DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 16487760

Frame	: 364/5TC	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	: 402 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.22 kgm²
Design	: B		

Output [HP]		40	30	30	30	40	40	40
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]		102/50.9	47.8	46.3	45.7	62.9	60.0	58.1
L. R. Amperes [A]		601/300	292	310	324	283	300	320
LRC [A]		5.9x(Code G)	6.1x(Code H)	6.7x(Code J)	7.1x(Code J)	4.5x(Code E)	5.0x(Code F)	5.5x(Code G)
No load current [A]		43.0/21.5	20.7	22.2	23.4	20.7	22.2	23.4
Rated speed [RPM]		882	735	736	737	725	727	730
Slip [%]		2.00	2.00	1.87	1.73	3.33	3.07	2.67
Rated torque [kgfm]		32.9	29.6	29.6	29.5	40.0	39.9	39.8
Locked rotor torque [%]		170	600	210	229	140	160	170
Breakdown torque [%]		210	240	270	300	180	200	210
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		46s (cold) 26s (hot)	81s (cold) 45s (hot)	52s (cold) 29s (hot)	52s (cold) 29s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level²		60.0 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%	92.4	91.5	91.5	90.9	91.7	91.7	91.7
	75%	93.0	91.6	91.9	91.8	91.0	91.7	91.7
	100%	92.4	90.9	91.5	91.7	89.5	90.2	91.0
Power Factor	25%							
	50%	0.65	0.60	0.55	0.52	0.70	0.66	0.62
	75%	0.75	0.71	0.68	0.65	0.78	0.76	0.74
	100%	0.80	0.77	0.75	0.73	0.81	0.80	0.79

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

Losses (%)	P1 (0,9;1,0)	8.1	8.1	8.1	8.1	8.1	8.1	8.1
	P2 (0,5;1,0)	7.1	7.1	7.1	7.1	7.1	7.1	7.1
	P3 (0,25;1,0)	6.5	6.5	6.5	6.5	6.5	6.5	6.5
	P4 (0,9;0,5)	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	P5 (0,5;0,5)	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	P6 (0,5;0,25)	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	P7 (0,25;0,25)	1.2	1.2	1.2	1.2	1.2	1.2	1.2

		Drive end	Non drive end
Bearing type	:	6314 C3	6314 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	27 g	27 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 737 kgf

Max. compression : 1139 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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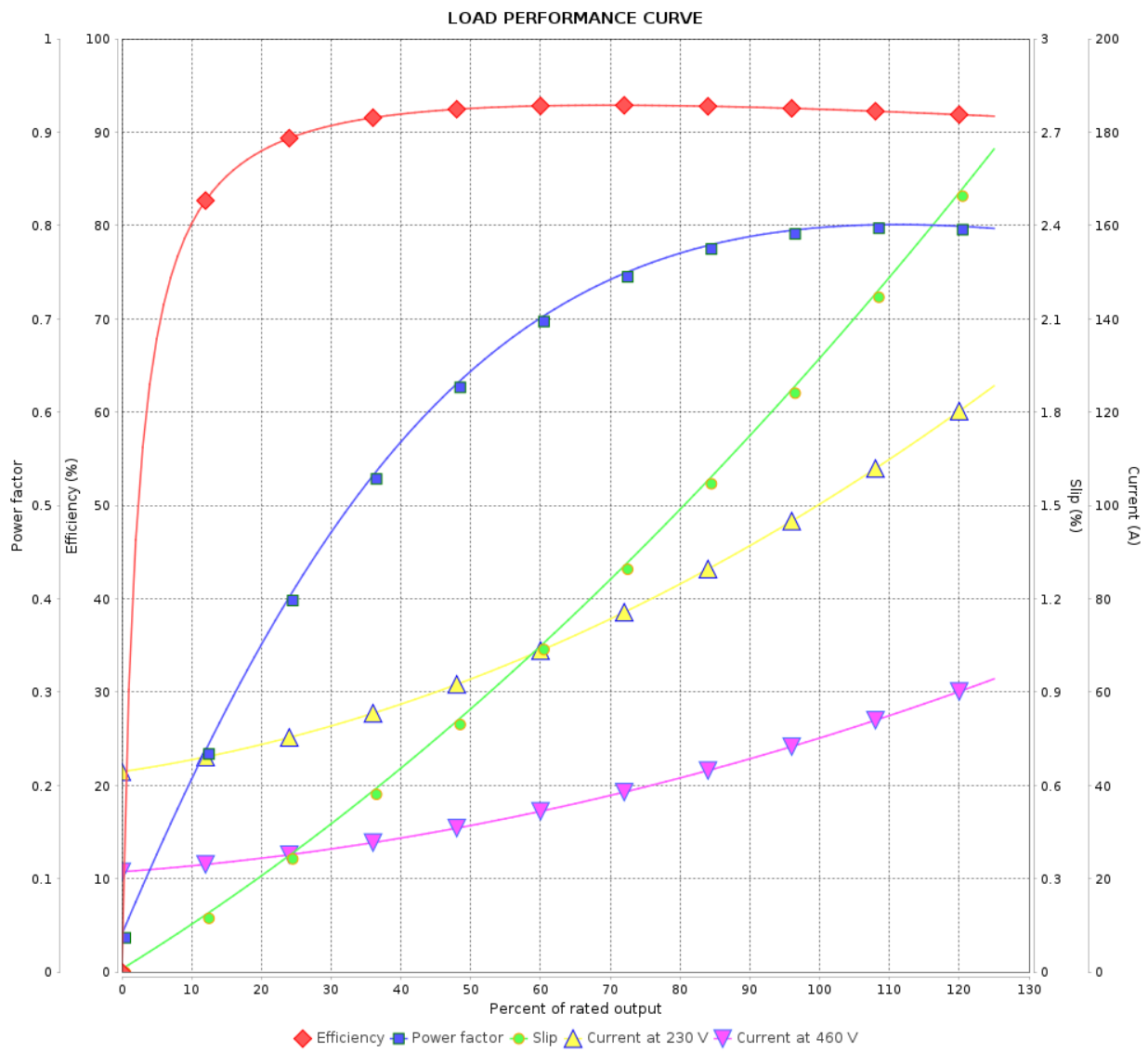
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 16487760



Performance	: 230/460 V 60 Hz 8P

Rated current	: 102/50.9 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 32.9 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 882 rpm	Design	: B

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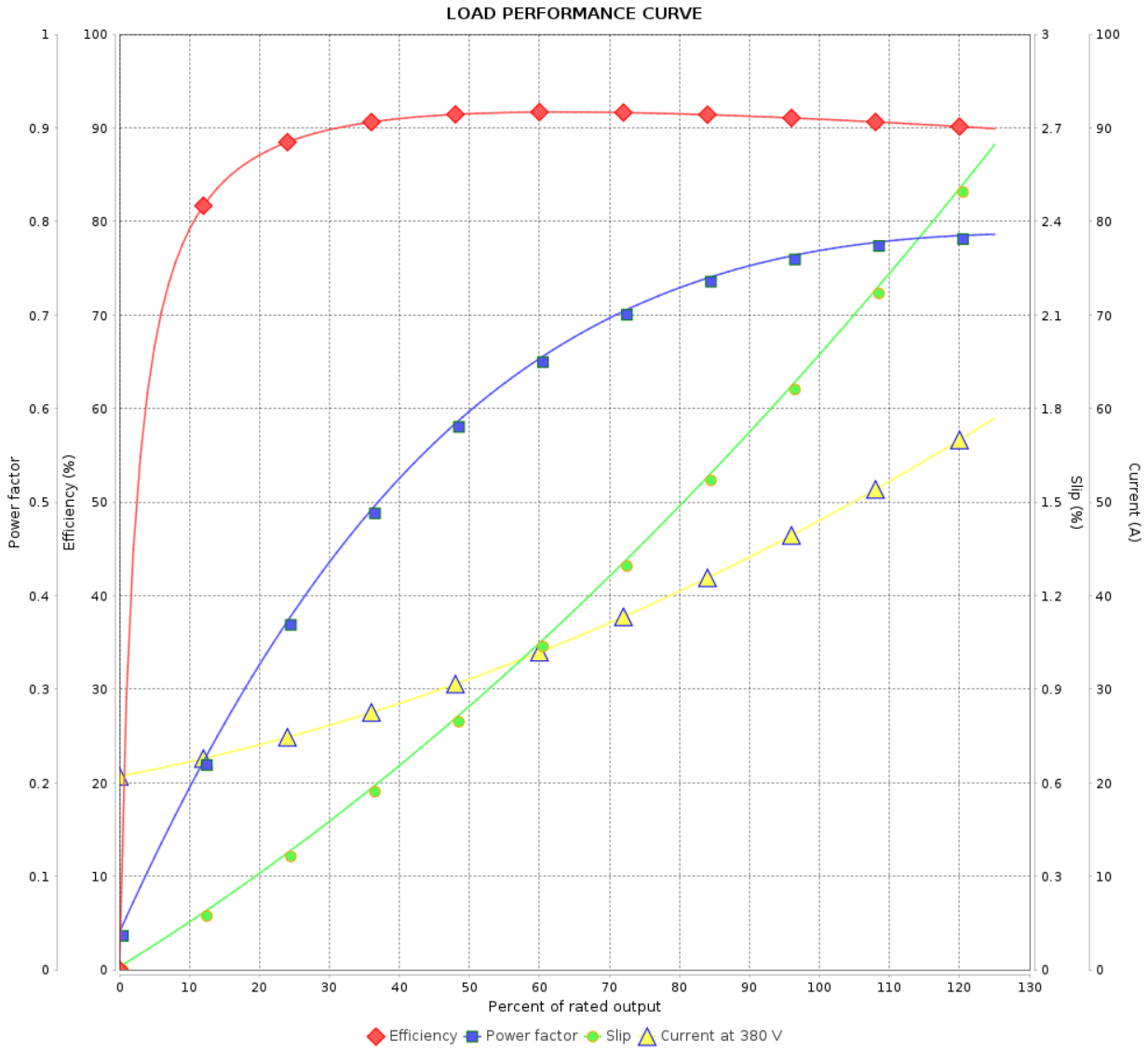

Performance	: 380 V 50 Hz 8P IE3		
Rated current	: 47.8 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 29.6 kgfm	Insulation class	: F
Locked rotor torque	: 600 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

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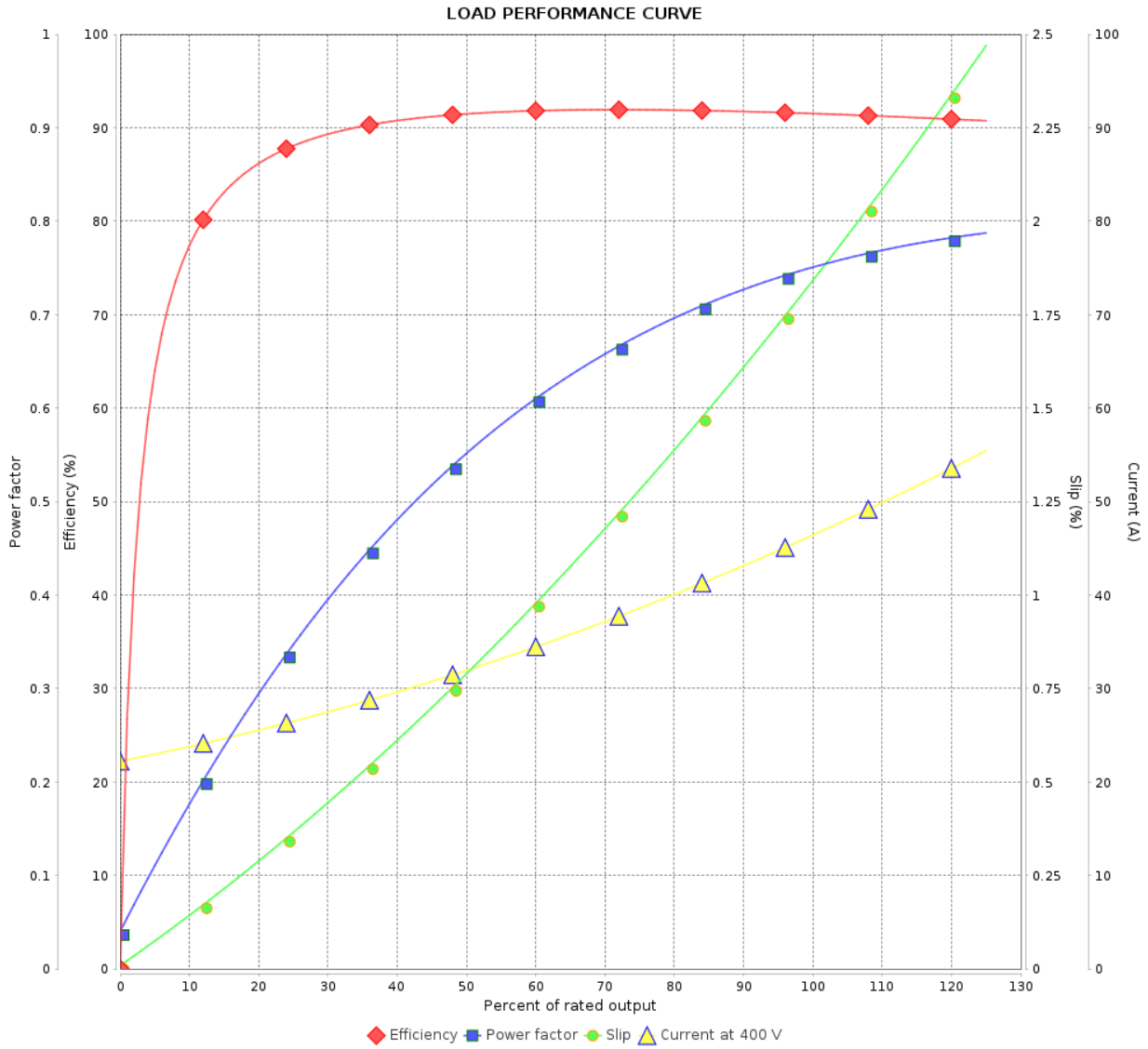

Performance	: 400 V 50 Hz 8P IE3		
Rated current	: 46.3 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 29.6 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 736 rpm	Design	: B

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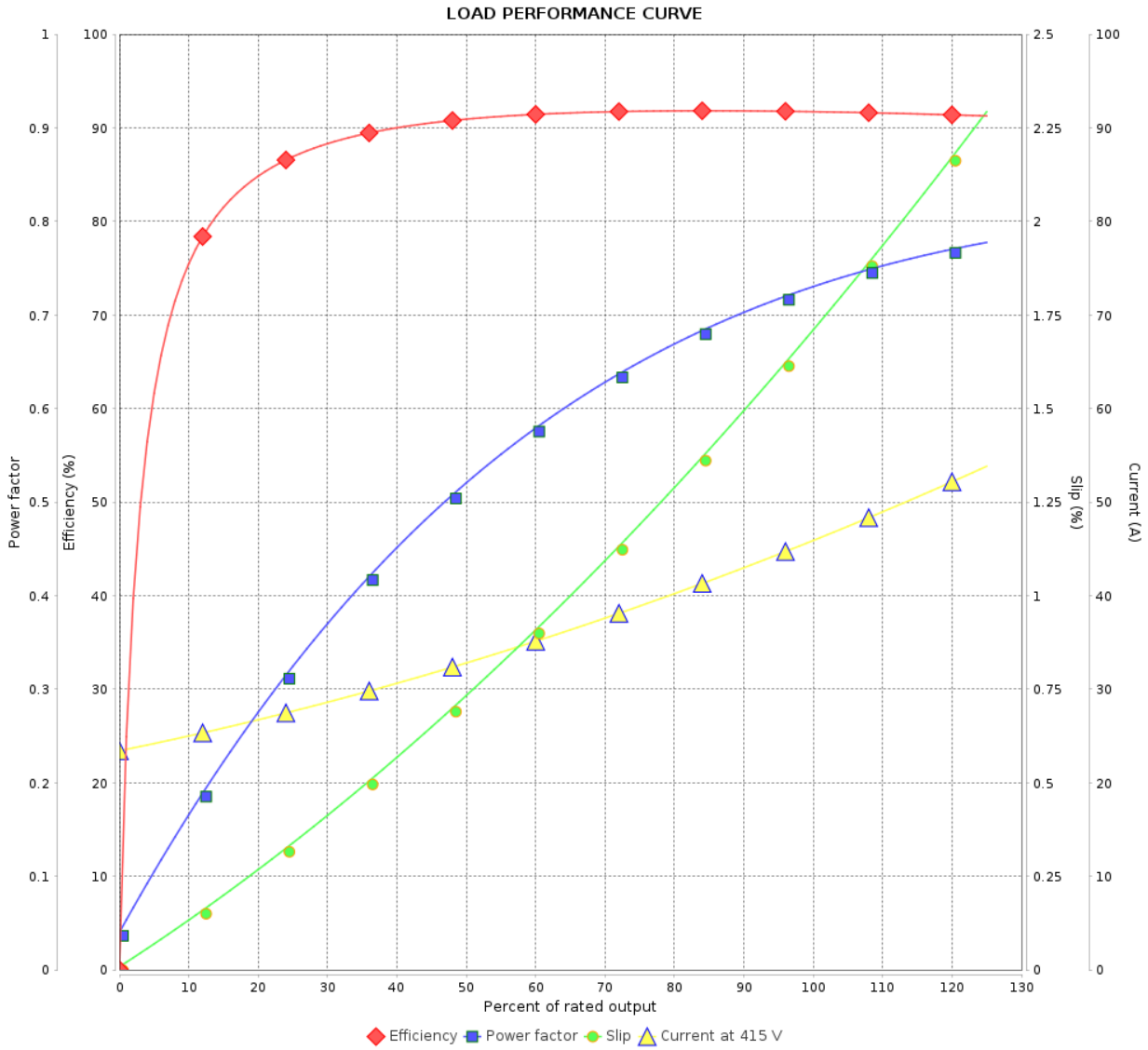

Performance	: 415 V 50 Hz 8P IE3		
Rated current	: 45.7 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 29.5 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 737 rpm	Design	: B

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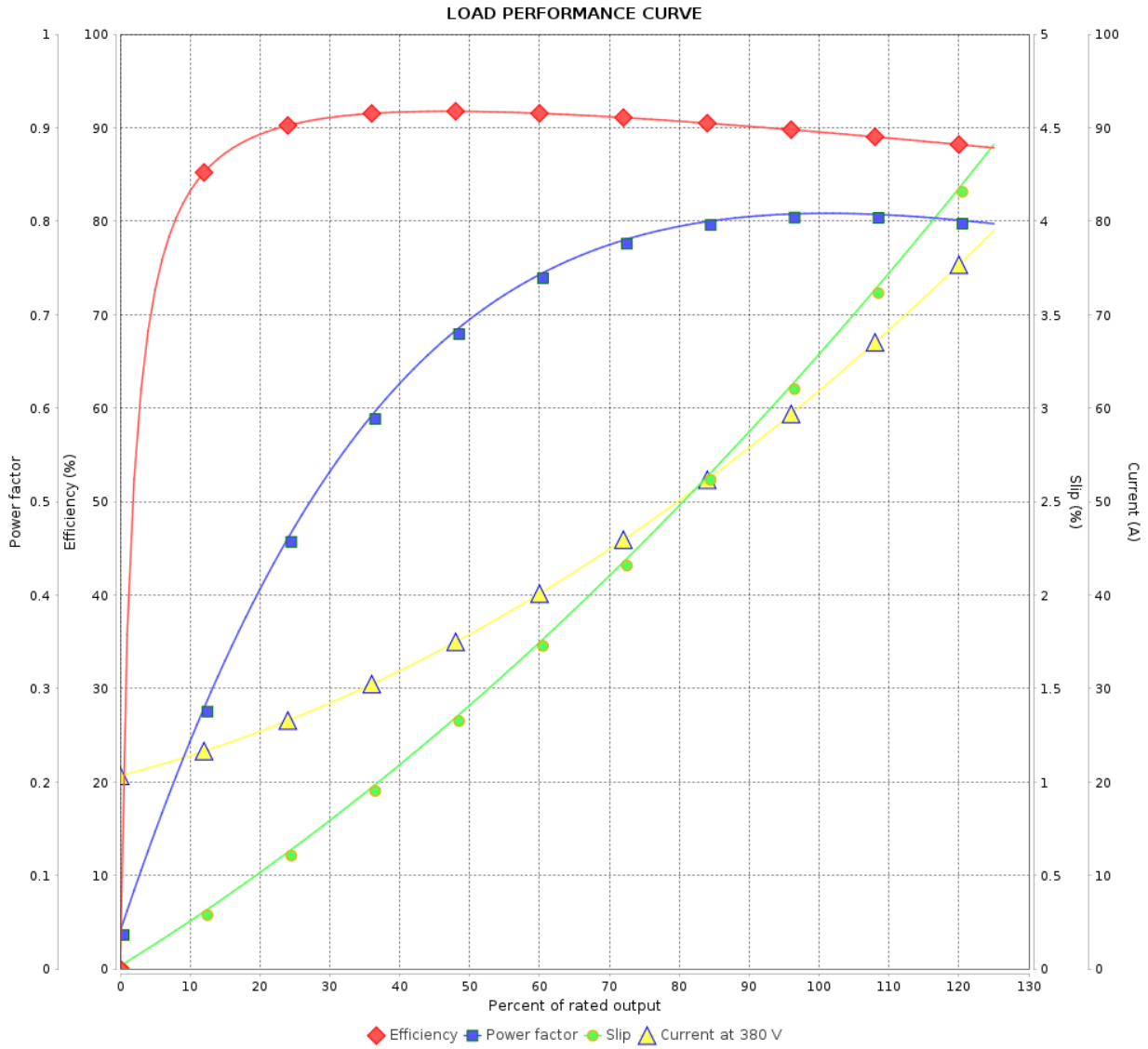

Performance	: 380 V 50 Hz 8P IE1		
Rated current	: 62.9 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 40.0 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 180 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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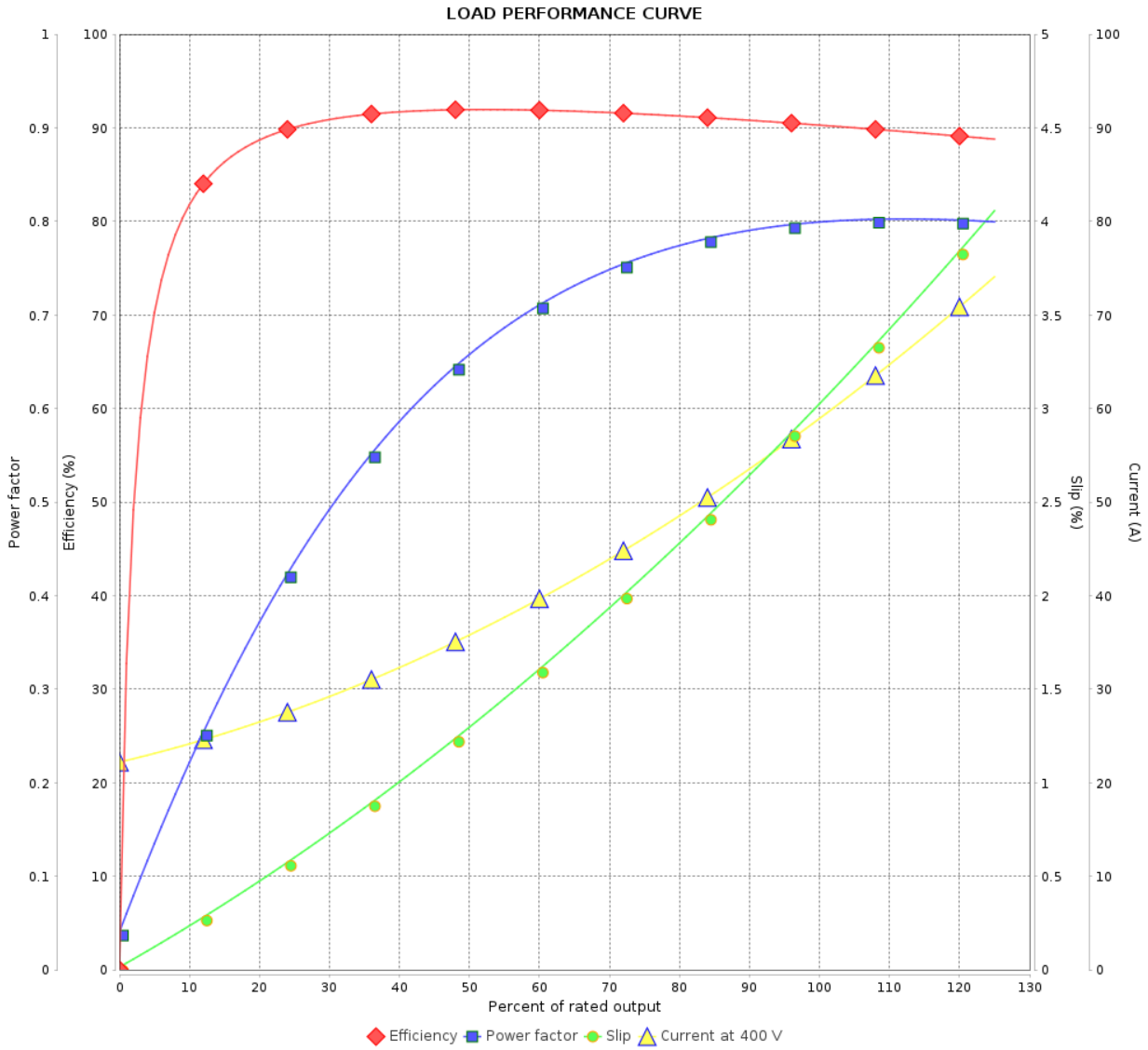

Performance	: 400 V 50 Hz 8P IE2		
Rated current	: 60.0 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 39.9 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 727 rpm	Design	: B

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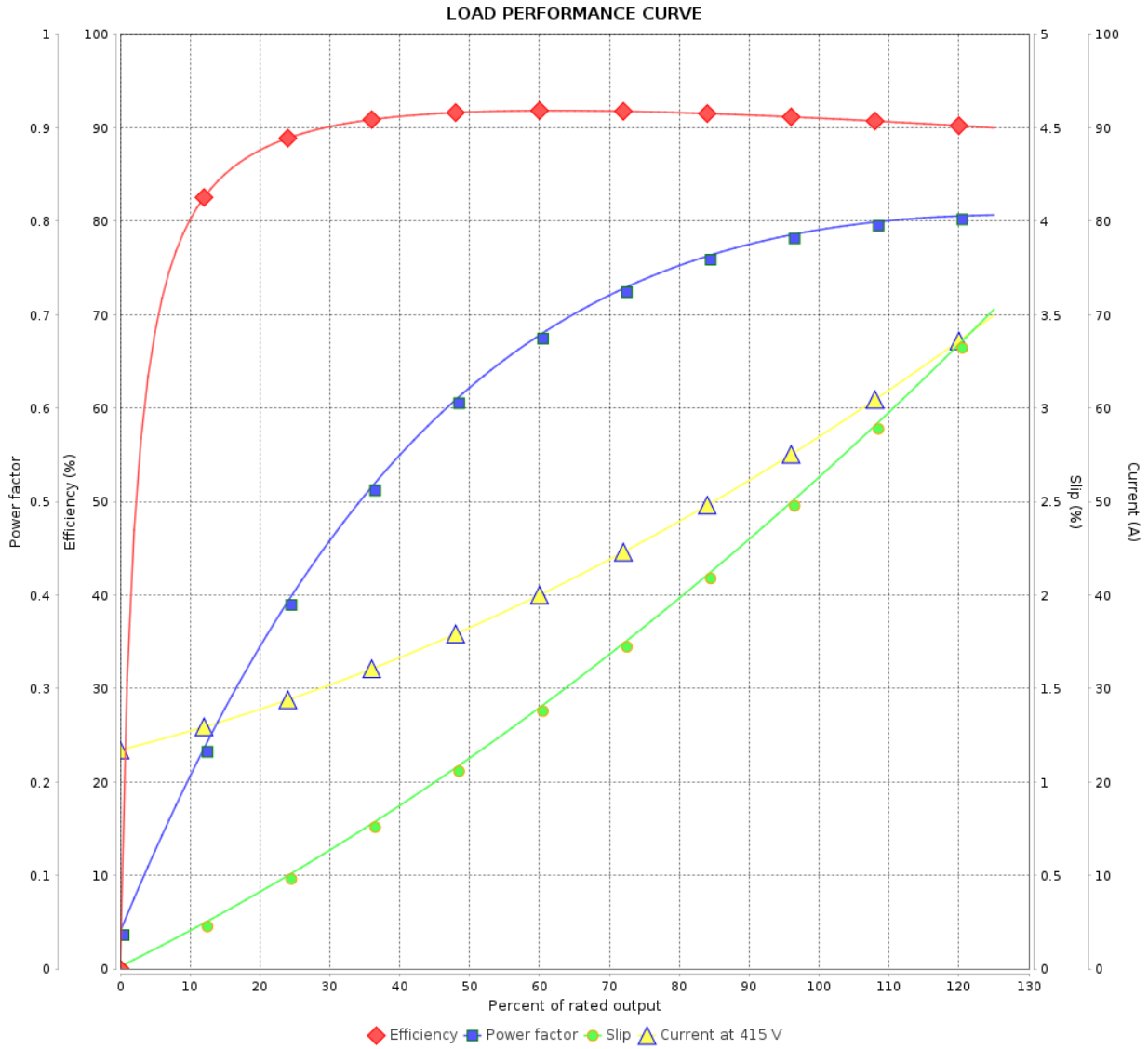

Performance	: 415 V 50 Hz 8P IE2		
Rated current	: 58.1 A	Moment of inertia (J)	: 1.22 kgm²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 39.8 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 730 rpm	Design	: B

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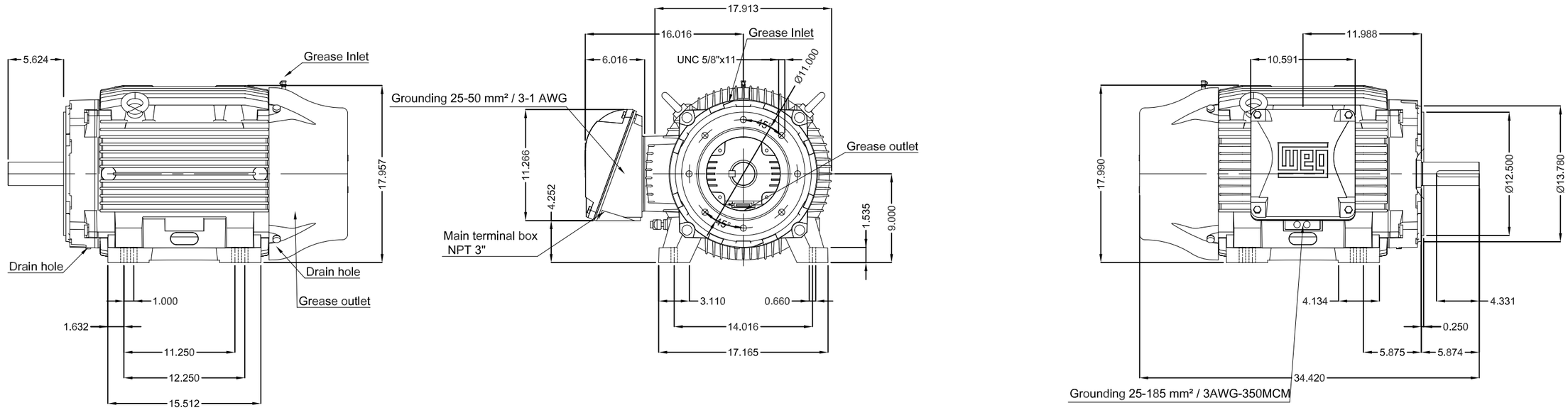


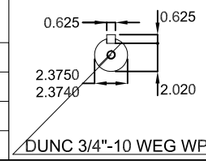
Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B34R(D)

DE Shaft End



DUNC 3/4"-10 WEG WPR-7339

40 HP 08 Poles 60 Hz | A

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CHECKED	
RELEASED	
REL. DATE	

THREE PH. MOTOR W22 NEMA PREM. EFF.
FRAME 364/5TC IP55 TEFC

PREVIEW

WDD 00

SHEET /

Dimensions in inches

A3

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