



No.:

Date: 27-DEC-2012

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Product line : Close Coupled Pump: Three-Phase - W22 "JM" Type - TEFC - NEMA Premium

Catalog Number : 02536ET3E284JM-W22

List Price : \$3,619

Notes:

Performed by:

Checked:



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## DATA SHEET

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

Customer :  
 Product line : Close Coupled Pump: Three-Phase - W22 "JM" Type - TEFC - NEMA Premium

Frame : 284JM  
 Output : 25 HP  
 Frequency : 60 Hz  
 Poles : 2  
 Full load speed : 3535  
 Slip : 1.81 %  
 Voltage : 208-230/460 V  
 Rated current : 63.0-57.0/28.5 A  
 Locked rotor current : 359/180 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 6.3  
 No-load current : 15.0/7.50 A  
 Full load torque : 36.6 lb.ft  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Design : B  
 Insulation class : F  
 Temperature rise : 80 K  
 Locked rotor time : 17 s (hot)  
 Service factor : 1.25  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000  
 Degree of Protection : IP55  
 Approximate weight : 362 lb  
 Moment of inertia : 2.6936 sq.ft.lb  
 Noise level : 72 dB(A)

|                     | D.E.    | N.D.E.  | Load | Power factor | Efficiency (%) |
|---------------------|---------|---------|------|--------------|----------------|
| Bearings            | 6311 C3 | 6211 C3 | 100% | 0.89         | 91.7           |
| Regreasing interval | 14000 h | 17000 h | 75%  | 0.87         | 91.7           |
| Grease amount       | 18 g    | 11 g    | 50%  | 0.82         | 91.0           |

Notes:

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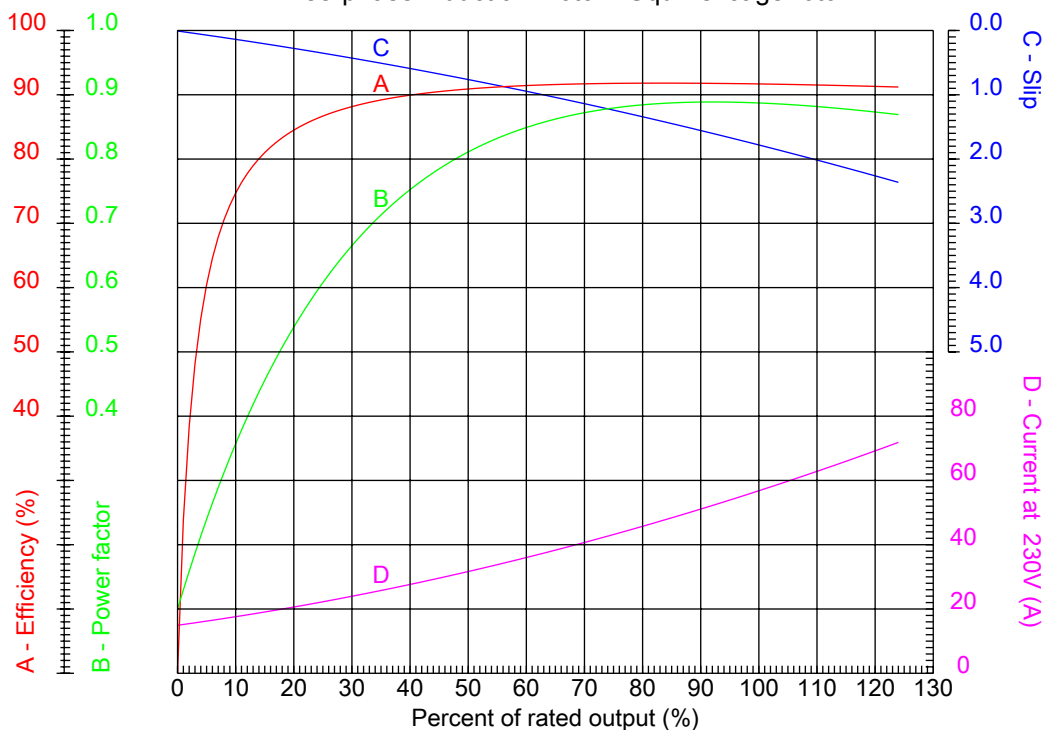


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### PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Close Coupled Pump: Three-Phase - W22 "JM" Type - TEFC - NEMA Premium

|                  |                    |  |         |
|------------------|--------------------|--|---------|
| Frame            | : 284JM            | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 6.3   |
| Output           | : 25 HP            | Duty cycle   | : S1    |
| Frequency        | : 60 Hz            | Service factor   | : 1.25  |
| Full load speed  | : 3535             | Design   | : B     |
| Voltage          | : 208-230/460 V    | Locked rotor torque                                    | : 200 % |
| Rated current    | : 63.0-57.0/28.5 A | Breakdown torque                                       | : 250 % |
| Insulation class | : F                |  |         |

Notes:

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Checked

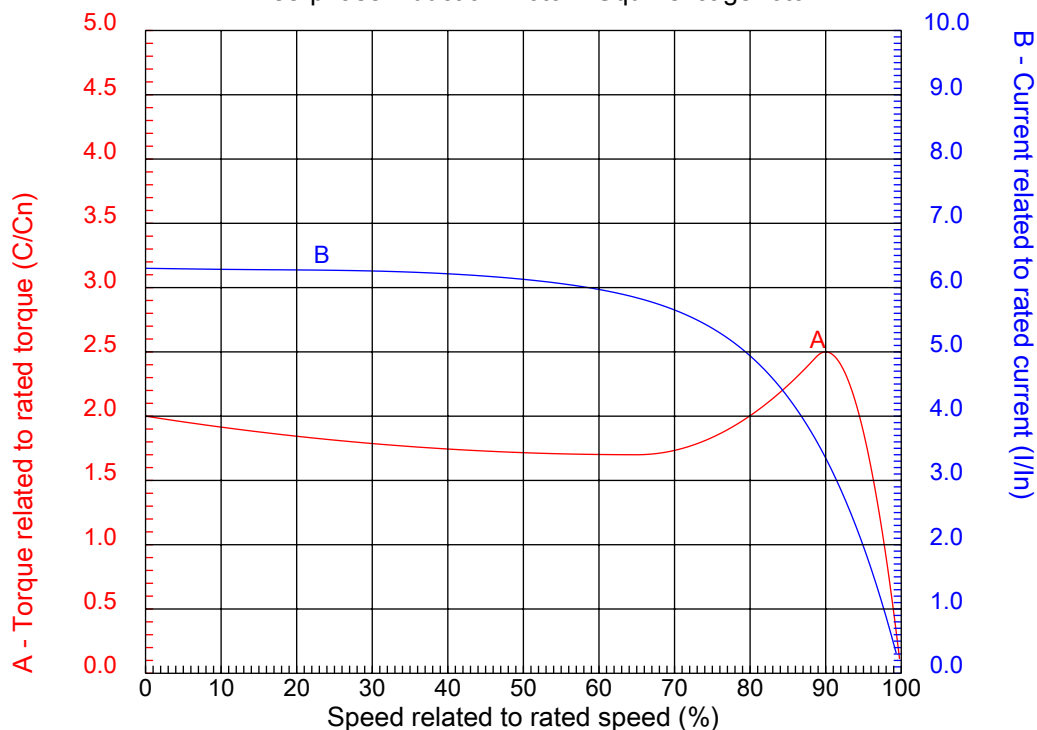


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### CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Close Coupled Pump: Three-Phase - W22 "JM" Type - TEFC - NEMA Premium

|                  |                    |  |         |
|------------------|--------------------|--|---------|
| Frame            | : 284JM            | Locked rotor current (I <sub>l</sub> /I <sub>n</sub> ) | : 6.3   |
| Output           | : 25 HP            | Duty cycle   | : S1    |
| Frequency        | : 60 Hz            | Service factor   | : 1.25  |
| Full load speed  | : 3535             | Design   | : B     |
| Voltage          | : 208-230/460 V    | Locked rotor torque                                    | : 200 % |
| Rated current    | : 63.0-57.0/28.5 A | Breakdown torque                                       | : 250 % |
| Insulation class | : F                |  |         |

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1 2 3 4 5 6 7 8

A

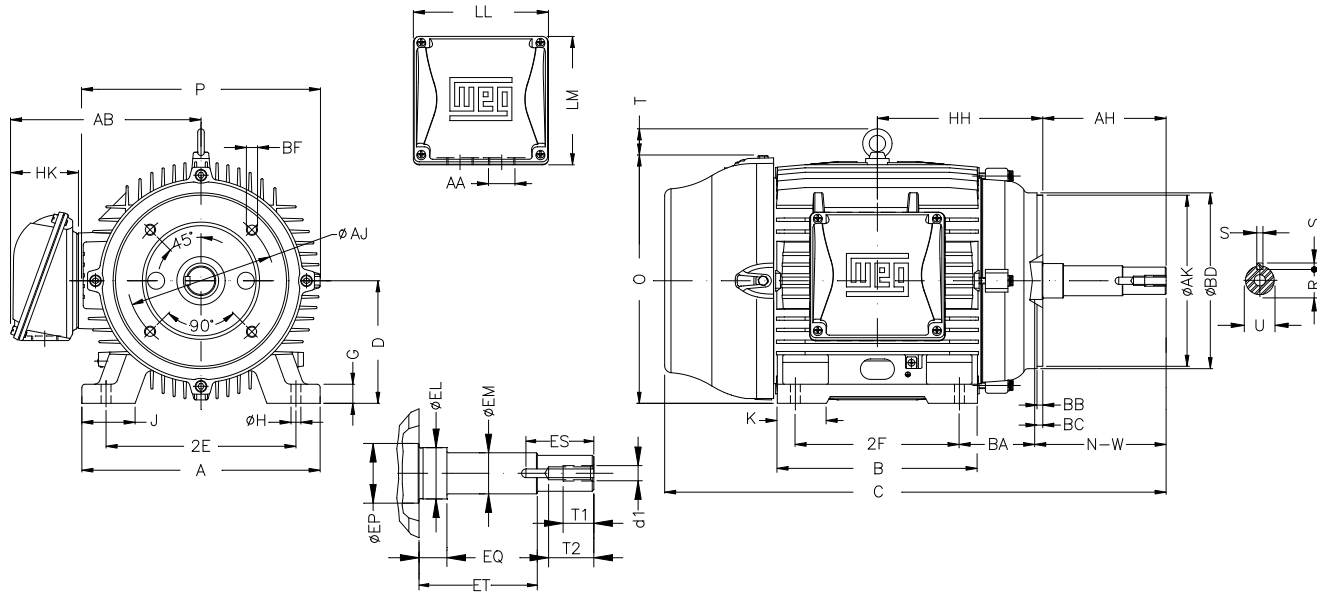
B

C

D

E

F



Notes:

|                  |                   |                  |              |              |
|------------------|-------------------|------------------|--------------|--------------|
| 2E<br>11.000     | J<br>3.110        | A<br>13.780      | P<br>14.173  | AB<br>10.984 |
| 2F<br>9.500      | K<br>2.874        | B<br>11.575      | BA<br>4.750  | D<br>7.000   |
| G<br>1.023       | O<br>14.067       | T<br>2.087       | HD<br>16.154 | H<br>0.531   |
| AA<br>NPT 1 1/2" | ER<br>5.250       | EQ<br>0.630      | ET<br>3.006  | U<br>1.249   |
| EM<br>1.375      | EL<br>1.750       | EP<br>2.163      | ES<br>2.480  | t1<br>0.984  |
| t2<br>1.496      | C<br>27.165       | Flange<br>FC-279 | AJ<br>11.000 | AK<br>12.500 |
| BD<br>13.593     | BF<br>UNC 5/8"x11 | BB<br>0.248      | BC<br>---    | AH<br>5.250  |

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Close Coupled Pump: Three-Phase - W22 "JM" Type - TEFC - NEMA Premium

Three-phase induction motor  
Frame 284JM - IP55

27-DEC-2012

