

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943603

Frame	: 444/5T	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)	: 3.68 kgm ²
Design	: B		

Output [HP]	100	75	75	75	100	100	100
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	127	118	116	115	152	147	144
L. R. Amperes [A]	762	717	778	806	714	779	806
LRC [A]	6.0x(Code G)	6.1x(Code G)	6.7x(Code J)	7.0x(Code J)	4.7x(Code E)	5.3x(Code F)	5.6x(Code G)
No load current [A]	56.0	55.0	61.0	67.0	55.0	61.0	67.0
Rated speed [RPM]	890	740	740	740	735	740	740
Slip [%]	1.11	1.33	1.33	1.33	2.00	1.33	1.33
Rated torque [kgfm]	81.5	73.6	73.6	73.6	98.7	98.1	98.1
Locked rotor torque [%]	190	200	229	250	150	170	190
Breakdown torque [%]	220	229	270	290	170	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	27s (cold) 15s (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	63.0 dB(A)	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)
Efficiency (%)	25%						
	50%	93.6	92.9	91.9	91.2	93.6	92.4
	75%	94.1	93.4	93.0	92.6	93.0	93.0
	100%	94.1	93.2	93.2	93.1	92.4	93.0
Power Factor	25%						
	50%	0.63	0.59	0.55	0.51	0.69	0.61
	75%	0.74	0.72	0.68	0.65	0.78	0.73
	100%	0.79	0.78	0.75	0.73	0.81	0.78

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

Losses (%)	P1 (0,9;1,0)	6.1	6.1	6.1	6.1	6.1	6.1
	P2 (0,5;1,0)	4.9	4.9	4.9	4.9	4.9	4.9
	P3 (0,25;1,0)	4.4	4.4	4.4	4.4	4.4	4.4
	P4 (0,9;0,5)	3.0	3.0	3.0	3.0	3.0	3.0
	P5 (0,5;0,5)	2.0	2.0	2.0	2.0	2.0	2.0
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4	1.4	1.4
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9

Bearing type	: 6319 C3	Non drive end	6316 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 1887 kgf
	: Labyrinth		Labyrinth	Max. compression	: 1887 kgf
Lubrication interval	: 17000 h		20000 h		
Lubricant amount	: 45 g		34 g		
Lubricant type	: Mobil Polyrex EM				

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Customer :

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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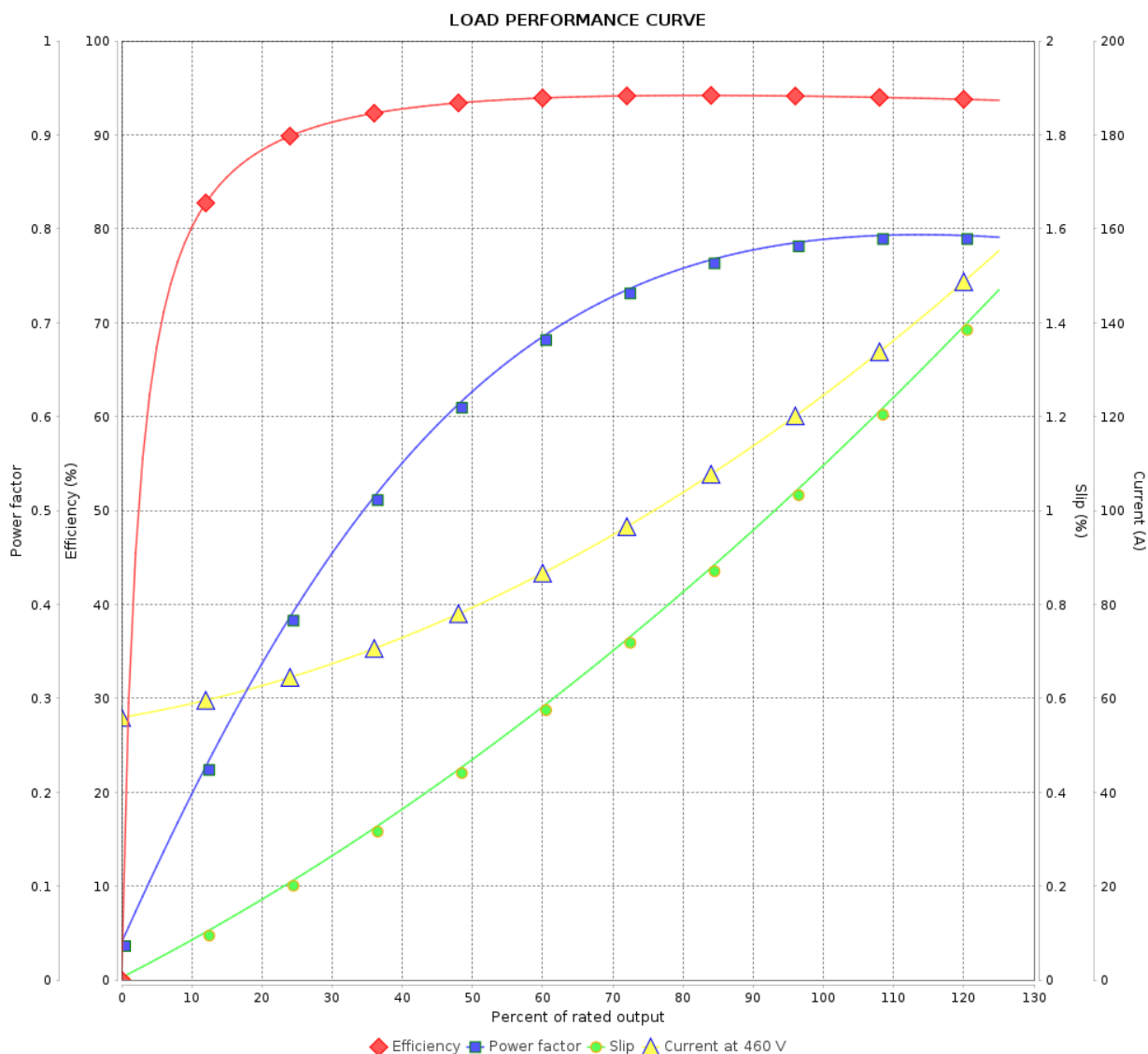
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943603



Performance : 460 V 60 Hz 8P

Rated current : 127 A
LRC : 6.0
Rated torque : 81.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 890 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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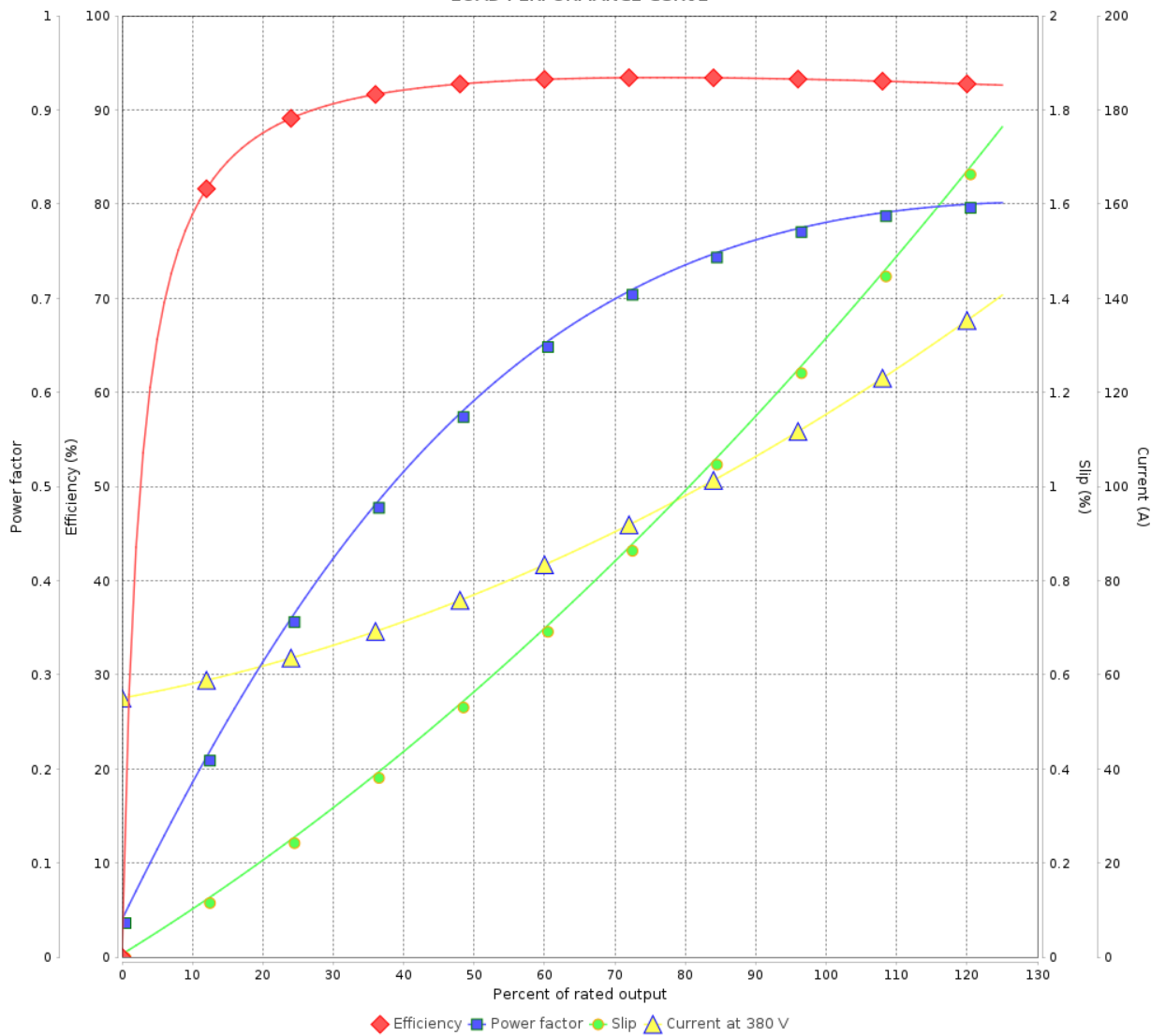
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Product code : 11943603
Efficiency Three-Phase

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Performance : 380 V 50 Hz 8P IE3			
Rated current	: 118 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 73.6 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: B

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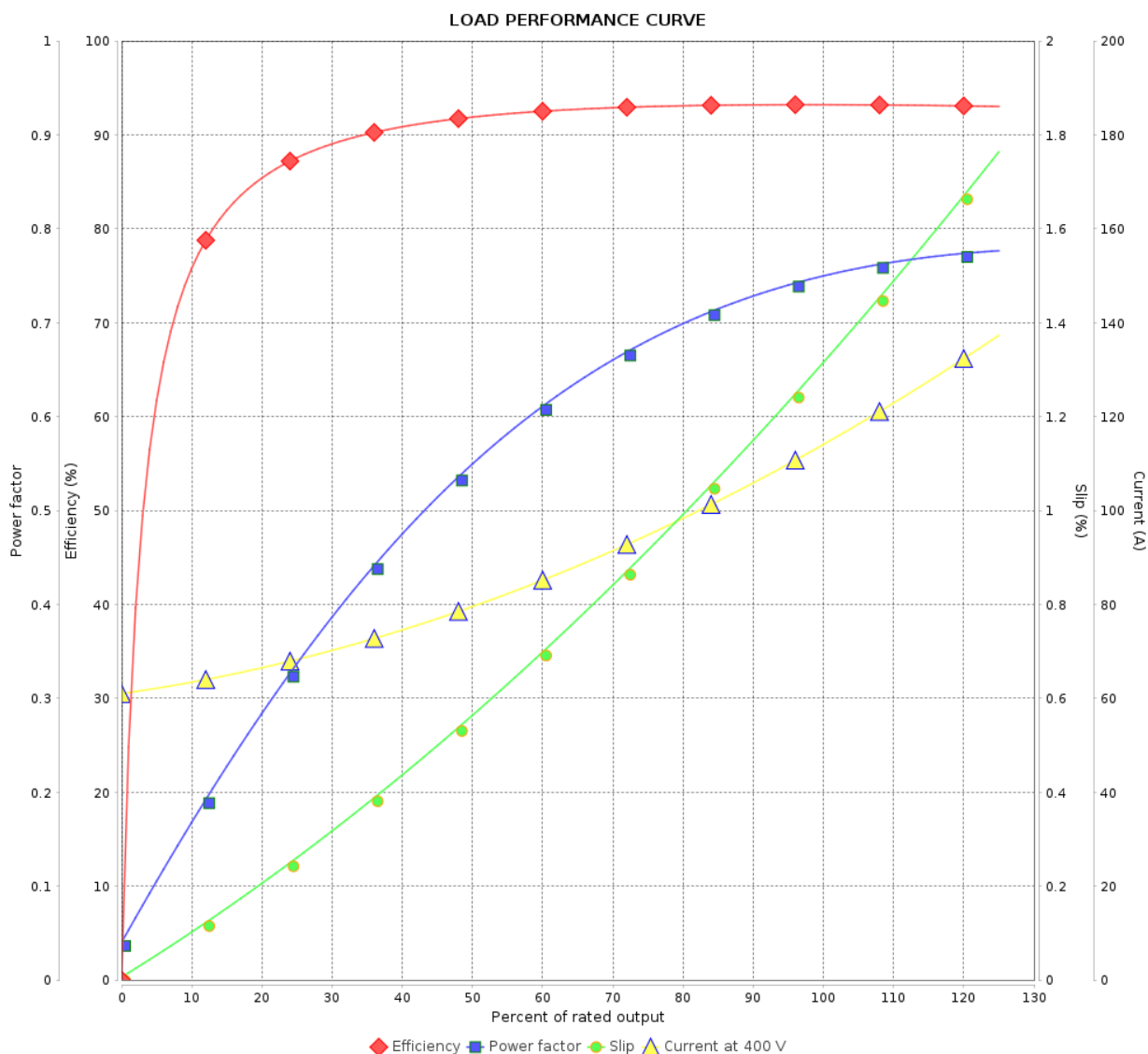
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943603



Performance : 400 V 50 Hz 8P IE3

Rated current : 116 A
LRC : 6.7
Rated torque : 73.6 kgfm
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 740 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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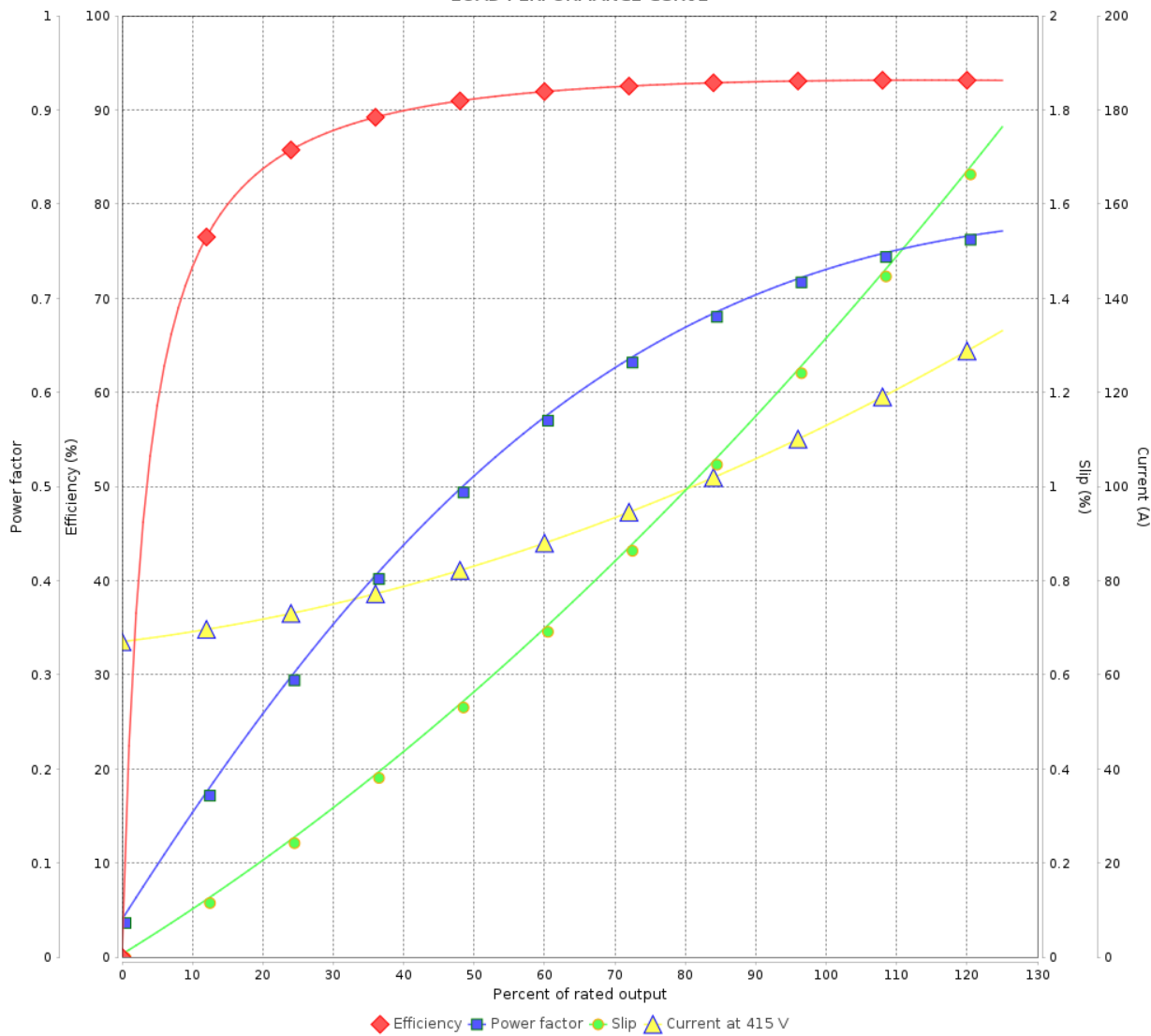
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 8P IE3			
Rated current	: 115 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 73.6 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: B

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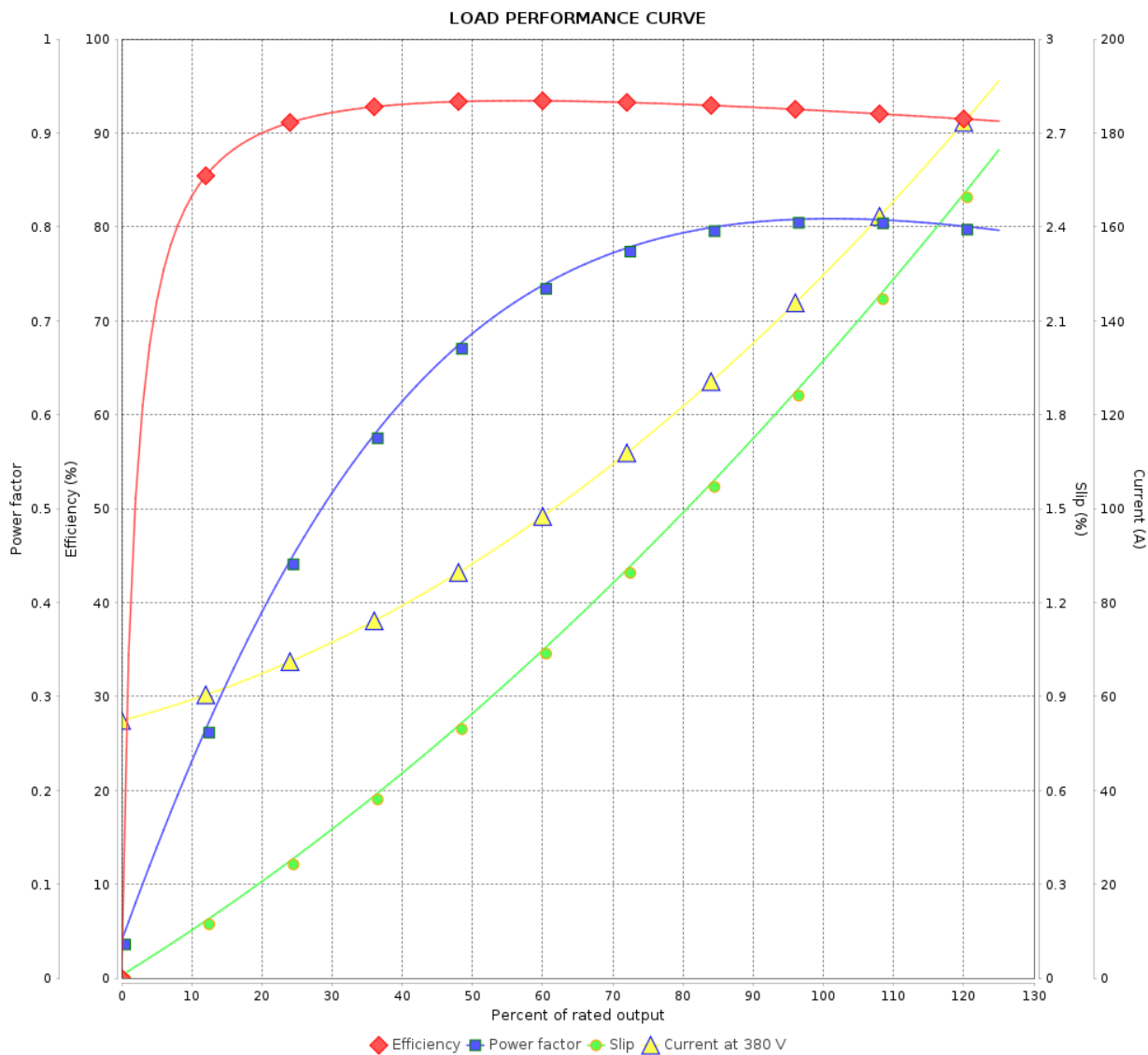
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 8P IE2

Rated current : 152 A
LRC : 4.7
Rated torque : 98.7 kgfm
Locked rotor torque : 150 %
Breakdown torque : 170 %
Rated speed : 735 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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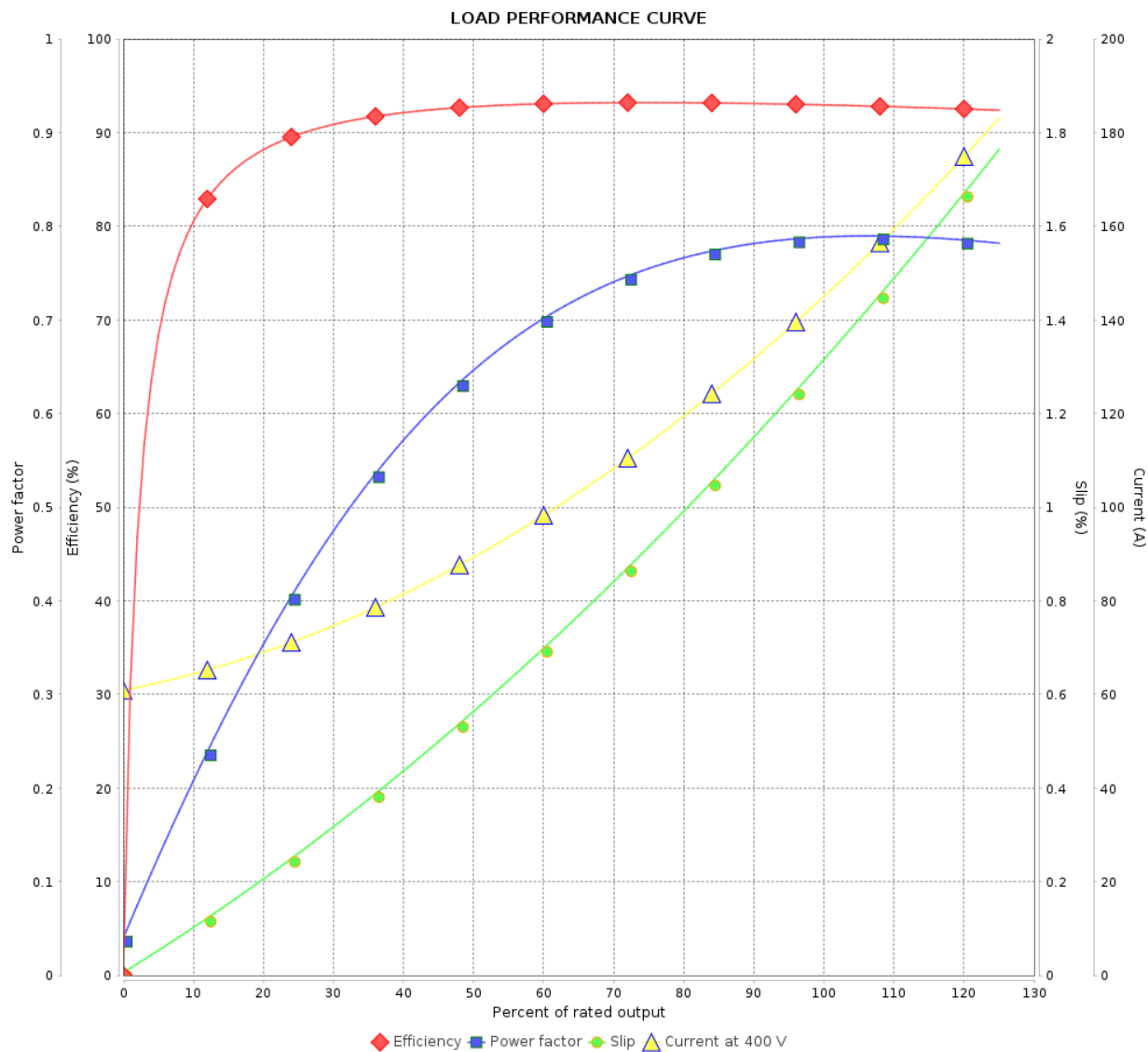
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943603



Performance : 400 V 50 Hz 8P IE2

Rated current	: 147 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 98.1 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 740 rpm	Design	: B

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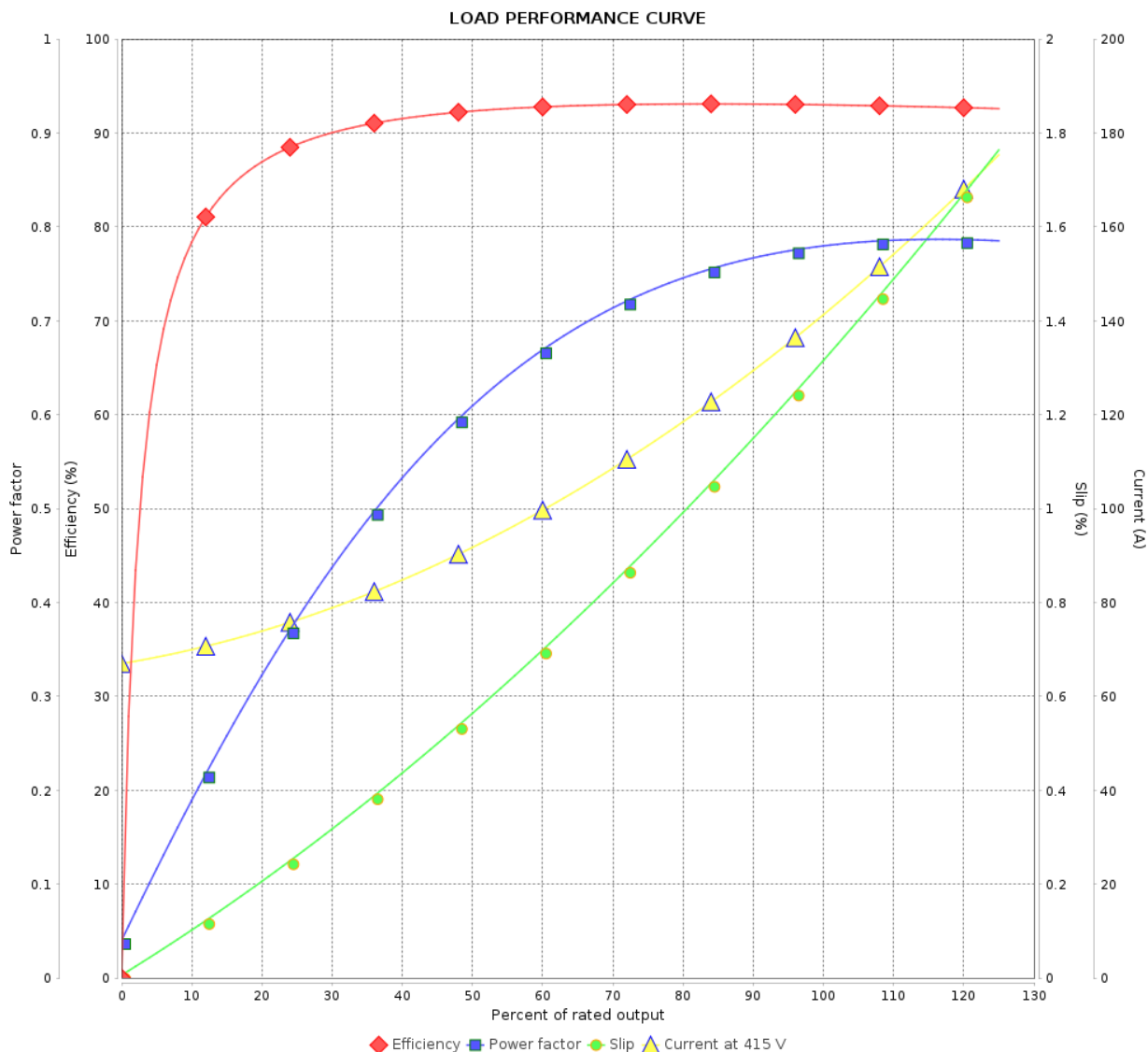
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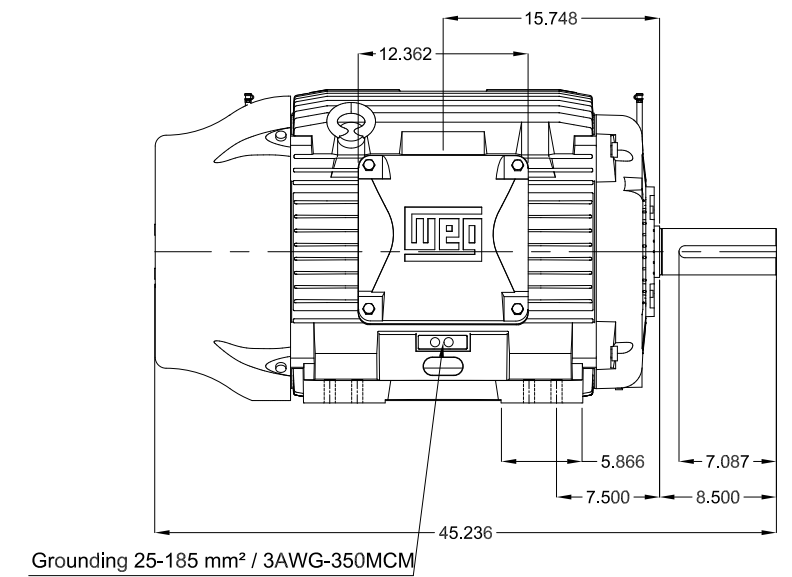
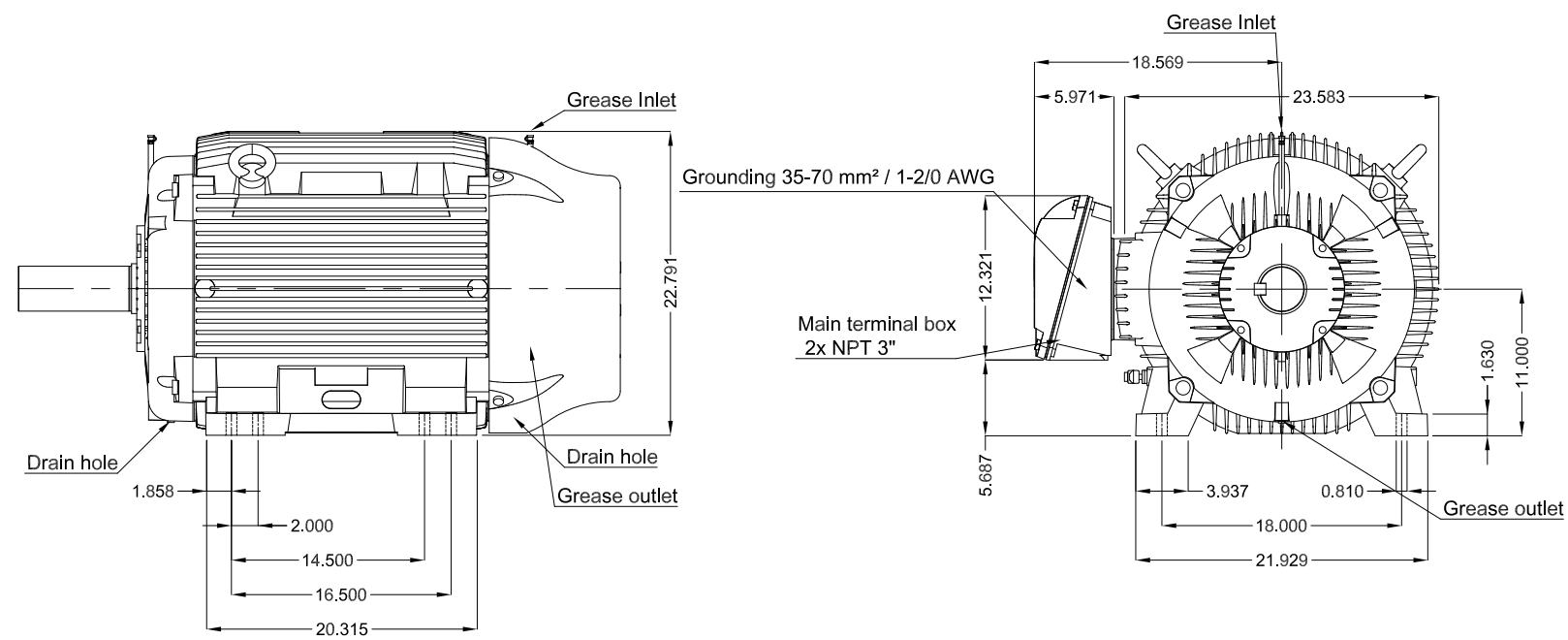


Performance : 415 V 50 Hz 8P IE2

Rated current : 144 A
LRC : 5.6
Rated torque : 98.1 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 740 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 444/5T IP55 TEFC				PREVIEW WDD 00			
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RELEASED										
REL. DATE										