TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Customer : 

Product line : Three-Phase: W22 IEEE-841™ Petrochem Motors - NEMA Premium® Efficiency

Catalog Number : 05012ST3QIE365TC-W22

List Price : $9,744

Notes:

Performed by: 

Checked:
DATA SHEET
Three-phase induction motor - Squirrel cage rotor

Customer:  
Product line: Three-Phase: W22 IEEE-841™ Petrochem Motors - NEMA Premium® Efficiency

Frame: 364/5T  
Output: 50 HP  
Frequency: 60 Hz  
Poles: 6  
Full load speed: 1180  
Slip: 1.67 %  
Voltage: 460 V  
Rated current: 57.4 A  
Locked rotor current: 367 A  
Locked rotor current (I/I\text{in}): 6.4  
No-load current: 20.0 A  
Full load torque: 220 lb.ft  
Locked rotor torque: 200 %  
Breakdown torque: 240 %  
Design: B  
Insulation class: F  
Temperature rise: 80 K  
Locked rotor time: 18 s (hot)  
Service factor: 1.25  
Duty cycle: S1  
Ambient temperature: -20°C - +40°C  
Altitude: 1000  
Degree of Protection: IP55  
Approximate weight: 869 lb  
Moment of inertia: 32.391 sq.ft.lb  
Noise level: 66 dB(A)

<table>
<thead>
<tr>
<th>D.E.</th>
<th>N.D.E.</th>
<th>Load</th>
<th>Power factor</th>
<th>Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6314 C3</td>
<td>6314 C3</td>
<td>100%</td>
<td>0.86</td>
<td>94.1</td>
</tr>
<tr>
<td>17000 h</td>
<td>17000 h</td>
<td>75%</td>
<td>0.83</td>
<td>94.1</td>
</tr>
<tr>
<td>27 g</td>
<td>27 g</td>
<td>50%</td>
<td>0.74</td>
<td>93.6</td>
</tr>
</tbody>
</table>

Notes:

Performed by:  
Checked:
PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor

Customer:
Product line: Three-Phase: W22 IEEE-841™ Petrochem Motors - NEMA Premium® Efficiency

Frame: 364/5T
Output: 50 HP
Frequency: 60 Hz
Full load speed: 1180
Voltage: 460 V
Rated current: 57.4 A
Insulation class: F

Locked rotor current (Ii/In): 6.4
Duty cycle: S1
Service factor: 1.25
Design: B
Locked rotor torque: 200 %
Breakdown torque: 240 %

Notes:

Performed by
Checked
No.:  
Date: 27-DEC-2012

CHARACTERISTIC CURVES RELATED TO SPEED
Three-phase induction motor - Squirrel cage rotor

- Torque related to rated torque (C/Cn)
- Current related to rated current (I/In)

Customer:
Product line: Three-Phase: W22 IEEE-841™ Petrochem Motors - NEMA Premium® Efficiency

Frame: 364/5T  
Output: 50 HP  
Frequency: 60 Hz  
Full load speed: 1180  
Voltage: 460 V  
Rated current: 57.4 A  
Insulation class: F

Locked rotor current (Ii/In): 6.4  
Duty cycle: S1  
Service factor: 1.25  
Design: B  
Locked rotor torque: 200 %  
Breakdown torque: 240 %

Notes:

Performed by
Checked