

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943462

Frame : 404/5T	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 : 0.0 kg
Protection degree : IP55	Moment of inertia (J) : 1.69 kgm ²
Design : B	

Output [HP]	75	50	50	50	75	75	75
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	84.9	71.7	69.0	68.1	104	99.3	95.7
L. R. Amperes [A]	544	516	545	579	541	556	593
LRC [A]	6.4x(Code G)	7.2x(Code H)	7.9x(Code J)	8.5x(Code K)	5.2x(Code E)	5.6x(Code F)	6.2x(Code G)
No load current [A]	28.0	28.0	30.0	31.0	28.5	30.0	31.0
Rated speed [RPM]	1184	988	989	990	976	980	982
Slip [%]	1.33	1.20	1.10	1.00	2.40	2.00	1.80
Rated torque [kgfm]	46.0	36.7	36.7	36.7	55.8	55.5	55.4
Locked rotor torque [%]	220	229	260	290	150	170	190
Breakdown torque [%]	229	270	300	330	180	200	220
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	30s (cold) 17s (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	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	90.6	91.1	91.0	91.8	92.4
	75%	94.5	91.7	92.3	92.3	92.2	92.8
	100%	94.5	93.3	93.3	93.3	92.4	93.0
Power Factor	25%						
	50%	0.74	0.66	0.62	0.60	0.79	0.76
	75%	0.83	0.79	0.75	0.74	0.85	0.84
	100%	0.86	0.84	0.83	0.81	0.87	0.86

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

Losses (%)	P1 (0,9;1,0)	5.6	6.9	6.9	6.9	8.0	7.3	7.3
	P2 (0,5;1,0)	4.7	5.8	5.8	5.8	6.7	6.1	6.1
	P3 (0,25;1,0)	4.6	5.7	5.7	5.7	6.5	5.9	5.9
	P4 (0,9;0,5)	2.5	3.0	3.0	3.0	3.5	3.2	3.2
	P5 (0,5;0,5)	1.7	2.1	2.1	2.1	2.4	2.2	2.2
	P6 (0,5;0,25)	1.0	1.3	1.3	1.3	1.5	1.3	1.3
	P7 (0,25;0,25)	0.7	0.9	0.9	0.9	1.0	0.9	0.9

Bearing type	: 6316 C3	Non drive end 6314 C3	Foundation loads
Sealing	: Taconite	Taconite	Max. traction : 1201 kgf
	Labyrinth	Labyrinth	Max. compression : 1201 kgf
Lubrication interval	: 16000 h	17000 h	
Lubricant amount	: 34 g	27 g	
Lubricant type	: Mobil Polyrex EM		

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Notes

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.
(2) Measured at 1m and with tolerance of +3dB(A).
(3) Approximate weight subject to changes after manufacturing process.
(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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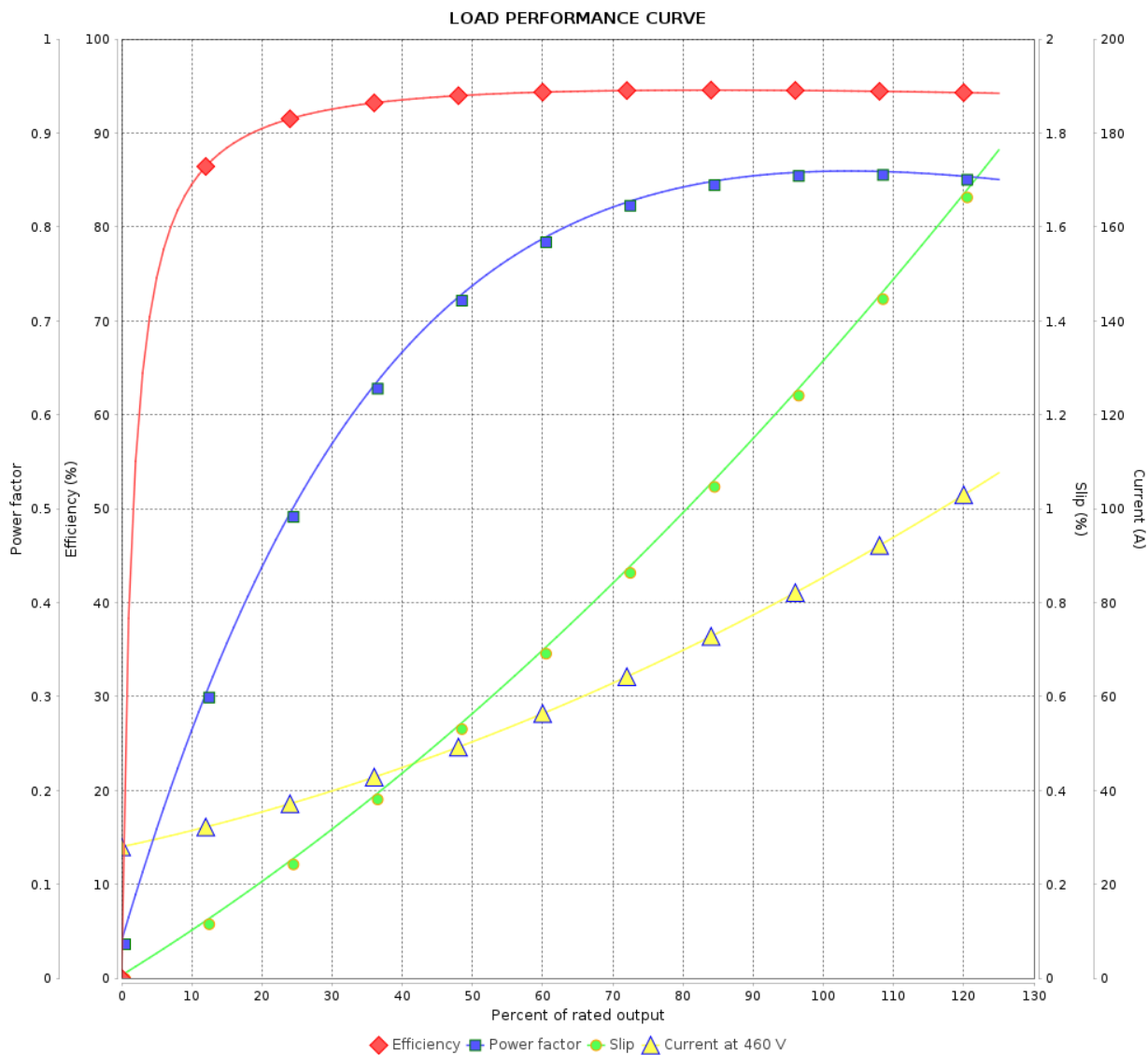
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 460 V 60 Hz 6P

Rated current : 84.9 A
LRC : 6.4
Rated torque : 46.0 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 1184 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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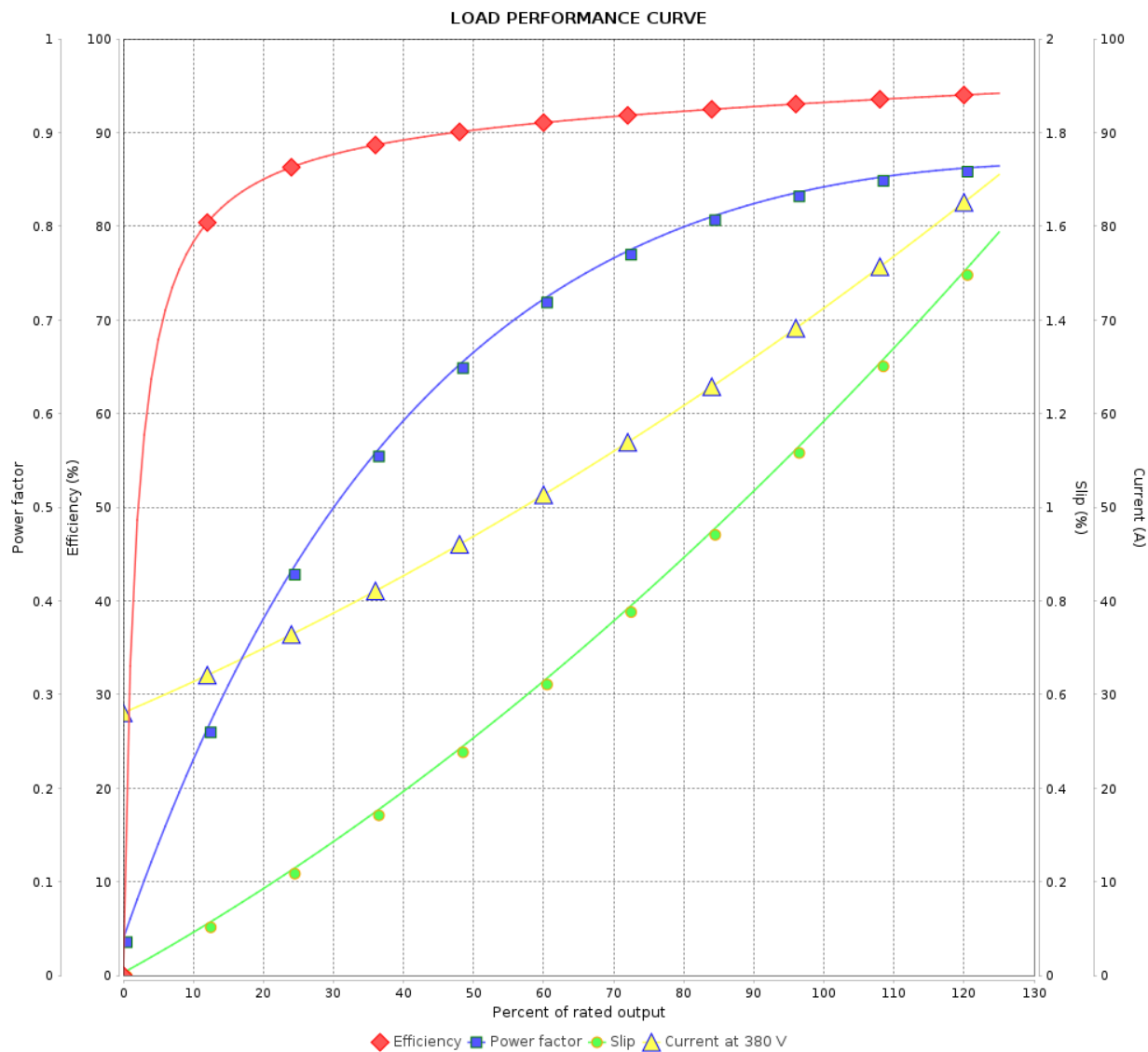
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 380 V 50 Hz 6P IE3

Rated current : 71.7 A
LRC : 7.2
Rated torque : 36.7 kgfm
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 988 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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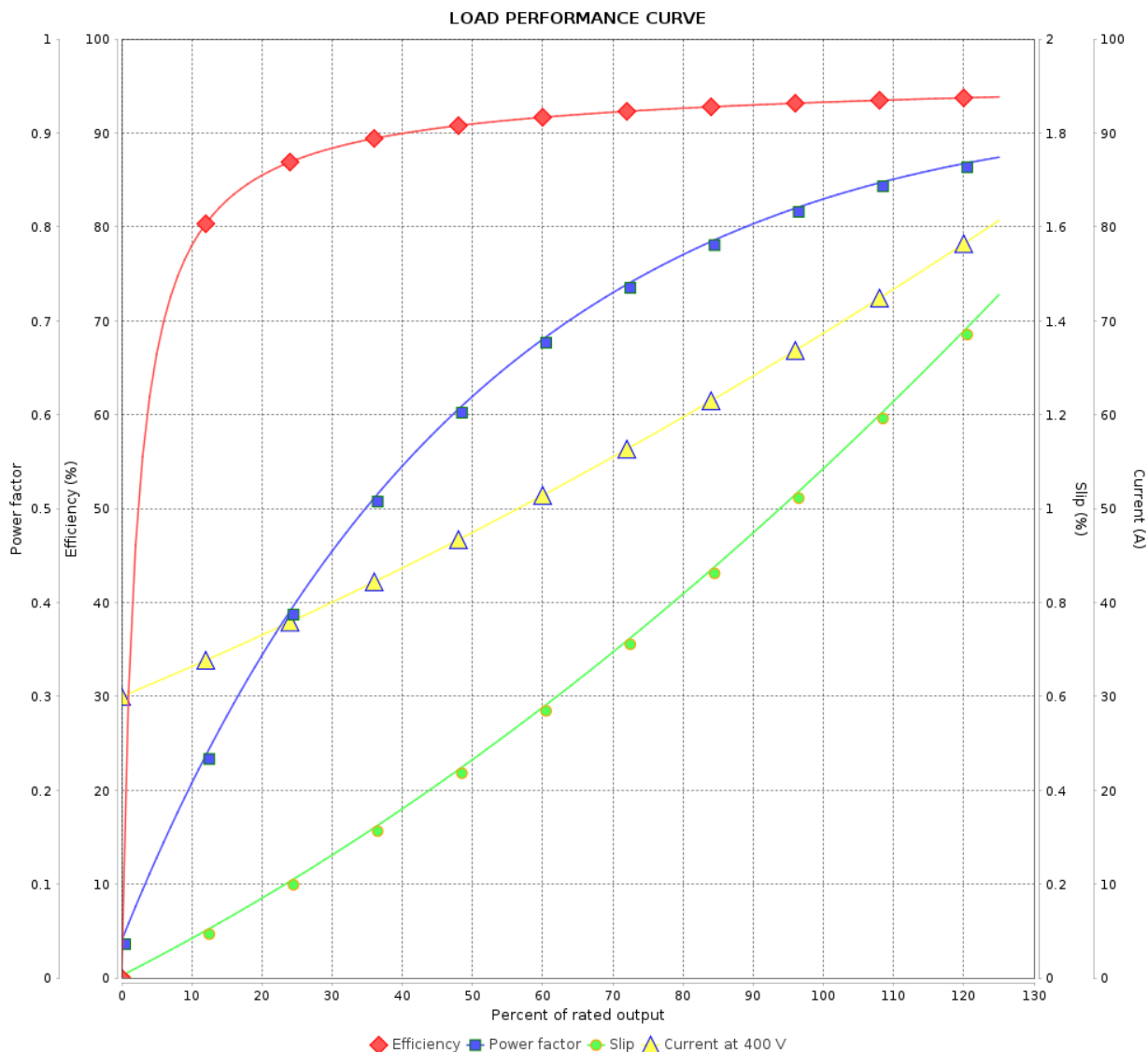
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 400 V 50 Hz 6P IE3

Rated current : 69.0 A
LRC : 7.9
Rated torque : 36.7 kgfm
Locked rotor torque : 260 %
Breakdown torque : 300 %
Rated speed : 989 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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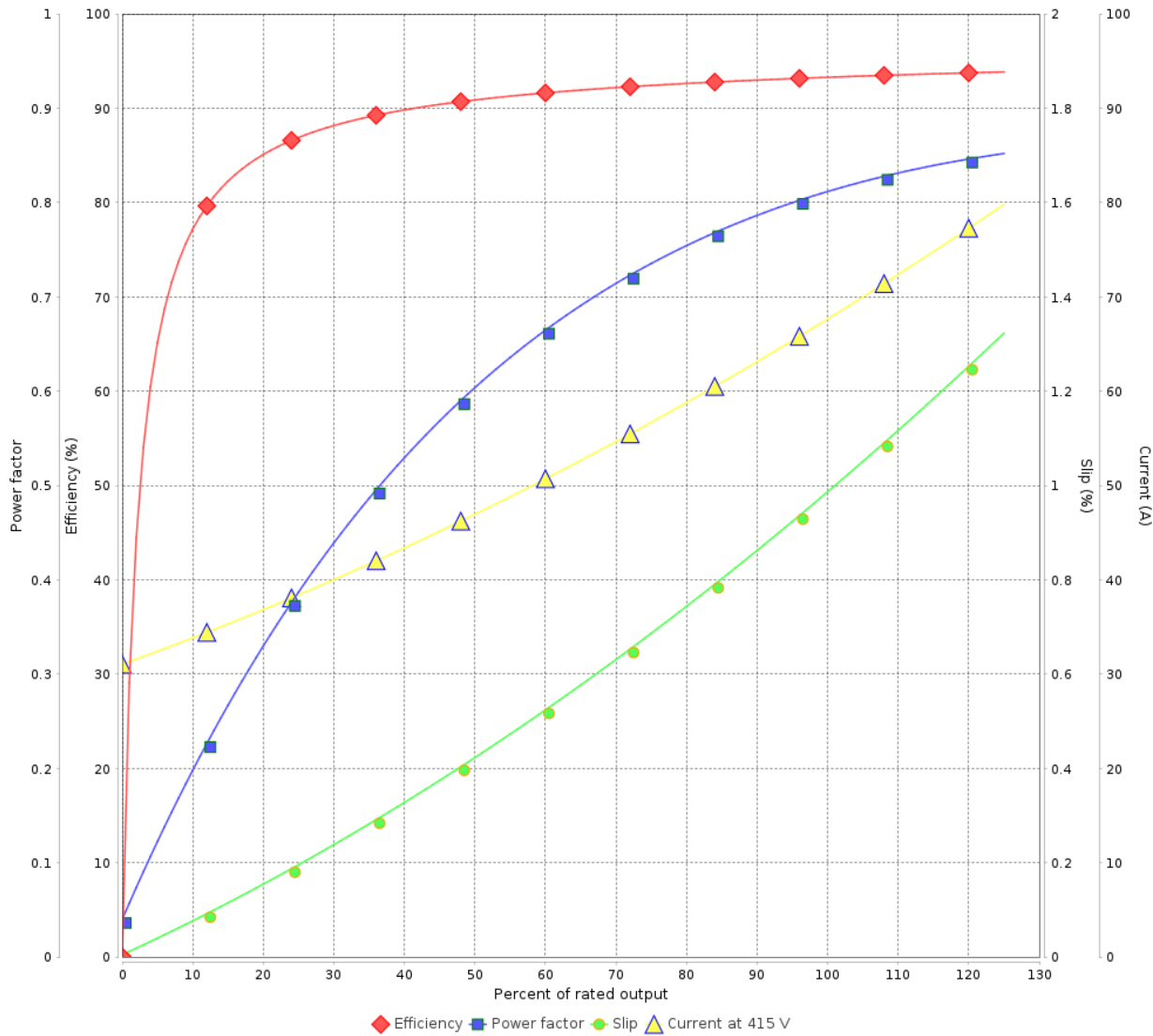
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 6P IE3			
Rated current	: 68.1 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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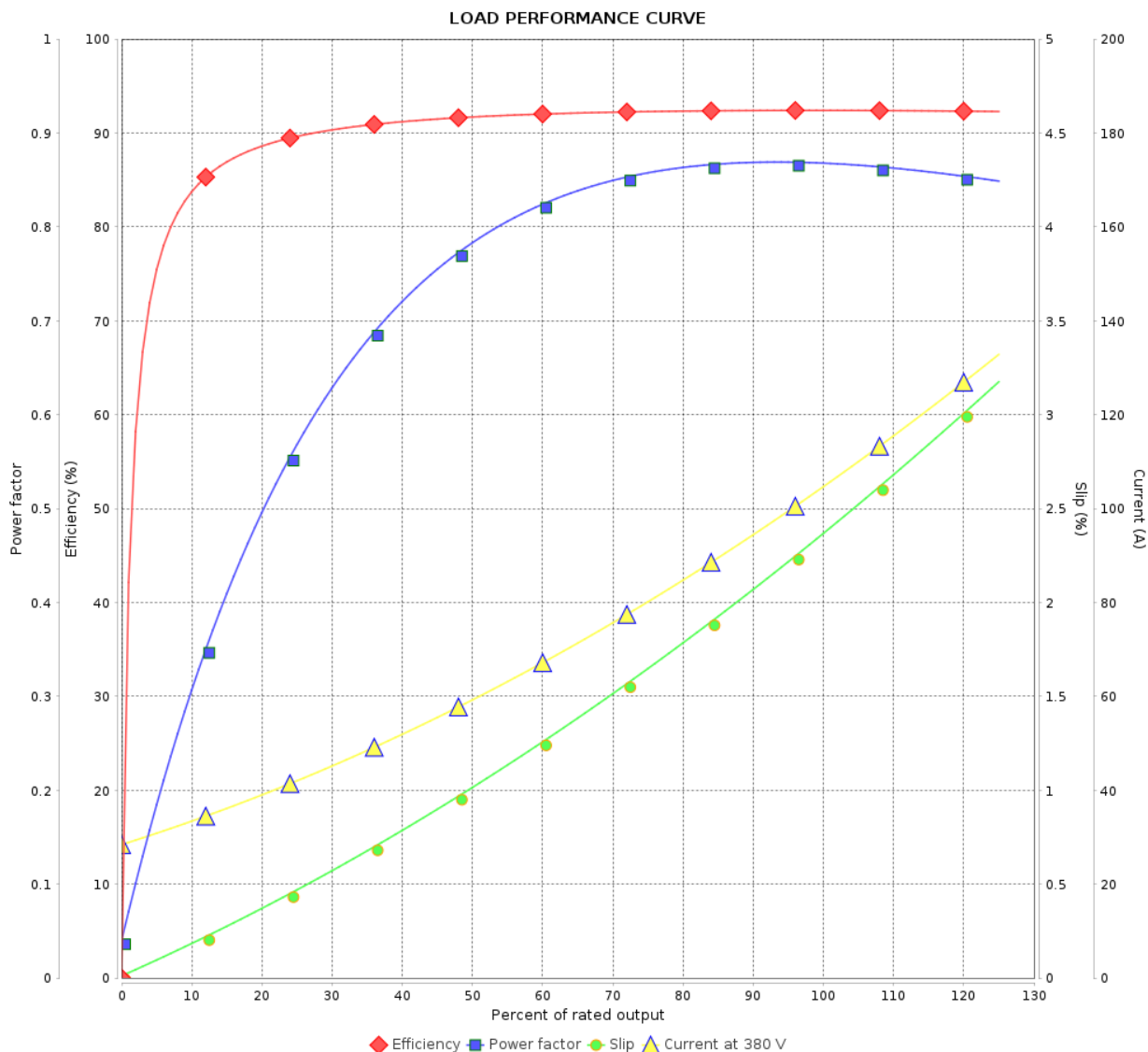
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 380 V 50 Hz 6P IE1

Rated current : 104 A
LRC : 5.2
Rated torque : 55.8 kgfm
Locked rotor torque : 150 %
Breakdown torque : 180 %
Rated speed : 976 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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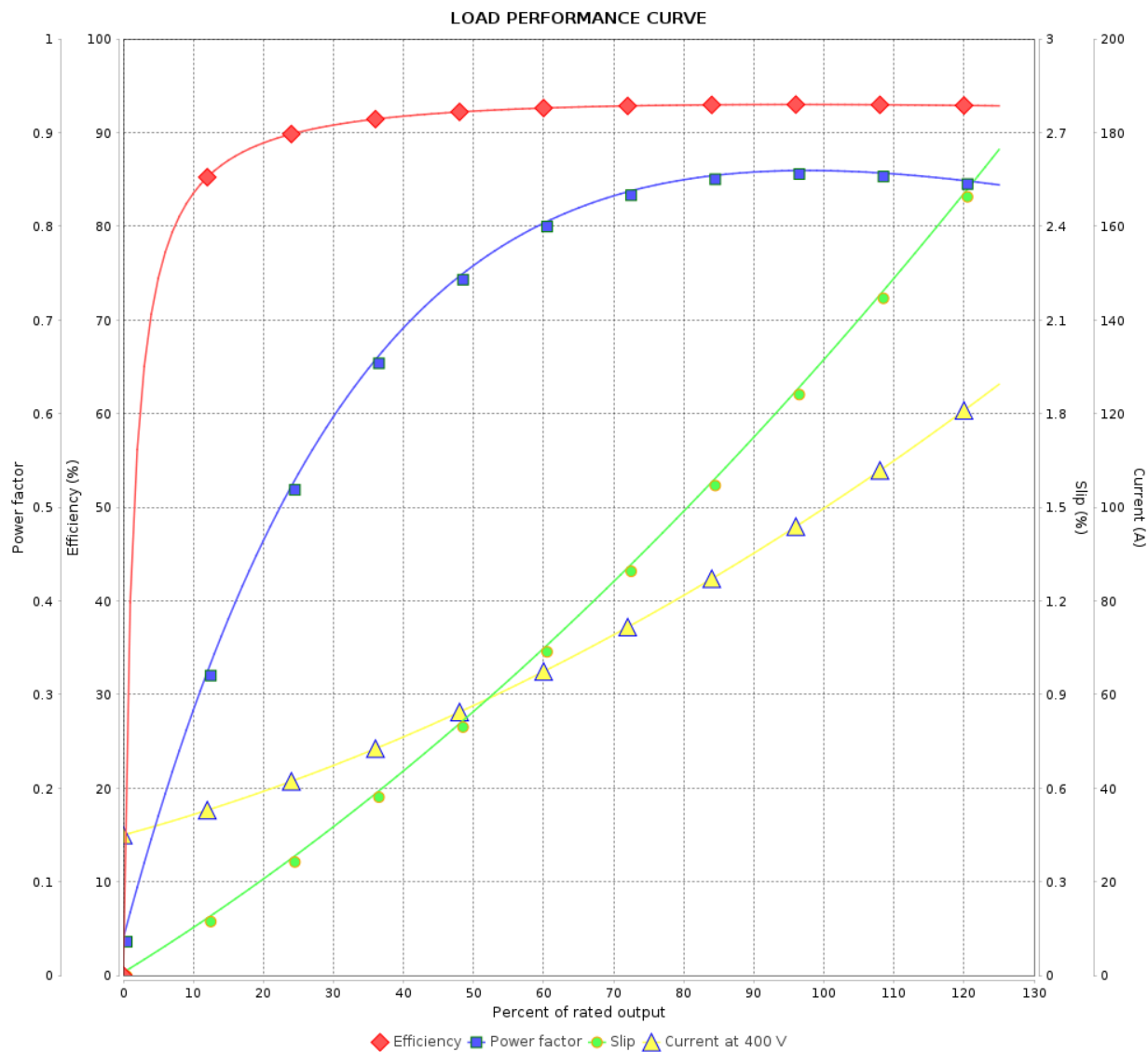
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 11943462



Performance : 400 V 50 Hz 6P IE1

Rated current : 99.3 A
LRC : 5.6
Rated torque : 55.5 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 980 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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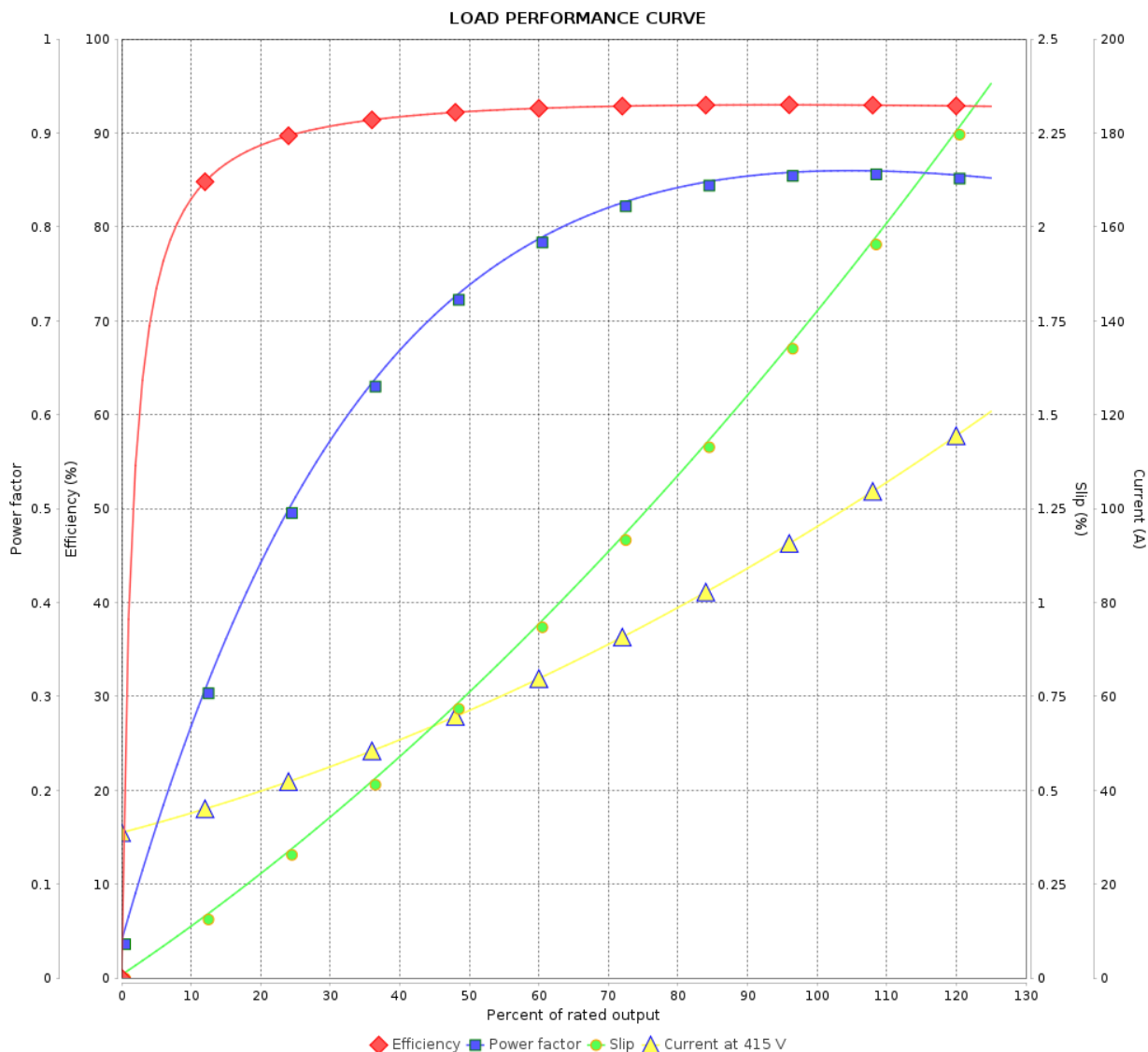
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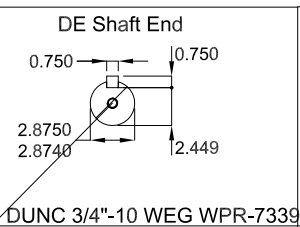
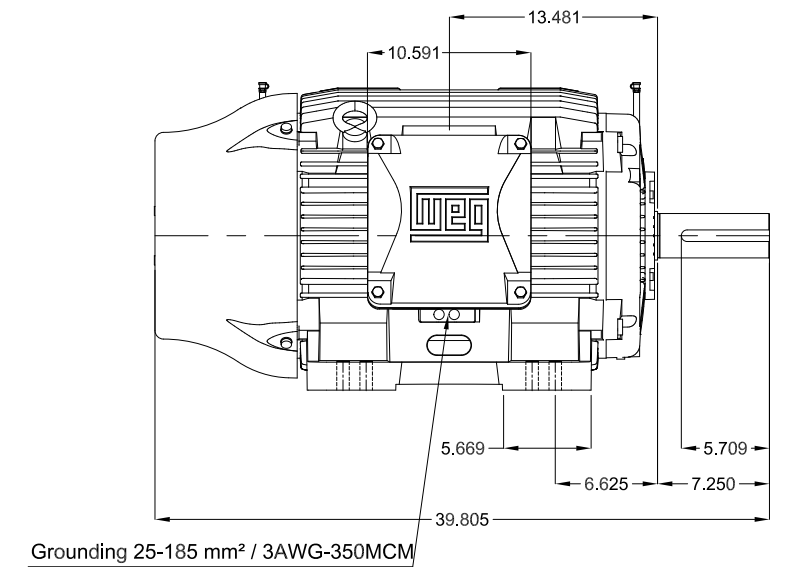
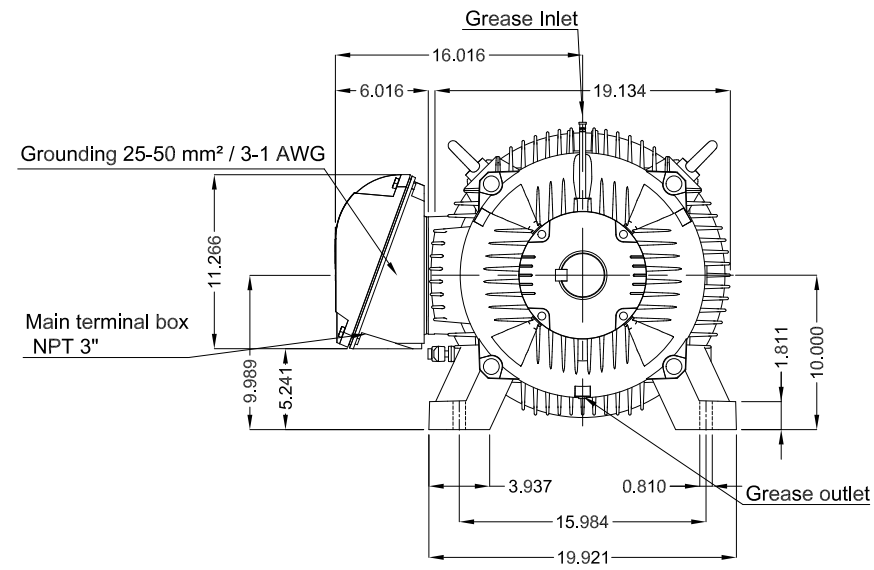
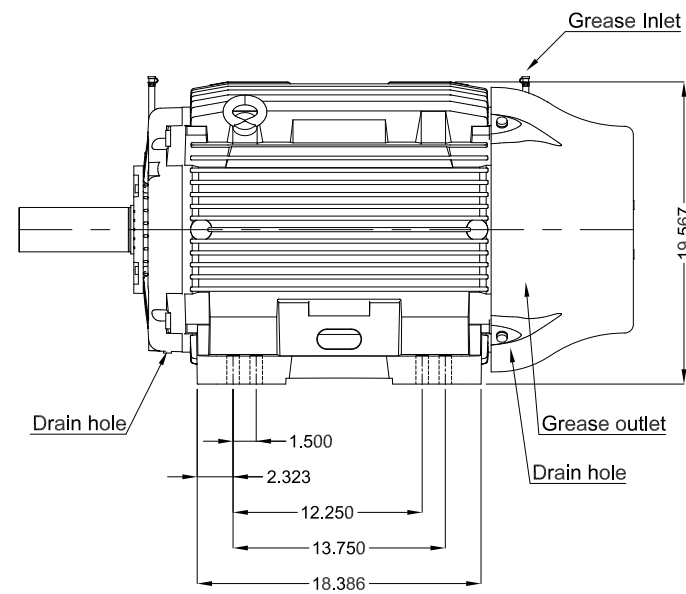


Performance : 415 V 50 Hz 6P IE1

Rated current : 95.7 A
LRC : 6.2
Rated torque : 55.4 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 982 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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