

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :																																																							
Product line : W22 IE3 Three-Phase	Product code : 12024290 Catalog # : E01836EP3YAX160LF3-W																																																						
Frame : 160L Output : 18.5 kW (25 HP) Poles : 2 Frequency : 50 Hz Rated voltage : 380/660 V Rated current : 34.3/19.8 A L. R. Amperes : 288/166 A LRC : 8.4 No load current : 13.5/7.77 A Rated speed : 2945 rpm Slip : 1.83 % Rated torque : 44.3 ft.lb Locked rotor torque : 250 % Breakdown torque : 320 % Insulation class : F Service factor : 1.00 Moment of inertia (J) : 1.32 sq.ft.lb Design : N	Locked rotor time : 14s (cold) 8s (hot) Temperature rise : 80 K Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : B3T Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 67.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 315 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>0.000</td> <td>92.4</td> <td>92.0</td> <td>92.9</td> <td>93.0</td> <td>93.2</td> </tr> <tr> <td></td> <td>0.000</td> <td>91.6</td> <td>90.2</td> <td>92.8</td> <td>91.7</td> <td>93.3</td> </tr> <tr> <td></td> <td>0.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>0.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Power Factor</td> <td>0.00</td> <td>0.00</td> <td>0.74</td> <td>0.70</td> <td>0.83</td> <td>0.80</td> </tr> <tr> <td></td> <td>0.00</td> <td>0.00</td> <td>0.66</td> <td>0.69</td> <td>0.77</td> <td>0.80</td> </tr> <tr> <td></td> <td>0.84</td> <td>0.84</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Output	25%	50%	75%	100%	Efficiency (%)	0.000	92.4	92.0	92.9	93.0	93.2		0.000	91.6	90.2	92.8	91.7	93.3		0.000							0.000						Power Factor	0.00	0.00	0.74	0.70	0.83	0.80		0.00	0.00	0.66	0.69	0.77	0.80		0.84	0.84					Foundation loads Max. traction : 617 lb Max. compression : 933 lb
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Losses at normative operating points (speed;torque), in percentage of rated output power																																																							
Losses (%)	P1 (0,9;1,0)	7.2	7.0	6.9	7.9																																																		
	P2 (0,5;1,0)	5.9	5.7	5.6	6.4																																																		
	P3 (0,25;1,0)	5.6	5.4	5.4	6.1																																																		
	P4 (0,9;0,5)	3.8	3.7	3.6	4.1																																																		
	P5 (0,5;0,5)	2.5	2.4	2.4	2.7																																																		
	P6 (0,5;0,25)	1.7	1.6	1.6	1.9																																																		
	P7 (0,25;0,25)	1.1	1.1	1.1	1.2																																																		
Bearing type	:	<u>Drive end</u> 6309 C3	<u>Non drive end</u> 6209 C3																																																				
Sealing	:	V'Ring	V'Ring																																																				
Lubrication interval	:	20000 h	20000 h																																																				
Lubricant amount	:	13 g	9 g																																																				
Lubricant type	:	Mobil Polyrex EM																																																					
Notes:																																																							
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 IEC 60034-1.																																																			
Rev.	Changes Summary			Performed	Checked	Date																																																	
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Checked by					Page	Revision																																																	
Date	26/03/2024				1 / 2																																																		

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### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	140 °C
2	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	26/03/2024		2 / 2	