

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11438076

Frame : 324/6T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ³ : 269 kg
Protection degree : IP55	Moment of inertia (J) : 0.3861 kgm ²
Design : B	

Output [HP]	50	40	40	40	50	50	50
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	118/59.2	58.7	57.1	56.4	71.6	68.4	66.3
L. R. Amperes [A]	734/367	376	400	417	372	397	411
LRC [A]	6.2x(Code G)	6.4x(Code G)	7.0x(Code H)	7.4x(Code J)	5.2x(Code E)	5.8x(Code F)	6.2x(Code G)
No load current [A]	47.0/23.5	23.0	24.0	25.0	23.0	24.0	25.0
Rated speed [RPM]	1775	1475	1477	1478	1460	1465	1470
Slip [%]	1.39	1.67	1.53	1.47	2.67	2.33	2.00
Rated torque [kgfm]	20.4	19.7	19.7	19.6	24.9	24.8	24.7
Locked rotor torque [%]	229	229	250	260	180	200	210
Breakdown torque [%]	270	260	300	330	200	240	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
Locked rotor time	27s (cold) 15s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)
Noise level ²	70.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%	0.000					
	50%	93.0	92.5	91.5	91.5	93.0	92.4
	75%	94.1	93.1	92.8	93.0	93.0	93.0
	100%	94.5	93.6	93.6	93.6	92.4	93.5
Power Factor	25%	0.00					
	50%	0.66	0.64	0.60	0.57	0.72	0.68
	75%	0.77	0.77	0.73	0.70	0.81	0.79
	100%	0.83	0.83	0.81	0.79	0.85	0.84

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	5.7	5.7	5.7	5.7	5.7	5.7
	P2 (0,5;1,0)	4.9	4.9	4.9	4.9	4.9	4.9
	P3 (0,25;1,0)	4.7	4.7	4.7	4.7	4.7	4.7
	P4 (0,9;0,5)	2.7	2.7	2.7	2.7	2.7	2.7
	P5 (0,5;0,5)	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
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6312 C3	6212 C3	Max. traction : 673 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 943 kgf
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	21 g	13 g	
Lubricant type :	Mobil Polyrex EM		

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.

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				
Checked by				
Date	21/10/2024		Page 1 / 9	Revision

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 131A SF 1.15 SFA 151A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	21/10/2024				

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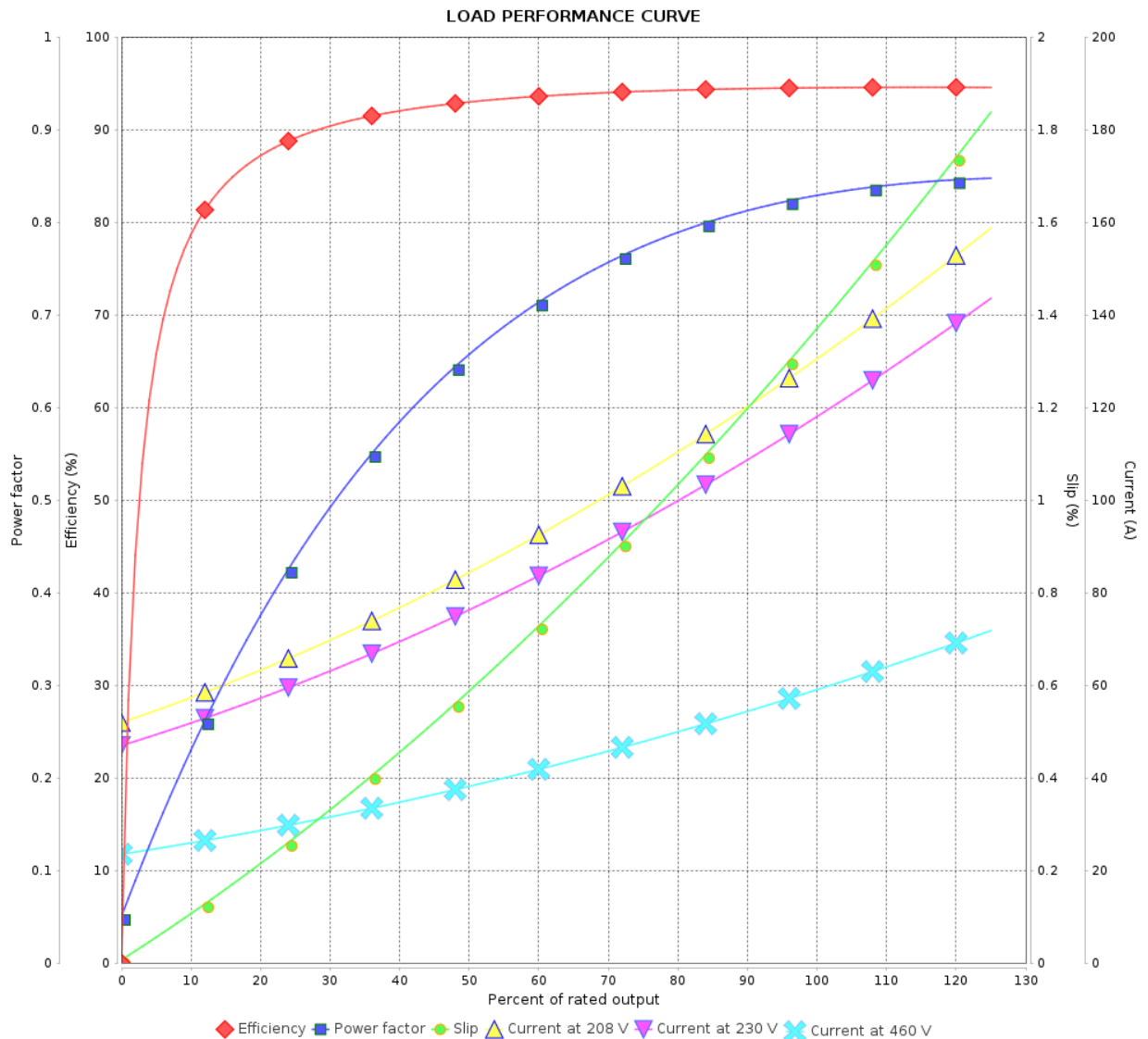
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 230/460 V 60 Hz 4P

Rated current : 118/59.2 A
LRC : 6.2
Rated torque : 20.4 kgfm
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 1775 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date	
Performed by				Page 3 / 9		Revision
Checked by						
Date	21/10/2024					

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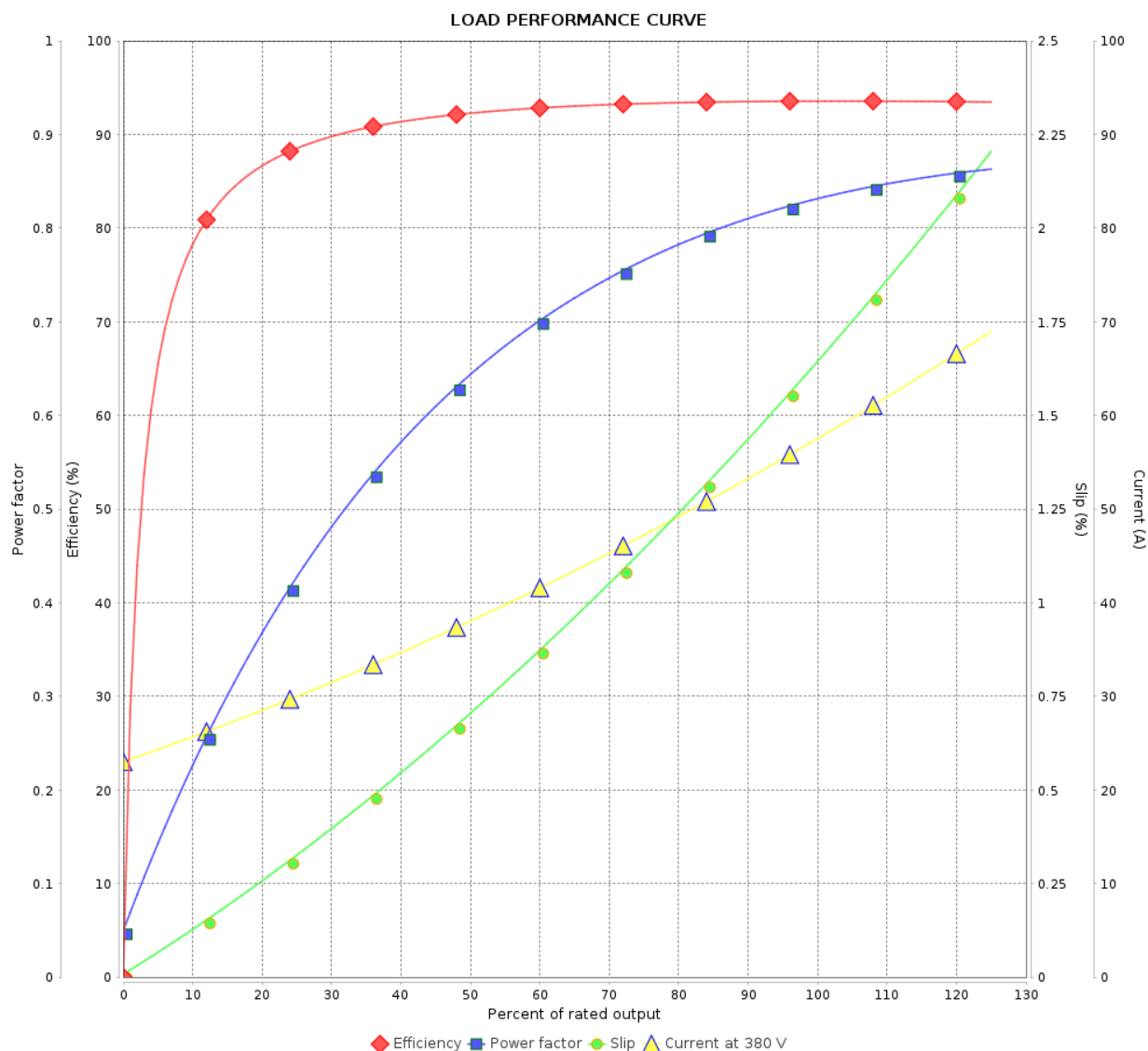
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 380 V 50 Hz 4P IE3

Rated current : 58.7 A
LRC : 6.4
Rated torque : 19.7 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 9	
Date					

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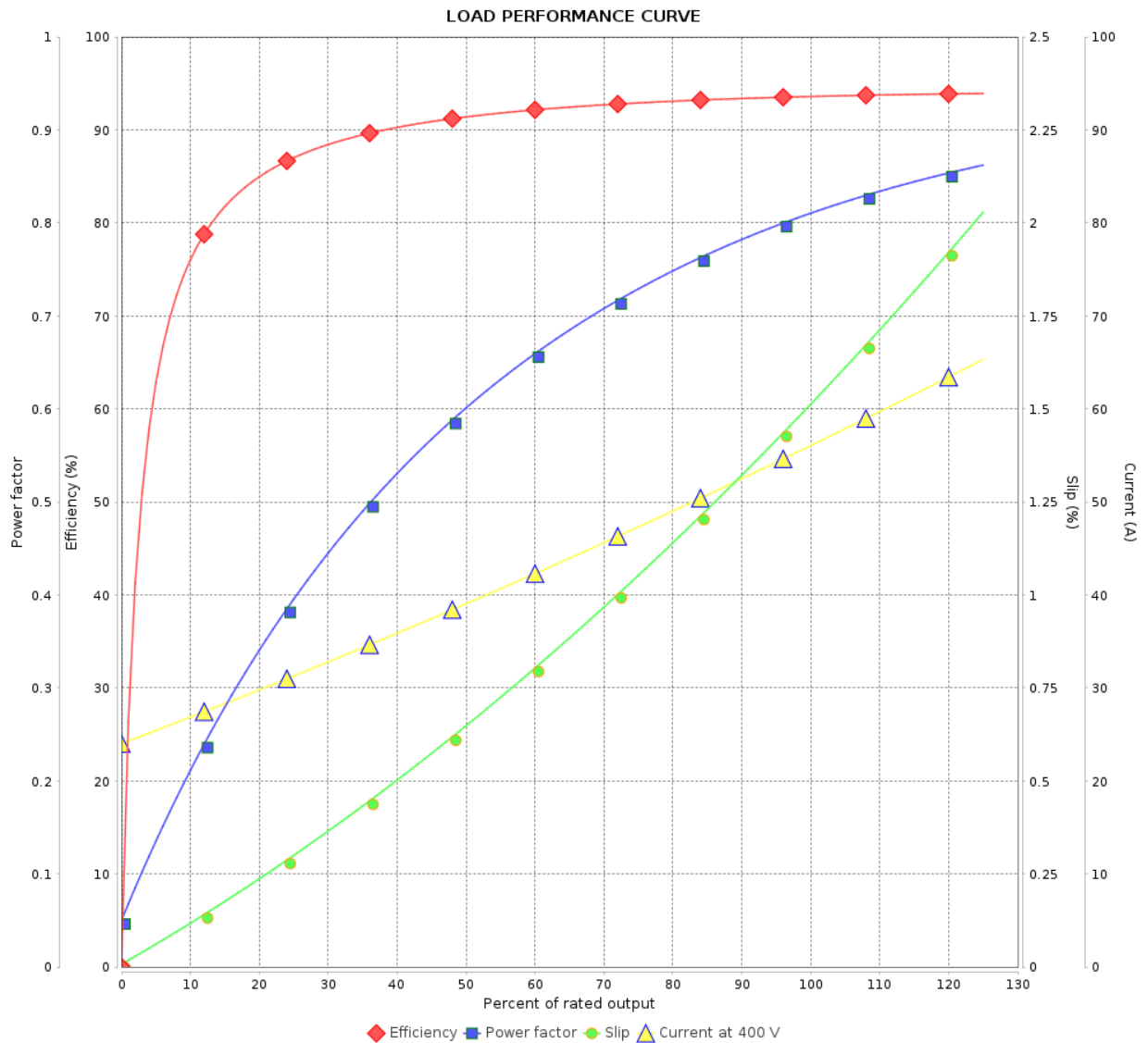
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 400 V 50 Hz 4P IE3

Rated current : 57.1 A
LRC : 7.0
Rated torque : 19.7 kgfm
Locked rotor torque : 250 %
Breakdown torque : 300 %
Rated speed : 1477 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9Revision		
Checked by				
Date	21/10/2024			

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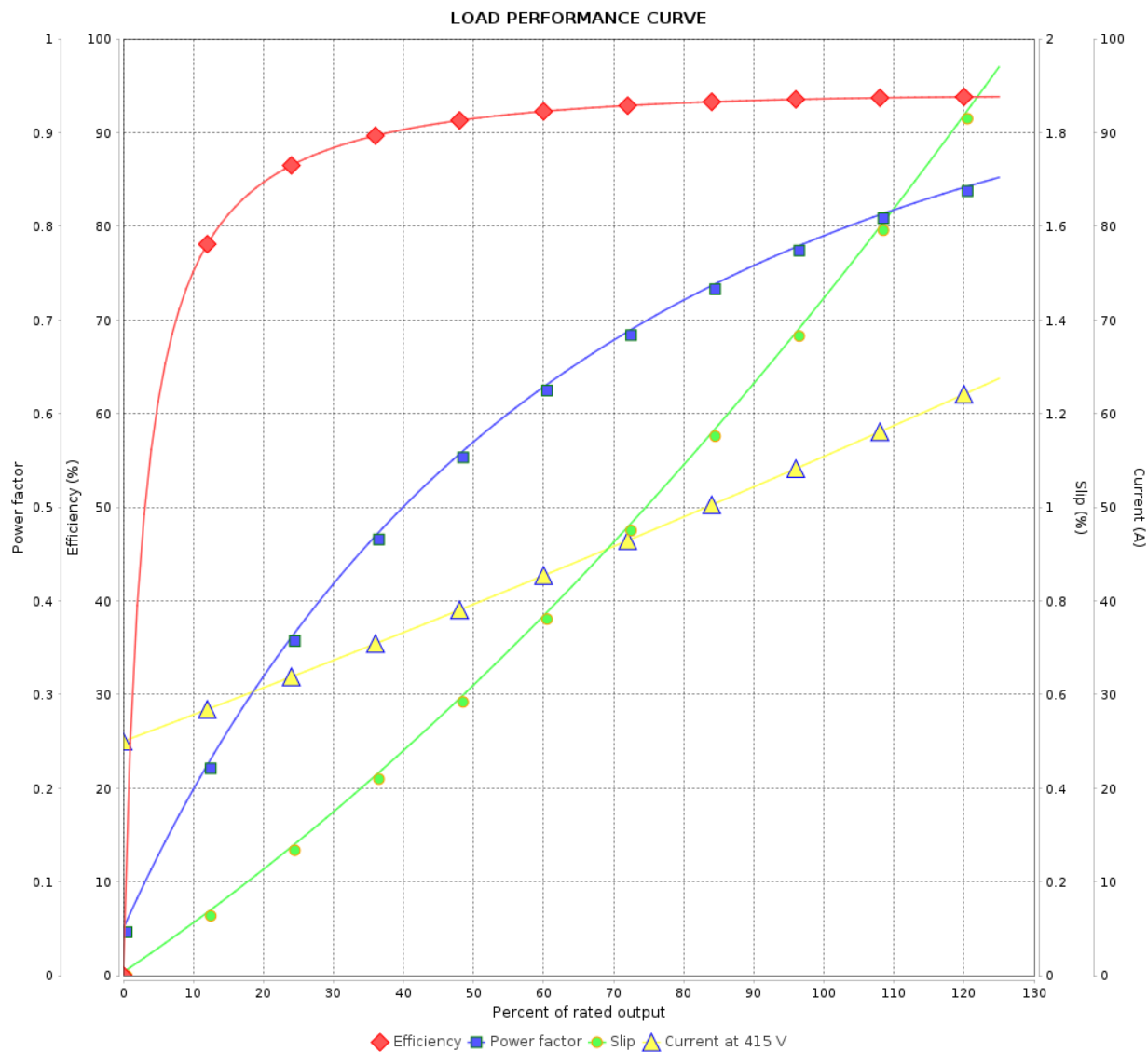
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 415 V 50 Hz 4P IE3

Rated current : 56.4 A
LRC : 7.4
Rated torque : 19.6 kgfm
Locked rotor torque : 260 %
Breakdown torque : 330 %
Rated speed : 1478 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 9	Revision
Checked by					
Date	21/10/2024				

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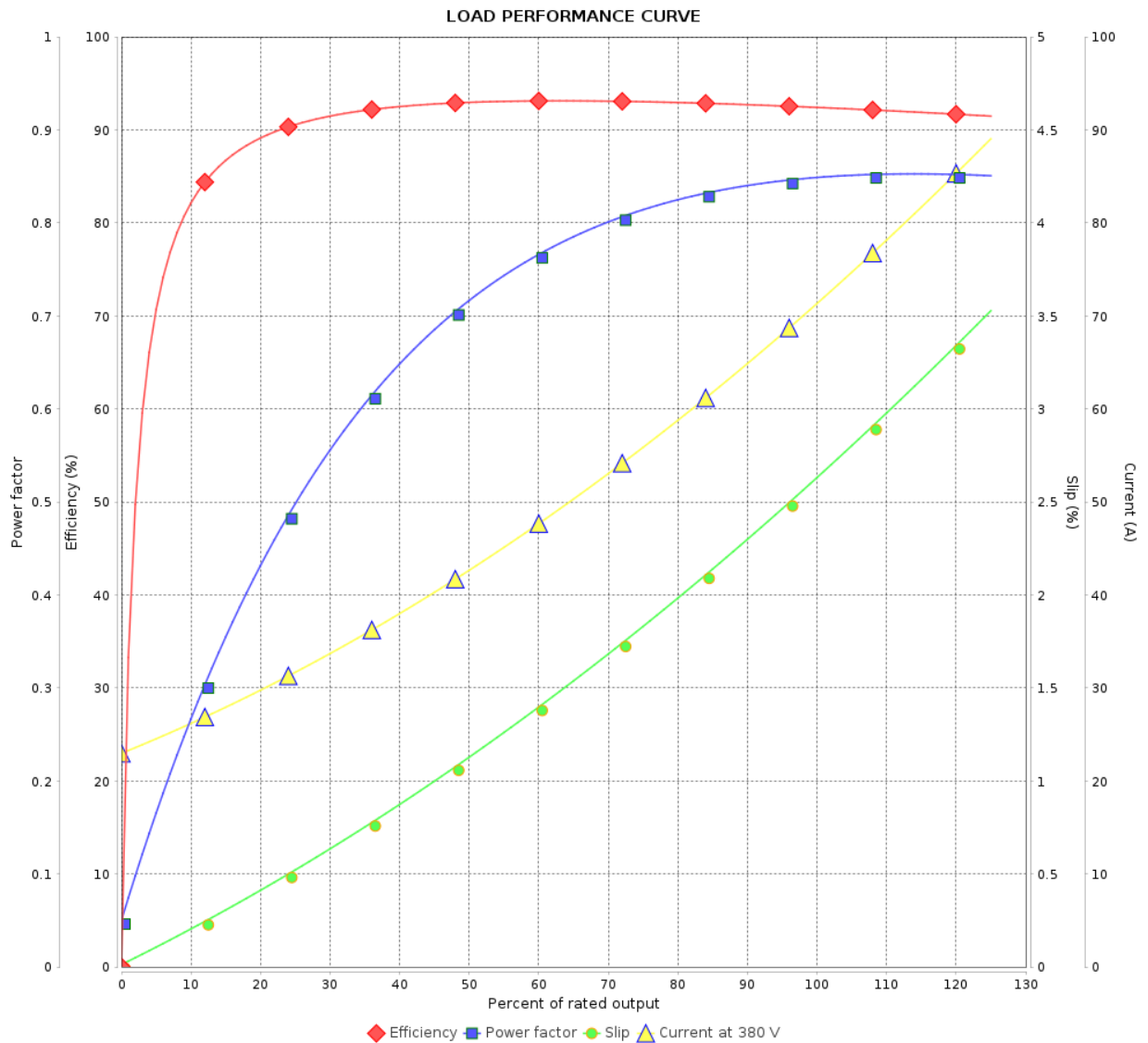
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 380 V 50 Hz 4P IE1

Rated current	: 71.6 A	Moment of inertia (J)	: 0.3861 kgm ²
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 24.9 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 9Revision		
Checked by				
Date	21/10/2024			

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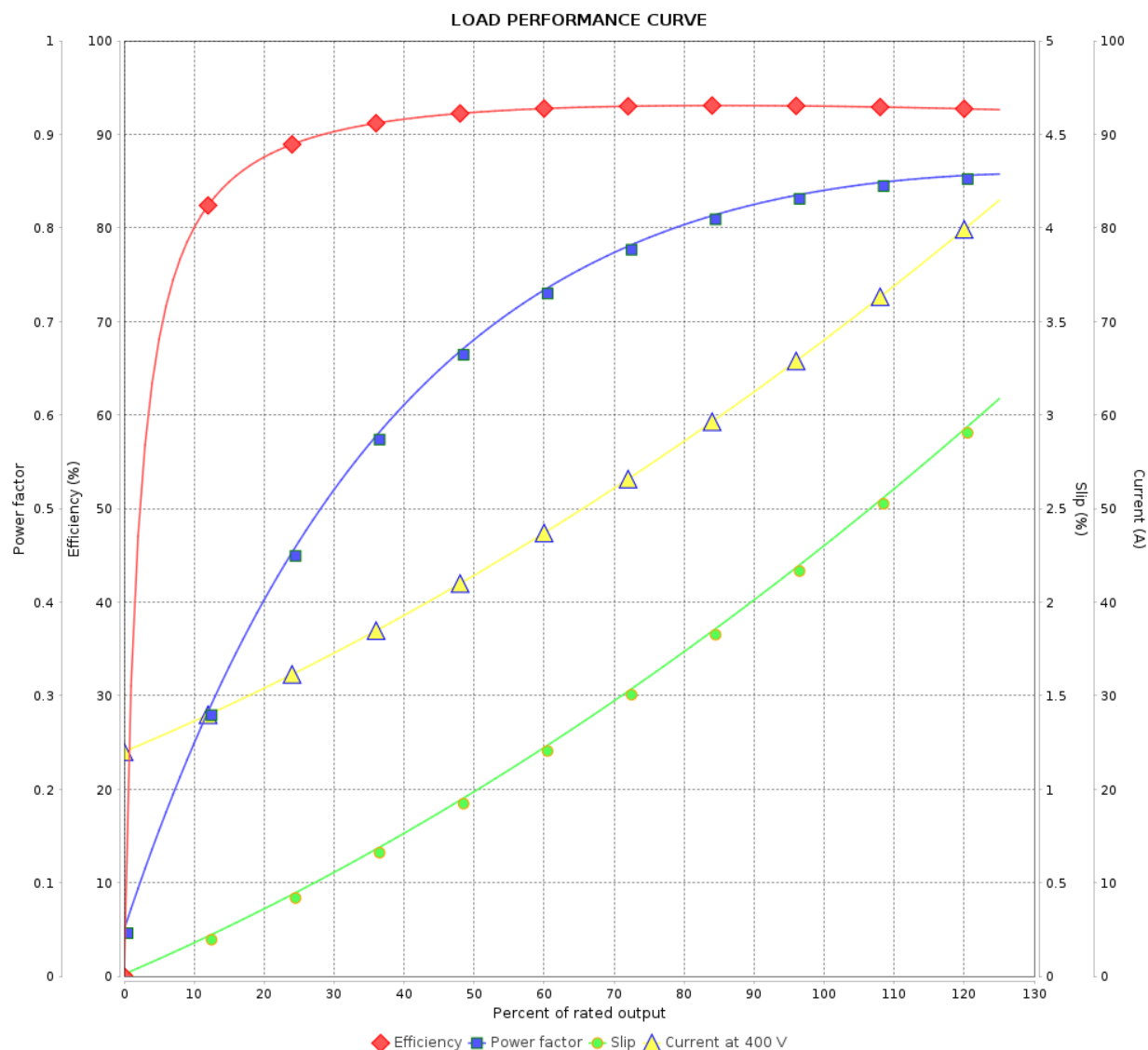
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 400 V 50 Hz 4P IE2

Rated current : 68.4 A
LRC : 5.8
Rated torque : 24.8 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				8 / 9	
Date					

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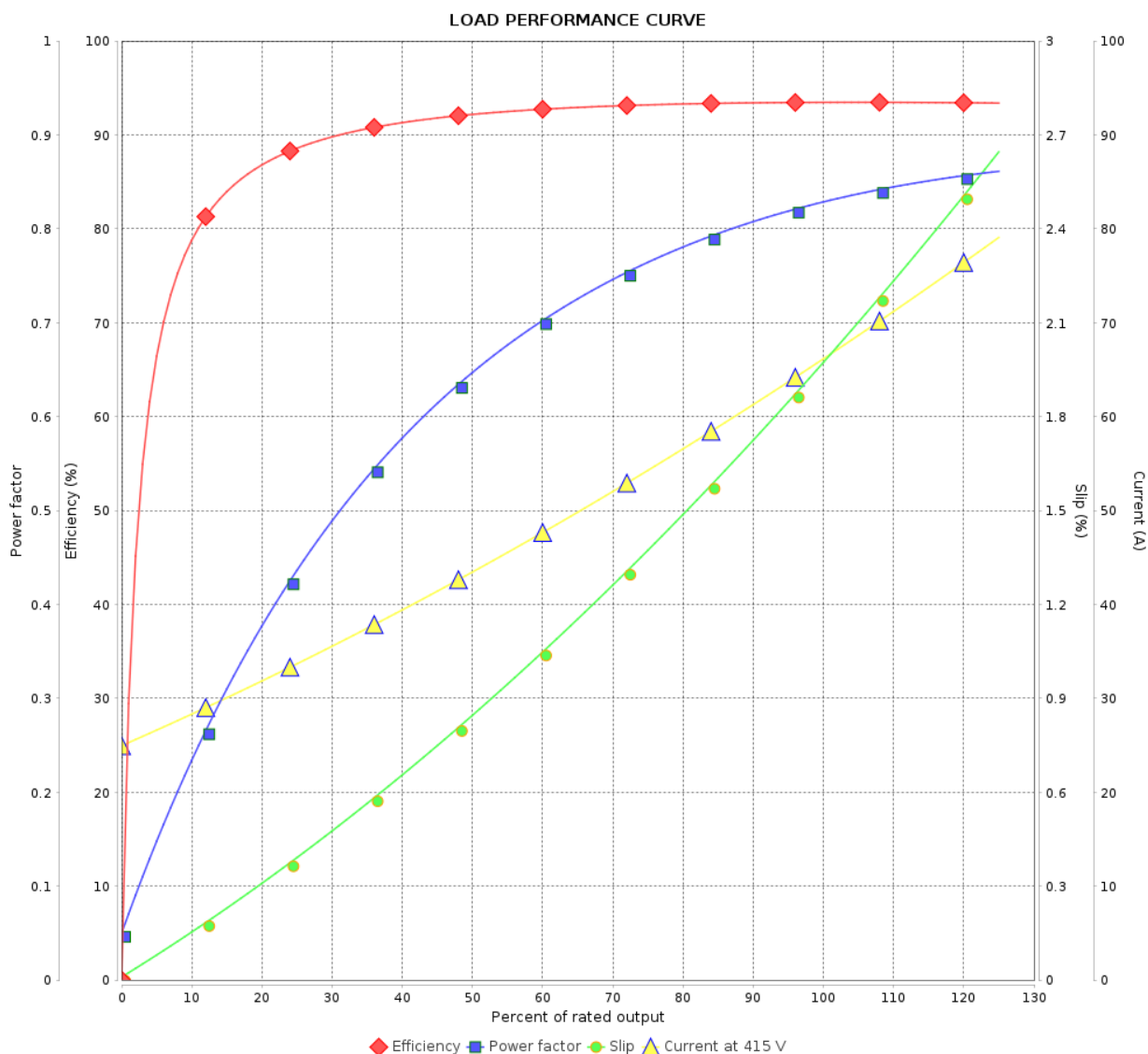
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11438076



Performance : 415 V 50 Hz 4P IE2

Rated current : 66.3 A
LRC : 6.2
Rated torque : 24.7 kgfm
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.3861 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9Revision		
Checked by				
Date	21/10/2024			

