

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14766380

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	: 231 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.3946 kgm ²
Design	: B		

Output [HP]	20	15	15	15	20	20	20
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	56.6/28.3	26.5	26.4	27.1	33.4	32.6	32.7
L. R. Amperes [A]	283/142	133	142	152	134	143	150
LRC [A]	5.0x(Code G)	5.0x(Code G)	5.4x(Code H)	5.6x(Code J)	4.0x(Code D)	4.4x(Code E)	4.6x(Code F)
No load current [A]	32.0/16.0	15.7	17.6	19.3	15.7	17.6	19.3
Rated speed [RPM]	880	730	730	735	725	725	730
Slip [%]	2.22	2.67	2.67	2.00	3.33	3.33	2.67
Rated torque [kgfm]	16.5	14.9	14.9	14.8	20.0	20.0	19.9
Locked rotor torque [%]	190	190	210	240	140	160	180
Breakdown torque [%]	220	229	260	280	170	190	210
Service factor	1.25	1.00	1.15	1.15	1.00	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	80 K
Locked rotor time	48s (cold) 27s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	89.5	88.5	87.4	86.3	89.5	88.5
	75%	91.0	89.6	89.0	88.5	89.5	89.5
	100%	91.0	89.5	89.3	89.0	88.5	88.5
Power Factor	25%						
	50%	0.54	0.51	0.46	0.42	0.61	0.56
	75%	0.66	0.64	0.60	0.56	0.72	0.68
	100%	0.73	0.72	0.69	0.65	0.77	0.72

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

Losses (%)	P1 (0,9;1,0)	9.5	9.5	9.5	9.5	9.5	9.5
	P2 (0,5;1,0)	8.0	8.0	8.0	8.0	8.0	8.0
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	5.2	5.2	5.2	5.2	5.2	5.2
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.8	2.8	2.8	2.8	2.8	2.8
	P7 (0,25;0,25)	2.0	2.0	2.0	2.0	2.0	2.0

Bearing type	: 6312 C3	Non drive end	6212 C3	Foundation loads	
Sealing	: V'Ring		V'Ring	Max. traction	: 410 kgf
Lubrication interval	: 20000 h		20000 h	Max. compression	: 641 kgf
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	27/10/2024		Page 1 / 9	Revision

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Notes
USABLE @208V 62.6A SF 1.15 SFA 72.0A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	27/10/2024				

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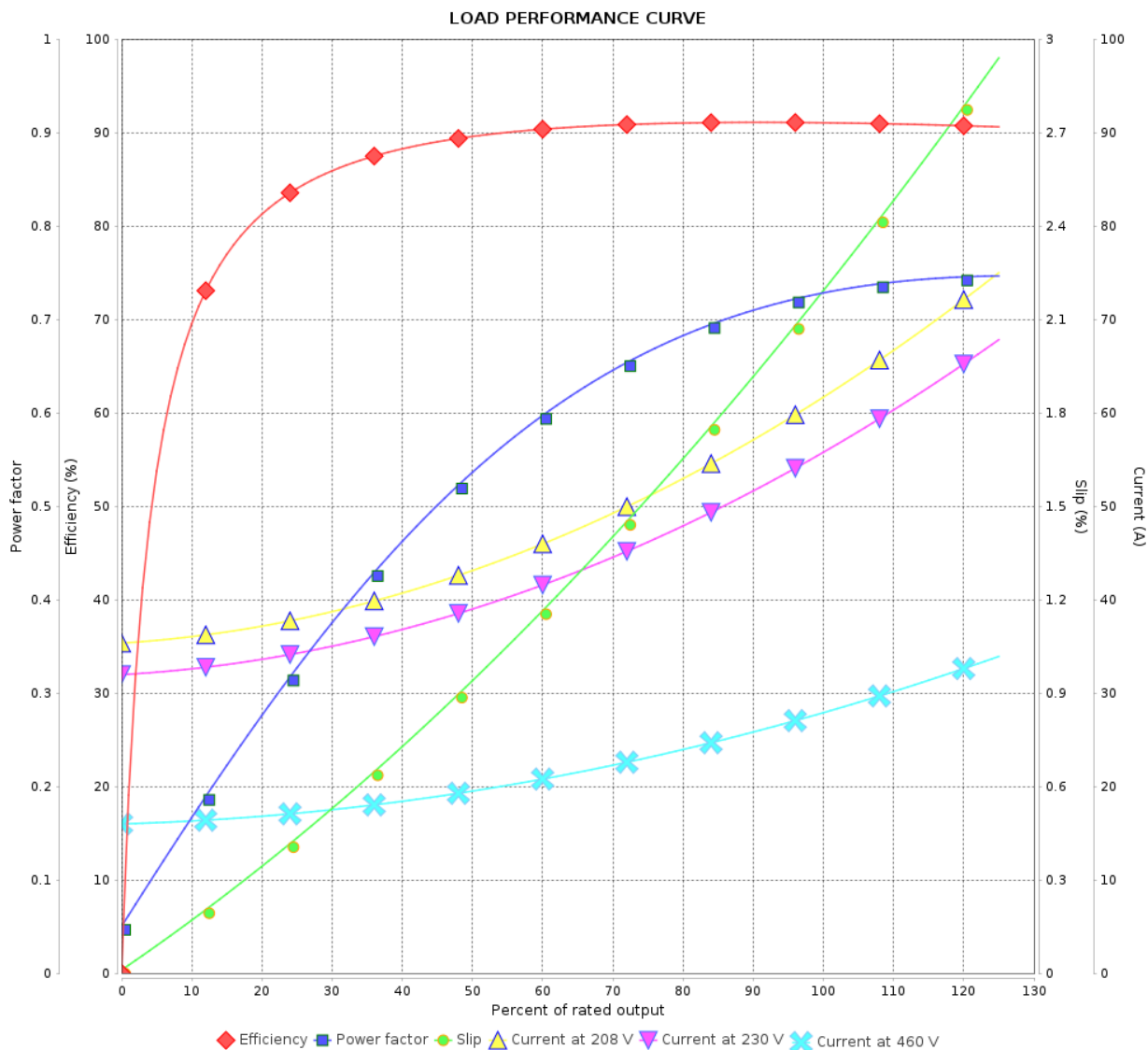
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 230/460 V 60 Hz 8P

Rated current : 56.6/28.3 A
LRC : 5.0
Rated torque : 16.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 880 rpm

Moment of inertia (J) : 0.3946 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				
Checked by				
Date	27/10/2024			

Page 3 / 9
Revision

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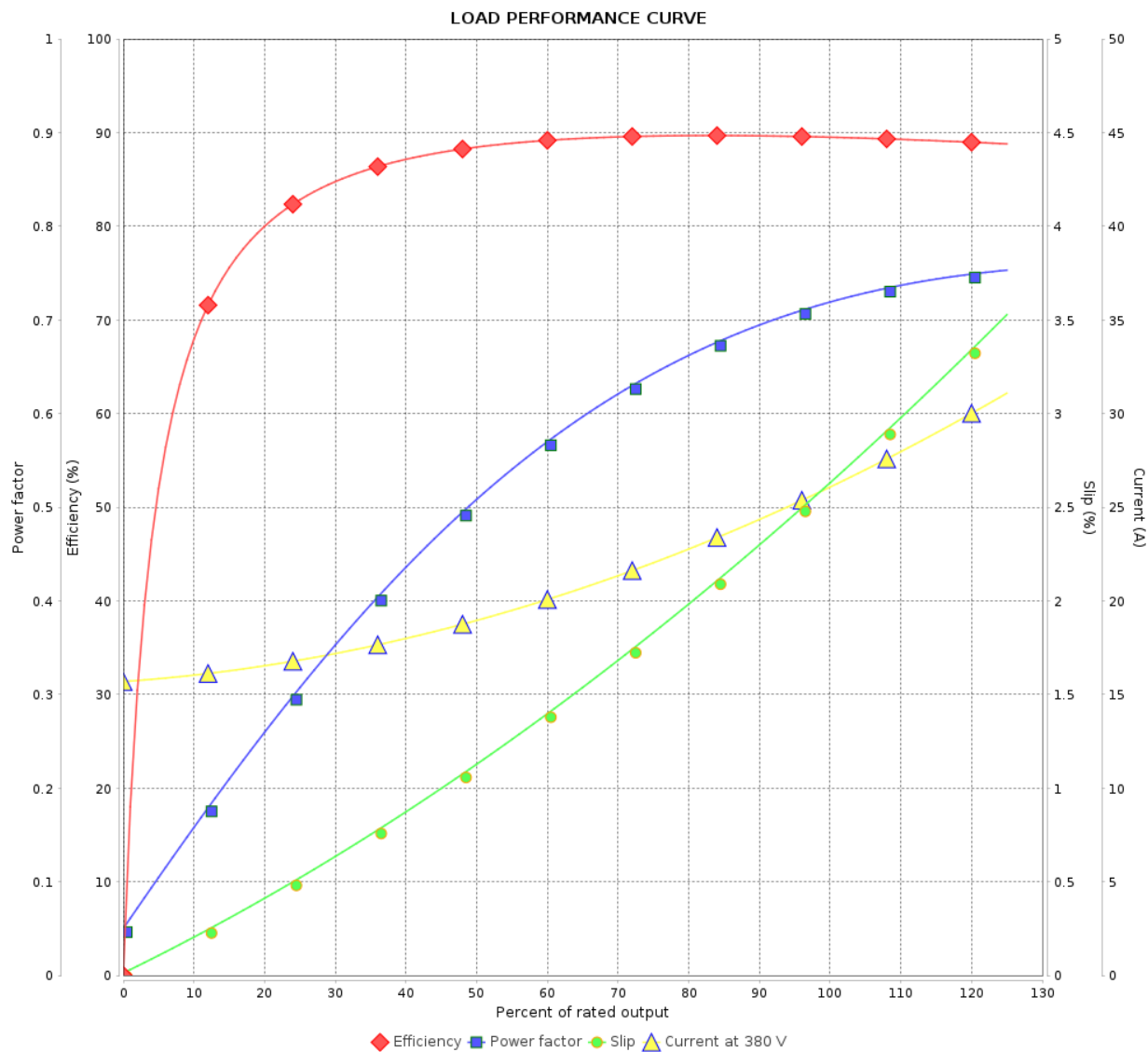
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 380 V 50 Hz 8P IE3

Rated current : 26.5 A
LRC : 5.0
Rated torque : 14.9 kgfm
Locked rotor torque : 190 %
Breakdown torque : 229 %
Rated speed : 730 rpm

Moment of inertia (J) : 0.3946 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					

LOAD PERFORMANCE CURVE

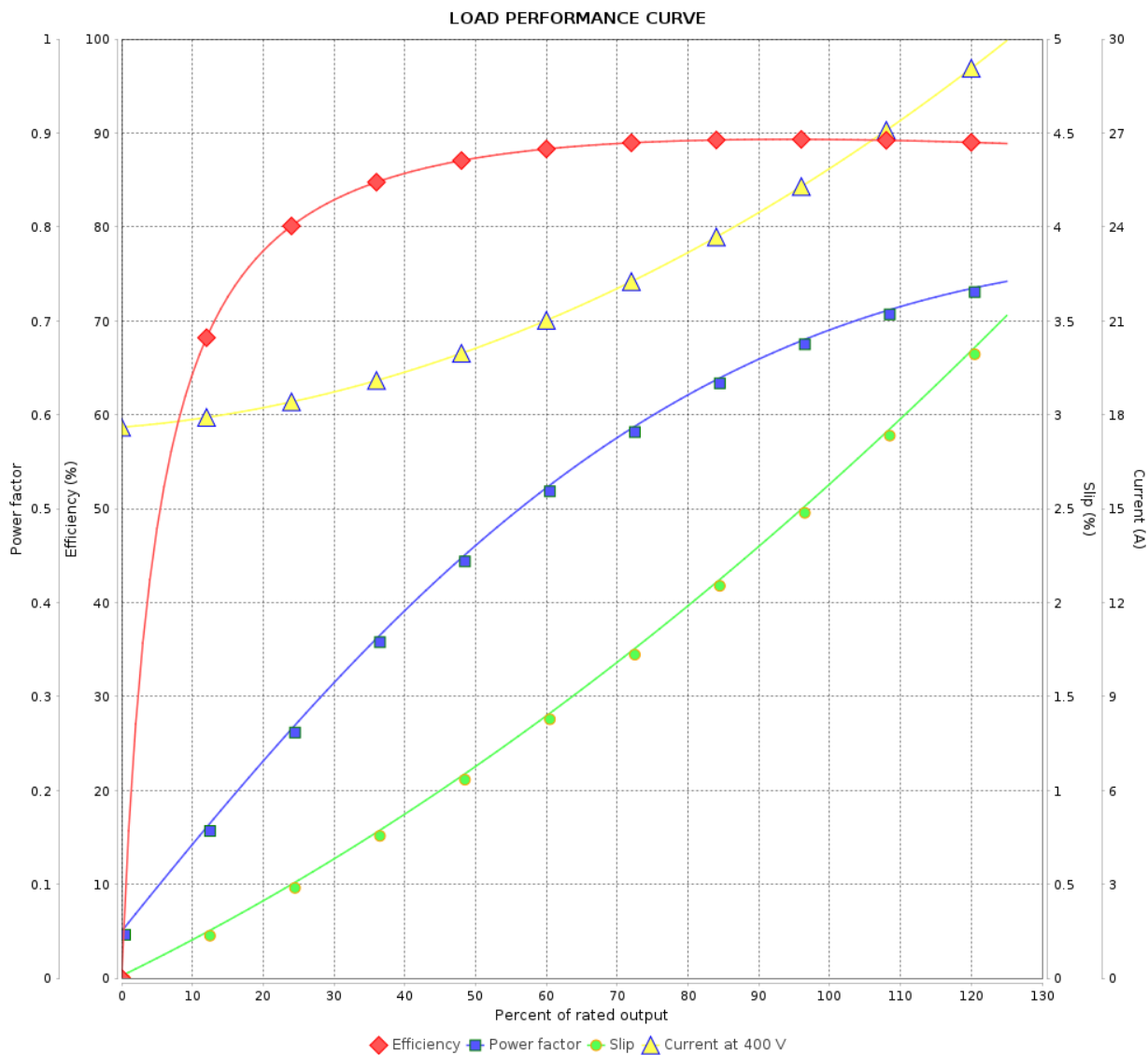
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 400 V 50 Hz 8P IE3

Rated current : 26.4 A
LRC : 5.4
Rated torque : 14.9 kgfm
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 730 rpm

Moment of inertia (J) : 0.3946 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 5 / 9	Revision
Checked by					
Date	27/10/2024				

LOAD PERFORMANCE CURVE

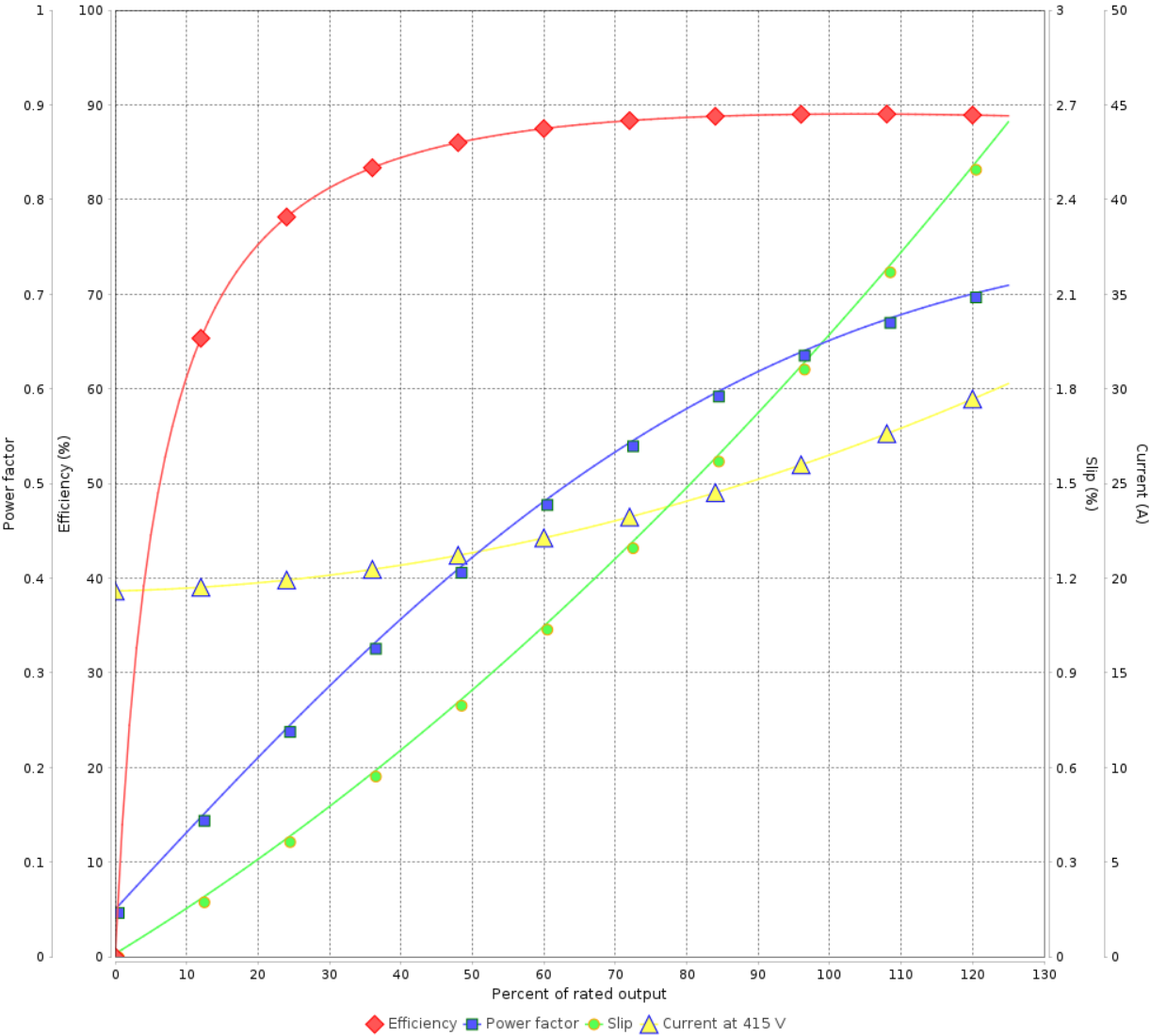
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14766380

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Performance : 415 V 50 Hz 8P IE3			
Rated current	: 27.1 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 14.8 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 9	Revision
Checked by					
Date	27/10/2024				

LOAD PERFORMANCE CURVE

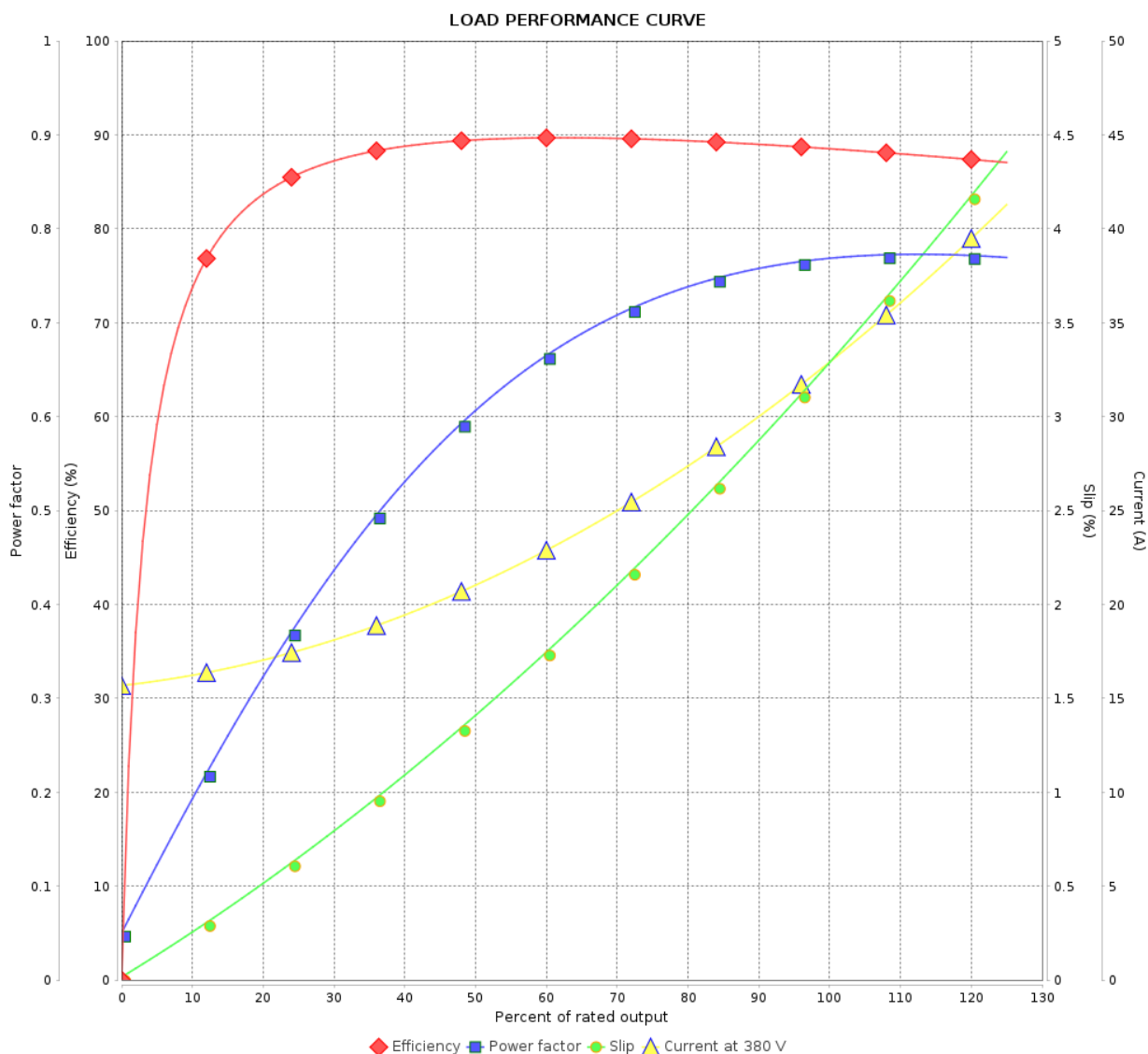
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 380 V 50 Hz 8P IE2

Rated current : 33.4 A
LRC : 4.0
Rated torque : 20.0 kgfm
Locked rotor torque : 140 %
Breakdown torque : 170 %
Rated speed : 725 rpm

Moment of inertia (J) : 0.3946 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 7 / 9	Revision
Checked by					
Date	27/10/2024				

LOAD PERFORMANCE CURVE

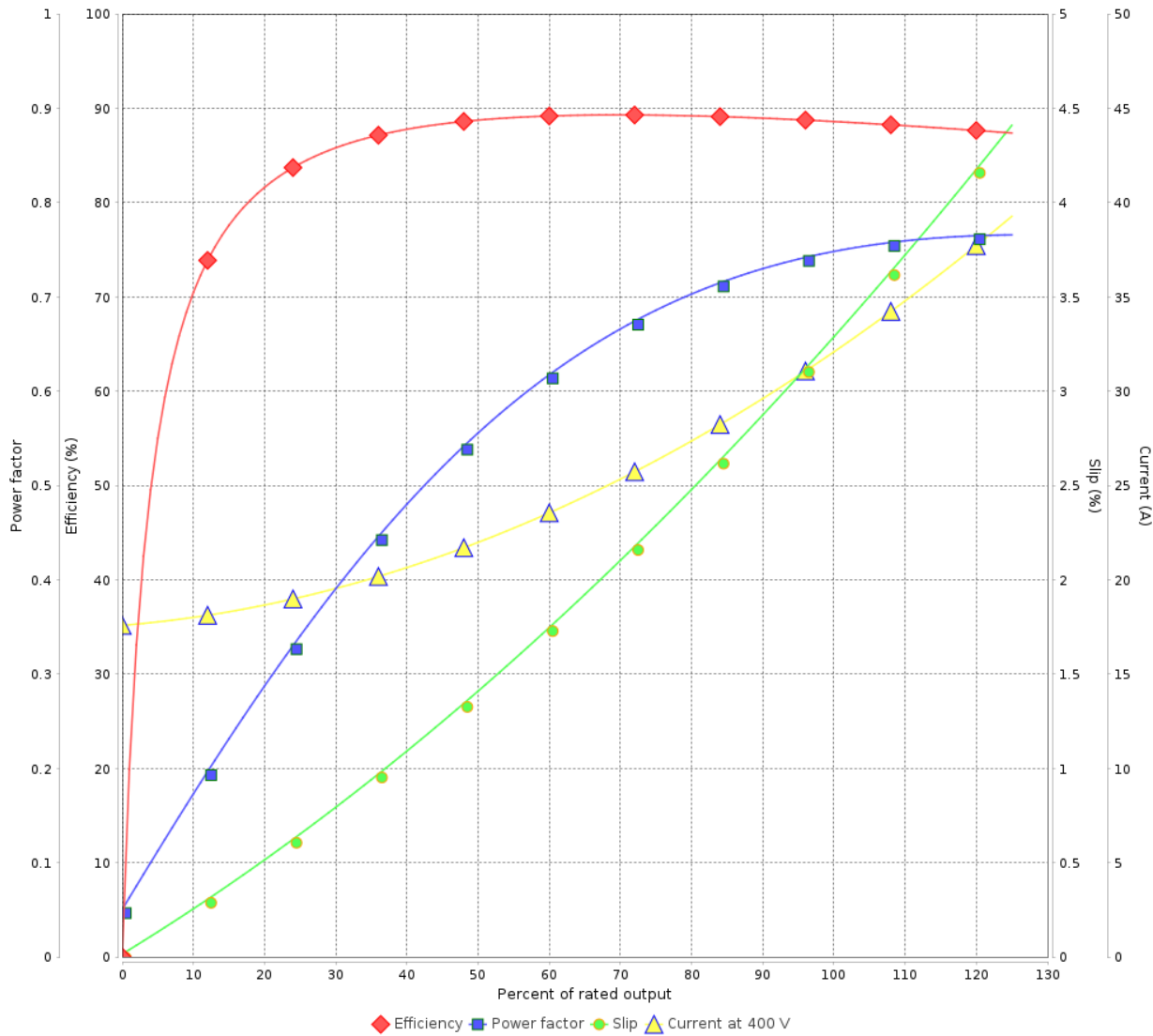
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14766380

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Performance : 400 V 50 Hz 8P IE2			
Rated current	: 32.6 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 20.0 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 8 / 9	Revision
Checked by					
Date	27/10/2024				

LOAD PERFORMANCE CURVE

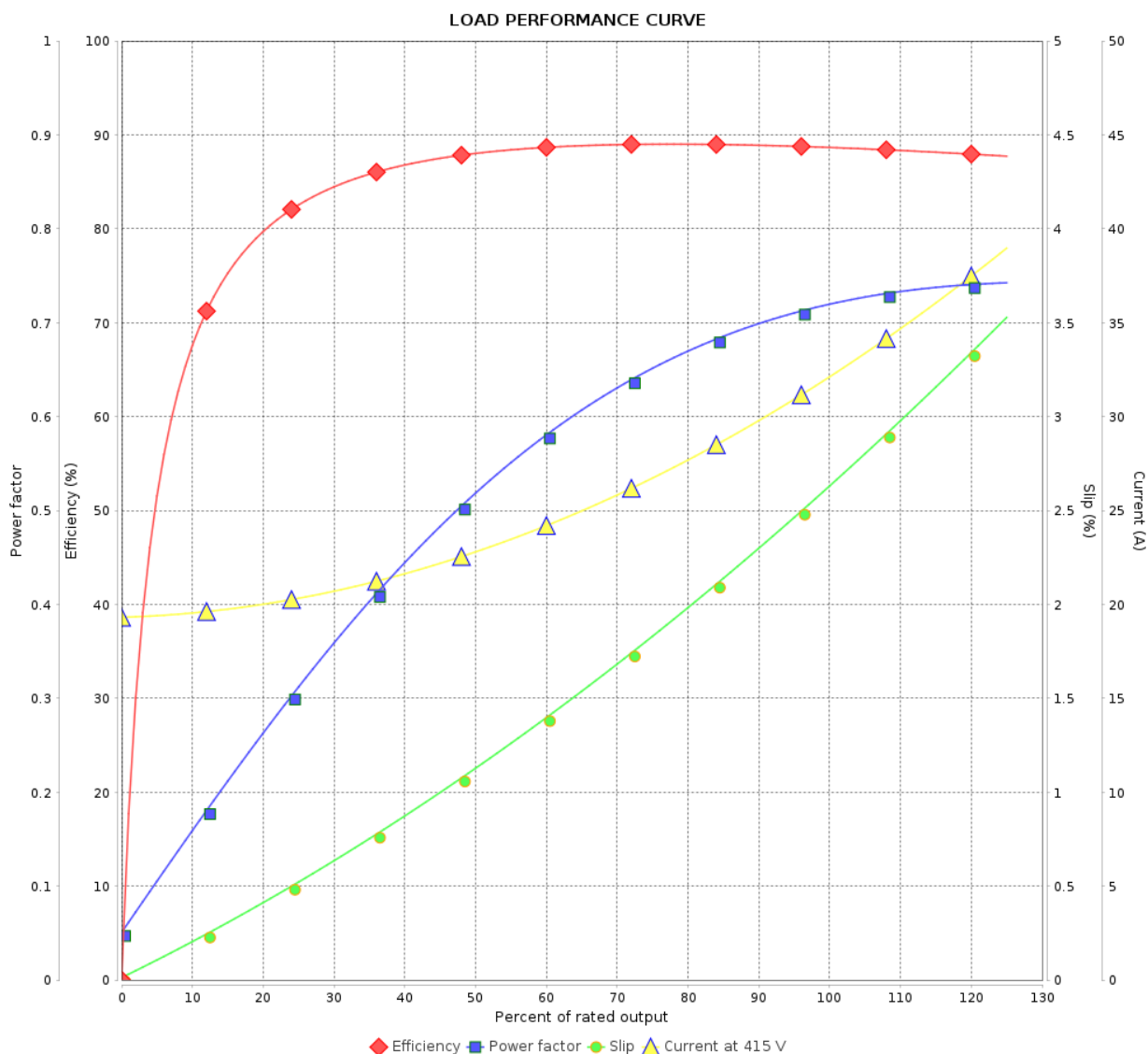
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 415 V 50 Hz 8P IE2

Rated current : 32.7 A
LRC : 4.6
Rated torque : 19.9 kgfm
Locked rotor torque : 180 %
Breakdown torque : 210 %
Rated speed : 730 rpm

Moment of inertia (J) : 0.3946 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 9 / 9	Revision
Checked by					
Date	27/10/2024				