

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12424297

Frame	: 284/6TS	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	: 178 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.1135 kgm ²
Design	: B		

Output [HP]	25	20	20	20	25	25	25
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	29.1	28.2	27.1	26.7	35.7	33.6	32.5
L. R. Amperes [A]	180	169	179	192	175	185	202
LRC [A]	6.2x(Code G)	6.0x(Code F)	6.6x(Code G)	7.2x(Code H)	4.9x(Code E)	5.5x(Code F)	6.2x(Code G)
No load current [A]	8.20	8.00	8.30	8.90	7.70	8.20	8.70
Rated speed [RPM]	3550	2950	2958	2961	2930	2940	2945
Slip [%]	1.39	1.67	1.40	1.30	2.33	2.00	1.83
Rated torque [kgfm]	5.11	4.92	4.91	4.90	6.19	6.17	6.16
Locked rotor torque [%]	220	200	250	280	180	200	220
Breakdown torque [%]	260	250	280	310	200	200	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	28s (cold) 16s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%						
	50%	91.0	90.8	91.0	91.0	89.0	90.0
	75%	91.7	91.0	91.5	91.5	89.5	90.2
	100%	91.7	91.9	92.0	92.0	89.5	90.2
Power Factor	25%						
	50%	0.78	0.79	0.76	0.74	0.83	0.81
	75%	0.85	0.86	0.84	0.82	0.87	0.87
	100%	0.87	0.88	0.87	0.85	0.88	0.88

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

Losses (%)	P1 (0,9;1,0)	8.4	8.2	8.1	8.1	10.9	10.1	9.2
	P2 (0,5;1,0)	6.4	6.3	6.2	6.2	8.3	7.7	7.0
	P3 (0,25;1,0)	6.1	5.9	5.9	5.9	7.9	7.3	6.7
	P4 (0,9;0,5)	4.3	4.2	4.1	4.1	5.6	5.2	4.7
	P5 (0,5;0,5)	2.5	2.4	2.4	2.4	3.2	3.0	2.7
	P6 (0,5;0,25)	1.6	1.5	1.5	1.5	2.0	1.9	1.7
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	1.2	1.1	1.0

Bearing type	: 6311 C3	Non drive end	6211 C3	Foundation loads	
Sealing	: Inpro/Seal	Inpro/Seal		Max. traction	: 122 kgf
Lubrication interval	: 14000 h	17000 h		Max. compression	: 300 kgf
Lubricant amount	: 18 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.

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Notes

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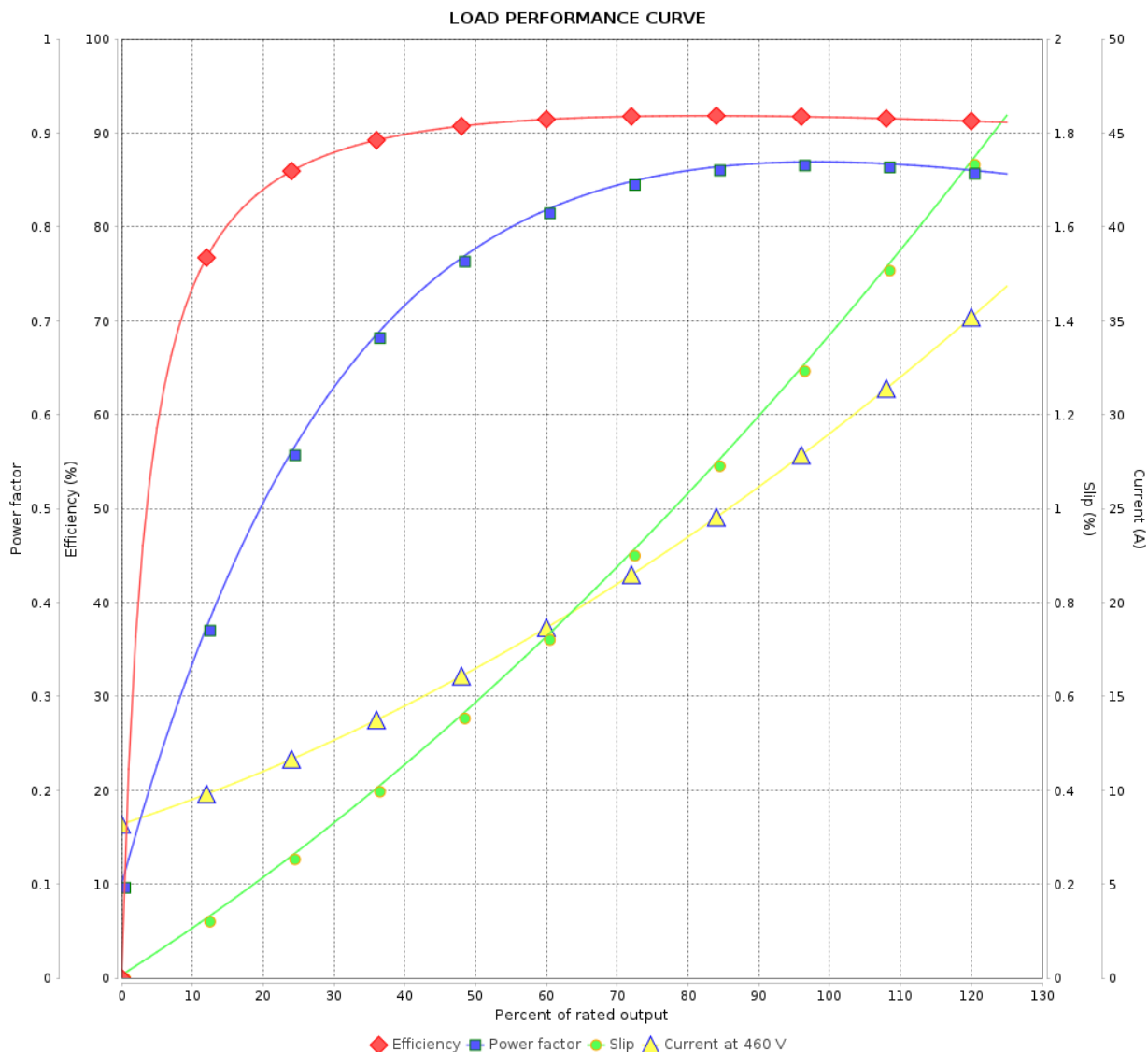
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 12424297



Performance : 460 V 60 Hz 2P

Rated current : 29.1 A
LRC : 6.2
Rated torque : 5.11 kgfm
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 3550 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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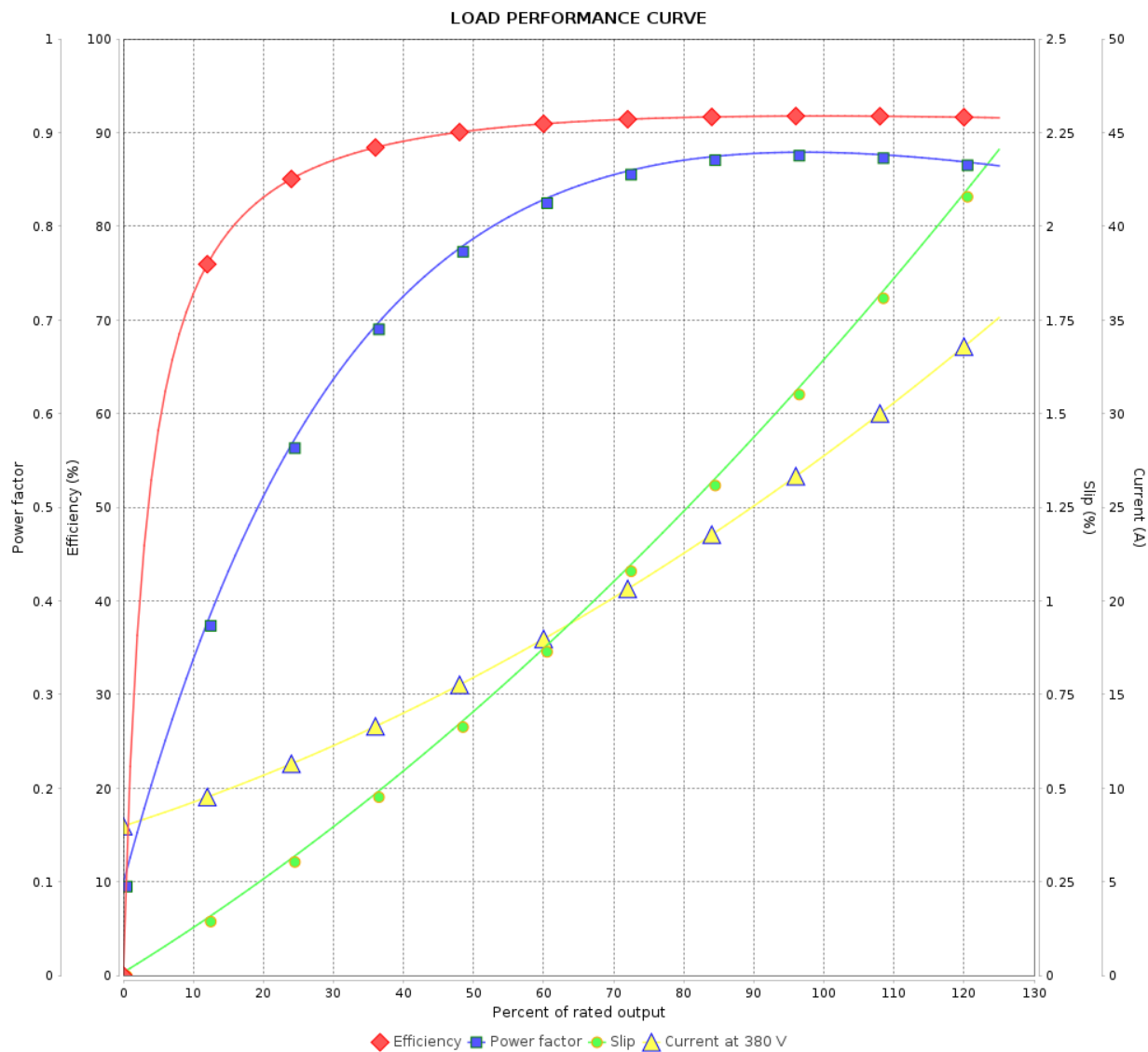
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 12424297



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
LRC : 6.0
Rated torque : 4.92 kgfm
Locked rotor torque : 200 %
Breakdown torque : 250 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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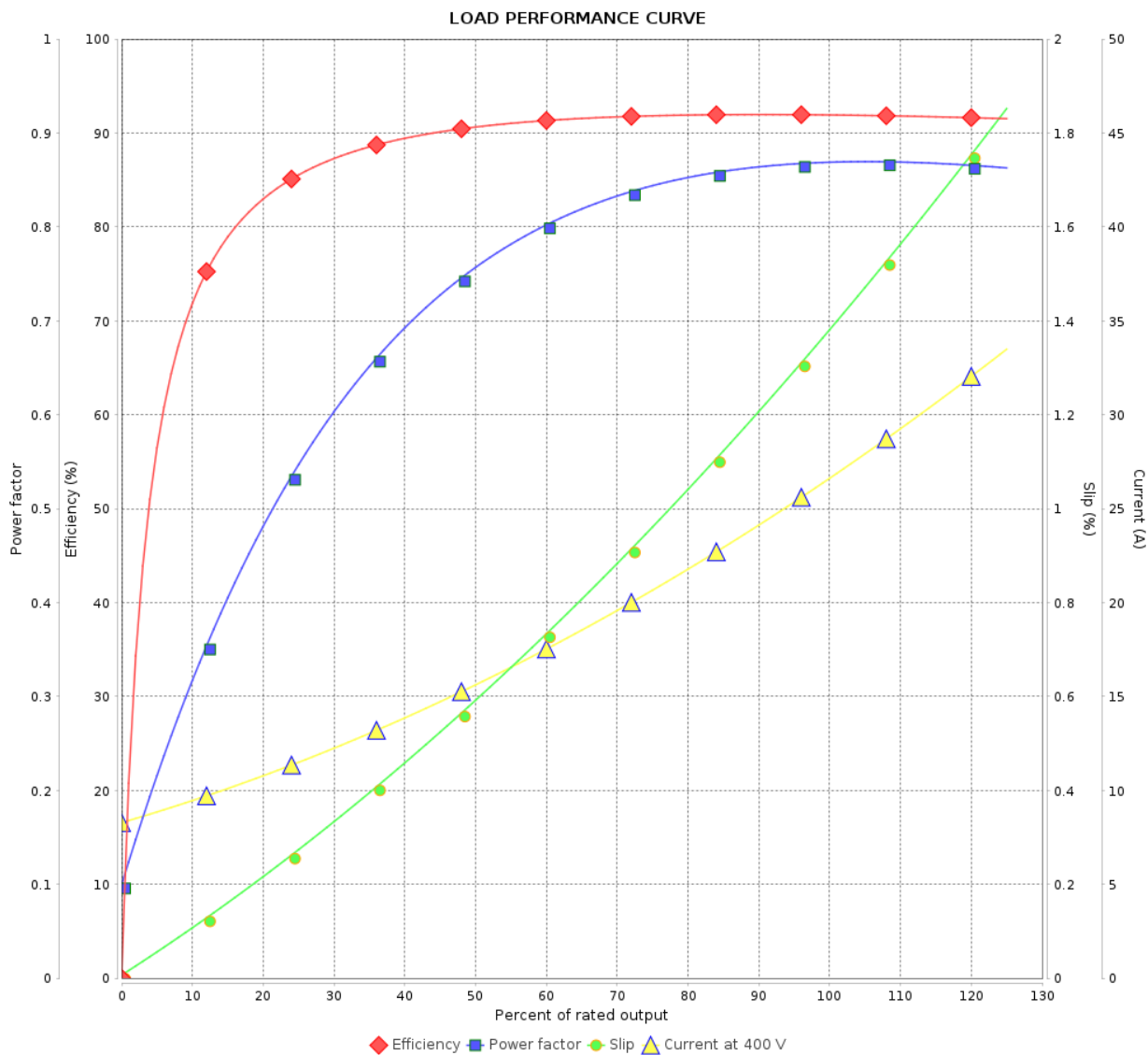
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 12424297



Performance : 400 V 50 Hz 2P IE3

Rated current : 27.1 A
LRC : 6.6
Rated torque : 4.91 kgfm
Locked rotor torque : 250 %
Breakdown torque : 280 %
Rated speed : 2958 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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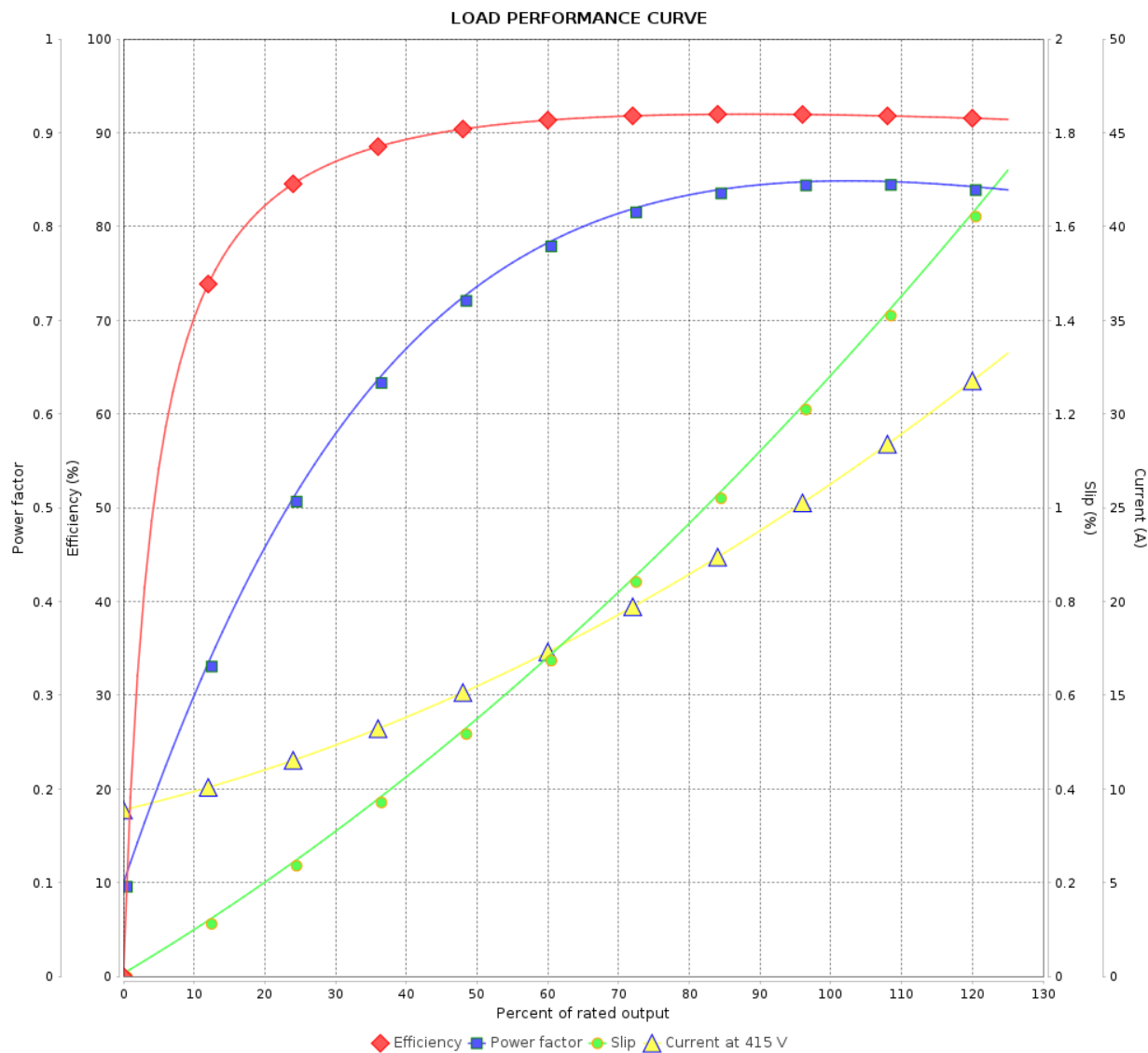
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 12424297



Performance : 415 V 50 Hz 2P IE3

Rated current : 26.7 A
LRC : 7.2
Rated torque : 4.90 kgfm
Locked rotor torque : 280 %
Breakdown torque : 310 %
Rated speed : 2961 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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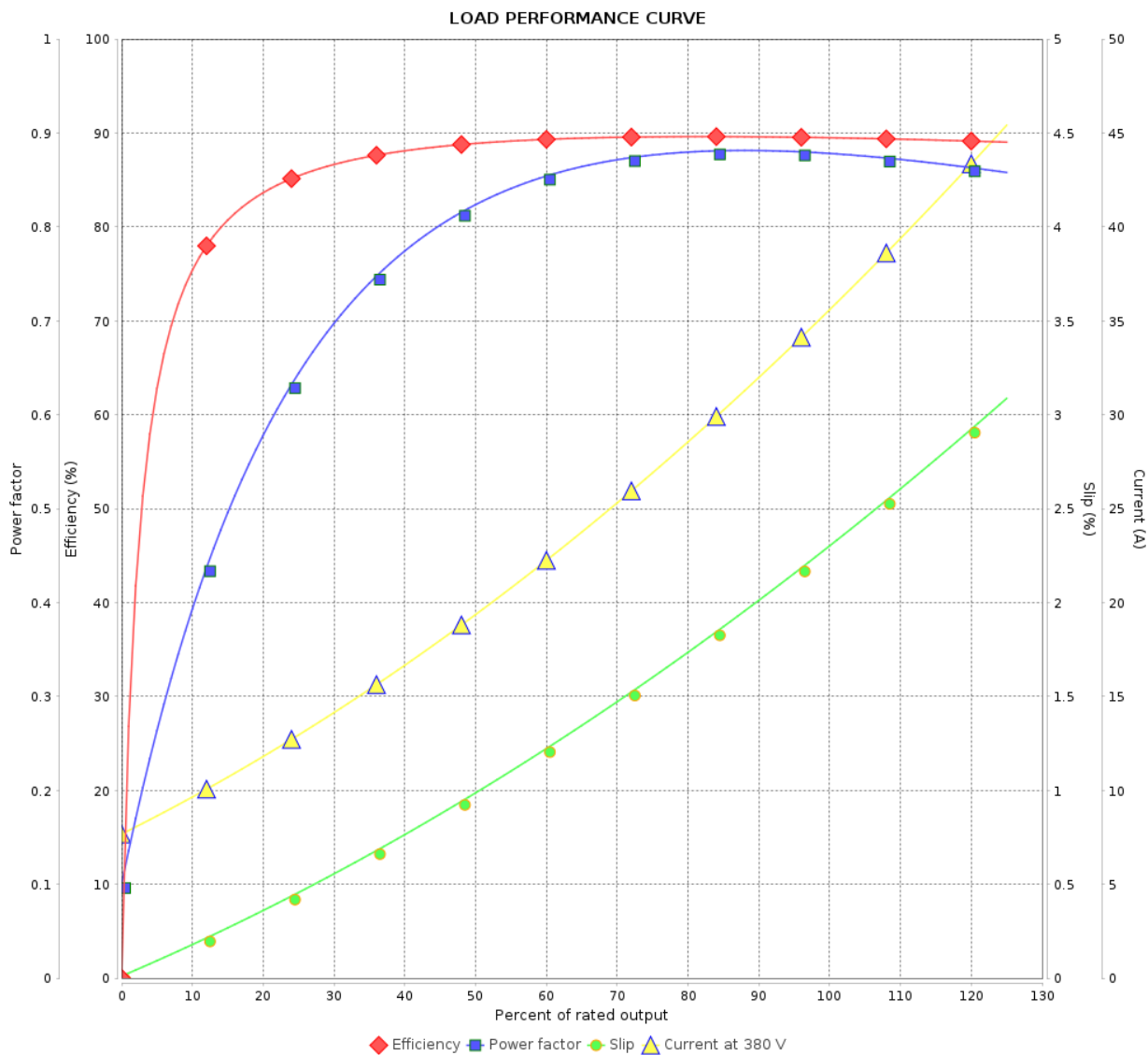
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 12424297



Performance : 380 V 50 Hz 2P IE1

Rated current : 35.7 A
LRC : 4.9
Rated torque : 6.19 kgfm
Locked rotor torque : 180 %
Breakdown torque : 200 %
Rated speed : 2930 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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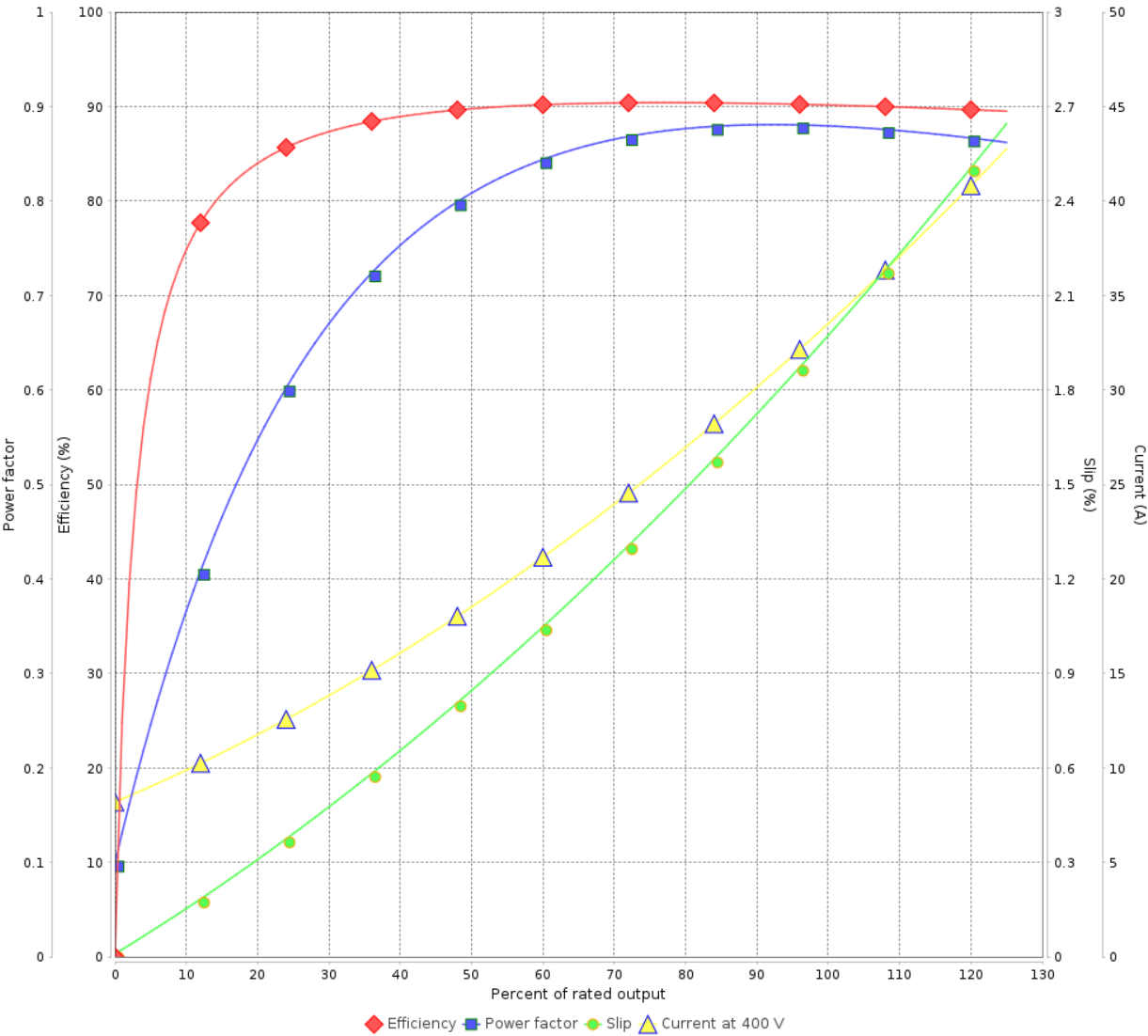
Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 2P IE1			
Rated current	: 33.6 A	Moment of inertia (J)	: 0.1135 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 6.17 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2940 rpm	Design	: B

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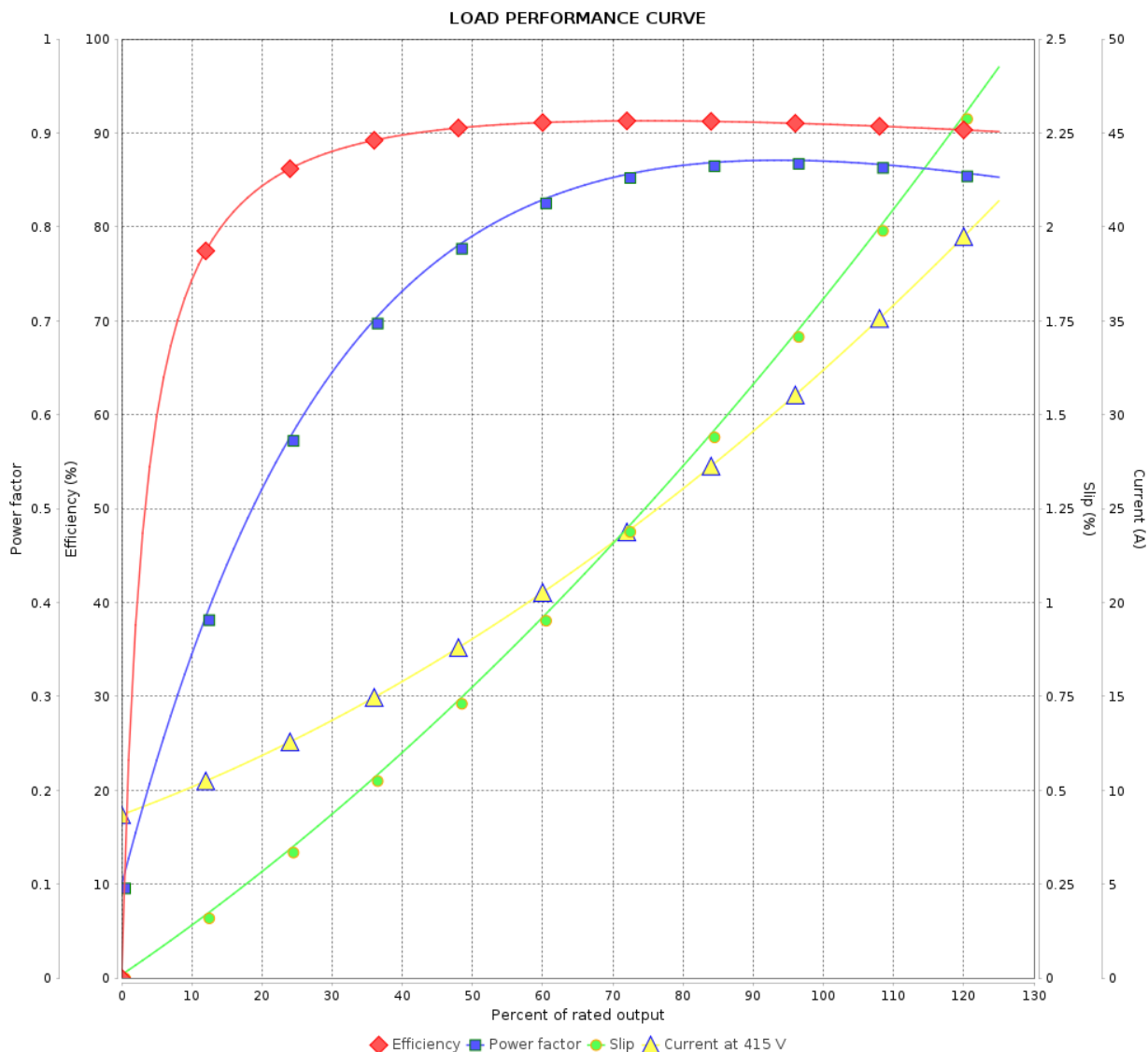
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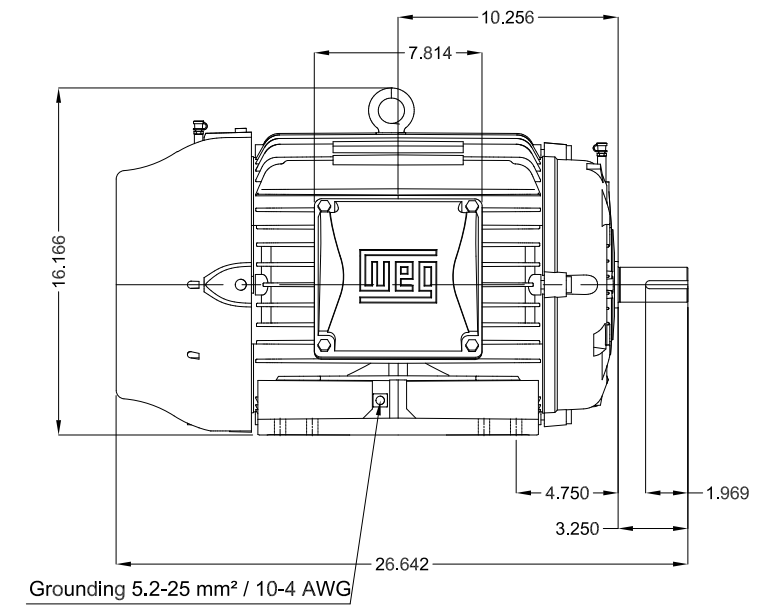
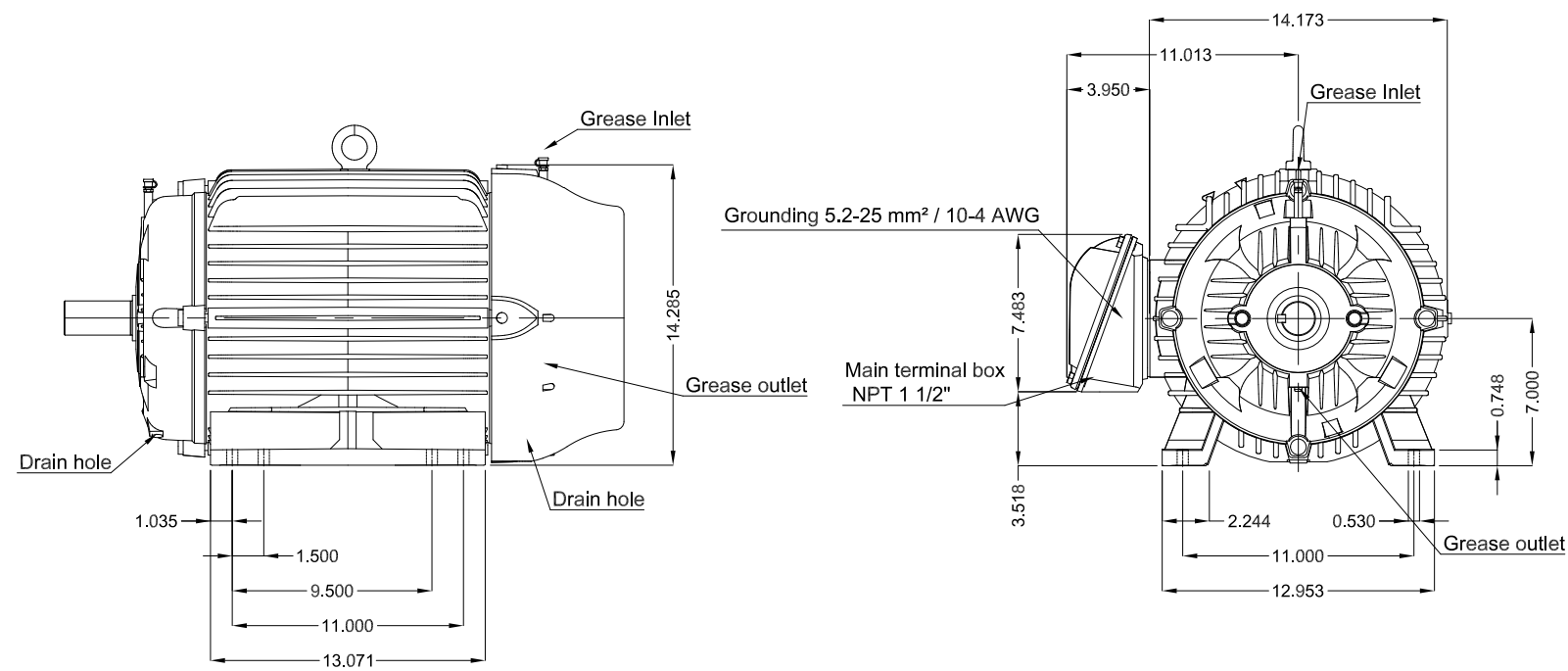


Performance : 415 V 50 Hz 2P IE2

Rated current : 32.5 A
LRC : 6.2
Rated torque : 6.16 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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