DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14766380

Frame	: 324/6T	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	: 231 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.3946 kgm²
Design	: B		

Output [HP]		20	15	15	15	20	20	20
Poles		8	8	8	8	8	8	8
Frequency [Hz]		60	50	50	50	50	50	50
Rated voltage [V]		230/460	380	400	415	380	400	415
Rated current [A]		56.6/28.3	26.5	26.4	27.1	33.4	32.6	32.7
L. R. Amperes [A]		283/142	133	142	152	134	143	150
LRC [A]		5.0x(Code G)	5.0x(Code G)	5.4x(Code H)	5.6x(Code J)	4.0x(Code D)	4.4x(Code E)	4.6x(Code F)
No load current [A]		32.0/16.0	15.7	17.6	19.3	15.7	17.6	19.3
Rated speed [RPM]		880	730	730	735	725	725	730
Slip [%]		2.22	2.67	2.67	2.00	3.33	3.33	2.67
Rated torque [kgfm]		16.5	14.9	14.9	14.8	20.0	20.0	19.9
Locked rotor torque [%]		190	190	210	240	140	160	180
Breakdown torque [%]		220	229	260	280	170	190	210
Service factor		1.25	1.00	1.15	1.15	1.00	1.15	1.15
Temperature rise		80 K	80 K	80 K	80 K	105 K	105 K	80 K
Locked rotor time		48s (cold) 27s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level²		56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%							
	50%	89.5	88.5	87.4	86.3	89.5	88.5	87.5
	75%	91.0	89.6	89.0	88.5	89.5	89.5	89.5
	100%	91.0	89.5	89.3	89.0	88.5	88.5	88.5
Power Factor	25%							
	50%	0.54	0.51	0.46	0.42	0.61	0.56	0.52
	75%	0.66	0.64	0.60	0.56	0.72	0.68	0.65
	100%	0.73	0.72	0.69	0.65	0.77	0.75	0.72

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

Losses (%)	P1 (0,9;1,0)	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	P2 (0,5;1,0)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P7 (0,25;0,25)	2.0	2.0	2.0	2.0	2.0	2.0	2.0

		Drive end	Non drive end
Bearing type	:	6312 C3	6212 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	21 g	13 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 410 kgf

Max. compression : 641 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 62.6A SF 1.15 SFA 72.0A

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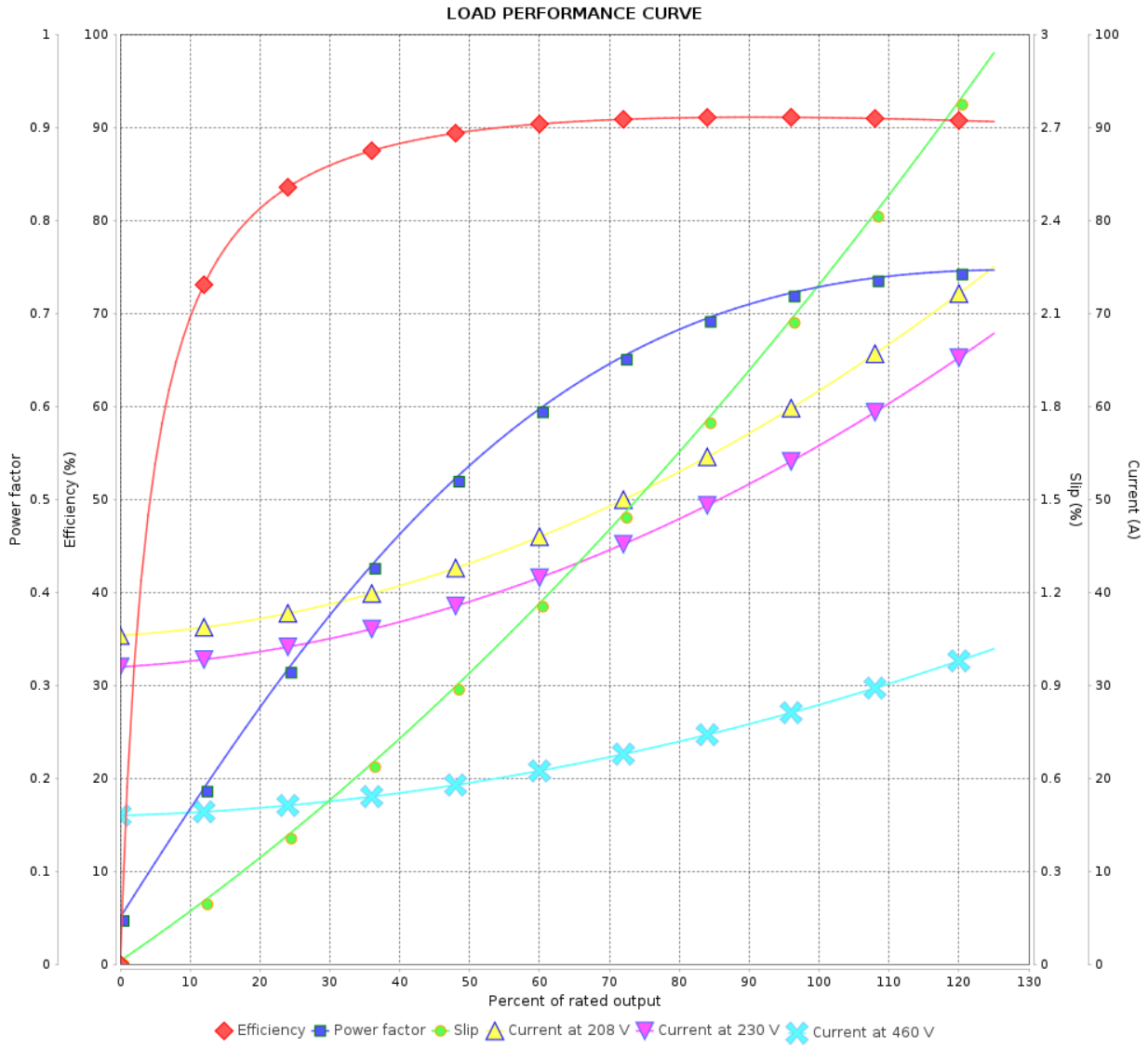
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14766380



Performance	: 230/460 V 60 Hz 8P		
Rated current	: 56.6/28.3 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 16.5 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 880 rpm	Design	: B

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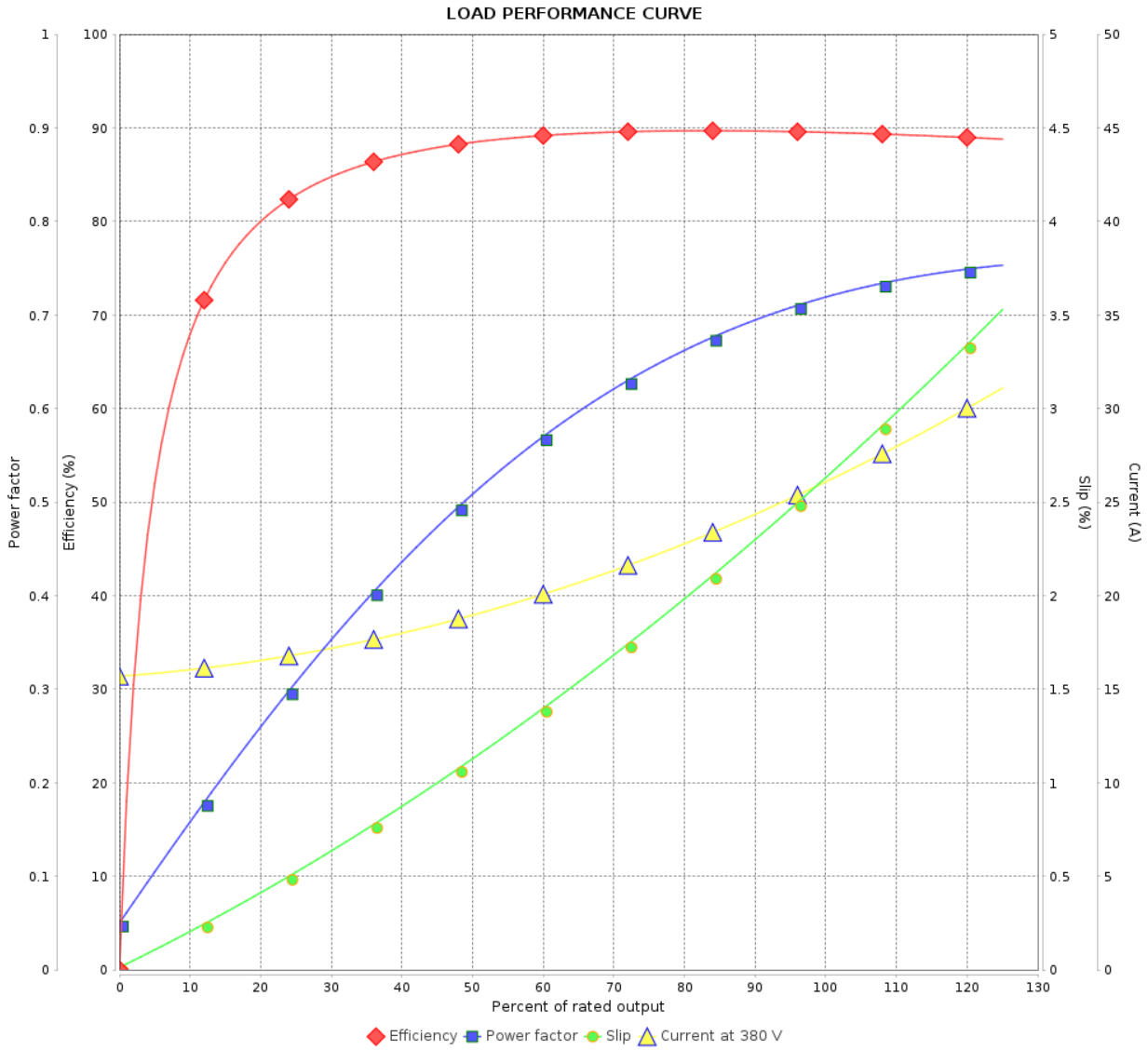

Performance	: 380 V 50 Hz 8P IE3		
Rated current	: 26.5 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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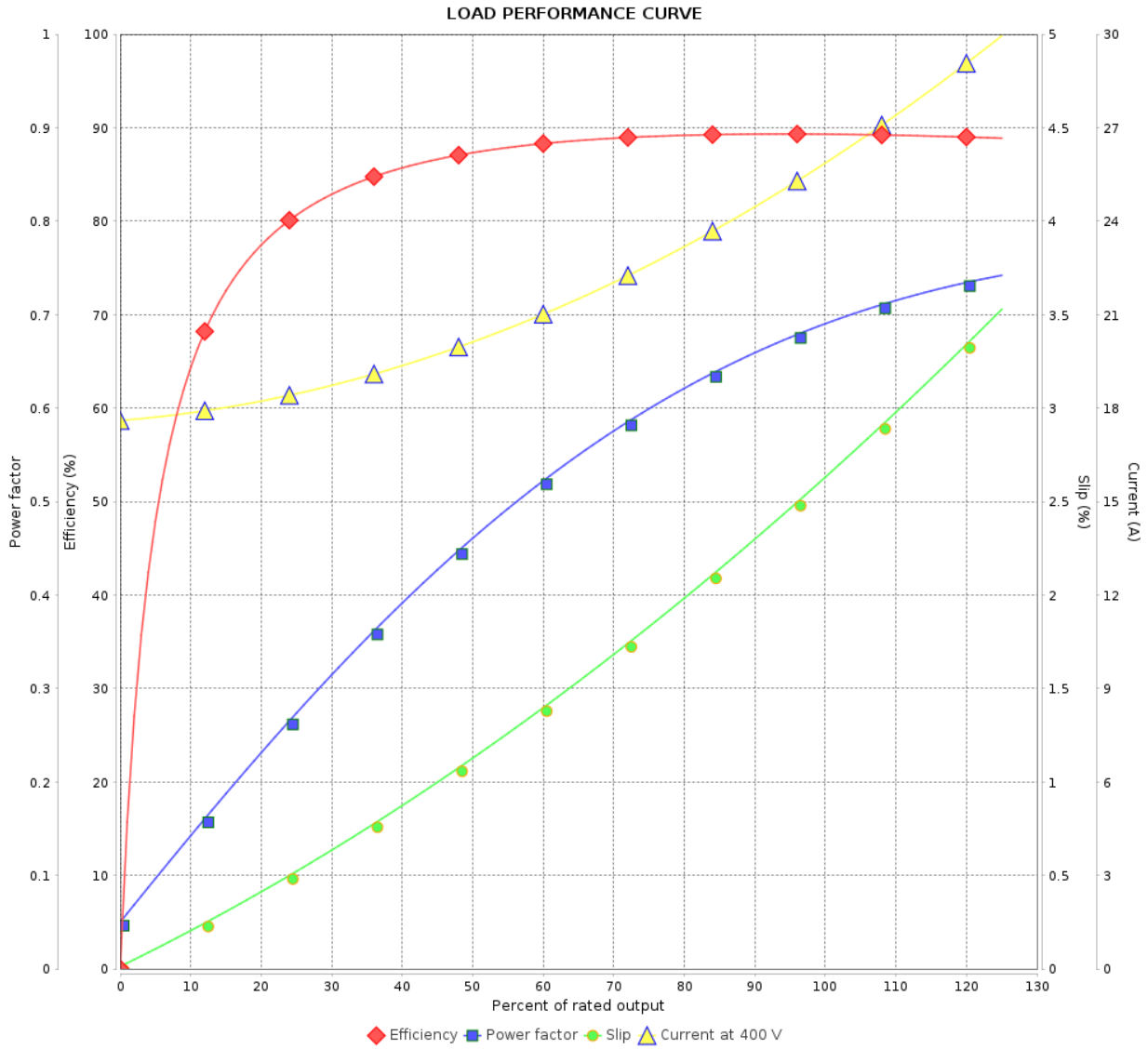

Performance	: 400 V 50 Hz 8P IE3		
Rated current	: 26.4 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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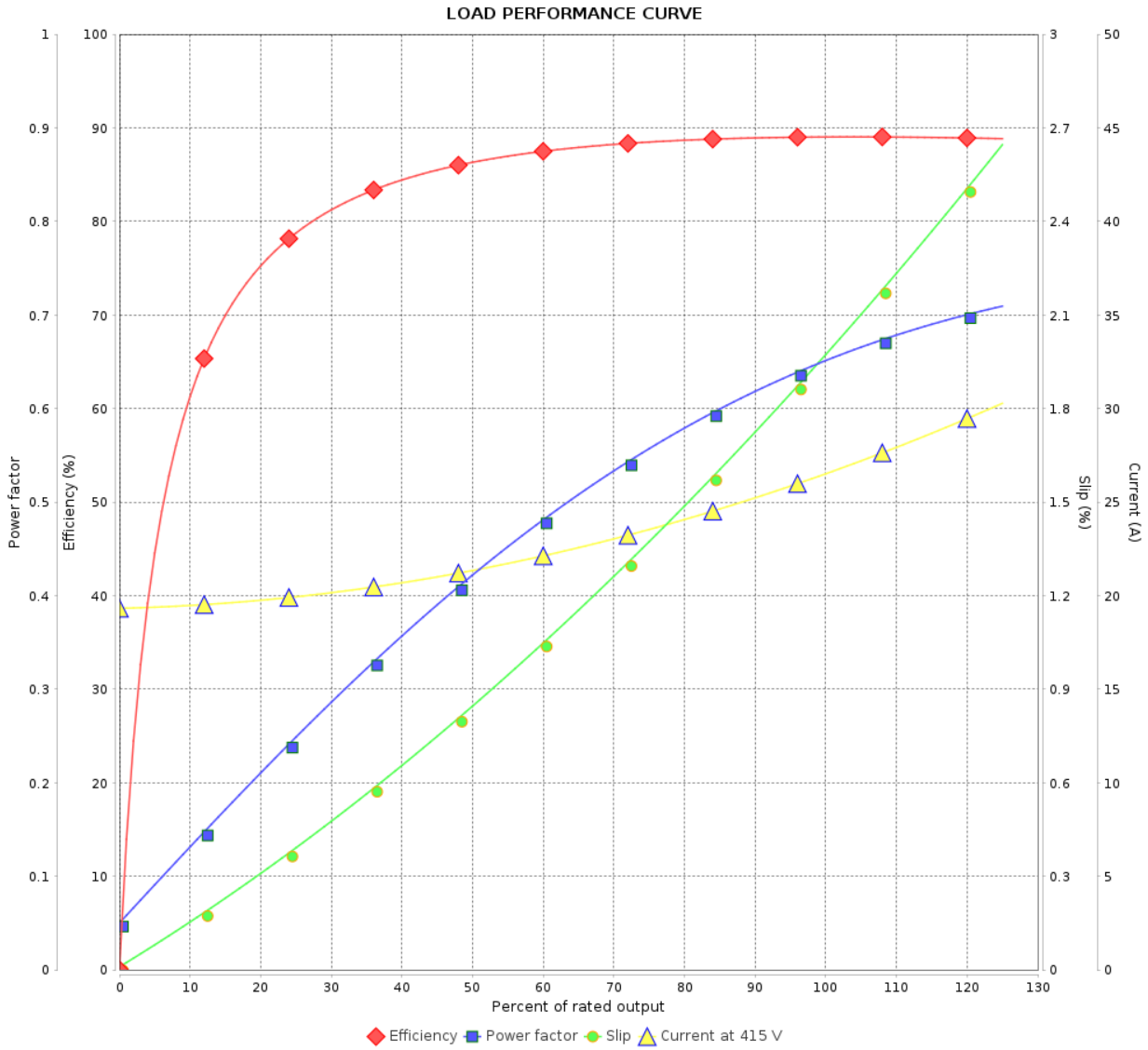

Performance	: 415 V 50 Hz 8P IE3		
Rated current	: 27.1 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 14.8 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

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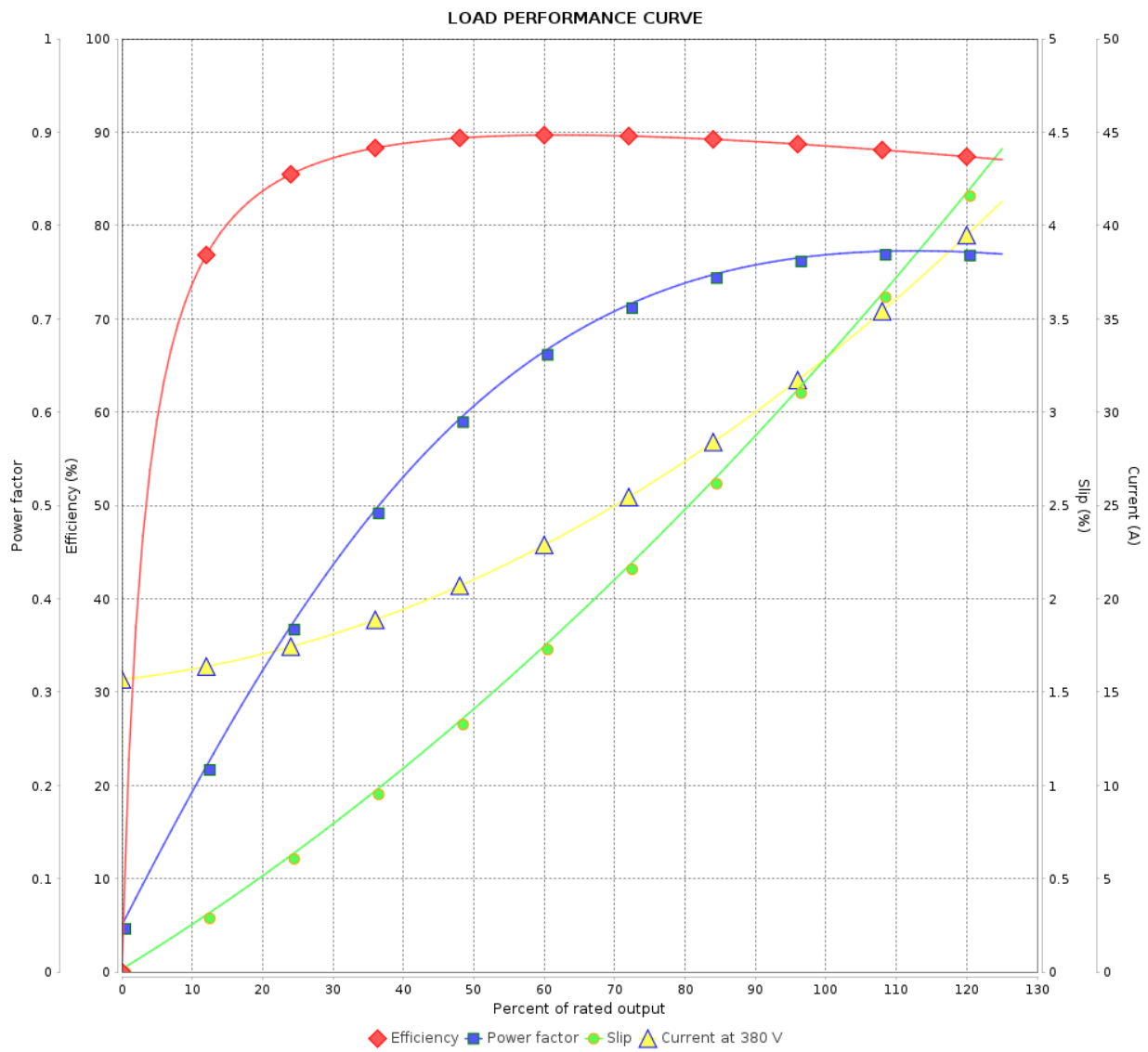

Performance	: 380 V 50 Hz 8P IE2

Rated current	: 33.4 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 4.0	Duty cycle	: Cont.(S1)
Rated torque	: 20.0 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 170 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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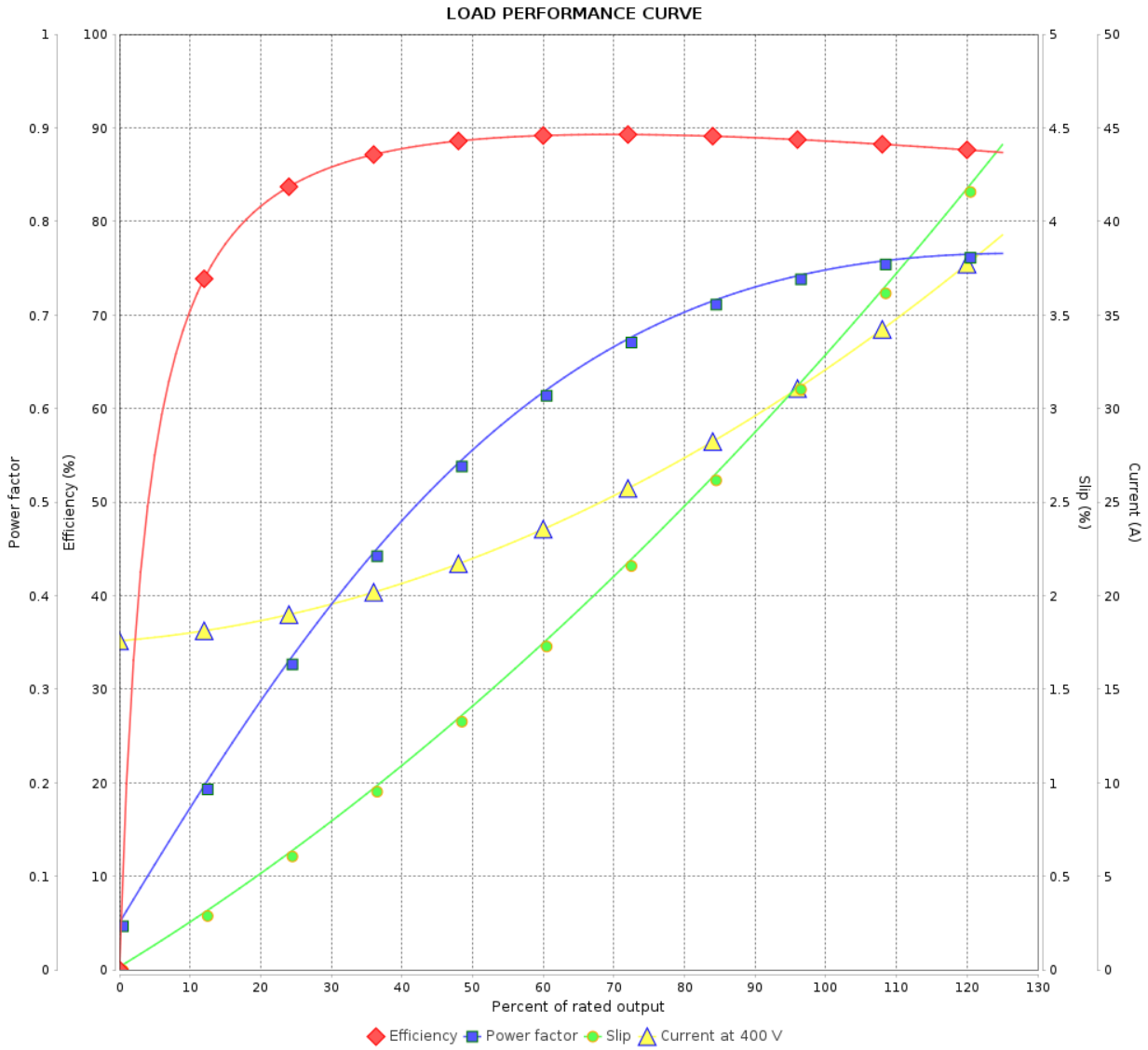

Performance	: 400 V 50 Hz 8P IE2		
Rated current	: 32.6 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 20.0 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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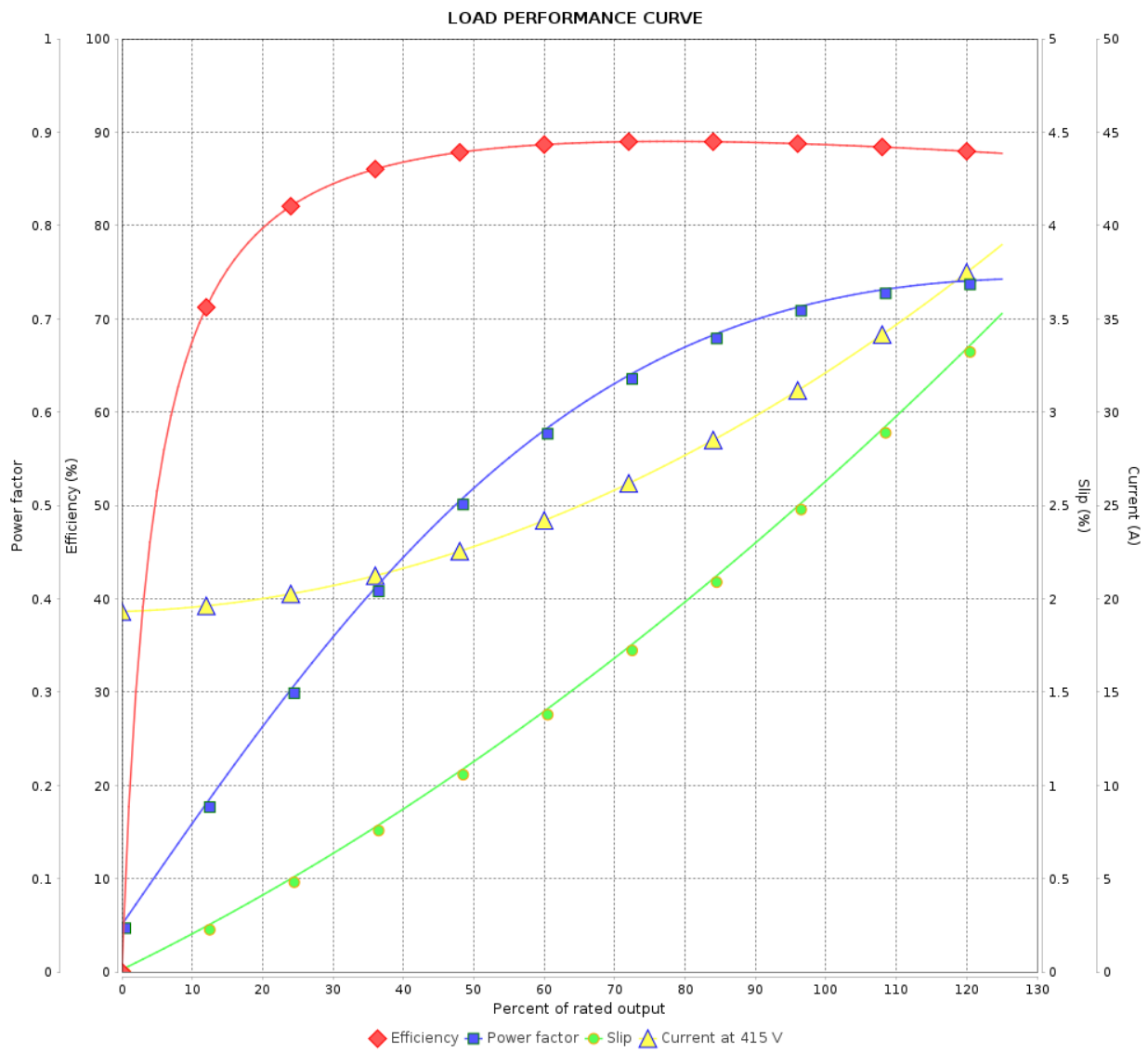

Performance	: 415 V 50 Hz 8P IE2

Rated current	: 32.7 A	Moment of inertia (J)	: 0.3946 kgm²
LRC	: 4.6	Duty cycle	: Cont.(S1)
Rated torque	: 19.9 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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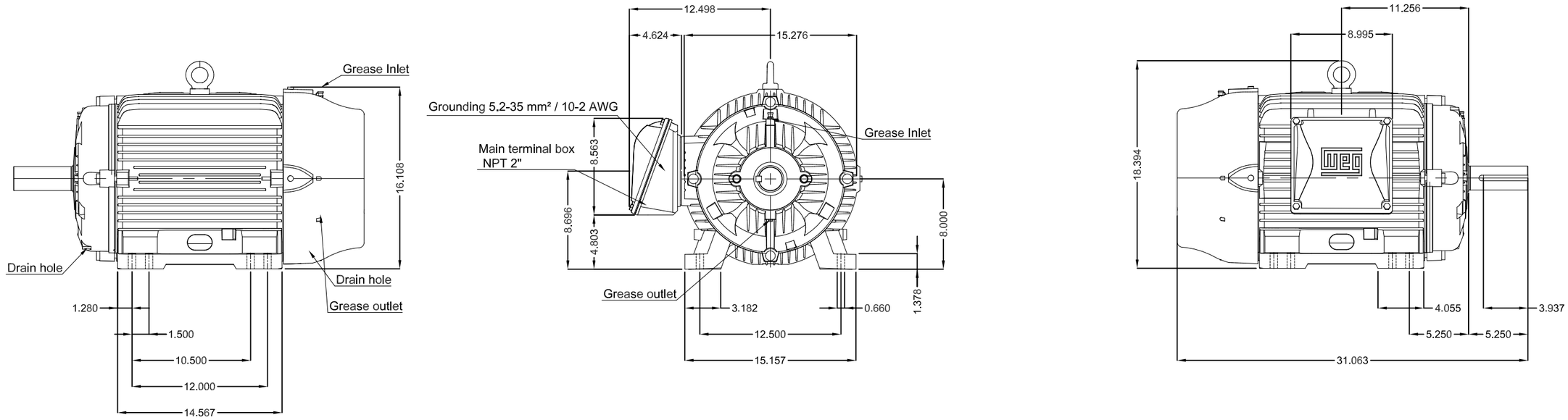


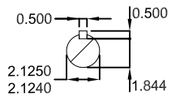
Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)

DE Shaft End



20 HP 08 Poles 60 Hz | A

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			HYBRISUSER				00

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CHECKED	
RELEASED	
REL. DATE	

THREE PH. MOTOR W22 NEMA PREM. EFF.
FRAME 324/6T IP55 TEFC

PREVIEW

WDD 00

SHEET /

Dimensions in inches

A3

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