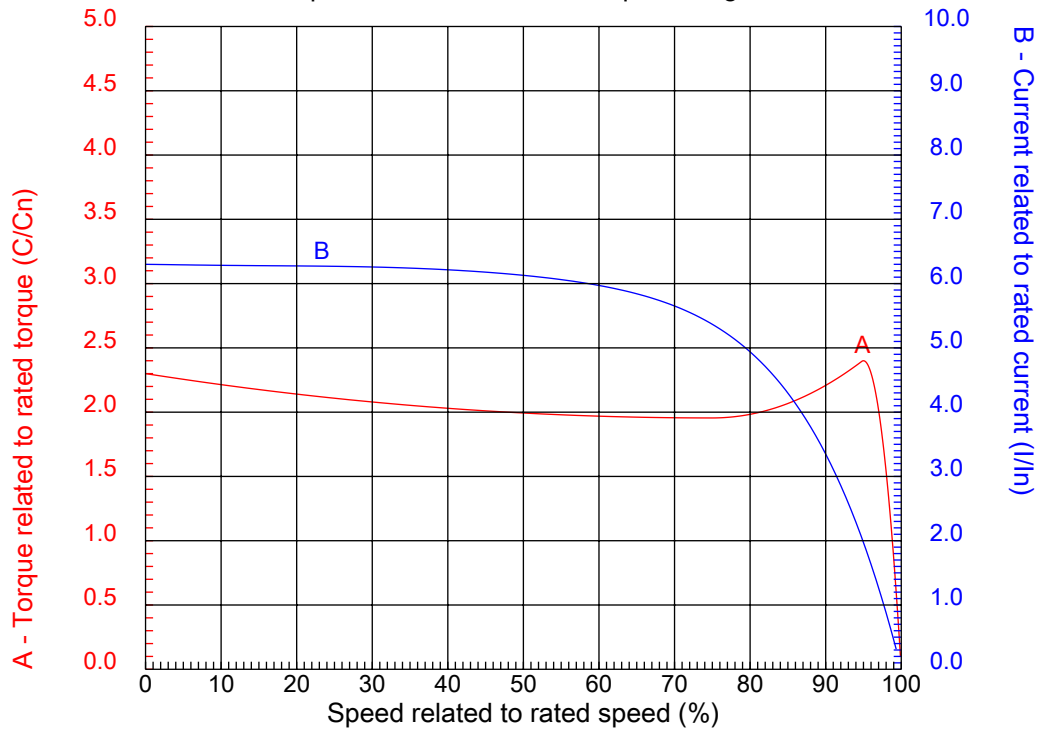
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No.:

Date: 28-SEP-2016

## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : W22 NEMA Premium - Roller Bearings

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 445/7T   | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 6.3   |
| Output           | : 200 HP   | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.15  |
| Full load speed  | : 1185 rpm | Design   | : B     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 230 % |
| Rated current    | : 237 A    | Breakdown torque                                       | : 240 % |
| Insulation class | : F        |  |         |

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Performed by

Checked

1 2 3 4 5 6 7 8

A

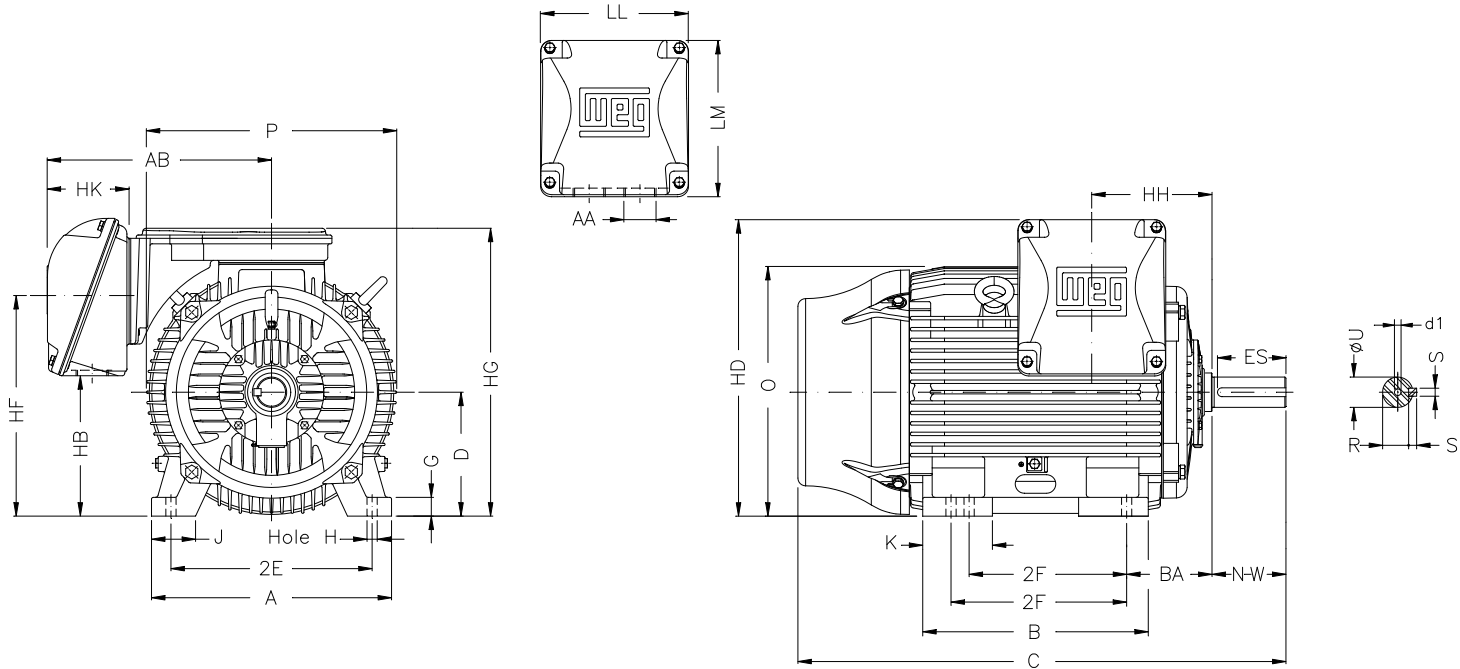
B

C

D

E

F



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|                     |              |              |              |                |
|---------------------|--------------|--------------|--------------|----------------|
| 2E<br>18.000        | J<br>3.937   | A<br>21.929  | P<br>23.583  | AB<br>20.559   |
| 2F<br>16.500/20.000 | K<br>7.244   | B<br>23.897  | BA<br>7.500  | U<br>3.375     |
| N-W<br>8.500        | ES<br>7.087  | S<br>0.875   | R<br>2.880   | depth<br>0.875 |
| D<br>11.000         | G<br>1.654   | HB<br>12.488 | O<br>22.795  | HD<br>27.527   |
| HF<br>20.724        | HG<br>26.830 | HH<br>11.811 | HK<br>6.929  | EV<br>1.929    |
| H<br>0.810          | C<br>48.701  | LL<br>14.921 | LM<br>15.039 | AA<br>2xNPT 3" |
| d1<br>DUNC 3/4"-10  |              |              |              |                |

|  |             |
|--|-------------|
| Performed by:                                      |             |
| Checked:   |             |
| Customer:  |             |
| W22 NEMA Premium - Roller Bearings                 |             |
| Three-phase induction motor<br>Frame 445/7T - IP55 | 28-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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Performed by:

Checked:

Customer:

W22 NEMA Premium - Roller Bearings

Three-phase induction motor  
Frame 445/7T - IP55

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