

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165995

Frame : 364/5TS	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 : 374 kg
Protection degree : IP55	Moment of inertia (J) : 0.4485 kgm ²
Design : B	

Output [HP]	60	50	50	50	60	60	60
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	136/67.8	67.4	64.8	62.4	83.1	78.5	75.6
L. R. Amperes [A]	895/447	431	466	462	432	455	477
LRC [A]	6.6x(Code G)	6.4x(Code G)	7.2x(Code H)	7.4x(Code H)	5.2x(Code E)	5.8x(Code F)	6.3x(Code G)
No load current [A]	34.0/17.0	16.6	17.8	18.6	16.6	17.8	18.6
Rated speed [RPM]	3555	2955	2960	2965	2935	2945	2950
Slip [%]	1.25	1.50	1.33	1.17	2.17	1.83	1.67
Rated torque [kgfm]	12	12	12	12	14	14	14
Locked rotor torque [%]	200	190	220	229	160	180	190
Breakdown torque [%]	260	250	280	300	200	229	250
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	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)
Efficiency (%)	25%						
	50%	92.7	92.1	91.7	91.6	92.4	92.4
	75%	93.6	92.8	92.8	92.9	93.0	93.0
	100%	93.6	93.7	93.7	93.7	92.4	93.0
Power Factor	25%						
	50%	0.81	0.81	0.79	0.76	0.85	0.83
	75%	0.87	0.88	0.86	0.85	0.88	0.88
	100%	0.89	0.89	0.88	0.88	0.89	0.89

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

Losses (%)	P1 (0,9;1,0)	6.3	6.2	6.2	6.2	7.6	7.0	7.0
	P2 (0,5;1,0)	4.7	4.6	4.6	4.6	5.7	5.2	5.2
	P3 (0,25;1,0)	4.4	4.3	4.3	4.3	5.3	4.9	4.9
	P4 (0,9;0,5)	3.3	3.3	3.3	3.3	4.0	3.6	3.6
	P5 (0,5;0,5)	1.8	1.8	1.8	1.8	2.1	2.0	2.0
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1	1.3	1.2	1.2
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.7	0.7	0.7

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 238 kgf
Sealing :	WSeal	WSeal	Max. compression : 590 kgf
Lubrication interval :	4000 h	4000 h	
Lubricant amount :	27 g	27 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 148A SF 1.10 SFA 163A

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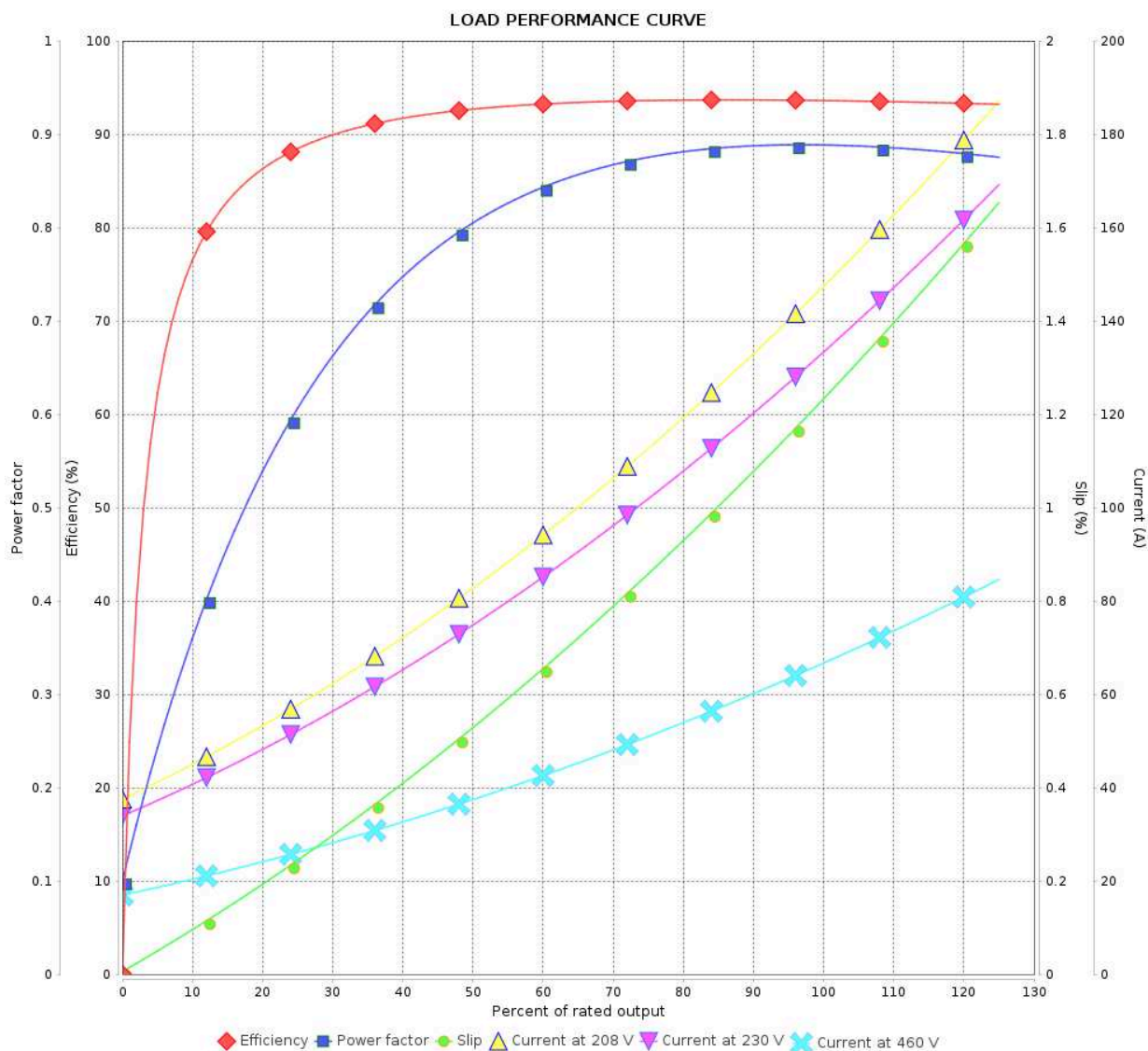
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 230/460 V 60 Hz 2P

Rated current : 136/67.8 A
 LRC : 6.6
 Rated torque : 12 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 3555 rpm

Moment of inertia (J) : 0.4485 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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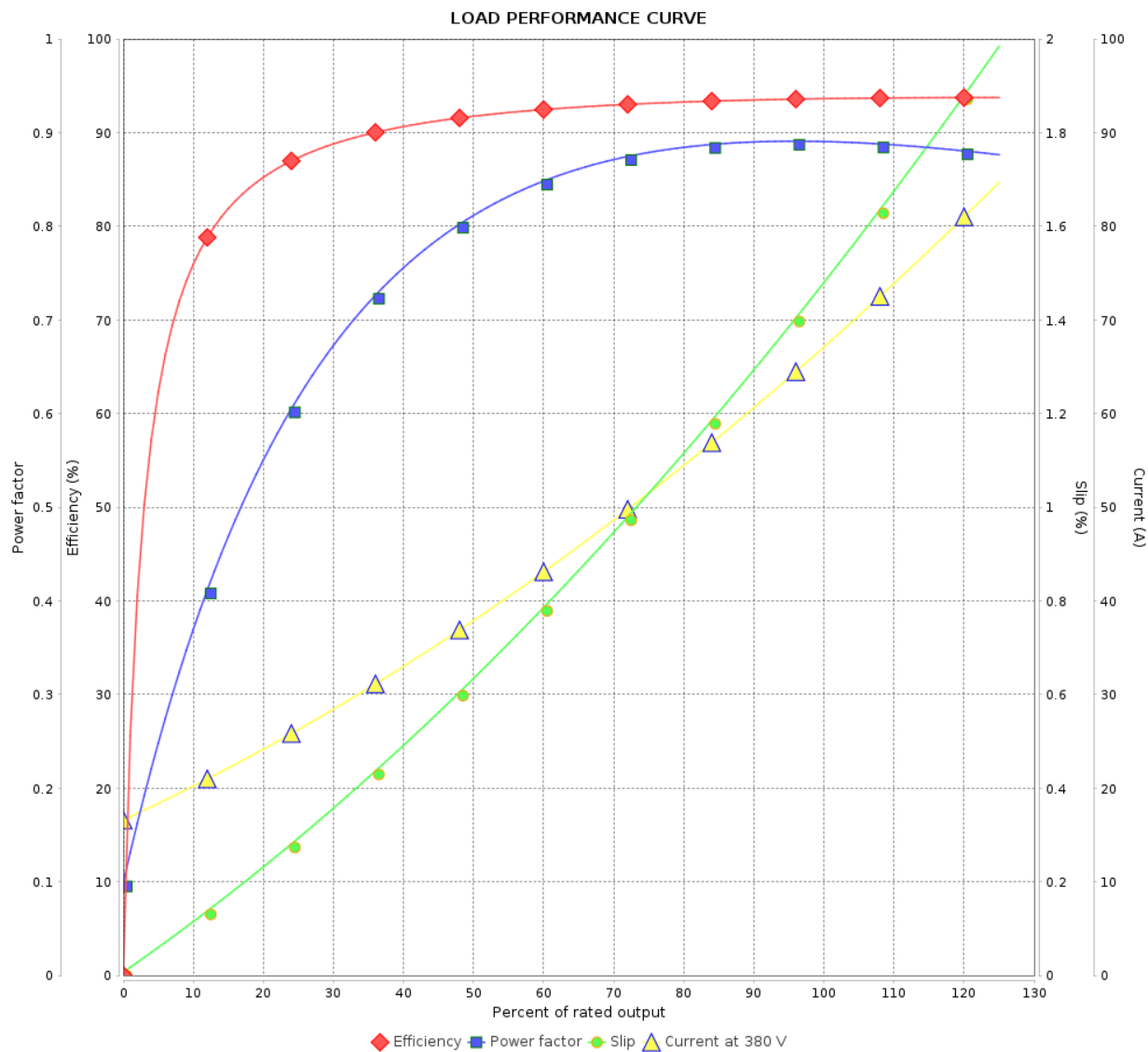
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 380 V 50 Hz 2P IE3

Rated current : 67.4 A
LRC : 6.4
Rated torque : 12 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 2955 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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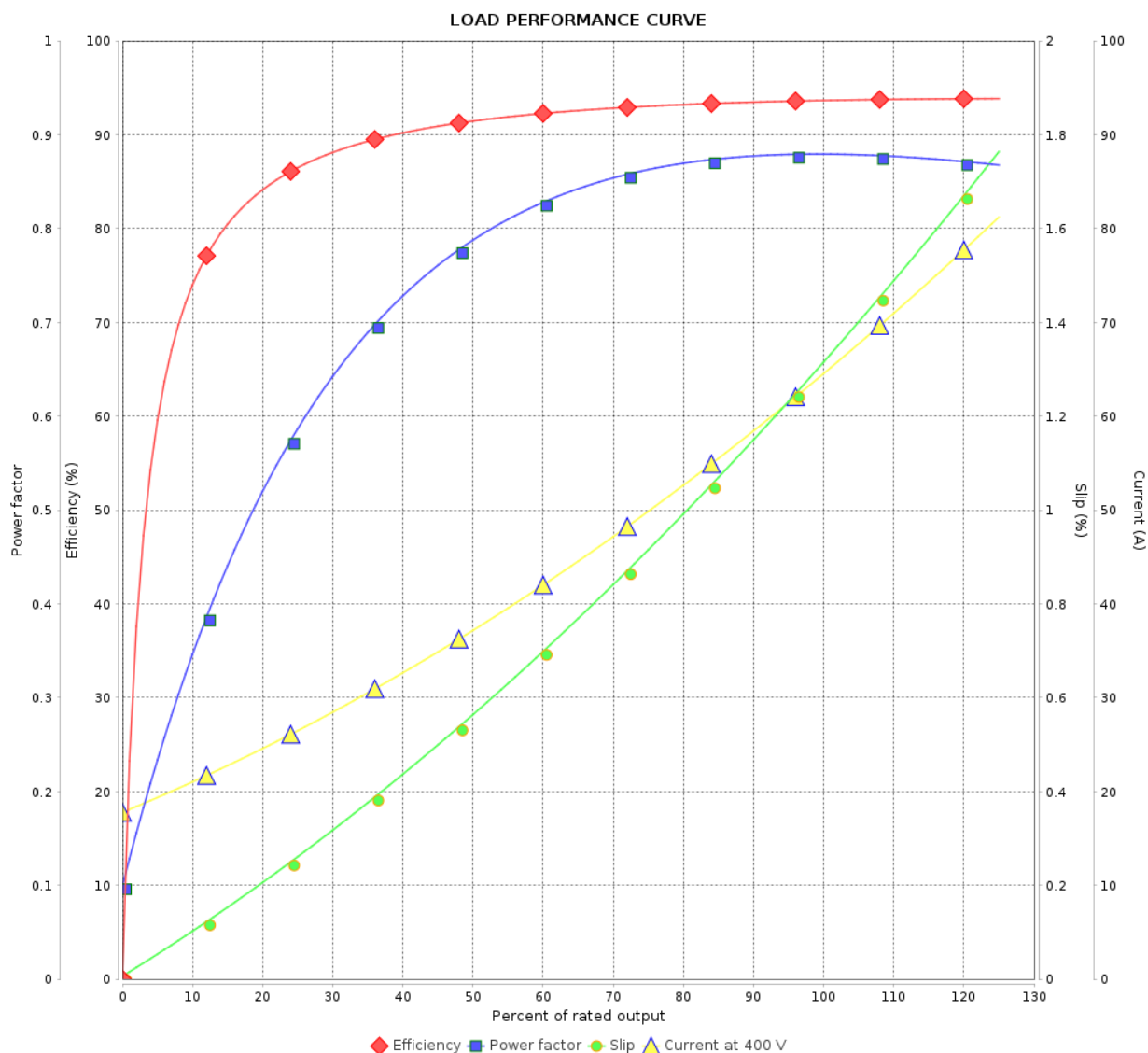
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 400 V 50 Hz 2P IE3

Rated current : 64.8 A
LRC : 7.2
Rated torque : 12 kgfm
Locked rotor torque : 220 %
Breakdown torque : 280 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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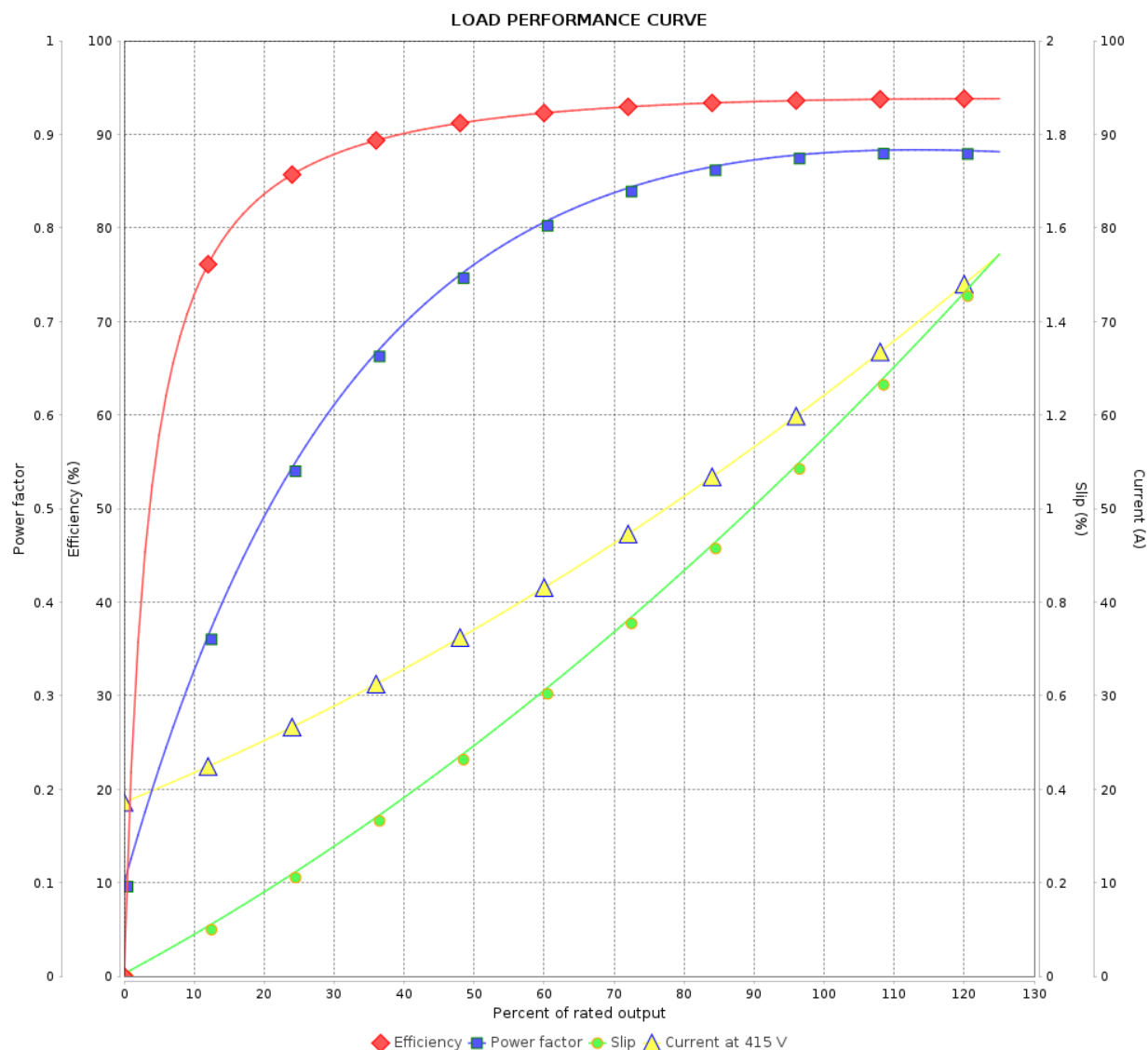
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 415 V 50 Hz 2P IE3

Rated current : 62.4 A
LRC : 7.4
Rated torque : 12 kgfm
Locked rotor torque : 229 %
Breakdown torque : 300 %
Rated speed : 2965 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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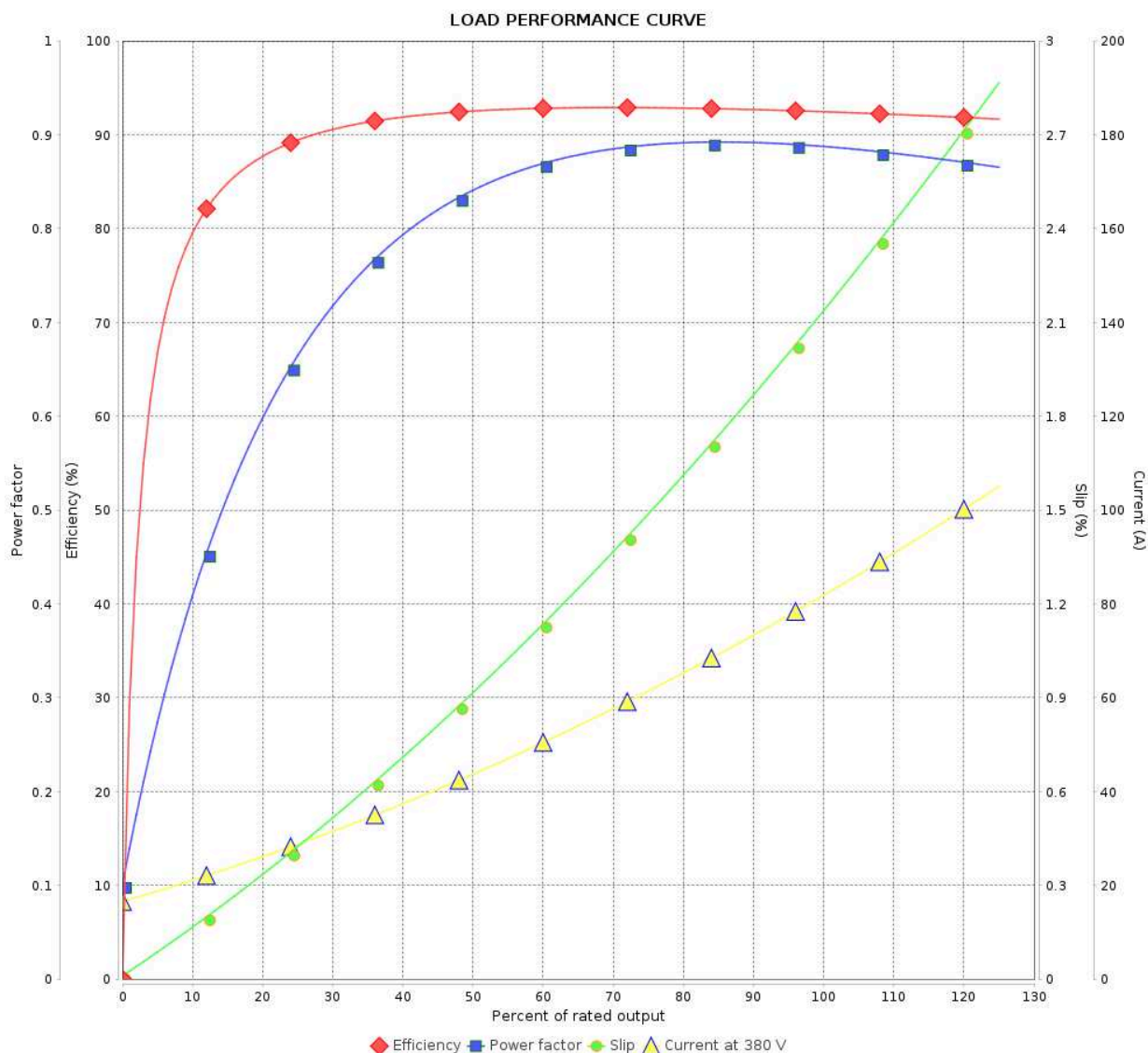
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 380 V 50 Hz 2P IE1

Rated current : 83.1 A
LRC : 5.2
Rated torque : 14 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 2935 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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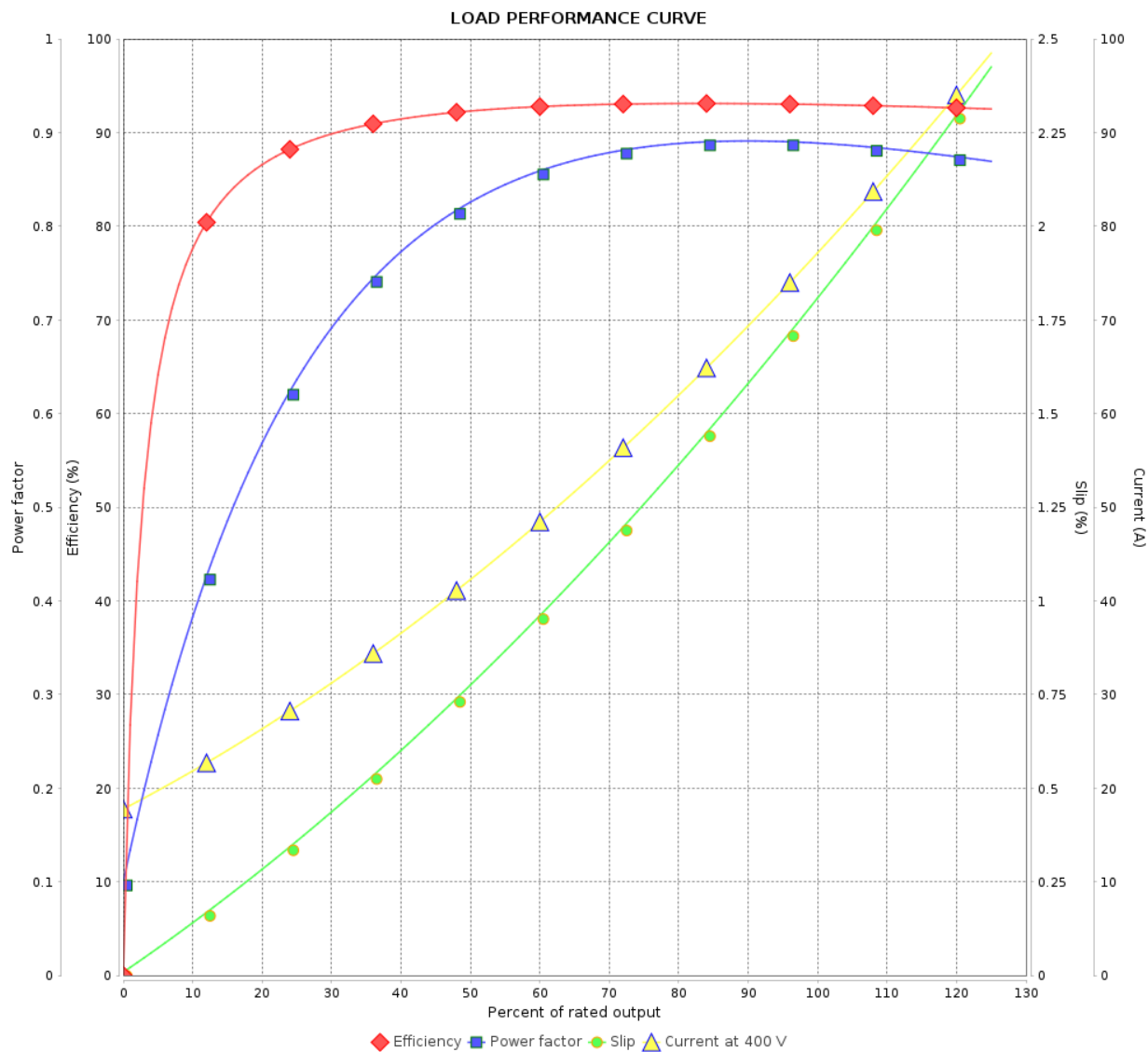
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 400 V 50 Hz 2P IE2

Rated current : 78.5 A
LRC : 5.8
Rated torque : 14 kgfm
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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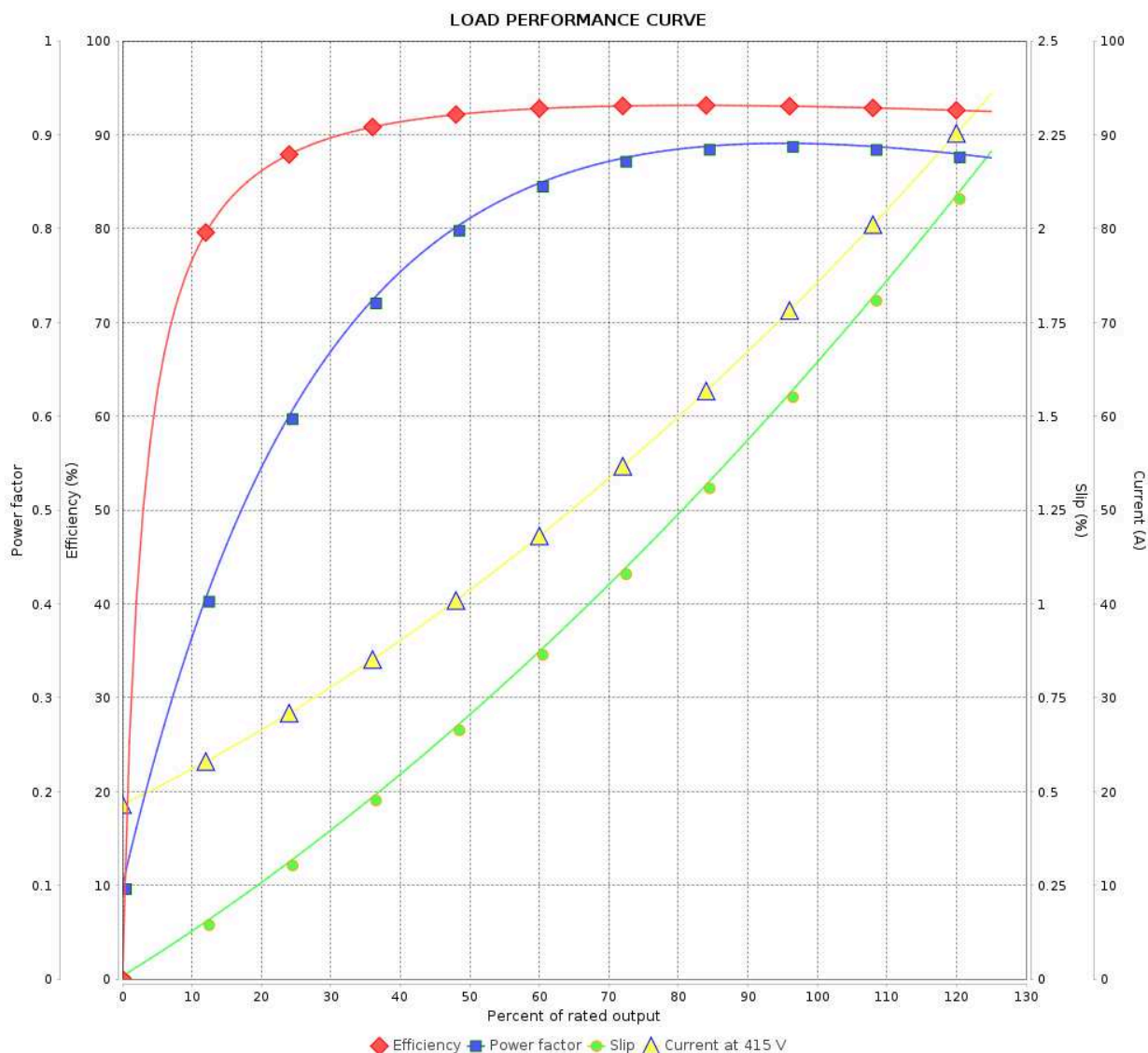
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165995



Performance : 415 V 50 Hz 2P IE2

Rated current : 75.6 A
LRC : 6.3
Rated torque : 14 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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