

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	: 205 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]	59.6/29.8	26.7	26.9	27.3	34.3	33.5	33.7
L. R. Amperes [A]	298/149	133	145	150	137	147	155
LRC [A]	5.0x(Code G)	5.0x(Code G)	5.4x(Code H)	5.5x(Code J)	4.0x(Code E)	4.4x(Code F)	4.6x(Code F)
No load current [A]	34.0/17.0	16.6	19.0	21.0	16.6	19.0	21.0
Rated speed [RPM]	881	735	735	737	725	730	730
Slip [%]	2.11	2.00	2.00	1.73	3.33	2.67	2.67
Rated torque [kgfm]	16	14	14	14	20	19	19
Locked rotor torque [%]	190	190	210	240	140	160	180
Breakdown torque [%]	220	229	260	280	200	200	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	105 K
Locked rotor time	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	34s (cold) 19s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (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	87.5
	75%	90.2	89.6	89.0	88.5	89.5	89.5
	100%	90.2	89.5	89.3	89.0	88.5	88.5
Power Factor	25%						
	50%	0.50	0.51	0.46	0.42	0.61	0.52
	75%	0.63	0.64	0.59	0.56	0.70	0.63
	100%	0.70	0.70	0.66	0.63	0.75	0.70

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

Losses (%)	P1 (0,9;1,0)	10.5	11.3	11.6	11.9	12.5	12.5	12.5
	P2 (0,5;1,0)	8.9	9.6	9.8	10.1	10.6	10.6	10.6
	P3 (0,25;1,0)	8.6	9.3	9.5	9.8	10.3	10.3	10.3
	P4 (0,9;0,5)	5.8	6.2	6.4	6.6	6.9	6.9	6.9
	P5 (0,5;0,5)	4.2	4.5	4.6	4.8	5.0	5.0	5.0
	P6 (0,5;0,25)	3.2	3.5	3.5	3.6	3.8	3.8	3.8
	P7 (0,25;0,25)	2.4	2.6	2.6	2.7	2.9	2.9	2.9

Bearing type	: 6312 C3	Non drive end	6212 C3	Foundation loads	
Sealing	: V'Ring		V'Ring	Max. traction	: 415 kgf
Lubrication interval	: 20000 h		20000 h	Max. compression	: 636 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.

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Three Phase Induction Motor - Squirrel Cage



Customer :

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

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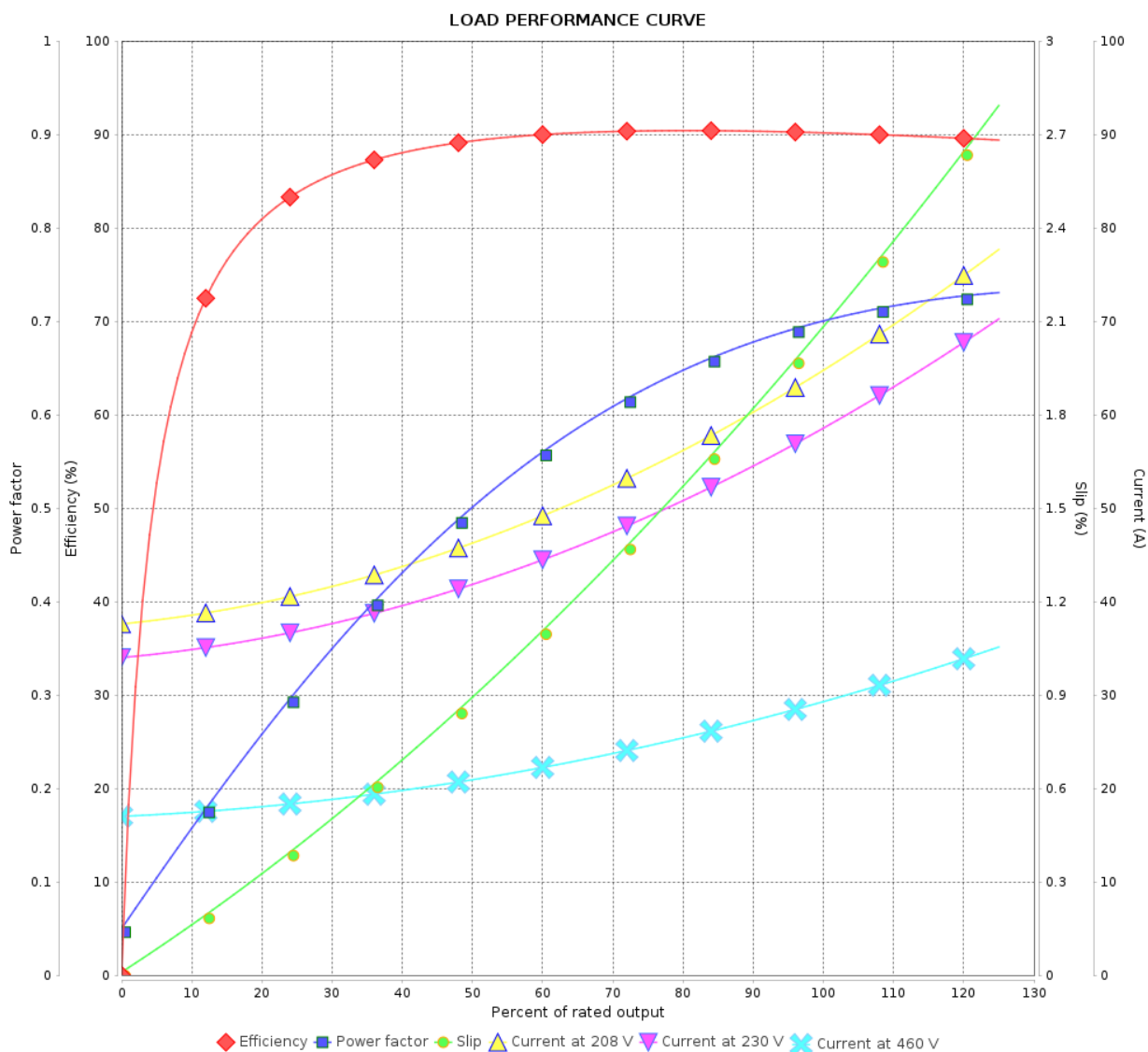
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 230/460 V 60 Hz 8P

Rated current : 59.6/29.8 A
LRC : 5.0
Rated torque : 16 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 881 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

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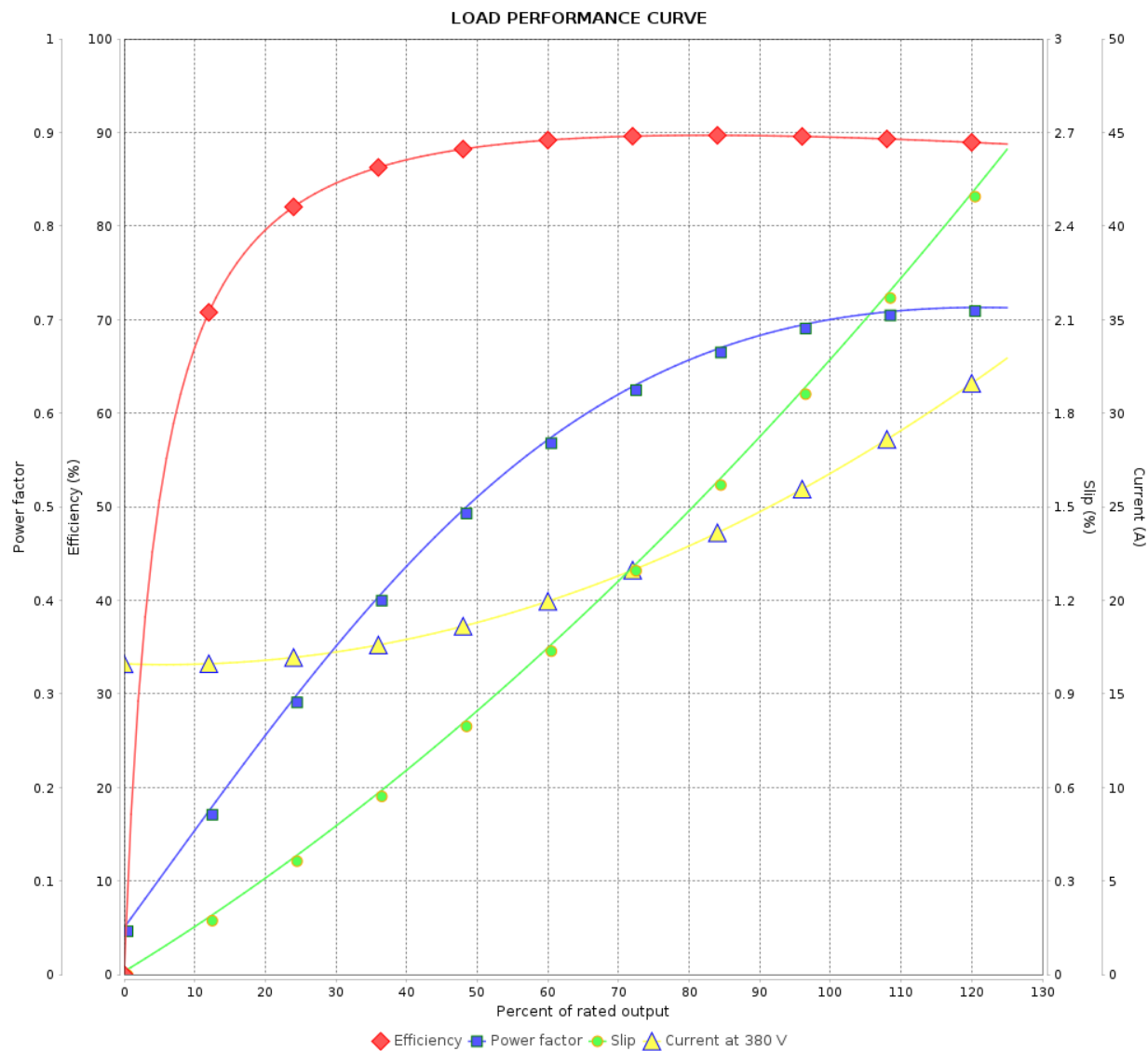
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 380 V 50 Hz 8P IE3

Rated current : 26.7 A
LRC : 5.0
Rated torque : 14 kgfm
Locked rotor torque : 190 %
Breakdown torque : 229 %
Rated speed : 735 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

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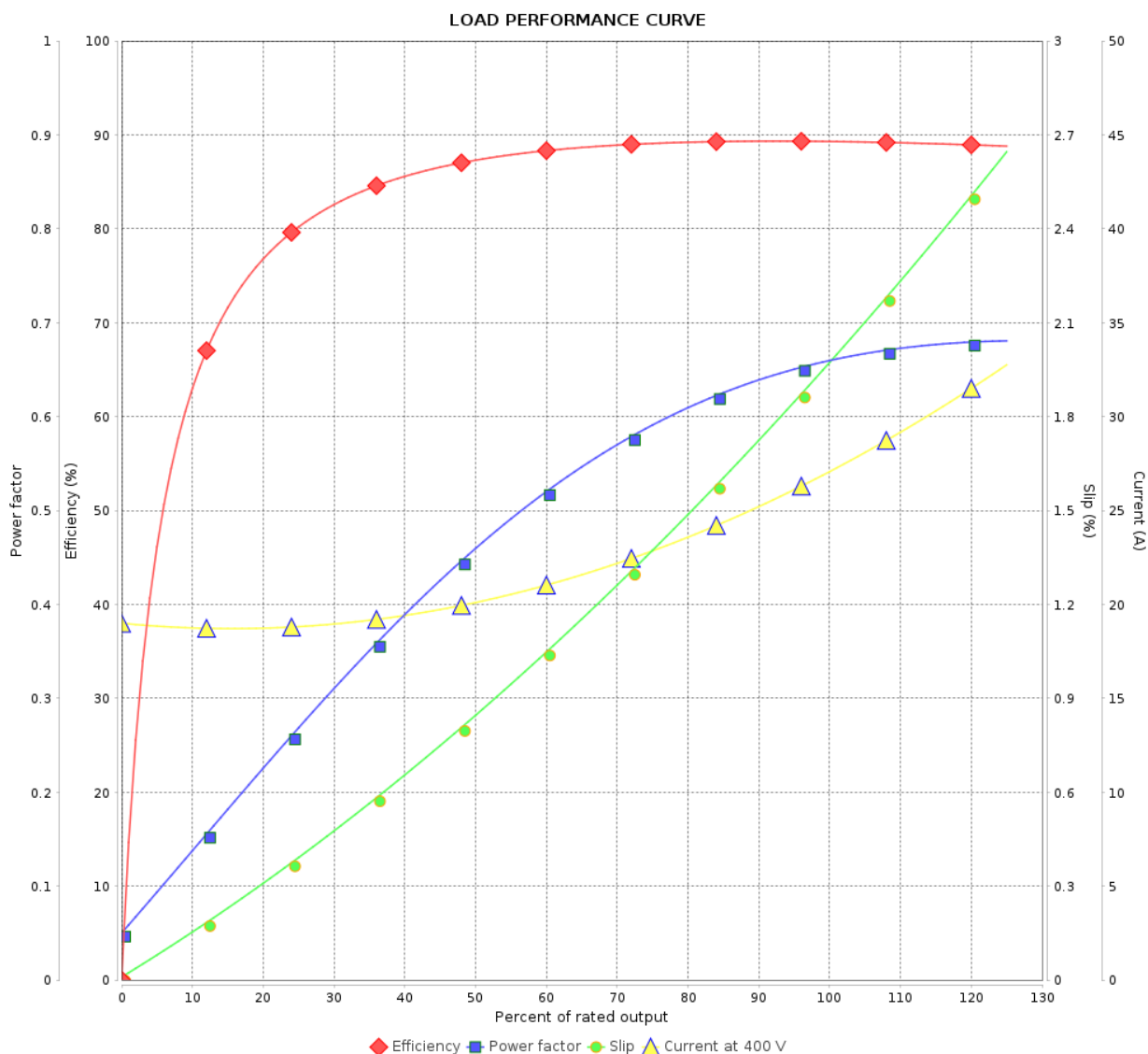
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 400 V 50 Hz 8P IE3

Rated current : 26.9 A
LRC : 5.4
Rated torque : 14 kgfm
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 735 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

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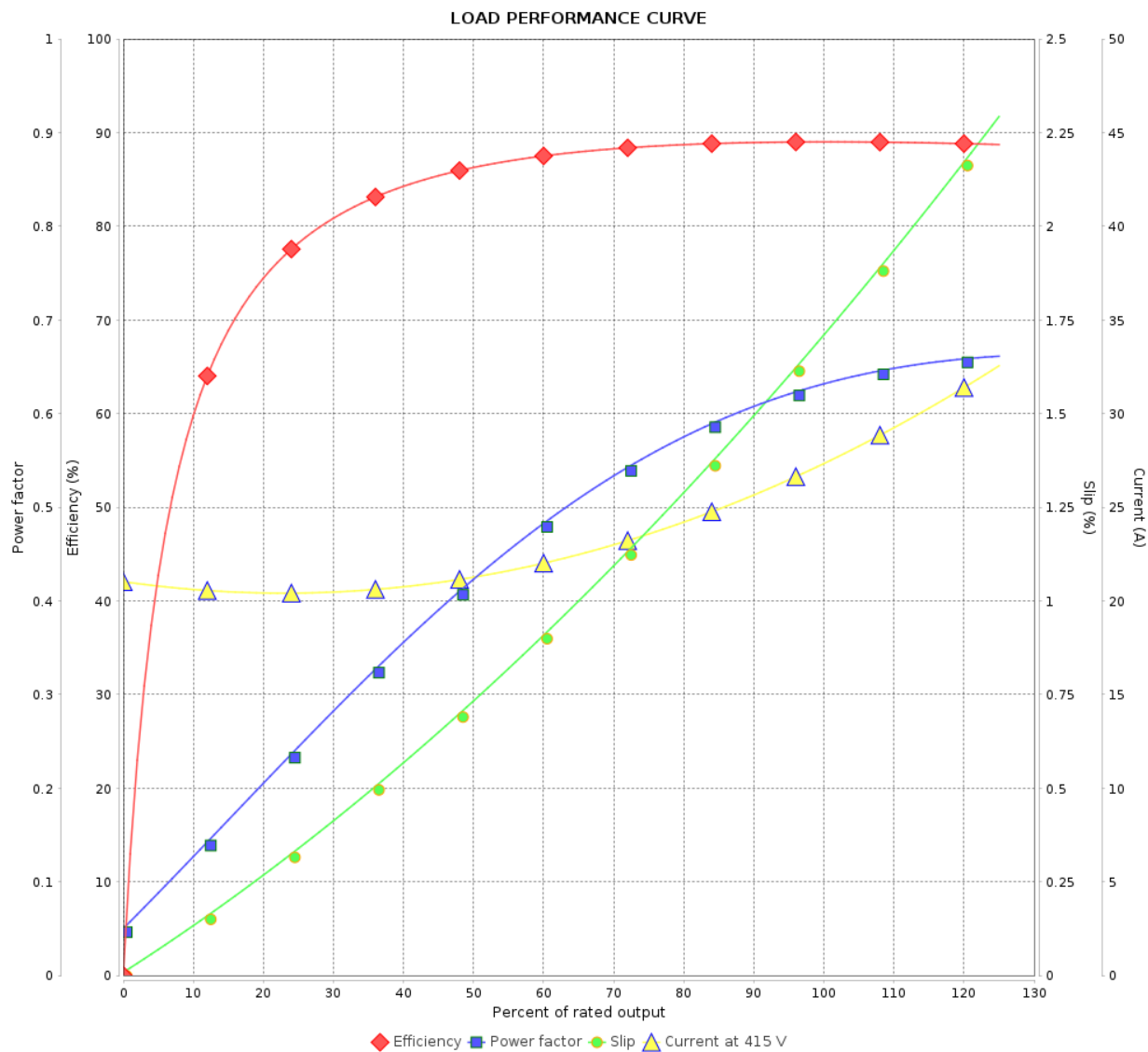
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 415 V 50 Hz 8P IE3

Rated current : 27.3 A
LRC : 5.5
Rated torque : 14 kgfm
Locked rotor torque : 240 %
Breakdown torque : 280 %
Rated speed : 737 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

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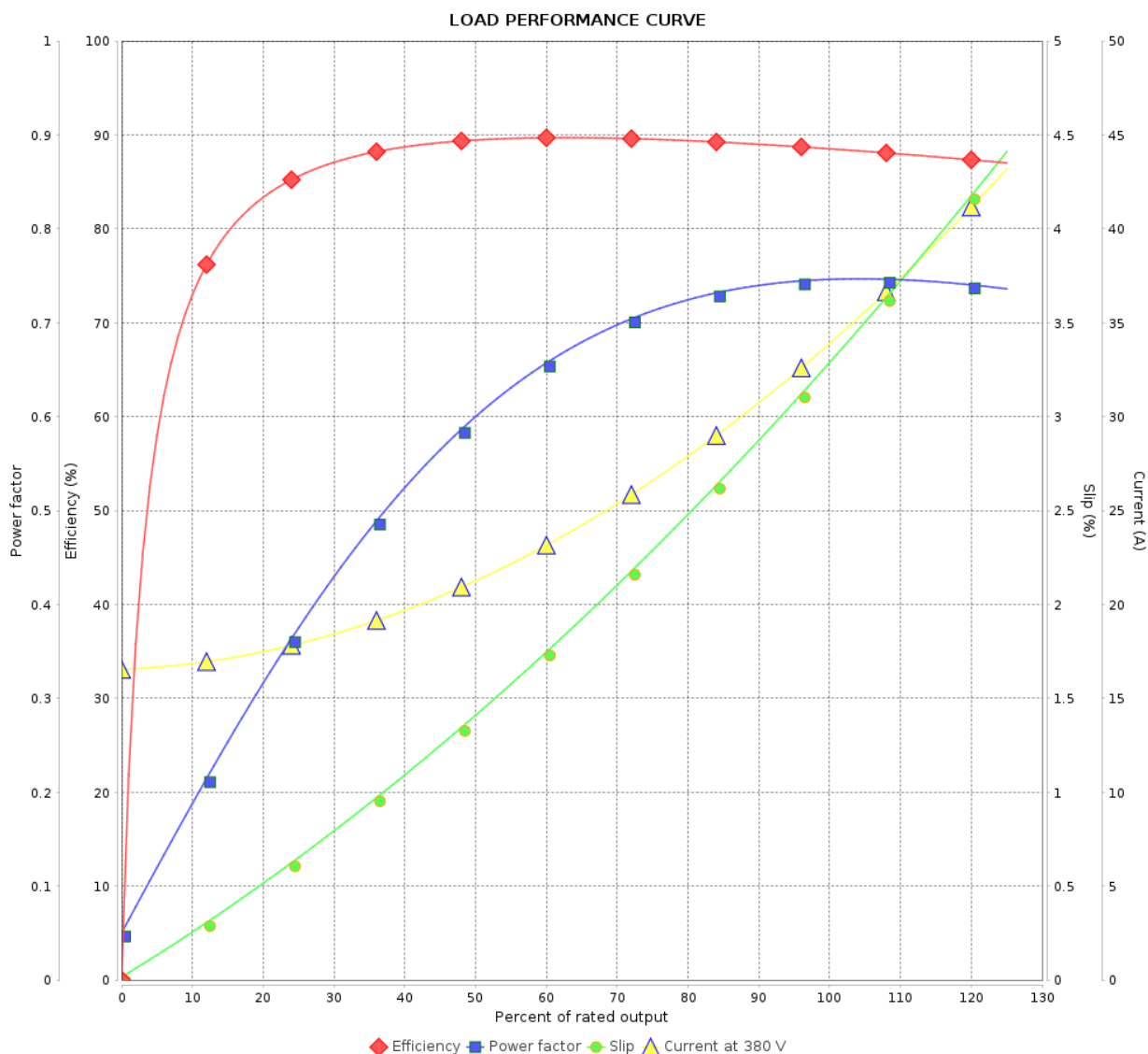
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 380 V 50 Hz 8P IE2

Rated current	: 34.3 A	Moment of inertia (J)	: 0.3946 kgm ²
LRC	: 4.0	Duty cycle	: Cont.(S1)
Rated torque	: 20 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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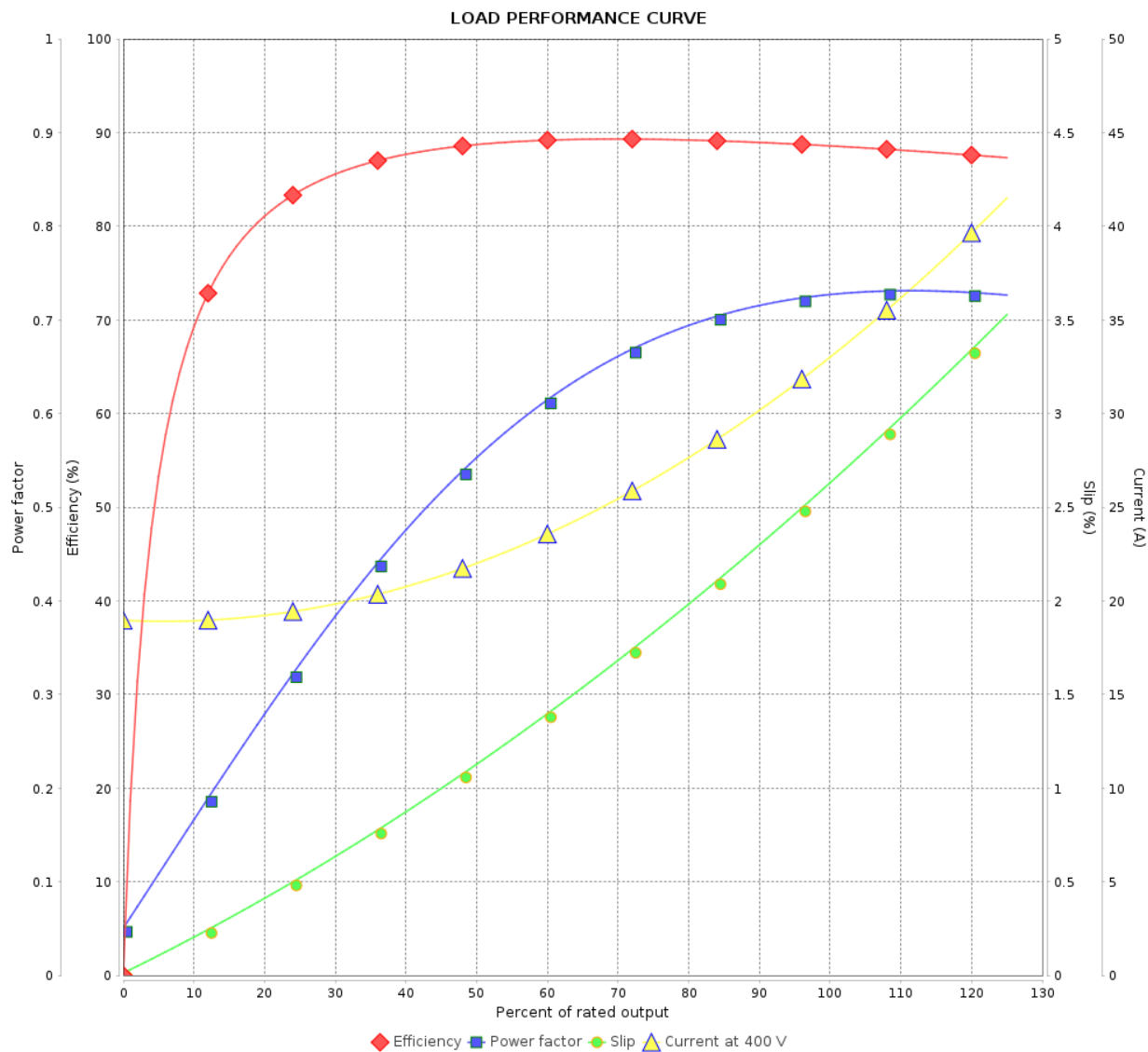
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 400 V 50 Hz 8P IE2

Rated current : 33.5 A
LRC : 4.4
Rated torque : 19 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 730 rpm

Moment of inertia (J) : 0.3946 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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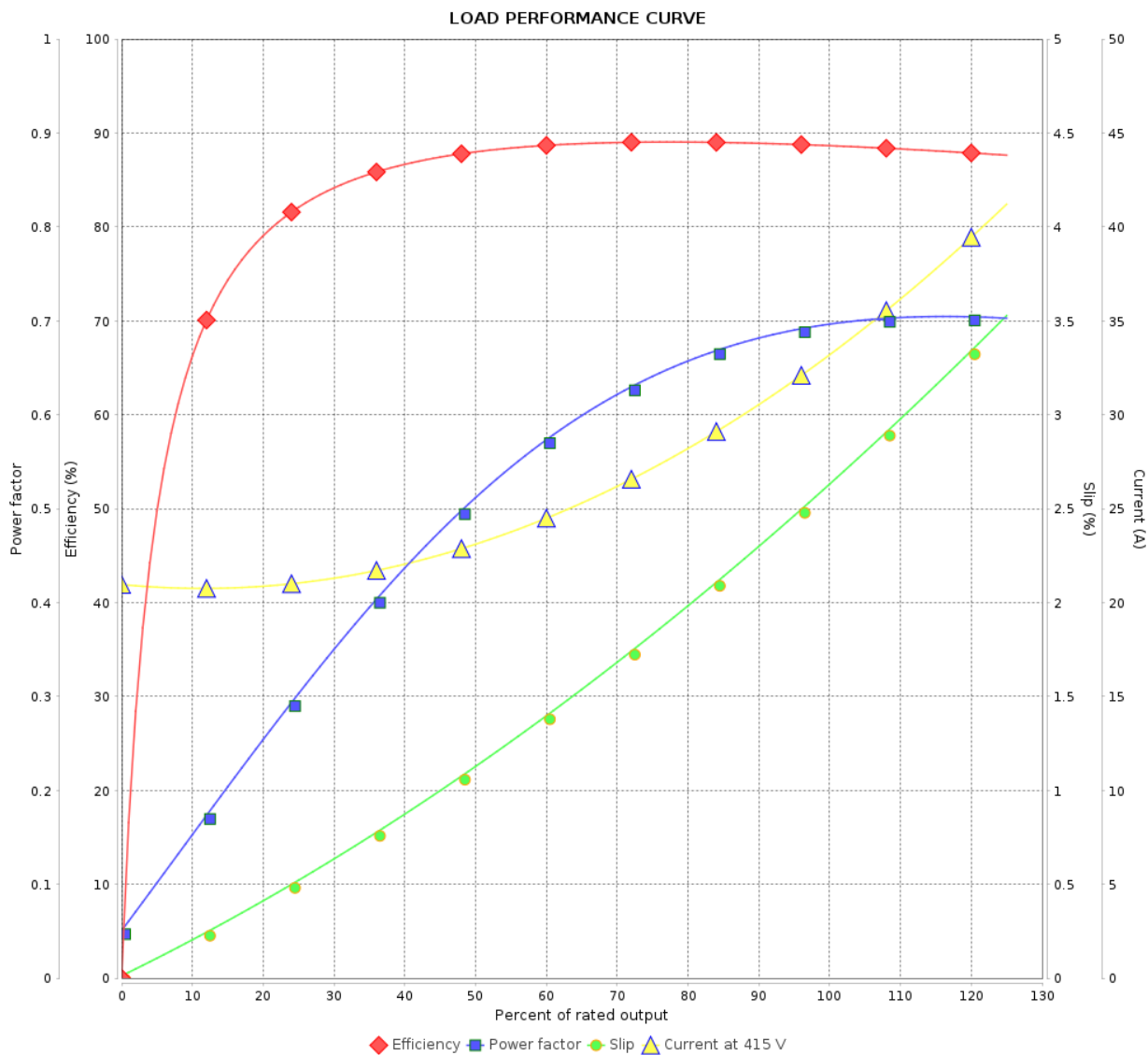
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14766380



Performance : 415 V 50 Hz 8P IE2

Rated current : 33.7 A
LRC : 4.6
Rated torque : 19 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 : 105 K
Design : B

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