

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12446945

Frame	: 254/6TC	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	: 132 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1104 kgm ²
Design	: B		

Output [HP]	15	10	10	10	15	15	15
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]	36.0/18.0	15.6	15.1	15.1	21.5	20.5	20.0
L. R. Amperes [A]	230/115	112	118	125	106	111	118
LRC [A]	6.4x(Code G)	7.2x(Code J)	7.8x(Code K)	8.3x(Code L)	4.9x(Code E)	5.4x(Code F)	5.9x(Code G)
No load current [A]	14.6/7.30	7.10	7.60	8.10	7.10	7.60	8.10
Rated speed [RPM]	1770	1475	1480	1480	1455	1460	1465
Slip [%]	1.67	1.67	1.33	1.33	3.00	2.67	2.33
Rated torque [kgfm]	6.15	4.92	4.90	4.90	7.48	7.46	7.43
Locked rotor torque [%]	229	229	280	300	160	190	200
Breakdown torque [%]	250	280	300	320	200	210	229
Service factor	1.25	1.25	1.25	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	48s (cold) 27s (hot)	45s (cold) 25s (hot)	41s (cold) 23s (hot)	27s (cold) 15s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)
Noise level ²	64.0 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					
	50%	91.0	88.8	88.6	88.3	91.0	91.0
	75%	91.7	90.3	90.3	90.3	90.2	91.0
	100%	92.4	90.4	90.6	90.8	90.2	91.0
Power Factor	25%	0.00					
	50%	0.68	0.65	0.58	0.59	0.74	0.69
	75%	0.78	0.74	0.70	0.69	0.82	0.79
	100%	0.83	0.81	0.79	0.76	0.86	0.84

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

Losses (%)	P1 (0,9;1,0)	8.1	10.4	10.2	9.9	10.7	9.7	9.7
	P2 (0,5;1,0)	7.0	9.0	8.8	8.6	9.2	8.4	8.4
	P3 (0,25;1,0)	6.5	8.4	8.3	8.1	8.6	7.9	7.9
	P4 (0,9;0,5)	3.9	5.0	4.9	4.8	5.2	4.7	4.7
	P5 (0,5;0,5)	2.8	3.6	3.5	3.4	3.6	3.3	3.3
	P6 (0,5;0,25)	1.8	2.4	2.3	2.2	2.4	2.2	2.2
	P7 (0,25;0,25)	1.3	1.7	1.7	1.6	1.7	1.6	1.6

Bearing type	: 6309 C3	Non drive end	6209 C3	Foundation loads	
Sealing	: V'Ring		V'Ring	Max. traction	: 203 kgf
Lubrication interval	: 20000 h		20000 h	Max. compression	: 334 kgf
Lubricant amount	: 13 g		9 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 39.8A SF 1.15 SFA 45.8A

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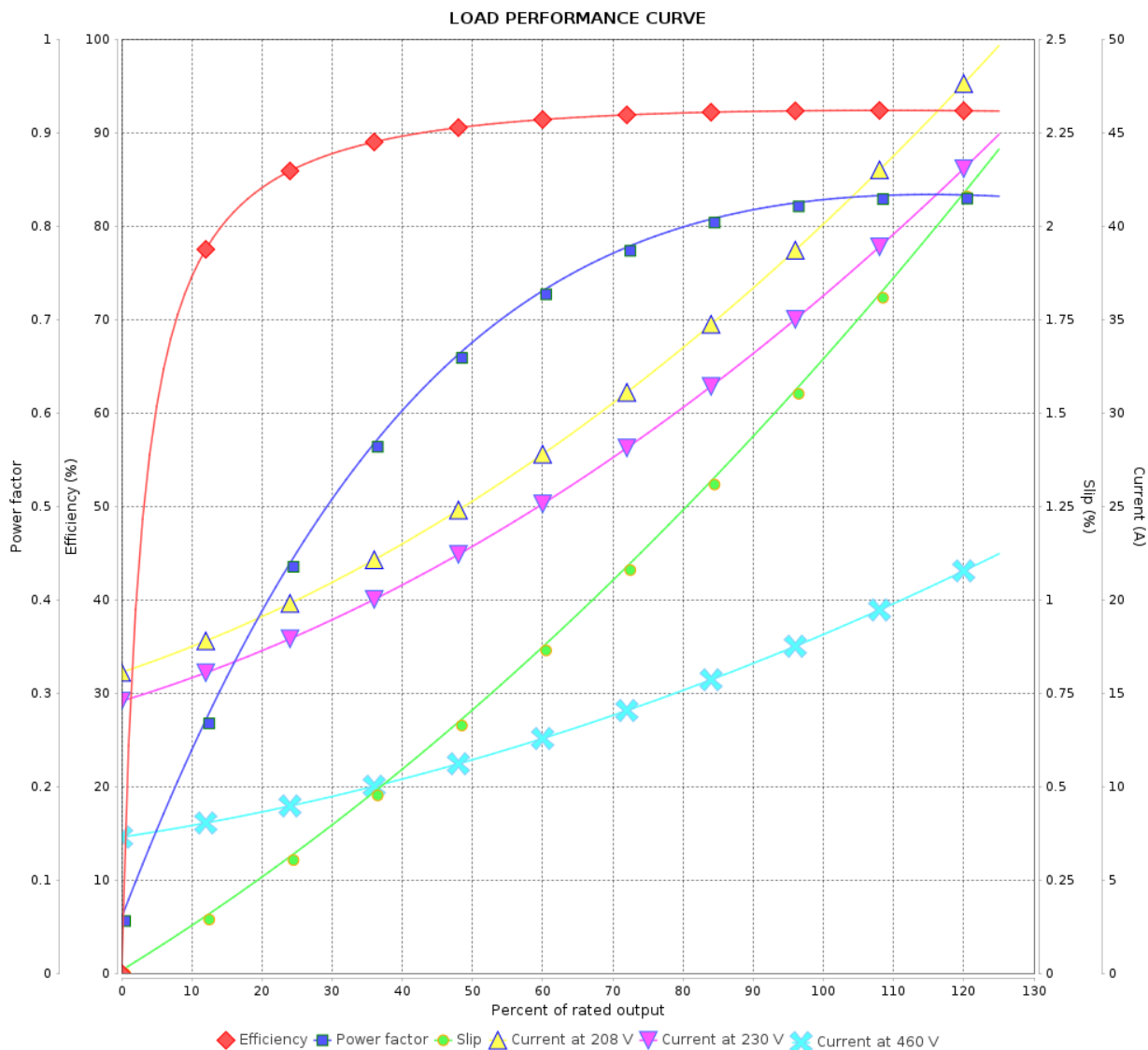
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945



Performance : 230/460 V 60 Hz 4P

Rated current : 36.0/18.0 A
LRC : 6.4
Rated torque : 6.15 kgfm
Locked rotor torque : 229 %
Breakdown torque : 250 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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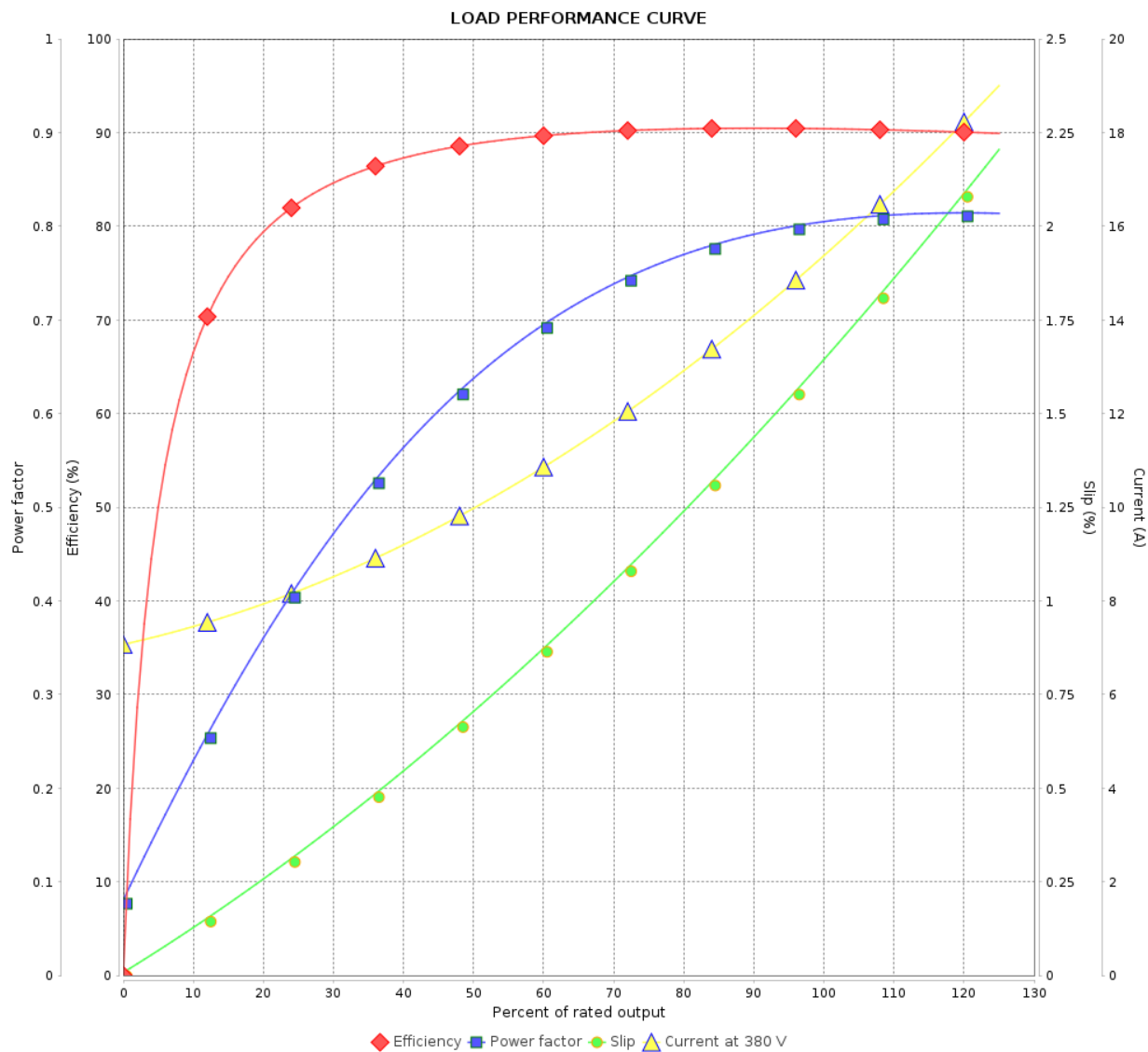
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945



Performance : 380 V 50 Hz 4P IE3

Rated current : 15.6 A
LRC : 7.2
Rated torque : 4.92 kgfm
Locked rotor torque : 229 %
Breakdown torque : 280 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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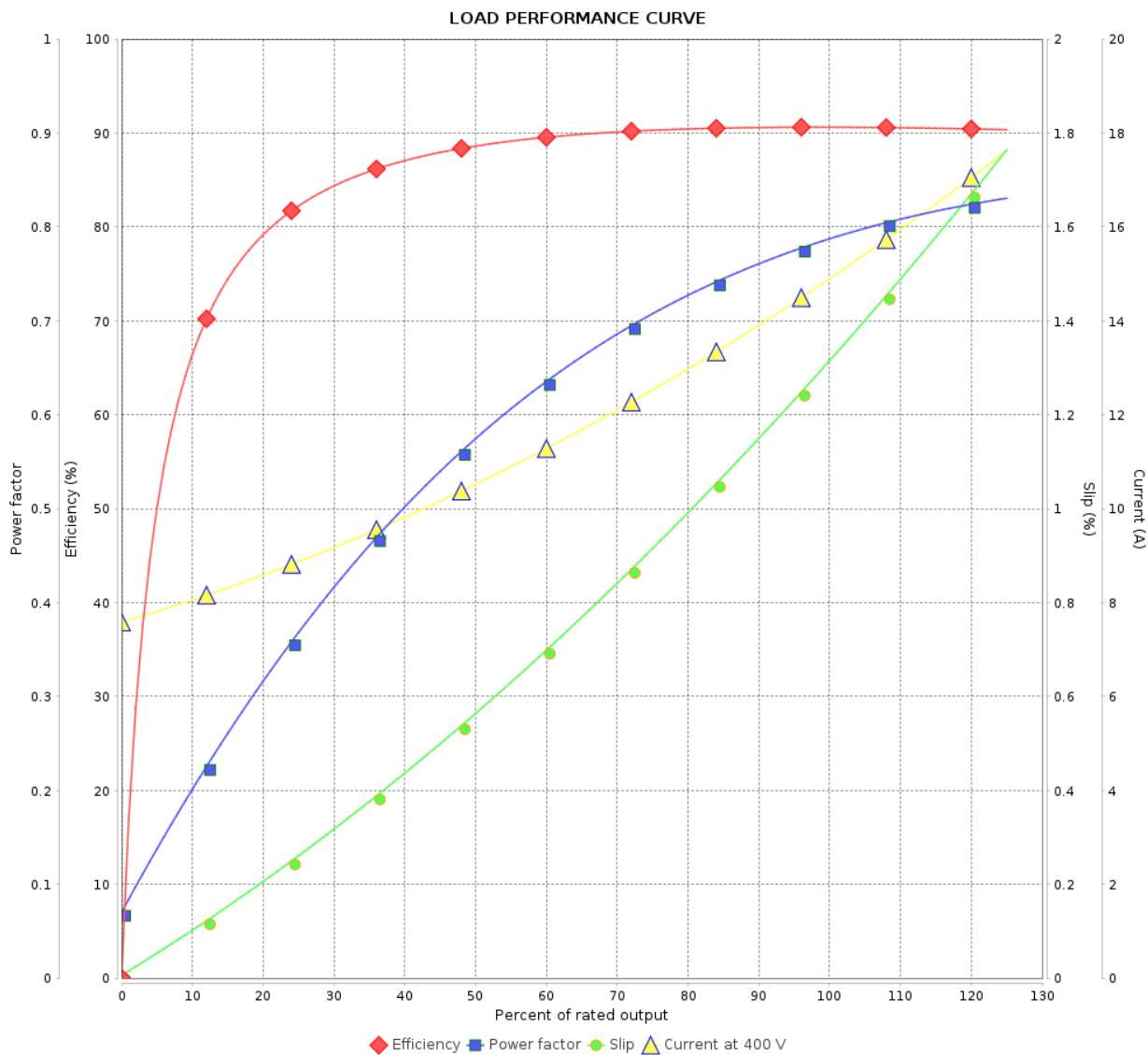
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945



Performance : 400 V 50 Hz 4P IE3

Rated current : 15.1 A
LRC : 7.8
Rated torque : 4.90 kgfm
Locked rotor torque : 280 %
Breakdown torque : 300 %
Rated speed : 1480 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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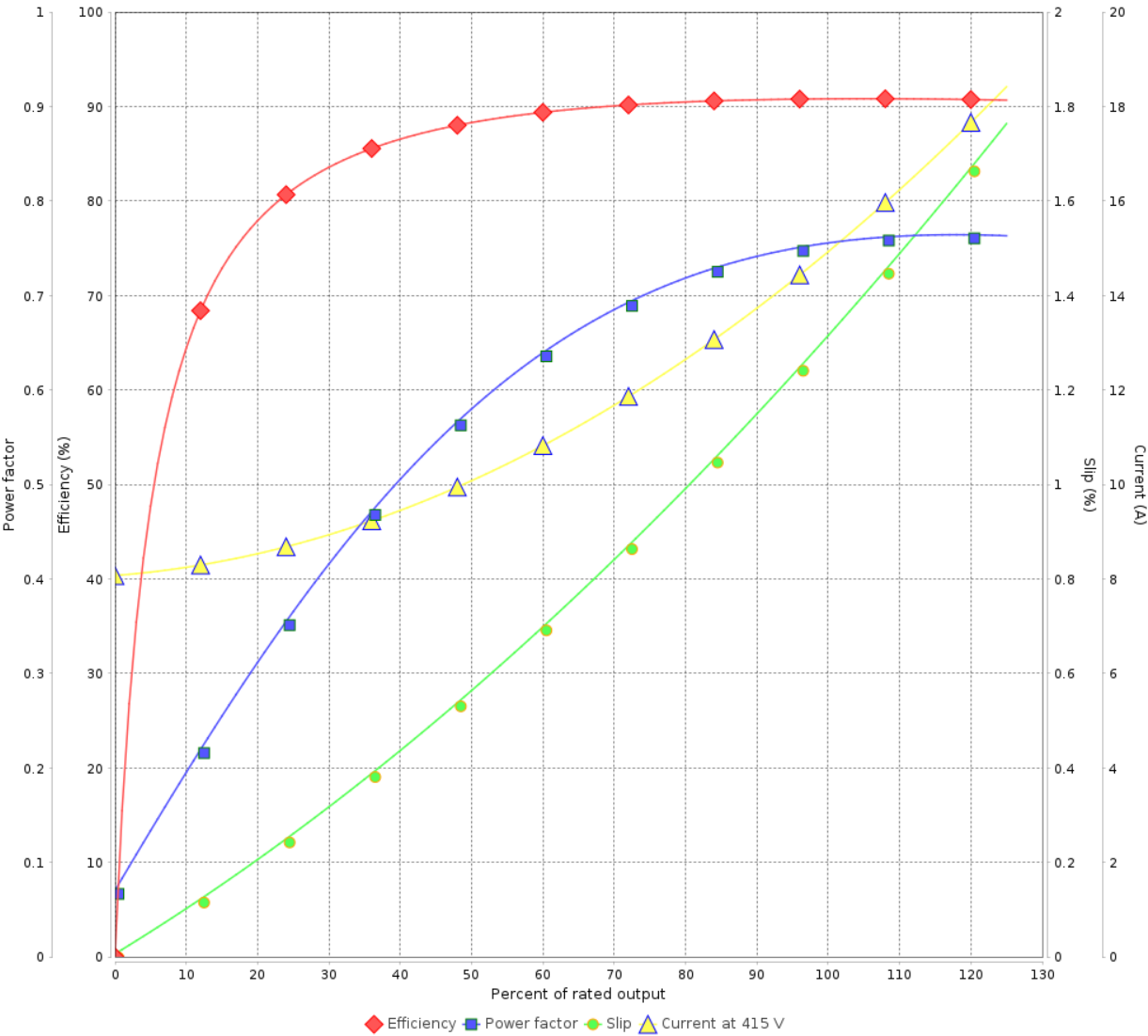
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12446945

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Performance : 415 V 50 Hz 4P IE3			
Rated current	: 15.1 A	Moment of inertia (J)	: 0.1104 kgm ²
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 4.90 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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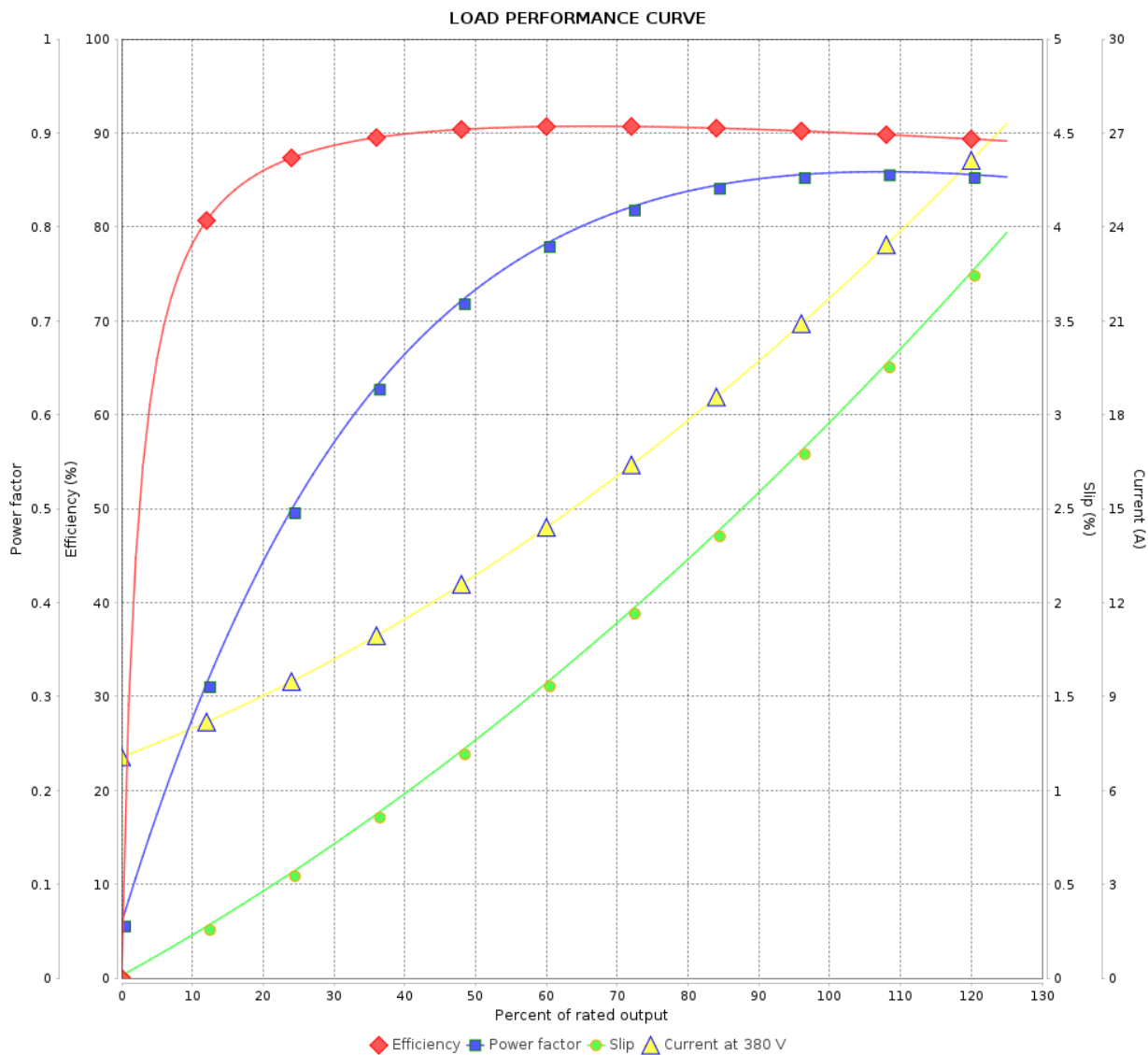
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945



Performance : 380 V 50 Hz 4P IE2

Rated current : 21.5 A
LRC : 4.9
Rated torque : 7.48 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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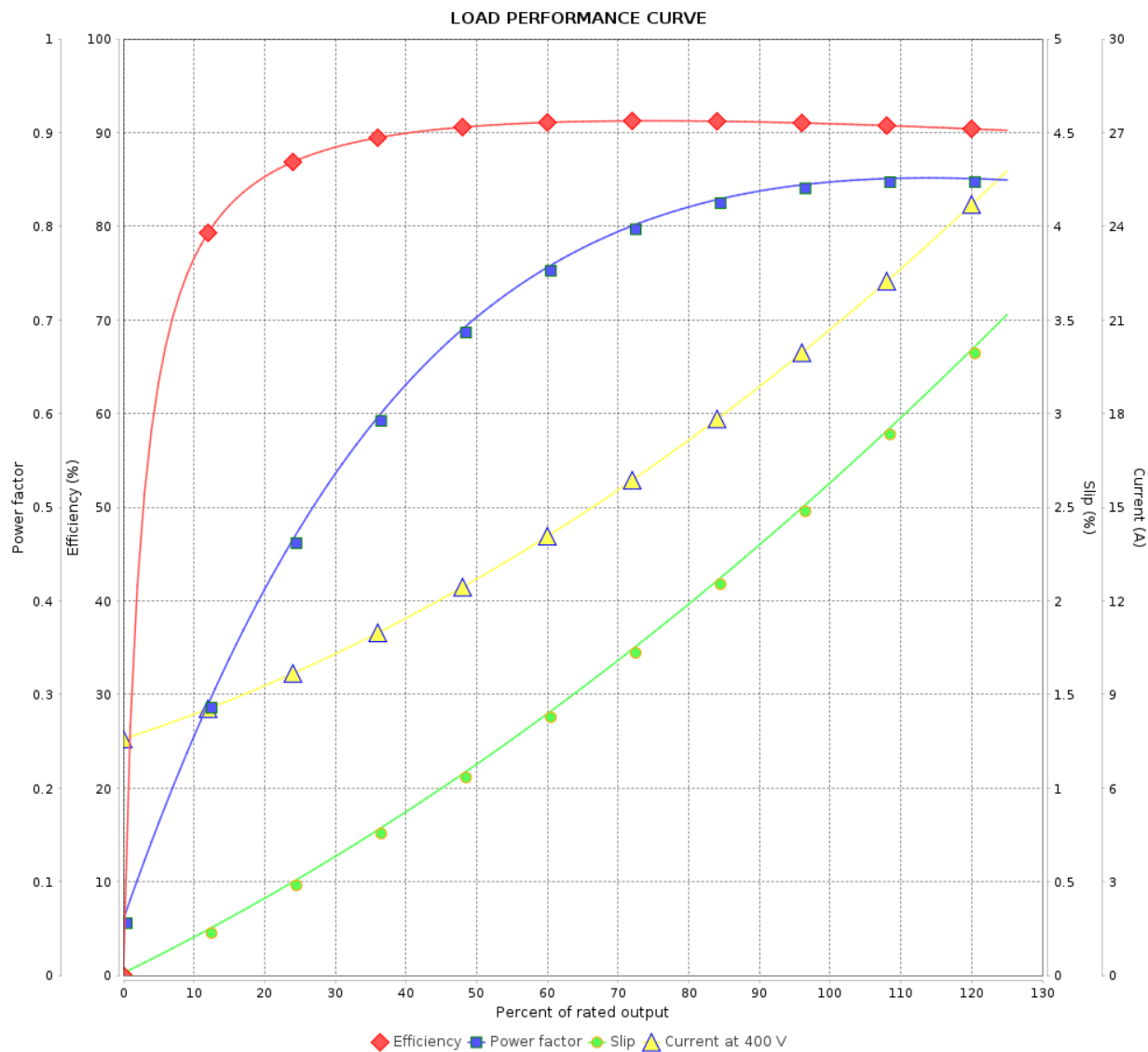
Three Phase Induction Motor - Squirrel Cage



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Product line : W22 NEMA Premium Efficiency
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Product code : 12446945



Performance : 400 V 50 Hz 4P IE2

Rated current : 20.5 A
LRC : 5.4
Rated torque : 7.46 kgfm
Locked rotor torque : 190 %
Breakdown torque : 210 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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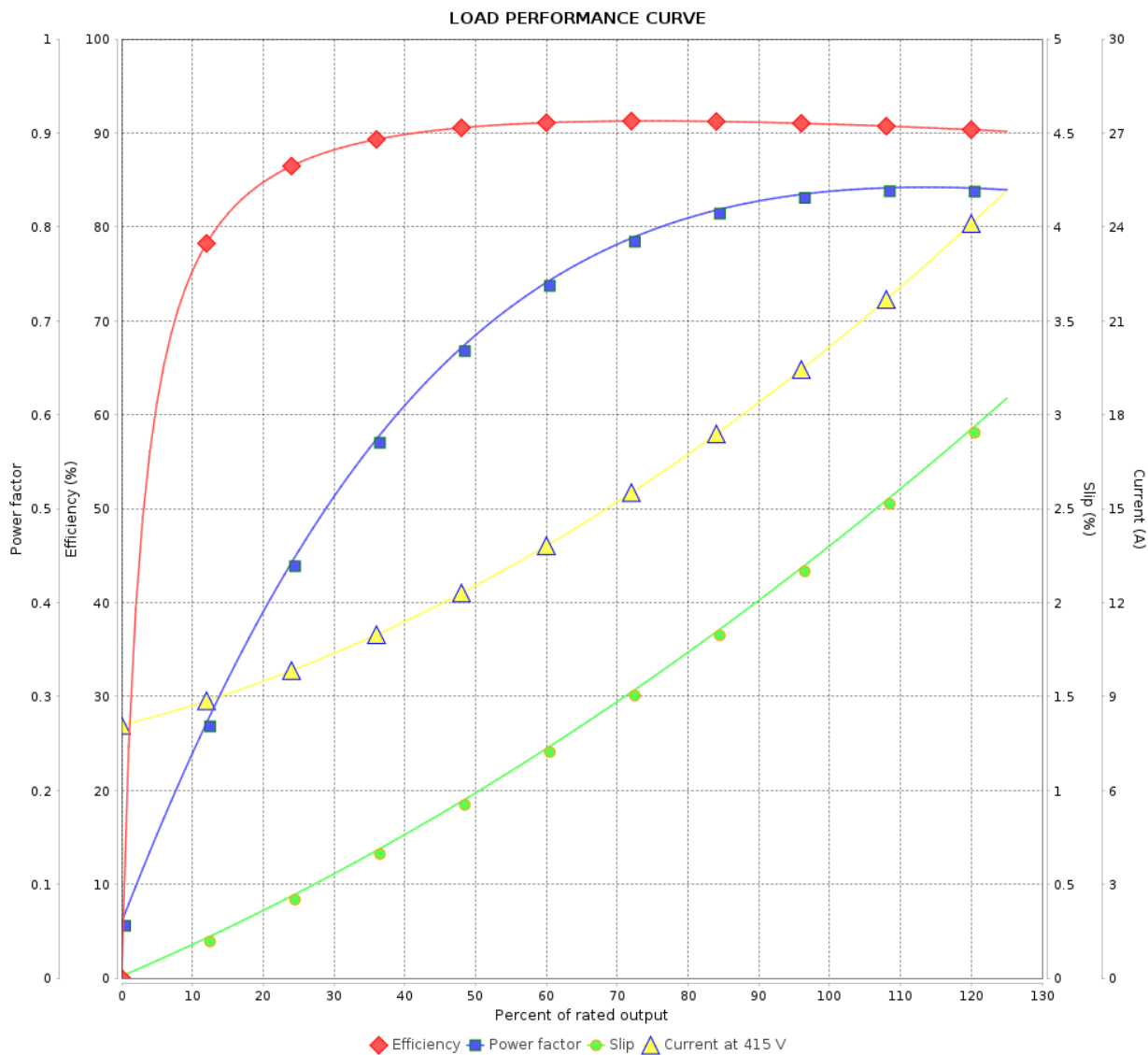
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945



Performance : 415 V 50 Hz 4P IE2

Rated current : 20.0 A
LRC : 5.9
Rated torque : 7.43 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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