

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :																																																																											
Product line	: Rolled Steel Premium Efficiency Three-Phase		Product code :	13484366																																																																							
				Catalog # : 00336ET3E56C-S																																																																							
<table> <tr><td>Frame</td><td>: 56HC</td><td>Locked rotor time</td><td>: 18s (cold) 10s (hot)</td></tr> <tr><td>Output</td><td>: 3 HP (2.2 kW)</td><td>Temperature rise</td><td>: 80 K</td></tr> <tr><td>Poles</td><td>: 2</td><td>Duty cycle</td><td>: Cont.(S1)</td></tr> <tr><td>Frequency</td><td>: 60 Hz</td><td>Ambient temperature</td><td>: -20°C to +40°C</td></tr> <tr><td>Rated voltage</td><td>: 230/460 V</td><td>Altitude</td><td>: 1000 m.a.s.l.</td></tr> <tr><td>Rated current</td><td>: 7.34/3.67 A</td><td>Protection degree</td><td>: IP55</td></tr> <tr><td>L. R. Amperes</td><td>: 68.3/34.1 A</td><td>Cooling method</td><td>: IC411 - TEFC</td></tr> <tr><td>LRC</td><td>: 9.3x(Code L)</td><td>Mounting</td><td>: F-1</td></tr> <tr><td>No load current</td><td>: 3.20/1.60 A</td><td>Rotation¹</td><td>: Both (CW and CCW)</td></tr> <tr><td>Rated speed</td><td>: 3505 rpm</td><td>Noise level²</td><td>: 68.0 dB(A)</td></tr> <tr><td>Slip</td><td>: 2.64 %</td><td>Starting method</td><td>: Direct On Line</td></tr> <tr><td>Rated torque</td><td>: 4.49 ft.lb</td><td>Approx. weight³</td><td>: 46.4 lb</td></tr> <tr><td>Locked rotor torque</td><td>: 280 %</td><td></td><td></td></tr> <tr><td>Breakdown torque</td><td>: 380 %</td><td></td><td></td></tr> <tr><td>Insulation class</td><td>: F</td><td></td><td></td></tr> <tr><td>Service factor</td><td>: 1.15</td><td></td><td></td></tr> <tr><td>Moment of inertia (J)</td><td>: 0.1663 sq.ft.lb</td><td></td><td></td></tr> <tr><td>Design</td><td>: B</td><td></td><td></td></tr> </table>				Frame	: 56HC	Locked rotor time	: 18s (cold) 10s (hot)	Output	: 3 HP (2.2 kW)	Temperature rise	: 80 K	Poles	: 2	Duty cycle	: Cont.(S1)	Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C	Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.	Rated current	: 7.34/3.67 A	Protection degree	: IP55	L. R. Amperes	: 68.3/34.1 A	Cooling method	: IC411 - TEFC	LRC	: 9.3x(Code L)	Mounting	: F-1	No load current	: 3.20/1.60 A	Rotation ¹	: Both (CW and CCW)	Rated speed	: 3505 rpm	Noise level ²	: 68.0 dB(A)	Slip	: 2.64 %	Starting method	: Direct On Line	Rated torque	: 4.49 ft.lb	Approx. weight ³	: 46.4 lb	Locked rotor torque	: 280 %			Breakdown torque	: 380 %			Insulation class	: F			Service factor	: 1.15			Moment of inertia (J)	: 0.1663 sq.ft.lb			Design	: B		
Frame	: 56HC	Locked rotor time	: 18s (cold) 10s (hot)																																																																								
Output	: 3 HP (2.2 kW)	Temperature rise	: 80 K																																																																								
Poles	: 2	Duty cycle	: Cont.(S1)																																																																								
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C																																																																								
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.																																																																								
Rated current	: 7.34/3.67 A	Protection degree	: IP55																																																																								
L. R. Amperes	: 68.3/34.1 A	Cooling method	: IC411 - TEFC																																																																								
LRC	: 9.3x(Code L)	Mounting	: F-1																																																																								
No load current	: 3.20/1.60 A	Rotation ¹	: Both (CW and CCW)																																																																								
Rated speed	: 3505 rpm	Noise level ²	: 68.0 dB(A)																																																																								
Slip	: 2.64 %	Starting method	: Direct On Line																																																																								
Rated torque	: 4.49 ft.lb	Approx. weight ³	: 46.4 lb																																																																								
Locked rotor torque	: 280 %																																																																										
Breakdown torque	: 380 %																																																																										
Insulation class	: F																																																																										
Service factor	: 1.15																																																																										
Moment of inertia (J)	: 0.1663 sq.ft.lb																																																																										
Design	: B																																																																										
Output	25%	50%	75%	100%																																																																							
Efficiency (%)	78.7	80.3	81.0	82.0	84.0	83.0	86.5	84.6																																																																			
Power Factor	0.45	0.53	0.71	0.76	0.82	0.85	0.87	0.89																																																																			
	0.47	0.70	0.81	0.87																																																																							
<table> <tr> <td>Drive end</td><td colspan="4">Non drive end</td></tr> <tr> <td>Bearing type</td><td>: 6204 ZZ</td><td>6202 ZZ</td><td colspan="2"></td></tr> <tr> <td>Sealing</td><td>: V'Ring</td><td>Without Bearing Seal</td><td colspan="2"></td></tr> <tr> <td>Lubrication interval</td><td>: -</td><td>-</td><td colspan="2"></td></tr> <tr> <td>Lubricant amount</td><td>: -</td><td>-</td><td colspan="2"></td></tr> <tr> <td>Lubricant type</td><td>: Mobil Polyrex EM</td><td></td><td colspan="2" rowspan="4"></td></tr> </table>					Drive end	Non drive end				Bearing type	: 6204 ZZ	6202 ZZ			Sealing	: V'Ring	Without Bearing Seal			Lubrication interval	: -	-			Lubricant amount	: -	-			Lubricant type	: Mobil Polyrex EM																																												
Drive end	Non drive end																																																																										
Bearing type	: 6204 ZZ	6202 ZZ																																																																									
Sealing	: V'Ring	Without Bearing Seal																																																																									
Lubrication interval	: -	-																																																																									
Lubricant amount	: -	-																																																																									
Lubricant type	: Mobil Polyrex EM																																																																										
Notes:																																																																											
<p>This revision replaces and cancel the previous one, which must be eliminated.</p> <p>(1) Looking the motor from the shaft end.</p> <p>(2) Measured at 1m and with tolerance of +3dB(A).</p> <p>(3) Approximate weight subject to changes after manufacturing process.</p> <p>(4) At 100% of full load.</p>																																																																											
These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.																																																																											
Rev.	Changes Summary			Performed	Checked	Date																																																																					
Performed by					Page	Revision																																																																					
Checked by																																																																											
Date	27/03/2024				1 / 1																																																																						
Customer :																																																																											
Product line	: Rolled Steel Premium Efficiency Three-Phase		Product code :	13484366																																																																							
				Catalog # : 00336ET3E56C-S																																																																							
<table> <tr><td>Frame</td><td>: 56HC</td><td>Locked rotor time</td><td>: 18s (cold) 10s (hot)</td></tr> <tr><td>Output</td><td>: 3 HP (2.2 kW)</td><td>Temperature rise</td><td>: 80 K</td></tr> <tr><td>Poles</td><td>: 2</td><td>Duty cycle</td><td>: Cont.(S1)</td></tr> <tr><td>Frequency</td><td>: 60 Hz</td><td>Ambient temperature</td><td>: -20°C to +40°C</td></tr> <tr><td>Rated voltage</td><td>: 230/460 V</td><td>Altitude</td><td>: 1000 m.a.s.l.</td></tr> <tr><td>Rated current</td><td>: 7.34/3.67 A</td><td>Protection degree</td><td>: IP55</td></tr> <tr><td>L. R. Amperes</td><td>: 68.3/34.1 A</td><td>Cooling method</td><td>: IC411 - TEFC</td></tr> <tr><td>LRC</td><td>: 9.3x(Code L)</td><td>Mounting</td><td>: F-1</td></tr> <tr><td>No load current</td><td>: 3.20/1.60 A</td><td>Rotation¹</td><td>: Both (CW and CCW)</td></tr> <tr><td>Rated speed</td><td>: 3505 rpm</td><td>Noise level²</td><td>: 68.0 dB(A)</td></tr> <tr><td>Slip</td><td>: 2.64 %</td><td>Starting method</td><td>: Direct On Line</td></tr> <tr><td>Rated torque</td><td>: 4.49 ft.lb</td><td>Approx. weight³</td><td>: 46.4 lb</td></tr> <tr><td>Locked rotor torque</td><td>: 280 %</td><td></td><td></td></tr> <tr><td>Breakdown torque</td><td>: 380 %</td><td></td><td></td></tr> <tr><td>Insulation class</td><td>: F</td><td></td><td></td></tr> <tr><td>Service factor</td><td>: 1.15</td><td></td><td></td></tr> <tr><td>Moment of inertia (J)</td><td>: 0.1663 sq.ft.lb</td><td></td><td></td></tr> <tr><td>Design</td><td>: B</td><td></td><td></td></tr> </table>				Frame	: 56HC	Locked rotor time	: 18s (cold) 10s (hot)	Output	: 3 HP (2.2 kW)	Temperature rise	: 80 K	Poles	: 2	Duty cycle	: Cont.(S1)	Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C	Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.	Rated current	: 7.34/3.67 A	Protection degree	: IP55	L. R. Amperes	: 68.3/34.1 A	Cooling method	: IC411 - TEFC	LRC	: 9.3x(Code L)	Mounting	: F-1	No load current	: 3.20/1.60 A	Rotation ¹	: Both (CW and CCW)	Rated speed	: 3505 rpm	Noise level ²	: 68.0 dB(A)	Slip	: 2.64 %	Starting method	: Direct On Line	Rated torque	: 4.49 ft.lb	Approx. weight ³	: 46.4 lb	Locked rotor torque	: 280 %			Breakdown torque	: 380 %			Insulation class	: F			Service factor	: 1.15			Moment of inertia (J)	: 0.1663 sq.ft.lb			Design	: B		
Frame	: 56HC	Locked rotor time	: 18s (cold) 10s (hot)																																																																								
Output	: 3 HP (2.2 kW)	Temperature rise	: 80 K																																																																								
Poles	: 2	Duty cycle	: Cont.(S1)																																																																								
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C																																																																								
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.																																																																								
Rated current	: 7.34/3.67 A	Protection degree	: IP55																																																																								
L. R. Amperes	: 68.3/34.1 A	Cooling method	: IC411 - TEFC																																																																								
LRC	: 9.3x(Code L)	Mounting	: F-1																																																																								
No load current	: 3.20/1.60 A	Rotation ¹	: Both (CW and CCW)																																																																								
Rated speed	: 3505 rpm	Noise level ²	: 68.0 dB(A)																																																																								
Slip	: 2.64 %	Starting method	: Direct On Line																																																																								
Rated torque	: 4.49 ft.lb	Approx. weight ³	: 46.4 lb																																																																								
Locked rotor torque	: 280 %																																																																										
Breakdown torque	: 380 %																																																																										
Insulation class	: F																																																																										
Service factor	: 1.15																																																																										
Moment of inertia (J)	: 0.1663 sq.ft.lb																																																																										
Design	: B																																																																										
Output	25%	50%	75%	100%	Foundation loads																																																																						
Efficiency (%)	78.7	80.3	81.0	82.0	84.0	83.0	86.5	84.6	Max. traction : 153 lb																																																																		
	80.0	82.0	84.0	86.0	Max. compression : 200 lb																																																																						
Power Factor	0.45	0.53	0.71	0.76	0.82	0.85	0.87	0.89																																																																			
	0.47	0.70	0.81	0.87																																																																							
<table> <tr> <td>Drive end</td><td colspan="4">Non drive end</td></tr> <tr> <td>Bearing type</td><td>: 6204 ZZ</td><td>6202 ZZ</td><td colspan="2"></td></tr> <tr> <td>Sealing</td><td>: V'Ring</td><td>Without Bearing Seal</td><td colspan="2"></td></tr> <tr> <td>Lubrication interval</td><td>: -</td><td>-</td><td colspan="2"></td></tr> <tr> <td>Lubricant amount</td><td>: -</td><td>-</td><td colspan="2"></td></tr> <tr> <td>Lubricant type</td><td>: Mobil Polyrex EM</td><td></td><td colspan="2" rowspan="4"></td></tr> </table>					Drive end	Non drive end				Bearing type	: 6204 ZZ	6202 ZZ			Sealing	: V'Ring	Without Bearing Seal			Lubrication interval	: -	-			Lubricant amount	: -	-			Lubricant type	: Mobil Polyrex EM																																												
Drive end	Non drive end																																																																										
Bearing type	: 6204 ZZ	6202 ZZ																																																																									
Sealing	: V'Ring	Without Bearing Seal																																																																									
Lubrication interval	: -	-																																																																									
Lubricant amount	: -	-																																																																									
Lubricant type	: Mobil Polyrex EM																																																																										
Notes:																																																																											
<p>This revision replaces and cancel the previous one, which must be eliminated.</p> <p>(1) Looking the motor from the shaft end.</p> <p>(2) Measured at 1m and with tolerance of +3dB(A).</p> <p>(3) Approximate weight subject to changes after manufacturing process.</p> <p>(4) At 100% of full load.</p>																																																																											
<p>These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.</p>																																																																											
Rev.	Changes Summary			Performed	Checked	Date																																																																					
Performed by					Page	Revision																																																																					
Checked by																																																																											
Date	27/03/2024				1 / 1																																																																						