

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase Product code : 14212553

Frame : 286HP	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : W-6
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 : 204 kg
Protection degree : IP55	Moment of inertia (J) : 0.2467 kgm ²
Design : B	

Output [HP]	30	25	25	25	30	30	30
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]	70.2/35.1	35.7	34.3	33.9	43.1	41.1	39.7
L. R. Amperes [A]	428/214	214	230	247	228	247	238
LRC [A]	6.1x(Code G)	6.0x(Code G)	6.7x(Code H)	7.3x(Code J)	5.3x(Code F)	6.0x(Code G)	6.0x(Code G)
No load current [A]	24.6/12.3	12.2	13.1	13.8	12.2	13.1	13.8
Rated speed [RPM]	1770	1465	1470	1475	1455	1460	1465
Slip [%]	1.67	2.33	2.00	1.67	3.00	2.67	2.33
Rated torque [kgfm]	12.3	12.4	12.3	12.3	15.0	14.9	14.9
Locked rotor torque [%]	240	200	229	260	170	190	220
Breakdown torque [%]	240	229	260	280	200	220	240
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	36s (cold) 20s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)
Noise level ²	63.0 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)
Efficiency (%)	25%	0.000			0.000		
	50%	93.0	92.1	92.1	91.6	90.0	91.2
	75%	93.0	92.5	92.8	92.5	90.2	91.7
	100%	93.6	92.6	92.7	92.6	90.2	91.7
Power Factor	25%	0.00			0.00		
	50%	0.70	0.70	0.67	0.64	0.76	0.70
	75%	0.80	0.81	0.79	0.76	0.83	0.80
	100%	0.84	0.85	0.84	0.82	0.86	0.84

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

Losses (%)	P1 (0,9;1,0)	6.8	6.8	6.8	6.8	6.8	6.8
	P2 (0,5;1,0)	5.8	5.8	5.8	5.8	5.8	5.8
	P3 (0,25;1,0)	5.2	5.2	5.2	5.2	5.2	5.2
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4	1.4	1.4
	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 Max. traction Max. compression
Bearing type :	6312 C3	6211 C3	
Sealing :	V'Ring	V'Ring	
Lubrication interval :	14000 h	17000 h	
Lubricant amount :	21 g	11 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			

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Notes
USABLE @208V 77.6A SF 1.15 SFA 89.3A

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

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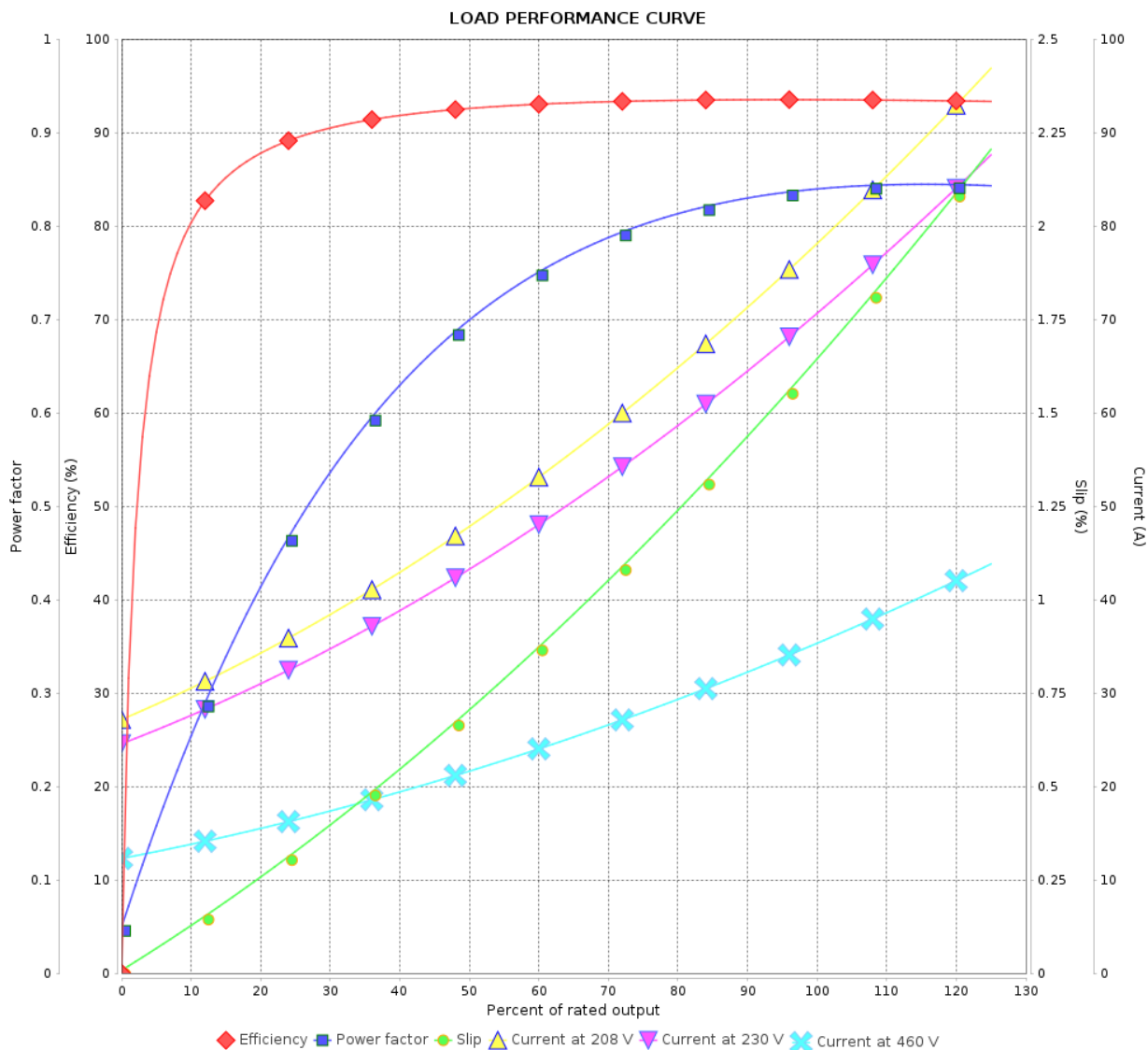
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 230/460 V 60 Hz 4P

Rated current : 70.2/35.1 A
LRC : 6.1
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2467 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	27/10/2024				

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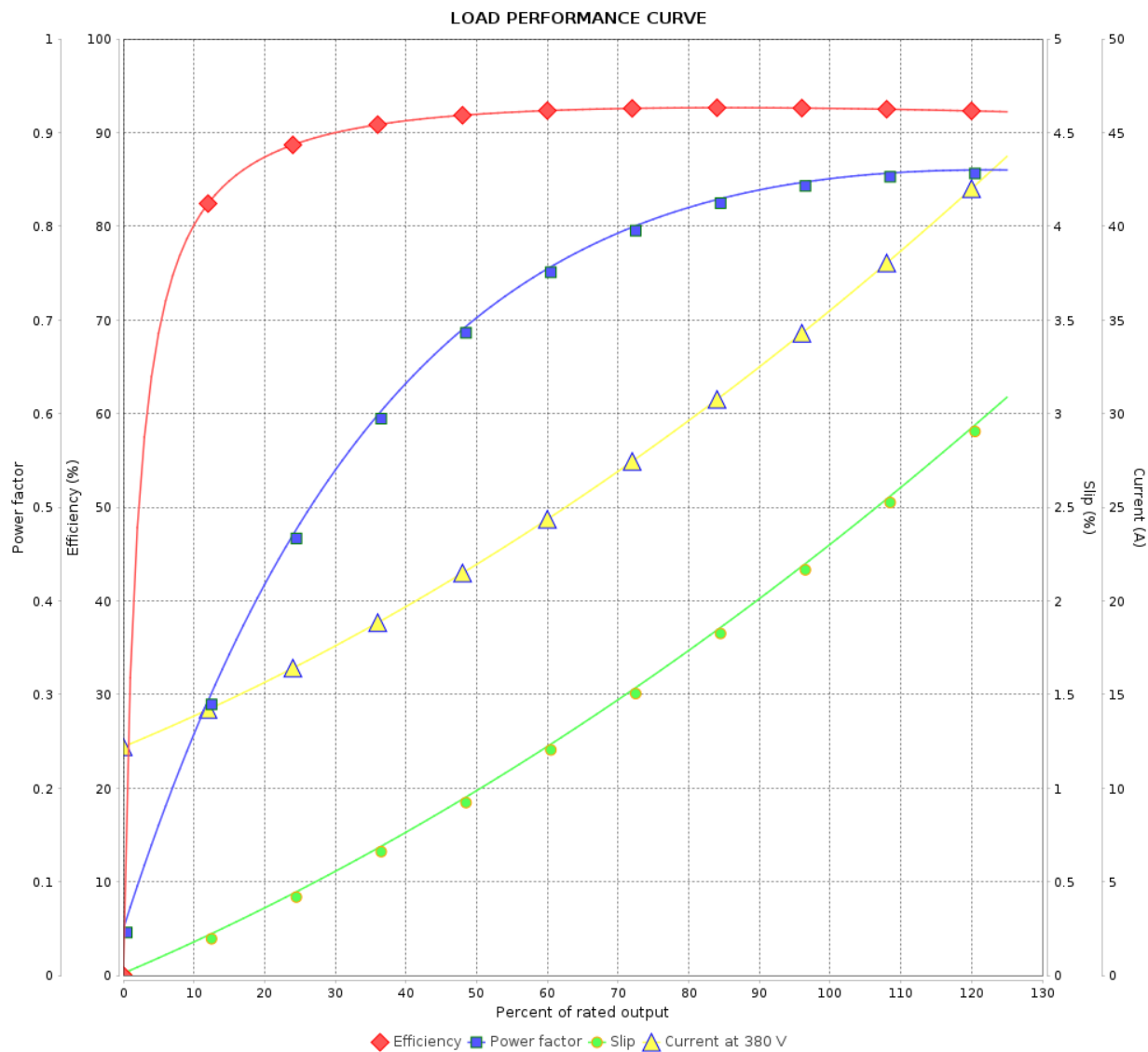
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
LRC : 6.0
Rated torque : 12.4 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2467 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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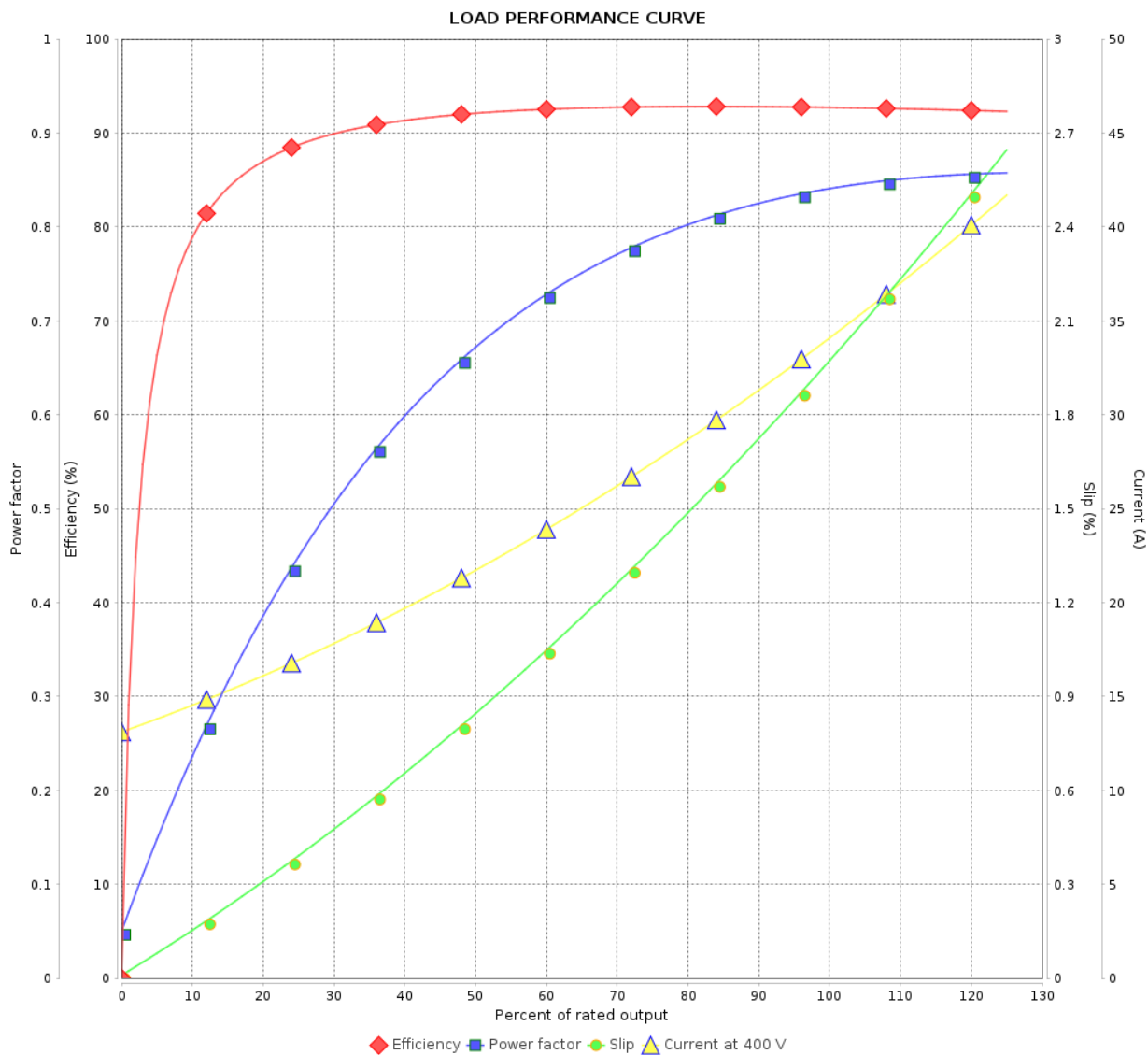
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.3 A
LRC : 6.7
Rated torque : 12.3 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.2467 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				
Checked by				
Date	27/10/2024			

Page

5 / 9

Revision

LOAD PERFORMANCE CURVE

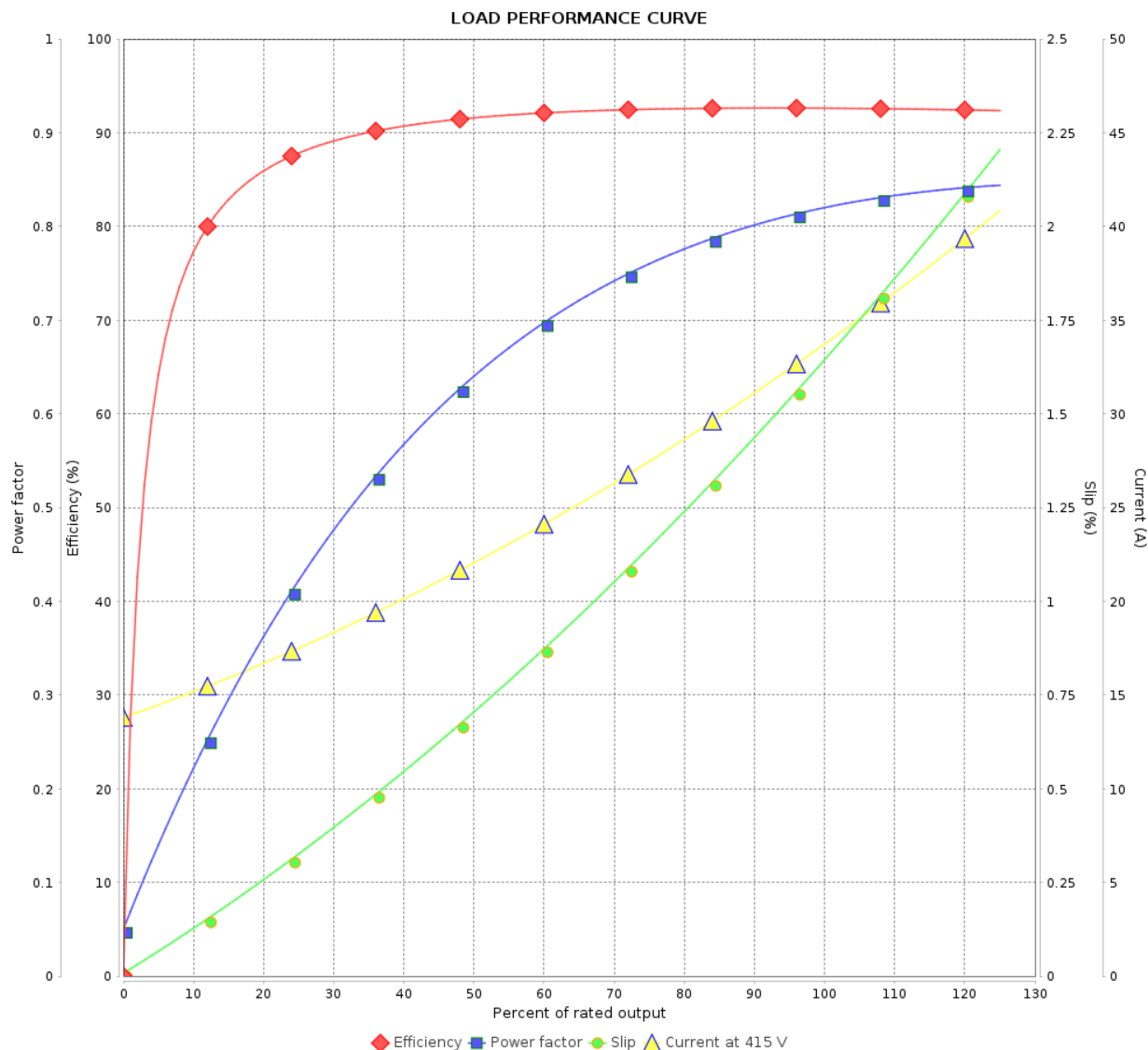
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 415 V 50 Hz 4P IE3

Rated current : 33.9 A
LRC : 7.3
Rated torque : 12.3 kgfm
Locked rotor torque : 260 %
Breakdown torque : 280 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.2467 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	27/10/2024				

LOAD PERFORMANCE CURVE

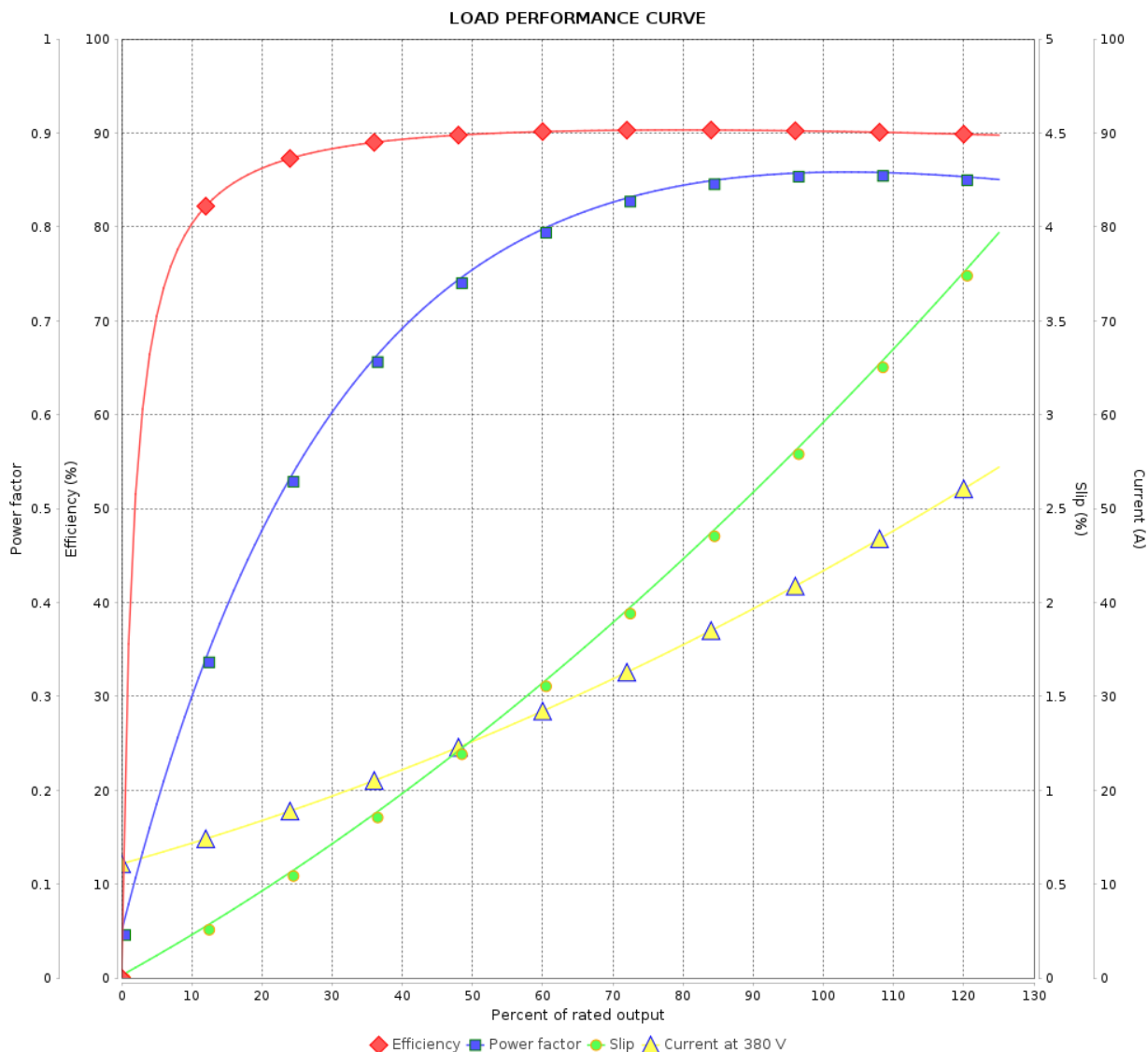
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 380 V 50 Hz 4P IE1

Rated current : 43.1 A
LRC : 5.3
Rated torque : 15.0 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.2467 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

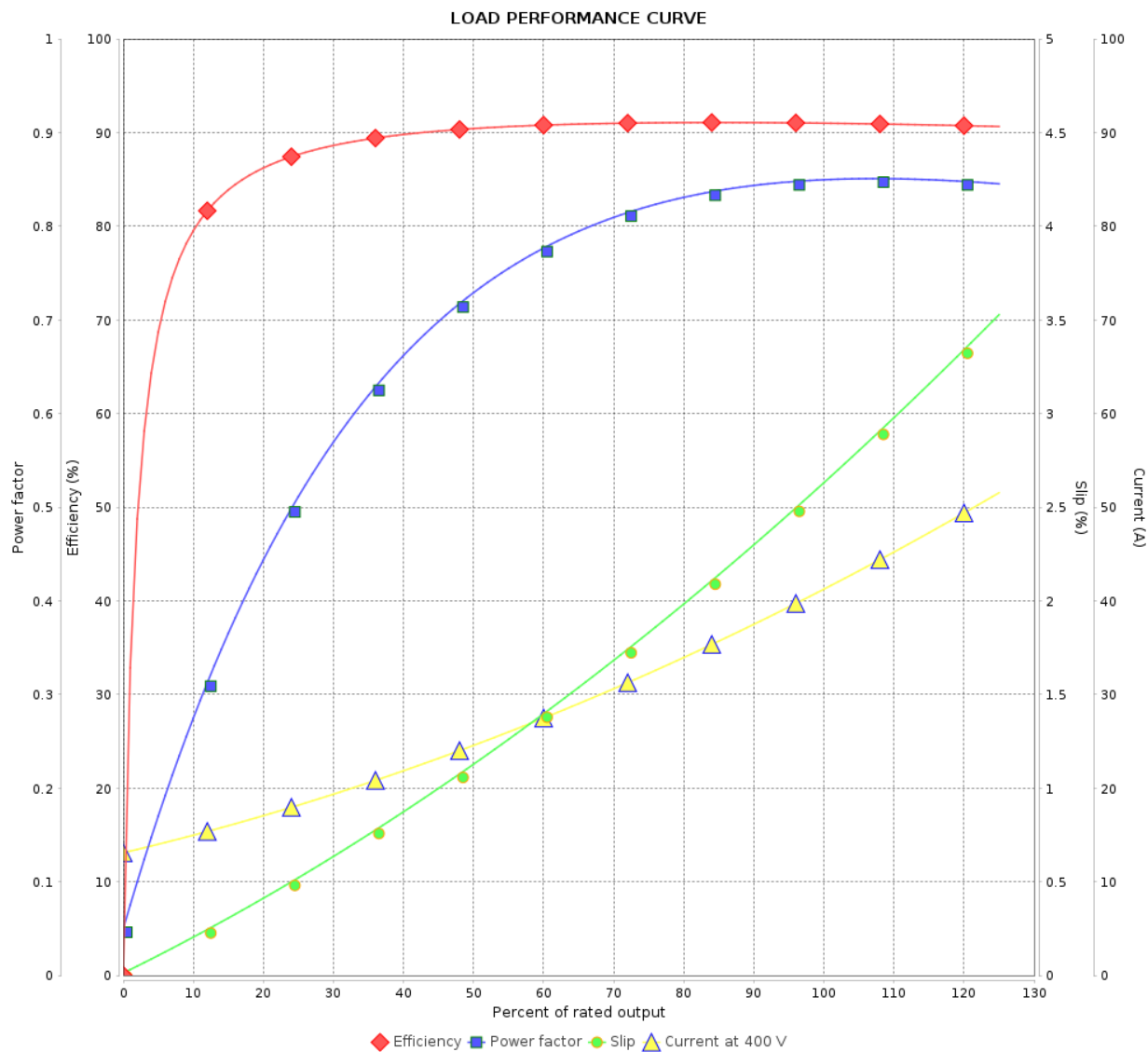
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 400 V 50 Hz 4P IE1

Rated current : 41.1 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.2467 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 8 / 9	Revision
Checked by					
Date	27/10/2024				

LOAD PERFORMANCE CURVE

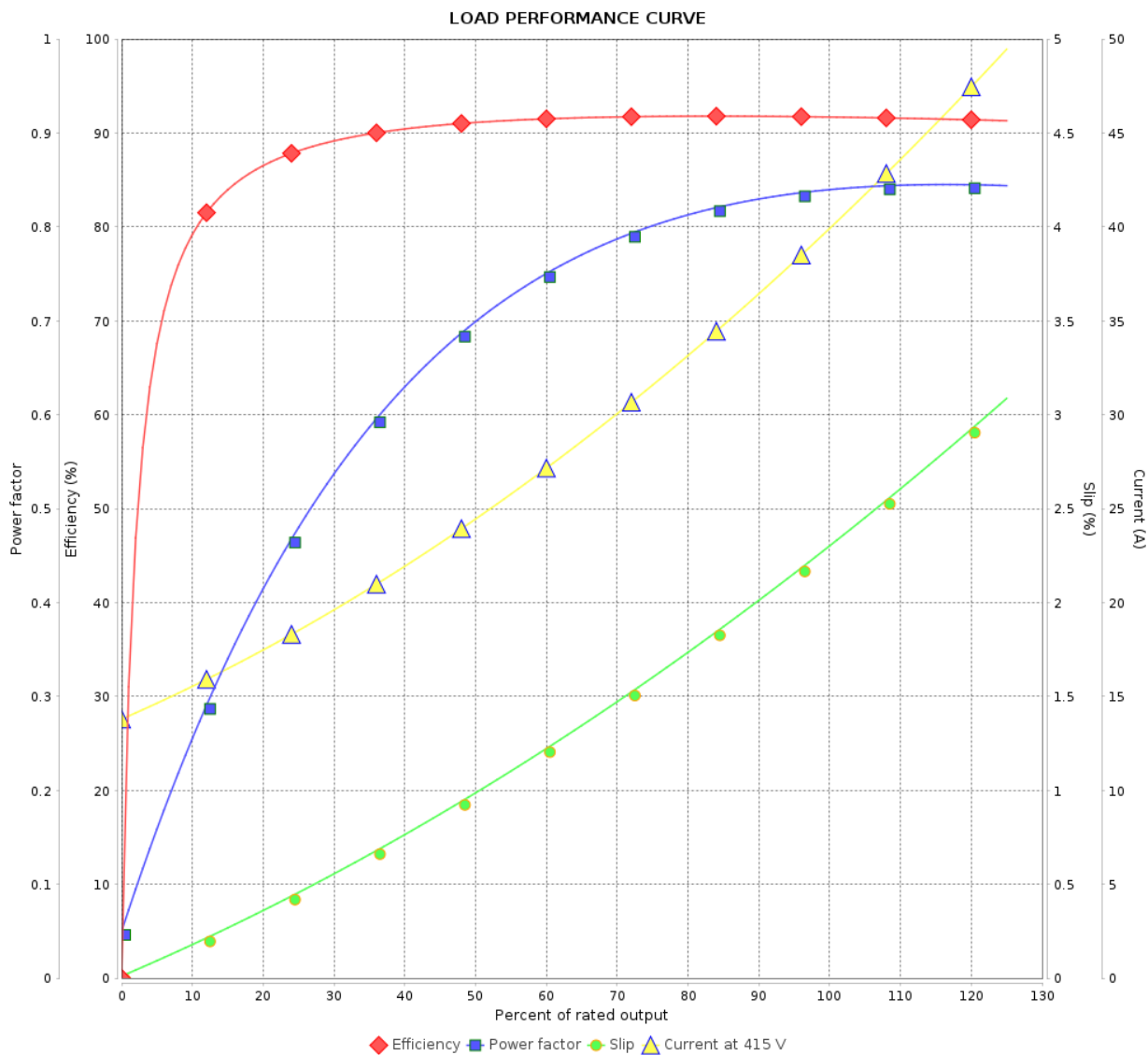
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 14212553



Performance : 415 V 50 Hz 4P IE2

Rated current : 39.7 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2467 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				
Checked by				
Date	27/10/2024			

Page 9 / 9
Revision