DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11610485

Frame	: 254/6TC	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation¹	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight³	: 132 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1305 kgm²
Design	: B		

Output [HP]		20	15	15	15	20	20	20
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]		48.2/24.1	21.8	21.2	20.6	29.4	28.0	27.1
L. R. Amperes [A]		313/157	161	167	173	167	174	179
LRC [A]		6.5x(Code G)	7.4x(Code H)	7.9x(Code J)	8.4x(Code K)	5.7x(Code F)	6.2x(Code G)	6.6x(Code H)
No load current [A]		19.2/9.60	9.90	10.5	11.0	9.90	10.5	11.0
Rated speed [RPM]		1770	1473	1475	1477	1455	1460	1465
Slip [%]		1.67	1.80	1.67	1.53	3.00	2.67	2.33
Rated torque [kgfm]		8	7	7	7	9	9	9
Locked rotor torque [%]		240	250	280	300	180	210	229
Breakdown torque [%]		260	260	320	340	210	229	260
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		32s (cold) 18s (hot)	34s (cold) 19s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	18s (cold) 10s (hot)
Noise level²		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%							
	50%	91.7	91.0	89.8	89.8	91.7	91.0	91.0
	75%	92.4	91.5	91.0	91.3	91.0	91.0	91.7
	100%	93.0	91.4	91.4	91.7	90.2	91.0	91.7
Power Factor	25%							
	50%	0.68	0.65	0.62	0.60	0.75	0.72	0.70
	75%	0.79	0.78	0.75	0.73	0.83	0.81	0.80
	100%	0.84	0.84	0.82	0.81	0.86	0.85	0.84

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

Losses (%)	P1 (0,9;1,0)	7.5	9.3	9.3	9.0	10.8	9.8	9.0
	P2 (0,5;1,0)	6.5	8.1	8.1	7.8	9.4	8.5	7.8
	P3 (0,25;1,0)	6.0	7.6	7.6	7.3	8.7	7.9	7.3
	P4 (0,9;0,5)	3.5	4.4	4.4	4.2	5.1	4.6	4.2
	P5 (0,5;0,5)	2.5	3.1	3.1	3.0	3.6	3.3	3.0
	P6 (0,5;0,25)	1.6	2.0	2.0	2.0	2.3	2.1	2.0
	P7 (0,25;0,25)	1.2	1.5	1.5	1.4	1.7	1.5	1.4

		Drive end	Non drive end
Bearing type	:	6309 C3	6209 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	13 g	9 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 333 kgf

Max. compression : 478 kgf

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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DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Notes
USABLE @208V 53.3A SF 1.15 SFA 61.3A

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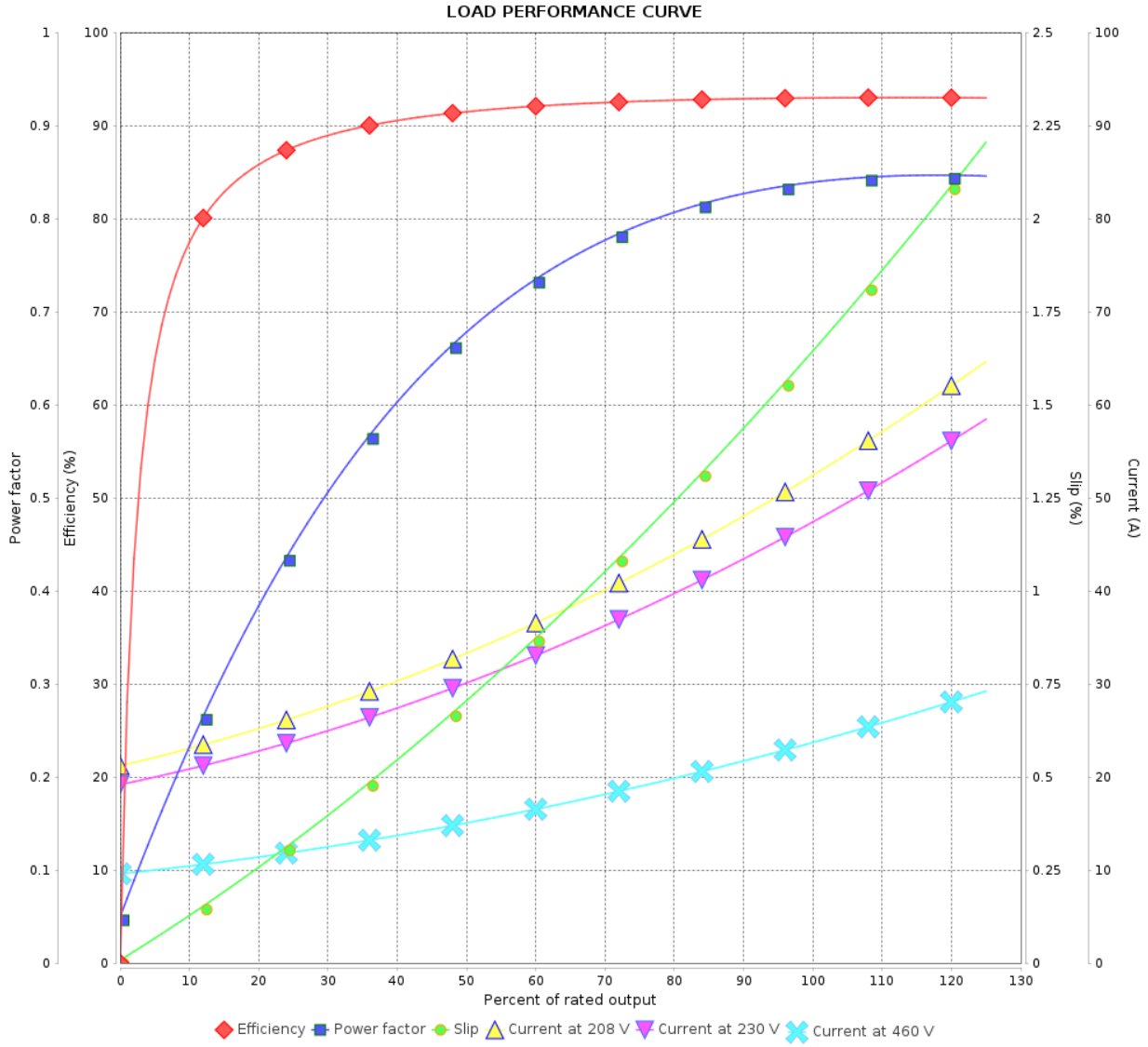
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11610485



Performance	: 230/460 V 60 Hz 4P		
Rated current	: 48.2/24.1 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 8 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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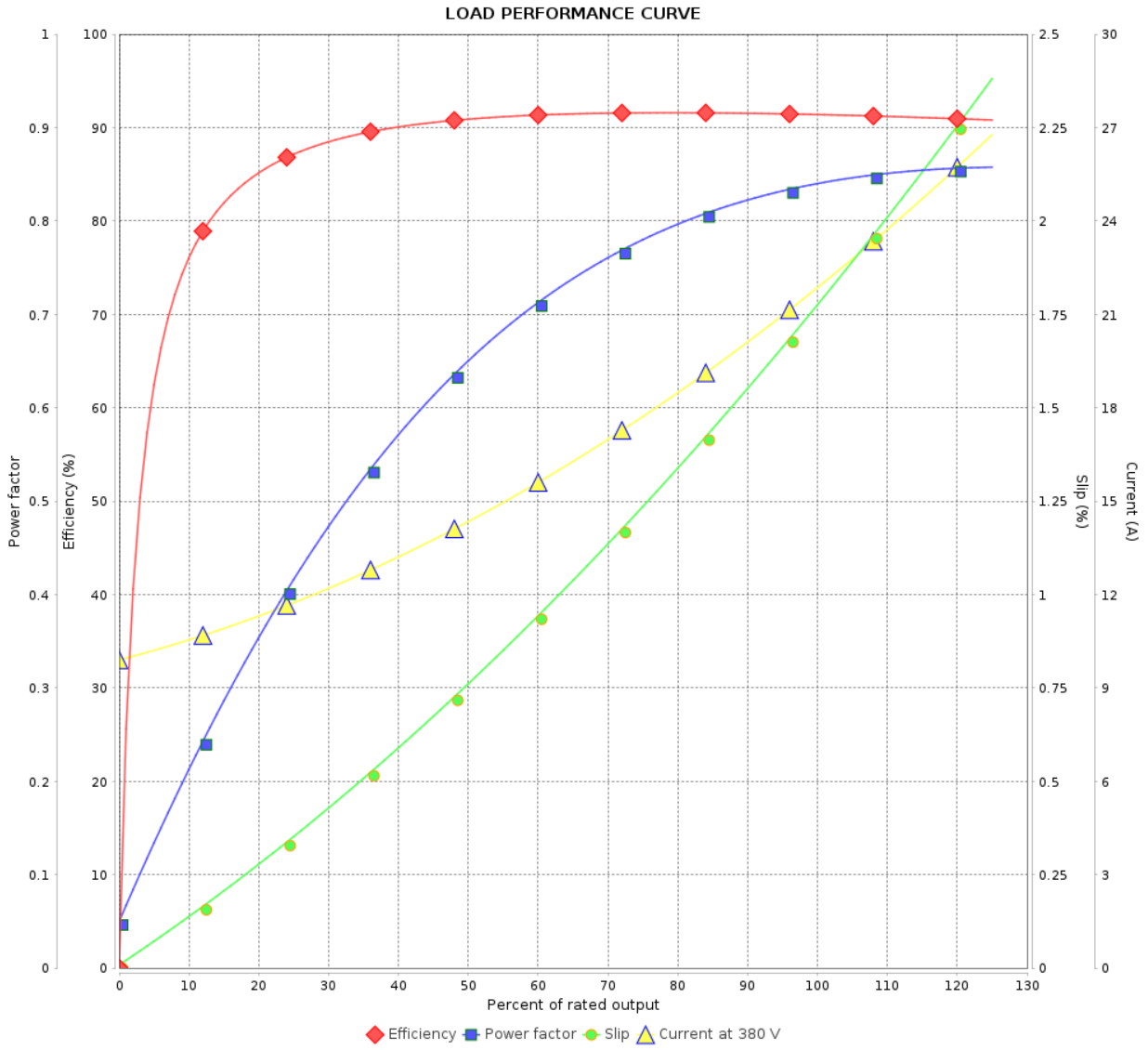
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Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11610485



Performance	: 380 V 50 Hz 4P IE3

Rated current	: 21.8 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 7 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1473 rpm	Design	: B

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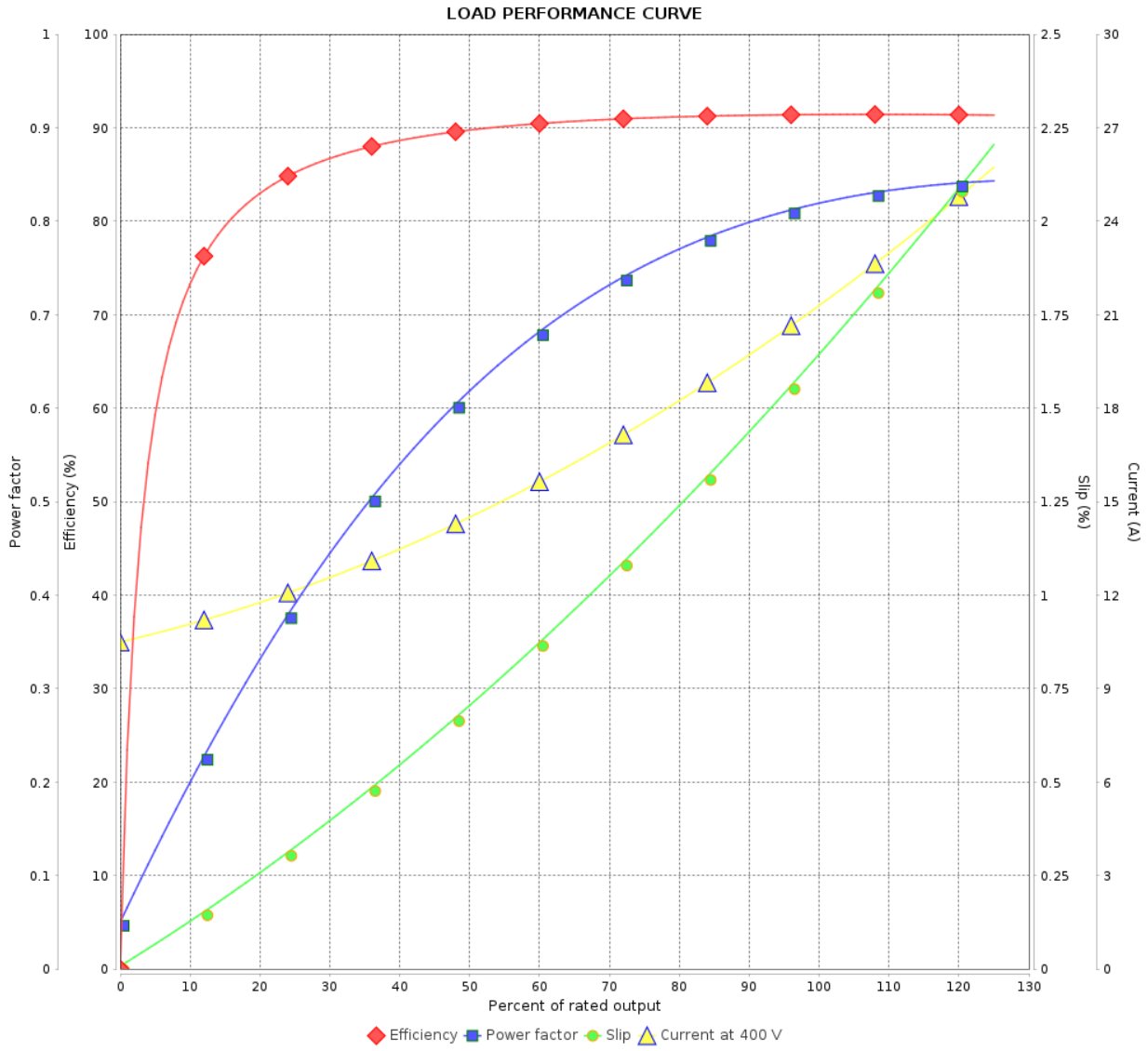
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11610485



Performance	: 400 V 50 Hz 4P IE3		
Rated current	: 21.2 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 7 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

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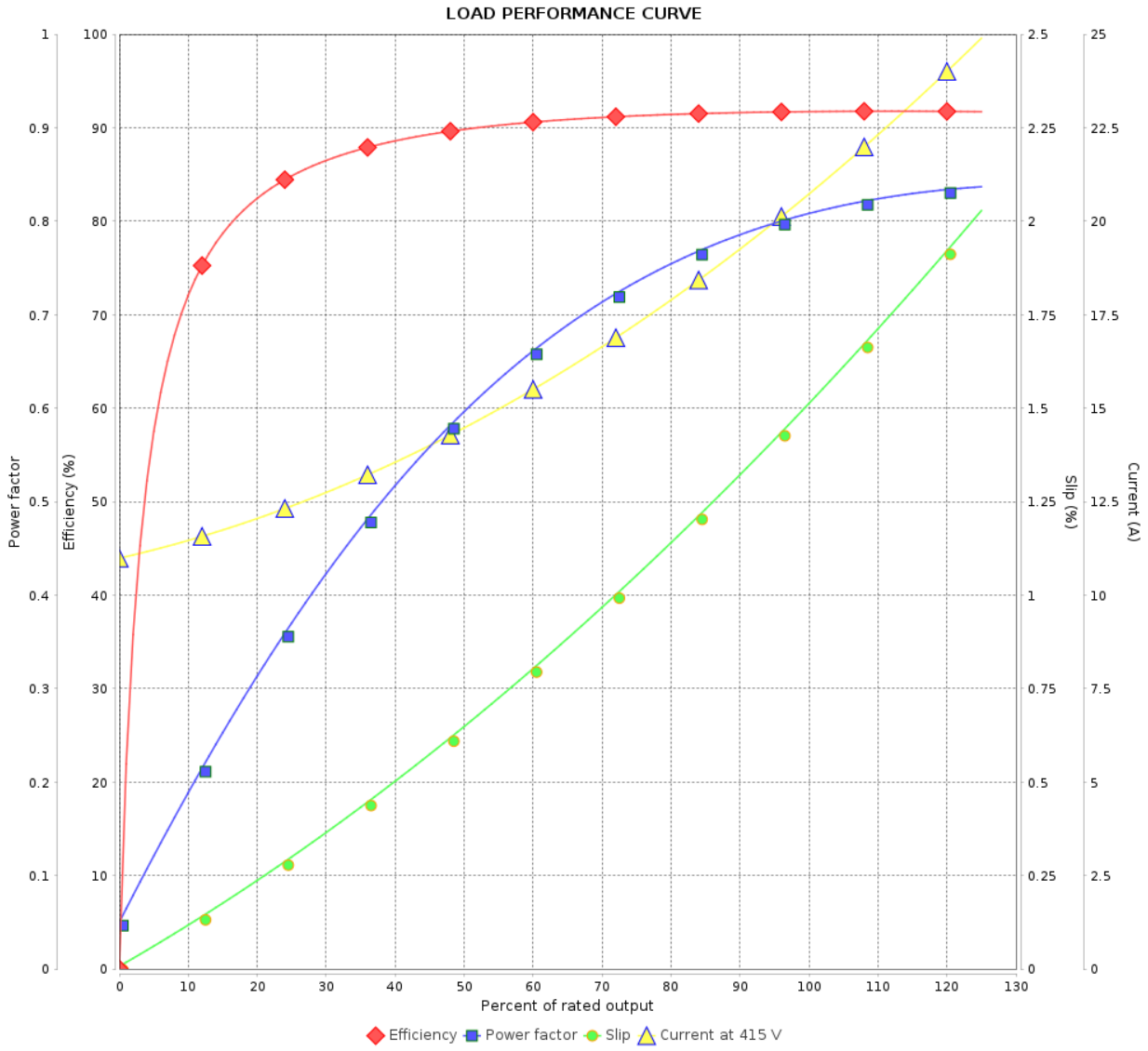
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Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11610485



Performance	: 415 V 50 Hz 4P IE3		
Rated current	: 20.6 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 7 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1477 rpm	Design	: B

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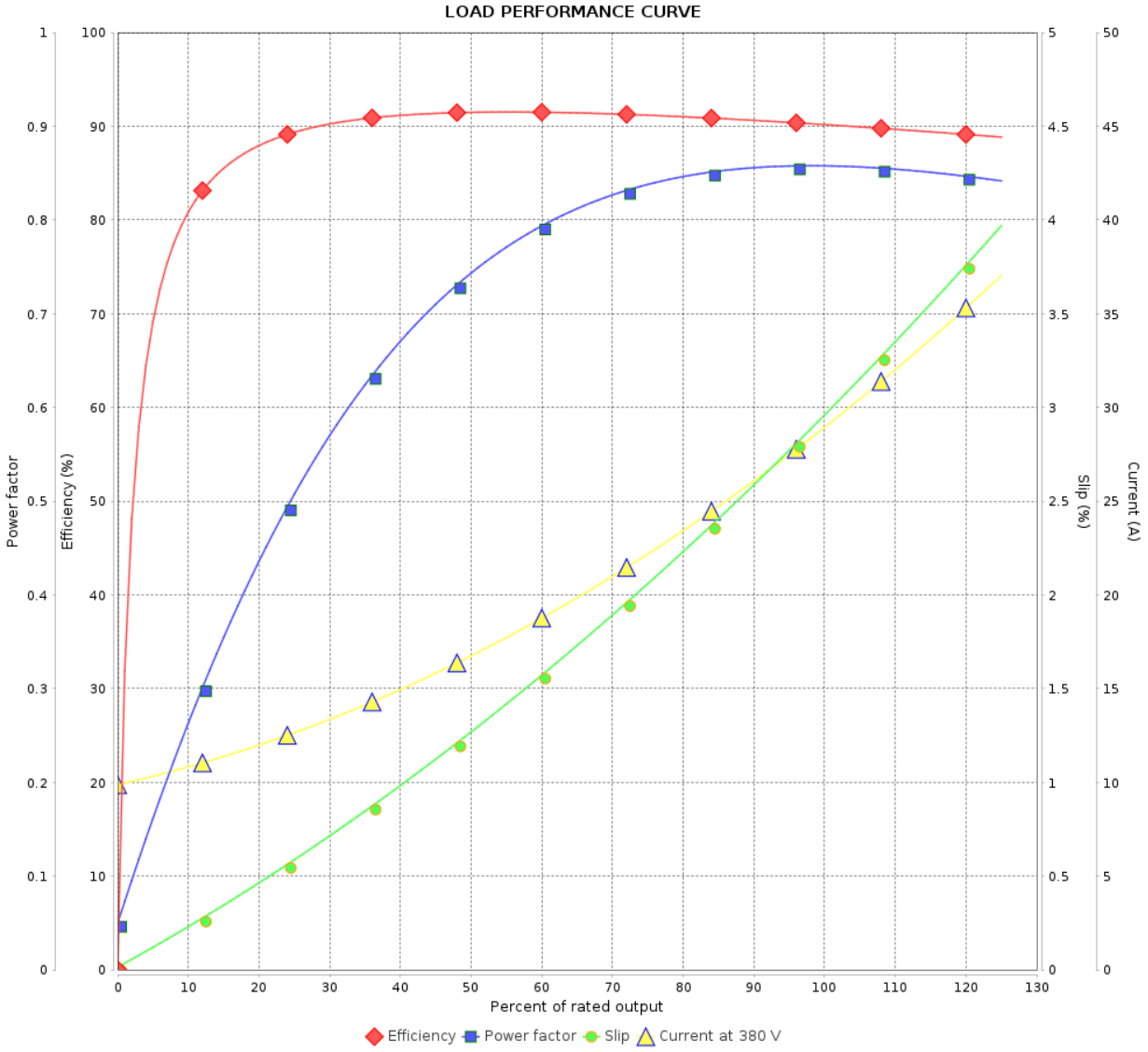
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11610485



Performance	: 380 V 50 Hz 4P IE1		
Rated current	: 29.4 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 9 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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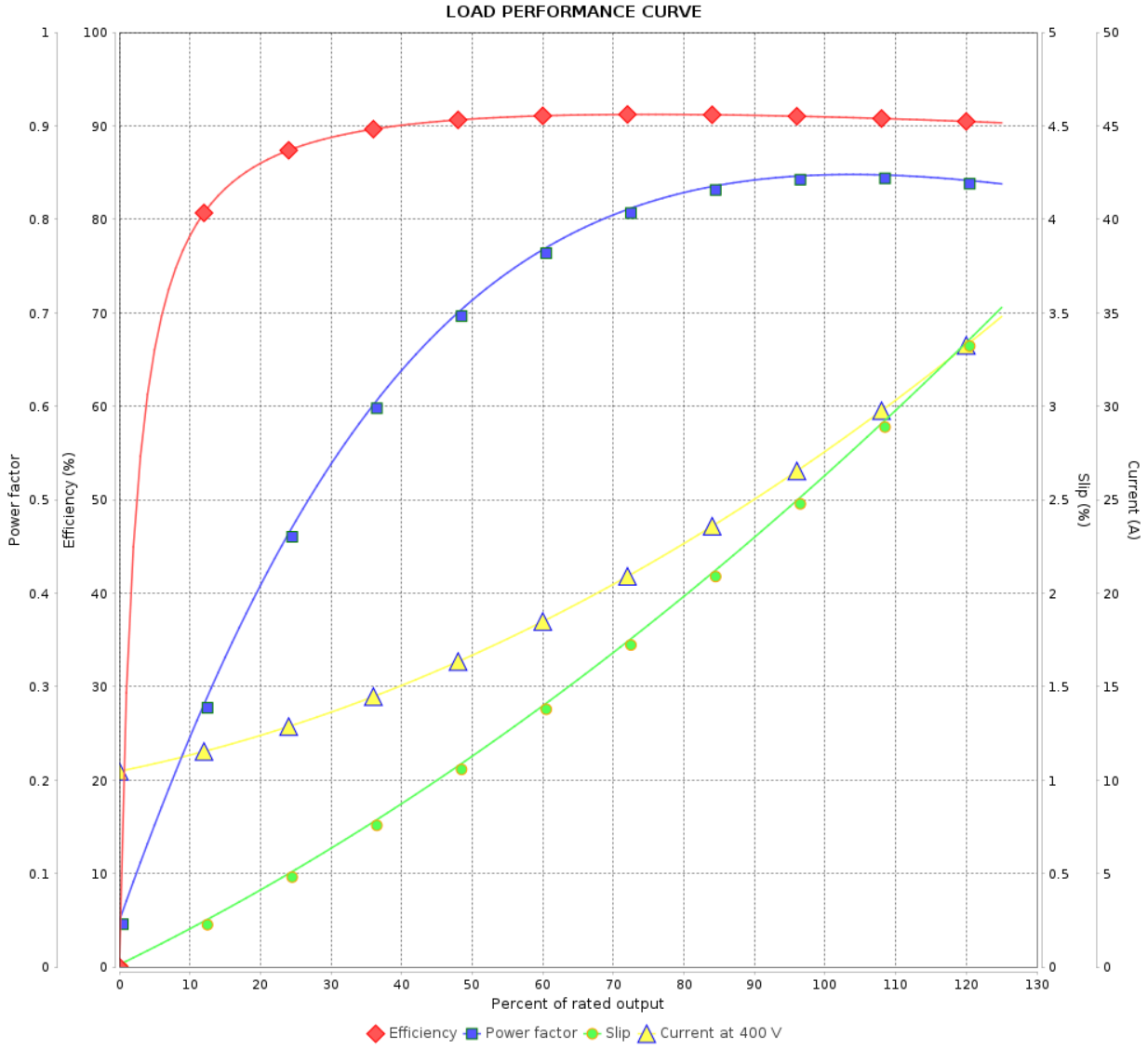
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Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11610485



Performance	: 400 V 50 Hz 4P IE2

Rated current	: 28.0 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 9 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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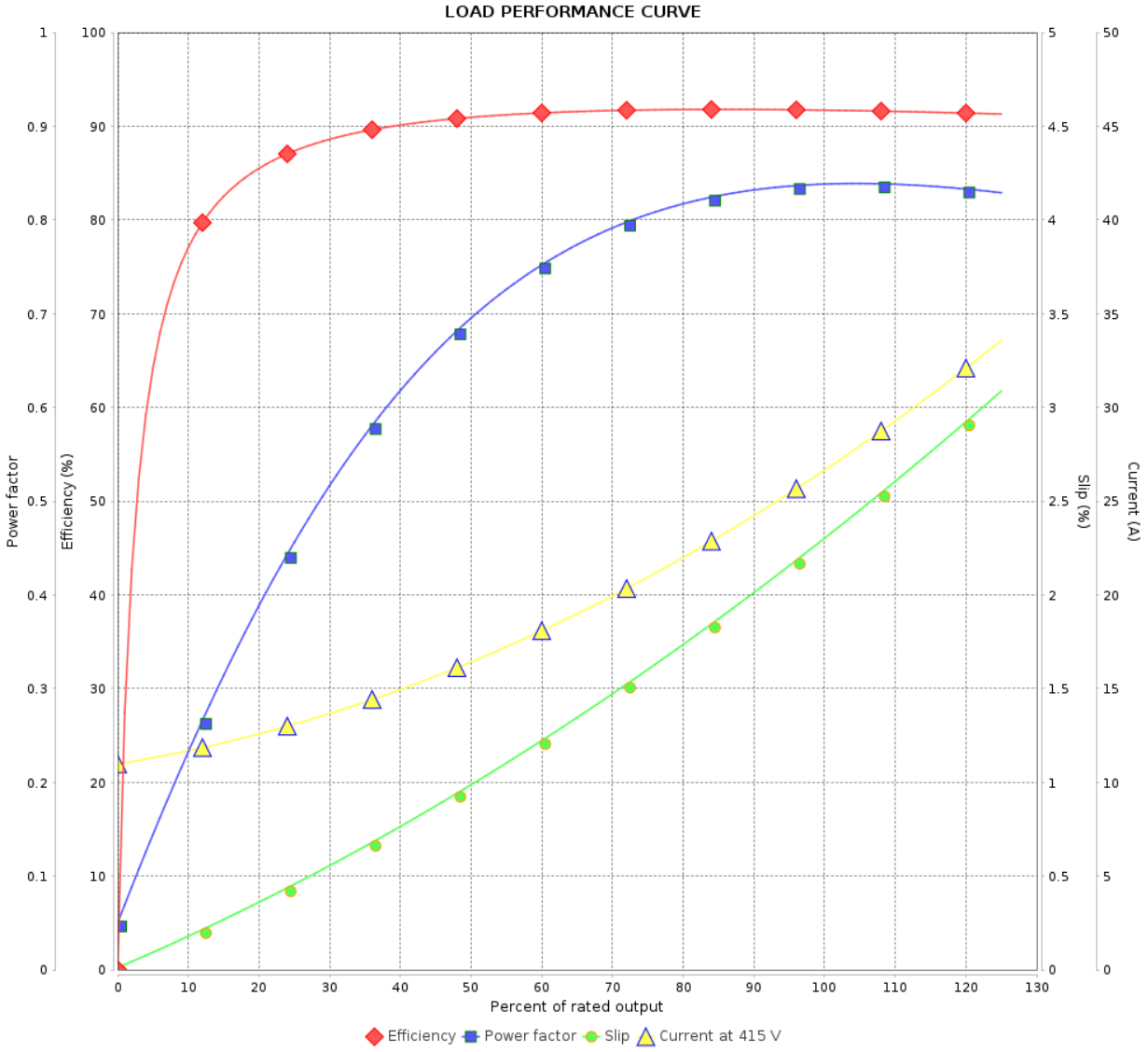
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11610485



Performance	: 415 V 50 Hz 4P IE2		
Rated current	: 27.1 A	Moment of inertia (J)	: 0.1305 kgm²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 9 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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