

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :																																																																														
Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code : 14275000 Catalog # : 05012ST3QIE365TC-W22																																																																													
Frame : 364/5TC Output : 50 HP (37 kW) Poles : 6 Frequency : 60 Hz Rated voltage : 460 V Rated current : 57.4 A L. R. Amperes : 367 A LRC : 6.4x(Code G) No load current : 20.0 A Rated speed : 1183 rpm Slip : 1.42 % Rated torque : 222 ft.lb Locked rotor torque : 200 % Breakdown torque : 240 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 32.4 sq.ft.lb Design : B	Locked rotor time : 32s (cold) 18s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP56 Cooling method : IC411 - TEFC Mounting : F-1 Rotation ¹ : Both (CW and CCW) Noise level ² : 66.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 919 lb																																																																													
<table border="1"> <tr> <td>Output</td> <td>25%</td> <td>50%</td> <td>75%</td> <td>100%</td> </tr> <tr> <td>Efficiency (%)</td> <td>93.4</td> <td>92.5</td> <td>93.6</td> <td>92.7</td> <td>94.1</td> <td>92.8</td> <td>94.1</td> <td>92.9</td> </tr> <tr> <td></td> <td>92.7</td> <td>92.6</td> <td>92.7</td> <td>92.6</td> <td>93.1</td> <td>93.1</td> <td>92.9</td> <td>92.9</td> </tr> <tr> <td></td> <td>93.5</td> <td>93.4</td> <td>93.0</td> <td>93.0</td> <td>92.4</td> <td>93.0</td> <td>91.7</td> <td>92.4</td> </tr> <tr> <td></td> <td>93.4</td> <td>93.0</td> <td>93.0</td> <td>92.4</td> <td>92.4</td> <td>92.4</td> <td>92.4</td> <td>92.4</td> </tr> <tr> <td>Power Factor</td> <td>0.49</td> <td>0.47</td> <td>0.74</td> <td>0.72</td> <td>0.83</td> <td>0.82</td> <td>0.86</td> <td>0.85</td> </tr> <tr> <td></td> <td>0.44</td> <td>0.41</td> <td>0.70</td> <td>0.66</td> <td>0.80</td> <td>0.79</td> <td>0.84</td> <td>0.84</td> </tr> <tr> <td></td> <td>0.53</td> <td>0.50</td> <td>0.77</td> <td>0.75</td> <td>0.84</td> <td>0.83</td> <td>0.86</td> <td>0.86</td> </tr> <tr> <td></td> <td>0.48</td> <td>0.74</td> <td>0.82</td> <td>0.85</td> <td>0.85</td> <td>0.85</td> <td>0.85</td> <td>0.85</td> </tr> </table>	Output	25%	50%	75%	100%	Efficiency (%)	93.4	92.5	93.6	92.7	94.1	92.8	94.1	92.9		92.7	92.6	92.7	92.6	93.1	93.1	92.9	92.9		93.5	93.4	93.0	93.0	92.4	93.0	91.7	92.4		93.4	93.0	93.0	92.4	92.4	92.4	92.4	92.4	Power Factor	0.49	0.47	0.74	0.72	0.83	0.82	0.86	0.85		0.44	0.41	0.70	0.66	0.80	0.79	0.84	0.84		0.53	0.50	0.77	0.75	0.84	0.83	0.86	0.86		0.48	0.74	0.82	0.85	0.85	0.85	0.85	0.85	Foundation loads Max. traction : 1650 lb Max. compression : 2569 lb
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Losses at normative operating points (speed;torque), in percentage of rated output power																																																																														
Losses (%)	P1 (0,9;1,0)	6.2	6.2	6.2	6.2	6.2	6.2	6.2																																																																						
	P2 (0,5;1,0)	5.2	5.2	5.2	5.2	5.2	5.2	5.2																																																																						
	P3 (0,25;1,0)	4.6	4.6	4.6	4.6	4.6	4.6	4.6																																																																						
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8	2.8	2.8	2.8																																																																						
	P5 (0,5;0,5)	1.9	1.9	1.9	1.9	1.9	1.9	1.9																																																																						
	P6 (0,5;0,25)	1.2	1.2	1.2	1.2	1.2	1.2	1.2																																																																						
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8	0.8																																																																						
Bearing type : Sealing : Lubrication interval : Lubricant amount : Lubricant type :	<table border="0"> <tr> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td style="text-align: center;">6314 C3</td> <td style="text-align: center;">6314 C3</td> </tr> <tr> <td style="text-align: center;">Inpro/Seal</td> <td style="text-align: center;">Inpro/Seal</td> </tr> <tr> <td style="text-align: center;">17000 h</td> <td style="text-align: center;">17000 h</td> </tr> <tr> <td style="text-align: center;">27 g</td> <td style="text-align: center;">27 g</td> </tr> <tr> <td colspan="2" style="text-align: center;">Mobil Polyrex EM</td> </tr> </table>	<u>Drive end</u>	<u>Non drive end</u>	6314 C3	6314 C3	Inpro/Seal	Inpro/Seal	17000 h	17000 h	27 g	27 g	Mobil Polyrex EM																																																																		
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This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. (4) At 100% of full load.	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																																																																										
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