



Dealers Industrial Equipment

No.:

Date: 29-SEP-2016

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Product line : Three-Phase : Explosion Proof - NEMA Premium

Catalog Number : 30018XT3G449T

List Price : \$42,566

Notes:

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Generated for Model #30018XT3G449T

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# Dealers Industrial Equipment

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Date: 29-SEP-2016

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

Customer :  
Product line : Three-Phase : Explosion Proof - NEMA Premium

Frame : 449T  
Output : 300 HP  
Frequency : 60 Hz  
Poles : 4  
Full load speed : 1785 rpm  
Slip : 0.83 %  
Voltage : 460 V  
Rated current : 334 A  
Locked rotor current : 2670 A  
Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 8.0  
No-load current : 115 A  
Full load torque : 871 lb.ft  
Locked rotor torque : 280 %  
Breakdown torque : 290 %  
Design : A  
Insulation class : F  
Temperature rise : 80 K  
Locked rotor time : 14 s (hot)  
Service factor : 1.15  
Duty cycle : S1  
Ambient temperature : -20°C - +40°C  
Altitude : 1000 m  
Degree of Protection : IP55  
Approximate weight : 3087 lb  
Moment of inertia : 89.555 sq.ft.lb  
Noise level : 80 dB(A)

|                     | D.E.    | N.D.E.  |
|---------------------|---------|---------|
| Bearings            | 6322 C3 | 6319 C3 |
| Regreasing interval | 5138 h  | 7038 h  |
| Grease amount       | 60 g    | 45 g    |

| Load | Power factor | Efficiency (%) |
|------|--------------|----------------|
| 100% | 0.86         | 96.2           |
| 75%  | 0.83         | 95.8           |
| 50%  | 0.74         | 95.4           |

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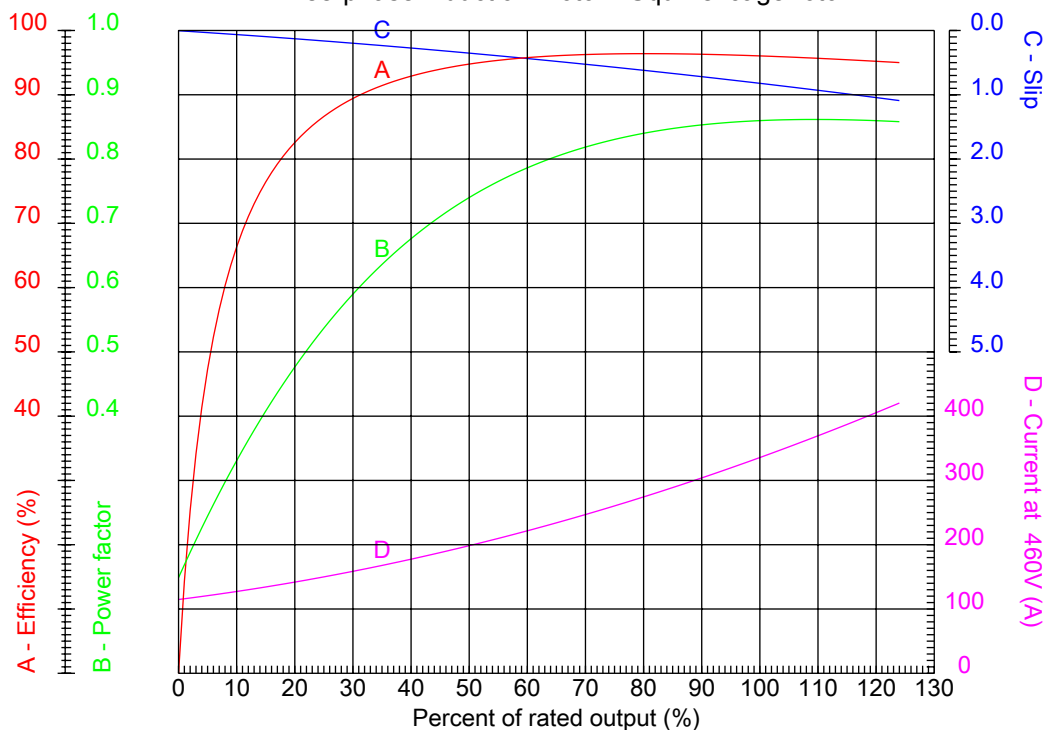
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No.:

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## PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Three-Phase : Explosion Proof - NEMA Premium

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 449T     | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 8.0   |
| Output           | : 300 HP   | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.15  |
| Full load speed  | : 1785 rpm | Design   | : A     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 280 % |
| Rated current    | : 334 A    | Breakdown torque                                       | : 290 % |
| Insulation class | : F        |  |         |

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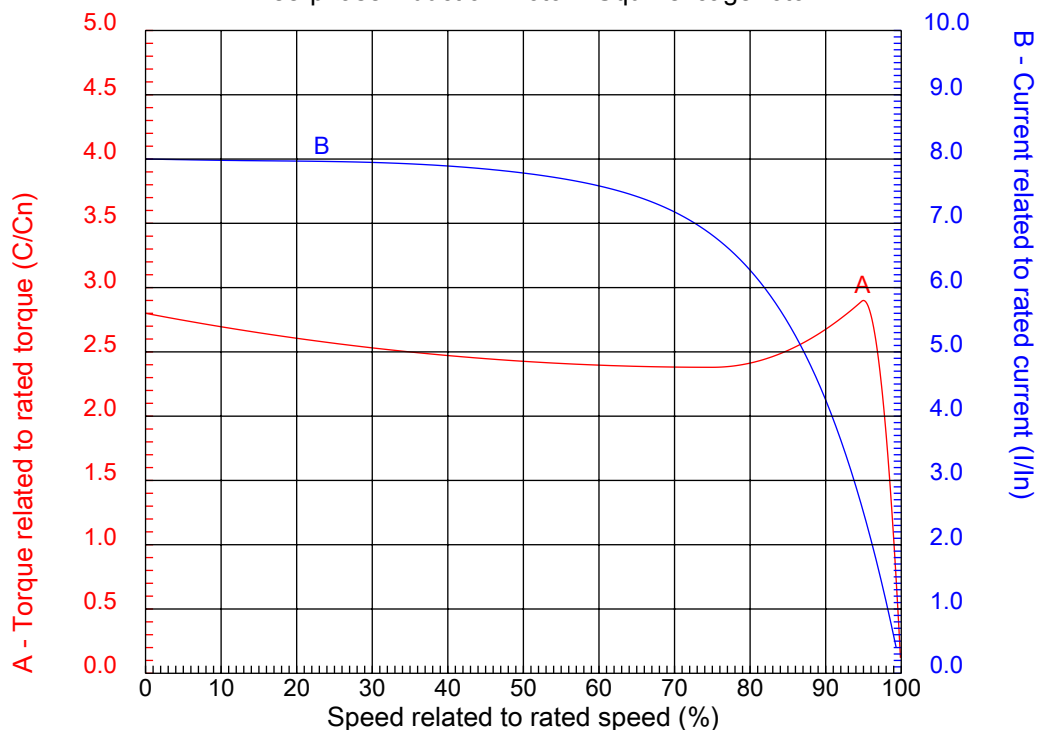
# Dealers Industrial Equipment

No.:

Date: 29-SEP-2016

## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Three-Phase : Explosion Proof - NEMA Premium

|                  |            |  |         |
|------------------|------------|--|---------|
| Frame            | : 449T     | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 8.0   |
| Output           | : 300 HP   | Duty cycle   | : S1    |
| Frequency        | : 60 Hz    | Service factor   | : 1.15  |
| Full load speed  | : 1785 rpm | Design   | : A     |
| Voltage          | : 460 V    | Locked rotor torque                                    | : 280 % |
| Rated current    | : 334 A    | Breakdown torque                                       | : 290 % |
| Insulation class | : F        |  |         |

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1 2 3 4 5 6 7 8

A

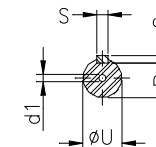
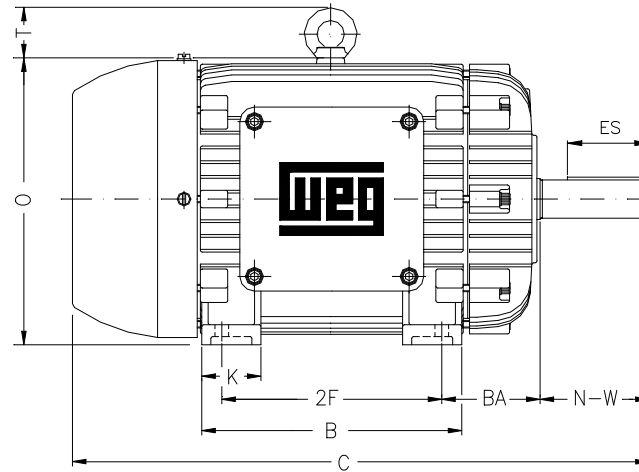
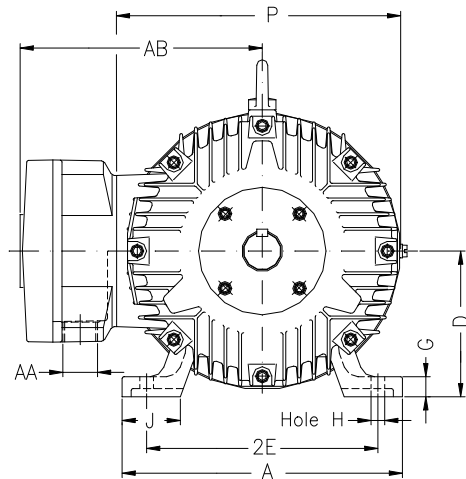
B

C

D

E

F



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Performed by:

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Customer:

Three-Phase : Explosion Proof - NEMA Premium

Three-phase induction motor  
Frame 449T - IP55

29-SEP-2016



|              |                |                    |                    |                |
|--------------|----------------|--------------------|--------------------|----------------|
| 2E<br>18.000 | A<br>21.929    | 2F<br>25.000       | B<br>32.126        | BA<br>7.500    |
| J<br>3.937   | K<br>7.104     | P<br>24.016        | ES<br>7.087        | depth<br>0.875 |
| S<br>0.875   | N-W<br>8.500   | U<br>3.375         | R<br>2.880         | AB<br>20.984   |
| D<br>11.000  | G<br>1.630     | O<br>23.622        | T<br>3.543         | H<br>0.807     |
| C<br>54.996  | AA<br>2xNPT 3" | d1<br>DUNC 3/4"-10 | d2<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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| Performed by:  |             |   |
| Checked:   |             |   |
| Customer:  |             |   |
| Three-Phase : Explosion Proof - NEMA Premium   |             |   |
| Three-phase induction motor<br>Frame 449T - IP55   | 29-SEP-2016 |  |