DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer Product line : W22 IEEE 841 NEMA Premium Product code: 11460176 Efficiency Three-Phase : 254/6TC Cooling method Frame : IC411 - TEFC Insulation class Mounting : F-1 : F Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW) Ambient temperature : -20°C to +40°C Starting method : Direct On Line Approx. weight³ Altitude : 1000 m.a.s.l. : 160 kg Protection degree : IP56 Moment of inertia (J) : 0.1305 kgm² Design : B Output [HP] 20 15 20 15 15 20 20 Poles 4 4 4 4 4 4 4 50 50 50 50 Frequency [Hz] 60 50 50 Rated voltage [V] 380 460 380 400 415 400 415 Rated current [A] 29.4 24.1 21.8 21.2 20.6 28.0 27.1 L. R. Amperes [A] 167 157 161 167 173 174 179 LRC [A] 6.5x(Code | 7.4x(Code H) | 7.9x(Code J) | 8.4x(Code K) | 5.7x(Code F) | 6.2x(Code | 6.6x(Code H) G) G) No load current [A] 8.80 8.60 9.10 9.60 8.60 9.10 9.60 Rated speed [RPM] 1770 1475 1477 1479 1455 1460 1465 Slip [%] 1.67 1.67 1.53 1.40 3.00 2.67 2.33 Rated torque [kgfm] 8.20 7.38 7.37 7.36 9.98 9.94 9.91 Locked rotor torque [%] 240 250 280 300 190 210 229 Breakdown torque [%] 250 290 320 340 210 229 260 Service factor 1.25 1.00 1.00 1.00 1.00 1.00 1.00 Temperature rise 80 K 80 K 80 K 80 K 105 K 105 K 105 K 23s (cold) Locked rotor time 41s (cold) 41s (cold) 39s (cold) 37s (cold) 21s (cold) 23s (cold) 12s (hot) 23s (hot) 23s (hot) 22s (hot) 21s (hot) 13s (hot) 13s (hot) Noise level² 64.0 dB(A) 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 25% 50% 91.7 91.0 89.8 89.8 91.7 91.0 91.0 Efficiency (%) 75% 92.4 91.5 91.0 91.3 91.0 91.0 91.7 100% 93.0 91.4 91.4 91.7 90.2 91.0 91.7 25% 50% 0.68 0.65 0.62 0.60 0.75 0.72 0.70 Power Factor 75% 0.79 0.78 0.75 0.73 0.83 0.81 0.80 100% 0.84 0.84 0.82 0.81 0.86 0.85 0.84 Losses at normative operating points (speed;torque), in percentage of rated output power P1 (0,9;1,0) 7.4 9.3 9.3 8.9 10.7 9.7 8.9 P2 (0,5;1,0) 8.0 7.7 6.4 8.0 9.2 8.4 7.7 P3 (0,25;1,0) 7.3 7.0 7.7 5.9 7.3 8.4 7.0 P4 (0,9;0,5) 4.3 3.5 4.3 4.2 5.0 4.6 4.2 Losses (%) P5 (0,5;0,5) 2.9 2.4 3.1 3.1 3.5 3.2 2.9 P6 (0,5;0,25) 1.6 2.0 2.0 1.9 2.3 2.1 1.9 P7 1.4 1.3 1.4 1.1 1.4 1.6 1.3 (0,25;0,25)Drive end Non drive end Foundation loads Bearing type 6309 C3 6209 C3 : 325 kgf Max. traction Sealing Inpro/Seal Inpro/Seal Max. compression : 485 kgf Lubrication interval 20000 h 20000 h 9 g Lubricant amount 13 q Mobil Polyrex EM Lubricant type This revision replaces and cancel the previous one, which These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA must be eliminated. (1) Looking the motor from the shaft end. MG-1. Performed Checked Rev. **Changes Summary** Date Performed by Checked by Page Revision 22/10/2024 1/9 Date

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Three Phase Induction Motor - Squirrel Cage



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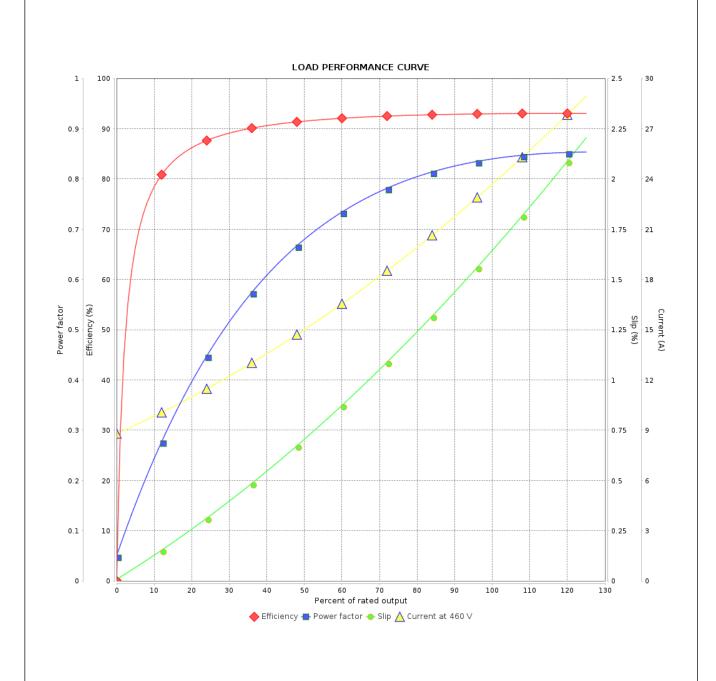
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Product code : 11460176

Efficiency Three-Phase



400 1/ 00 11 45				
: 460 V 60 HZ 4P				
: 24.1 A	Moment of	of inertia (J)	: 0.1305 kgm²	
: 6.5	Duty cycle		: Cont.(S1)	
: 8.20 kgfm	Insulation class		:F	
: 240 %	Service fa	ictor	: 1.25	
: 250 %	Temperat	ure rise	: 80 K	
: 1770 rpm	Design		: B	
Changes Summary		Performed	Checked	Date
	: 6.5 : 8.20 kgfm : 240 % : 250 % : 1770 rpm	: 24.1 A Moment of 26.5 Duty cycle is 8.20 kgfm Insulation Service far 250 % Temperate is 1770 rpm Design	: 24.1 A : 6.5 : 8.20 kgfm : 240 % : 250 % : 1770 rpm Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 24.1 A Moment of inertia (J) : 0.1305 kgm² : 6.5 Duty cycle : Cont.(S1) : 8.20 kgfm Insulation class : F : 240 % Service factor : 1.25 : 250 % Temperature rise : 80 K : 1770 rpm Design : B

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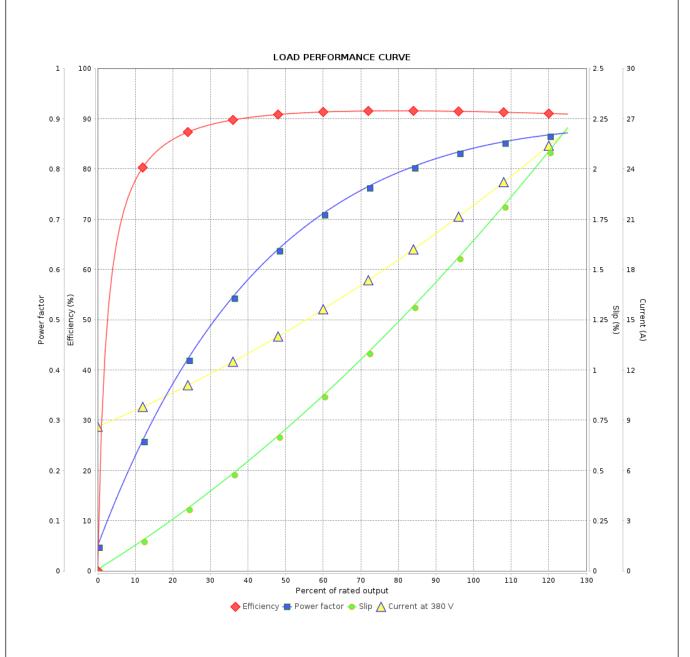


Customer :

Product line : W22 IEEE 841 NEMA Premium

Efficiency Three-Phase

Product code: 11460176



Performance	: 380 V 50 Hz 4P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 21.8 A : 7.4 : 7.38 kgfm : 250 % : 290 % : 1475 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.1305 kgm² : Cont.(S1) : F : 1.00 : 80 K : B	
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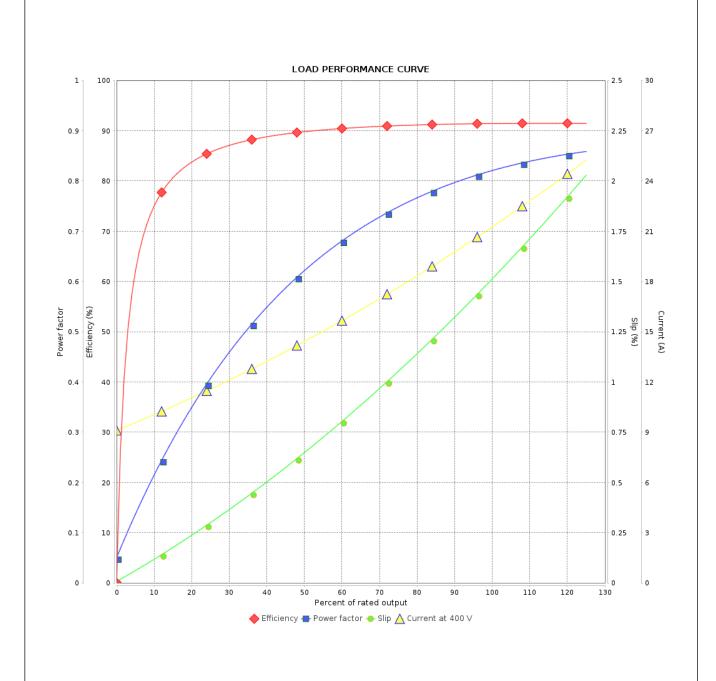


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Customer :

Product line : W22 IEEE 841 NEMA Premium Product code :

Efficiency Three-Phase



Performance		: 400 V 50 Hz 4P	IE3				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	•	: 21.2 A : 7.9 : 7.37 kgfm : 280 % : 320 % : 1477 rpm	Du Ins Se Te	oment of uty cycle sulation ervice fac emperatu esign	class ctor	: 0.1305 kgm² : Cont.(S1) : F : 1.00 : 80 K : B	2
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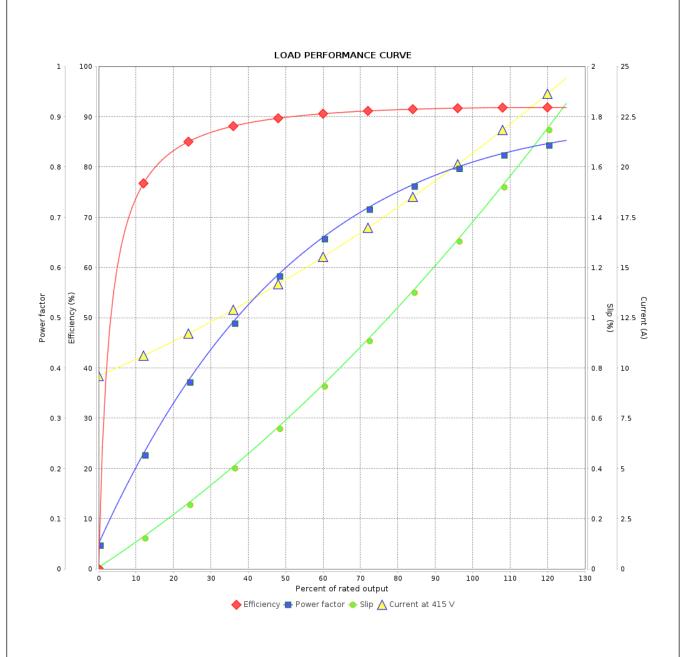


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Efficiency Three-Phase

Product code: 11460176



Performance	: 415 V 50 Hz 4P IE3			
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 20.6 A : 8.4 : 7.36 kgfm : 300 % : 340 % : 1479 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 0.1305 kgm² : Cont.(S1) : F : 1.00 : 80 K : B	
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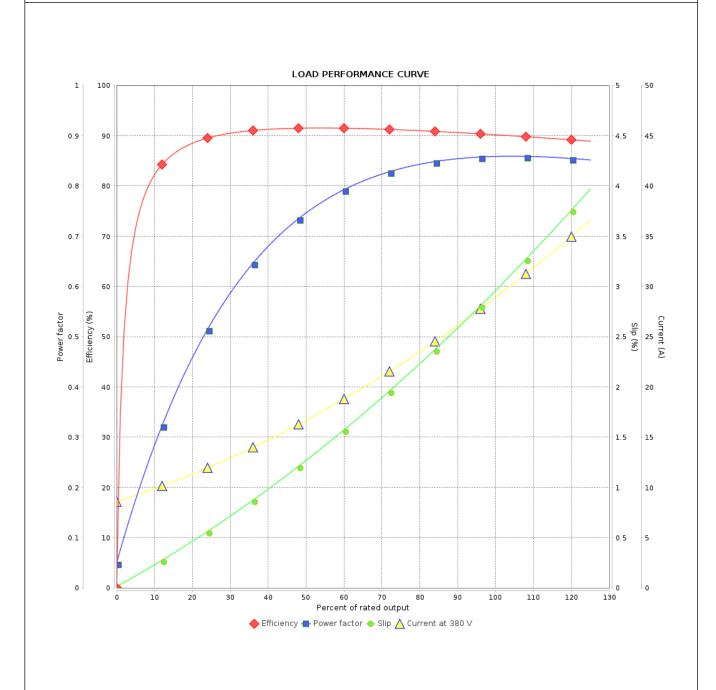
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Product line : W22 IEEE 841 NEMA Premium Product code :

Efficiency Three-Phase



Performance	: 380 V 50 Hz 4P IE1				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 29.4 A : 5.7 : 9.98 kgfm : 190 % : 210 % : 1455 rpm	Moment of Duty cycle Insulation Service fa Temperat Design	class actor	: 0.1305 kgm² : Cont.(S1) : F : 1.00 : 105 K : B	
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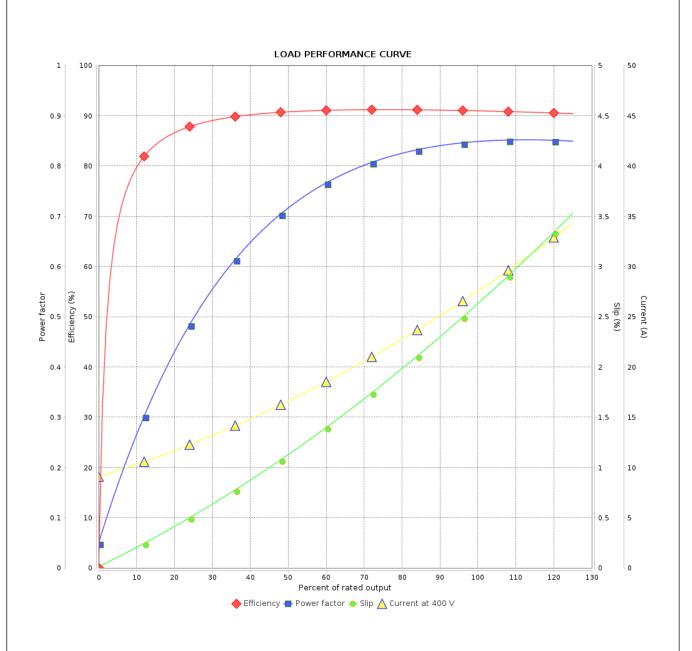
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Product line : W22 IEEE 841 NEMA Premium

Efficiency Three-Phase

Product code: 11460176



Performance : 400 V 50 Hz 4P IE2 : 0.1305 kgm² Rated current : 28.0 A Moment of inertia (J) **LRC** Duty cycle : Cont.(S1) : 6.2 Insulation class Rated torque : 9.94 kgfm : F Locked rotor torque : 210 % Service factor : 1.00 Breakdown torque : 229 % Temperature rise : 105 K Rated speed : 1460 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Checked by Revision Page

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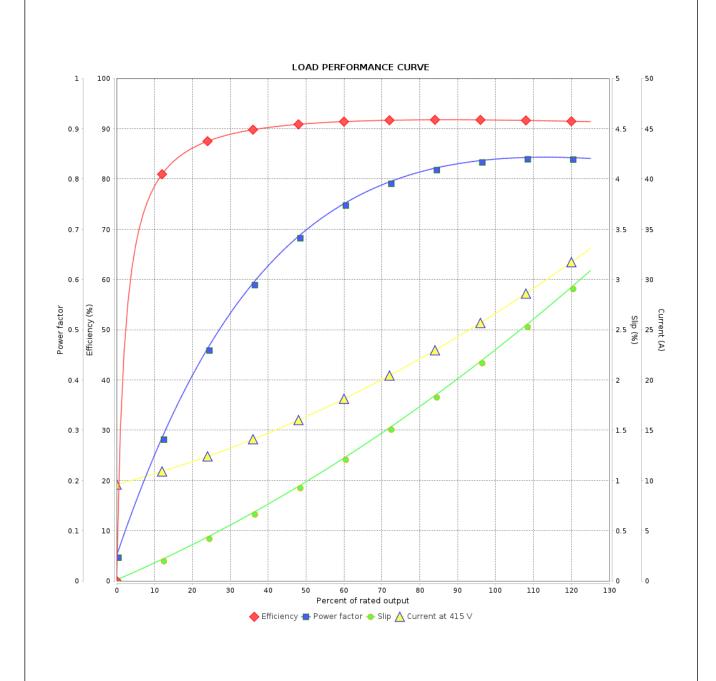


Customer :

Product line : W22 IEEE 841 NEMA Premium

Efficiency Three-Phase

Product code: 11460176



Performance	: 415 V 50 Hz 4P IE2				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 27.1 A : 6.6 : 9.91 kgfm : 229 % : 260 % : 1465 rpm	Moment of Duty cycle Insulation of Service fact Temperatur Design	class ctor	: 0.1305 kgm² : Cont.(S1) : F : 1.00 : 105 K : B	
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