



No.:

Date: 27-DEC-2012

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

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

Catalog Number : 01518XT3E254TC

List Price : \$2,976

Notes:

Performed by:

Checked:



No.:

Date: 27-DEC-2012

## DATA SHEET

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

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

Frame : 254T  
Output : 15 HP  
Frequency : 60 Hz  
Poles : 4  
Full load speed : 1770  
Slip : 1.67 %  
Voltage : 208-230/460 V  
Rated current : 40.7-36.8/18.4 A  
Locked rotor current : 269/134 A  
Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 7.3  
No-load current : 17.2/8.60 A  
Full load torque : 43.9 lb.ft  
Locked rotor torque : 300 %  
Breakdown torque : 300 %  
Design : B  
Insulation class : F  
Temperature rise : 80 K  
Locked rotor time : 26 s (hot)  
Service factor : 1.15  
Duty cycle : S1  
Ambient temperature : -20°C - +40°C  
Altitude : 1000  
Degree of Protection : IP54  
Approximate weight : 329 lb  
Moment of inertia : 2.3111 sq.ft.lb  
Noise level : 69 dB(A)

|                     | D.E.    | N.D.E.    | Load | Power factor | Efficiency (%) |
|---------------------|---------|-----------|------|--------------|----------------|
| Bearings            | 6309 C3 | 6209 Z-C3 | 100% | 0.81         | 92.4           |
| Regreasing interval | 20000 h | 20000 h   | 75%  | 0.75         | 91.7           |
| Grease amount       | 13 g    | 9 g       | 50%  | 0.65         | 90.2           |

Notes:

Performed by

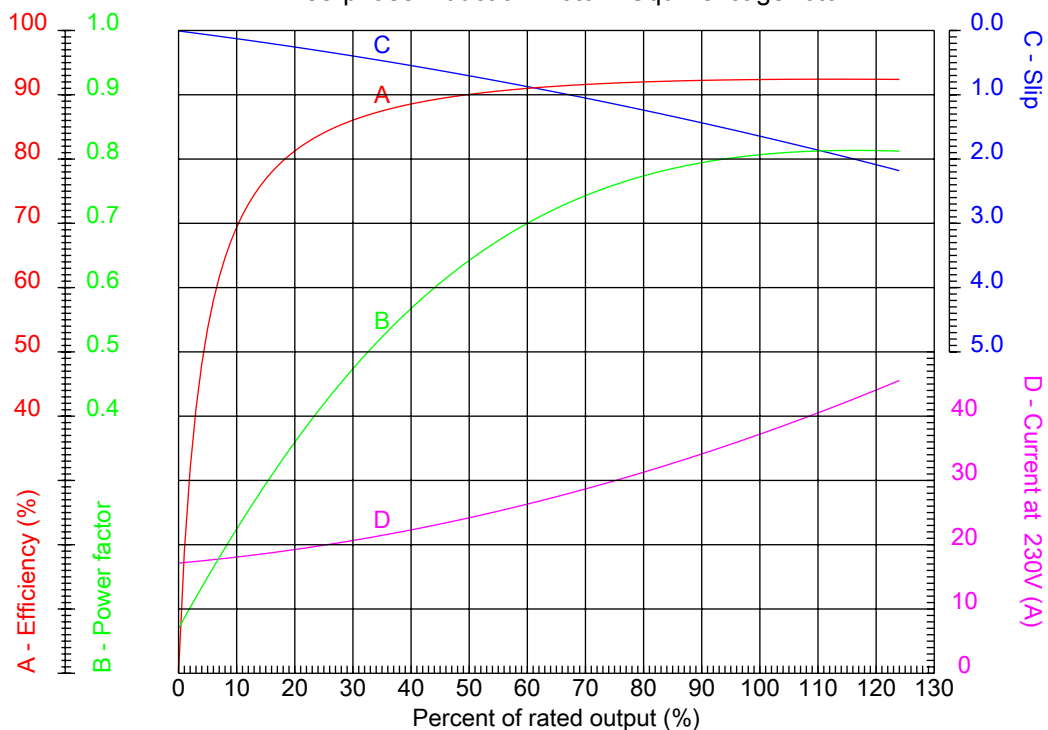
Checked



No.:

Date: 27-DEC-2012

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



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

|                  |                    |  |         |
|------------------|--------------------|--|---------|
| Frame            | : 254T             | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 7.3   |
| Output           | : 15 HP            | Duty cycle   | : S1    |
| Frequency        | : 60 Hz            | Service factor   | : 1.15  |
| Full load speed  | : 1770             | Design   | : B     |
| Voltage          | : 208-230/460 V    | Locked rotor torque                                    | : 300 % |
| Rated current    | : 40.7-36.8/18.4 A | Breakdown torque                                       | : 300 % |
| Insulation class | : F                |  |         |

Notes:

Performed by

Checked

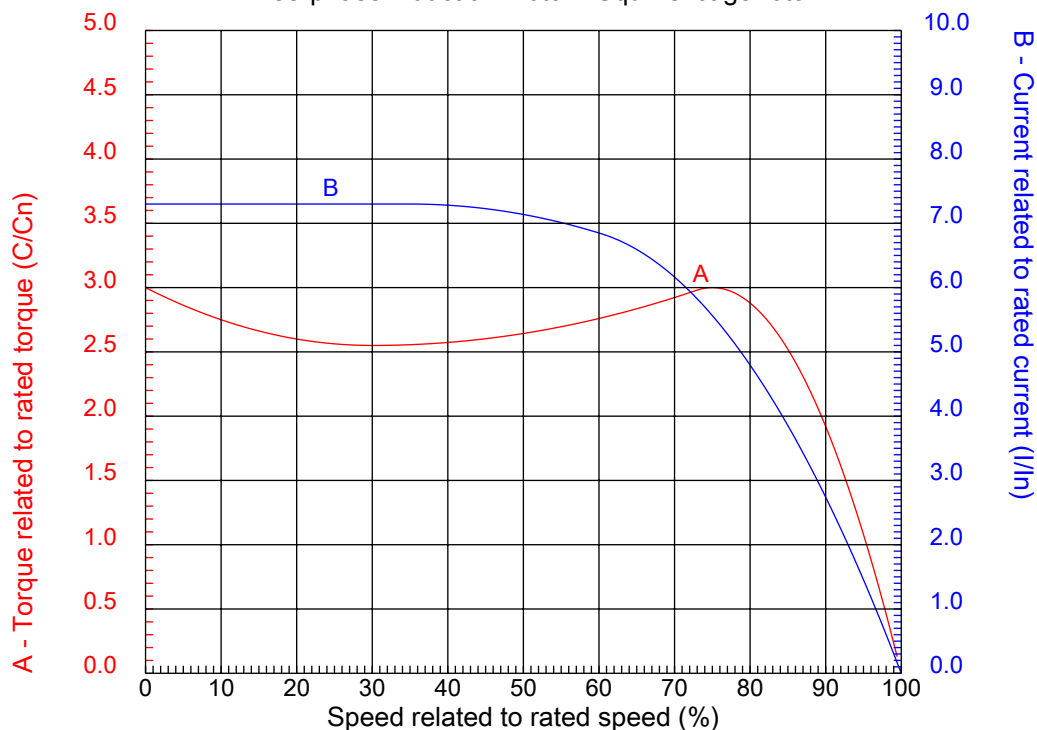


No.:

Date: 27-DEC-2012

### CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



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

|                  |                    |  |         |
|------------------|--------------------|--|---------|
| Frame            | : 254T             | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 7.3   |
| Output           | : 15 HP            | Duty cycle   | : S1    |
| Frequency        | : 60 Hz            | Service factor   | : 1.15  |
| Full load speed  | : 1770             | Design   | : B     |
| Voltage          | : 208-230/460 V    | Locked rotor torque                                    | : 300 % |
| Rated current    | : 40.7-36.8/18.4 A | Breakdown torque                                       | : 300 % |
| Insulation class | : F                |  |         |

Notes:

Performed by

Checked

1 2 3 4 5 6 7 8

A

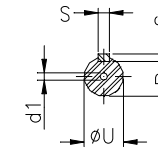
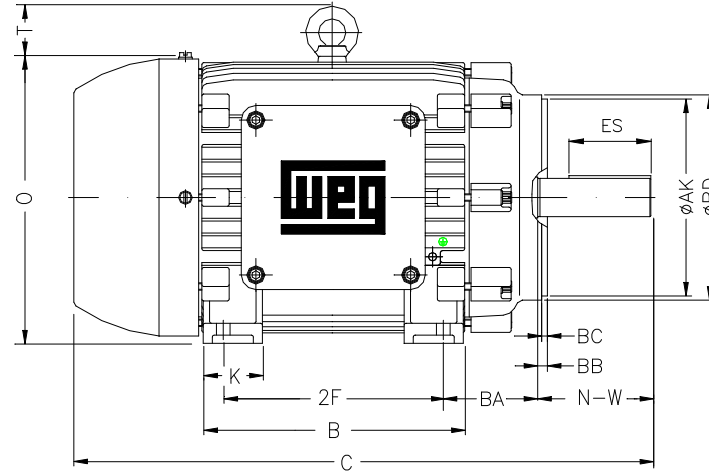
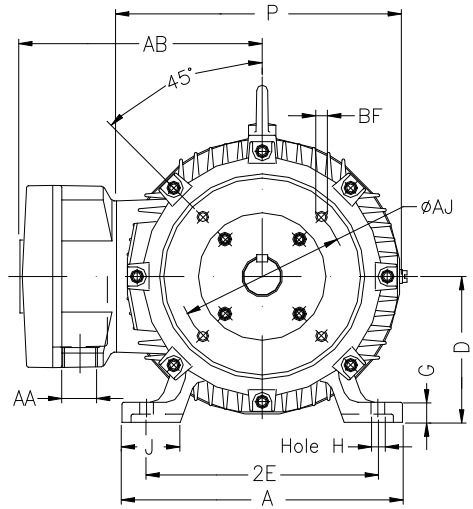
B

C

D

E

F



Notes:

Performed by:

Checked:

Customer:

Three-Phase : Explosion Proof - NEMA Premium

Three-phase induction motor  
Frame 254T - IP54

27-DEC-2012



|                  |                  |             |              |                   |
|------------------|------------------|-------------|--------------|-------------------|
| 2E<br>10.000     | A<br>12.126      | 2F<br>8.252 | B<br>10.000  | BA<br>4.250       |
| J<br>2.520       | K<br>2.559       | P<br>12.224 | ES<br>2.756  | depth<br>0.375    |
| S<br>0.375       | N-W<br>4.000     | U<br>1.625  | R<br>1.406   | AB<br>11.063      |
| D<br>6.250       | G<br>0.817       | O<br>12.352 | HD<br>14.439 | H<br>0.531        |
| C<br>23.175      | AA<br>NPT 1 1/2" | d1<br>A 4   | d2<br>A 4    | T<br>2.087        |
| Flange<br>FC-184 | AJ<br>7.250      | AK<br>8.500 | BD<br>8.875  | BF<br>UNC 1/2"x13 |
| BB<br>0.250      | BC<br>0.250      | AH<br>3.750 |              |                   |