DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11783939

Frame	: 213/5T	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	: 78.3 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0268 kgm²
Design	: A		

Output [HP]	15	10	10	10	15	15	15
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	34.0/17.0	14.5	14.1	14.0	20.6	19.7	19.3
L. R. Amperes [A]	269/134	125	133	140	134	142	149
LRC [A]	7.9x(Code J)	8.6x(Code K)	9.4x(Code L)	10.0x(Code M)	6.5x(Code G)	7.2x(Code H)	7.7x(Code J)
No load current [A]	11.6/5.80	5.60	6.20	6.70	5.60	6.20	6.70
Rated speed [RPM]	3520	2940	2945	2950	2885	2900	2910
Slip [%]	2.22	2.00	1.83	1.67	3.83	3.33	3.00
Rated torque [kgfm]	3.09	2.47	2.46	2.46	3.77	3.75	3.74
Locked rotor torque [%]	240	280	320	340	190	220	240
Breakdown torque [%]	280	340	380	420	220	250	280
Service factor	1.25	1.15	1.15	1.15	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	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	10s (cold) 6s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)
Noise level²	68.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%) 25%							
Efficiency (%) 50%	90.2	89.5	89.0	88.5	88.5	89.0	89.5
Efficiency (%) 75%	91.0	90.1	90.1	90.1	89.0	89.5	90.0
Efficiency (%) 100%	91.0	90.1	90.1	90.1	89.0	89.7	90.0
Power Factor 25%							
Power Factor 50%	0.76	0.72	0.68	0.64	0.81	0.78	0.75
Power Factor 75%	0.85	0.82	0.79	0.77	0.88	0.86	0.84
Power Factor 100%	0.89	0.87	0.85	0.83	0.91	0.90	0.88

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

Losses (%) P1 (0,9;1,0)	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Losses (%) P2 (0,5;1,0)	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Losses (%) P3 (0,25;1,0)	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Losses (%) P4 (0,9;0,5)	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Losses (%) P5 (0,5;0,5)	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Losses (%) P6 (0,5;0,25)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Losses (%) P7 (0,25;0,25)	1.3	1.3	1.3	1.3	1.3	1.3	1.3

		Drive end	Non drive end
Bearing type	:	6308 ZZ	6207 ZZ
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	-	-
Lubricant amount	:	-	-
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 154 kgf

Max. compression : 233 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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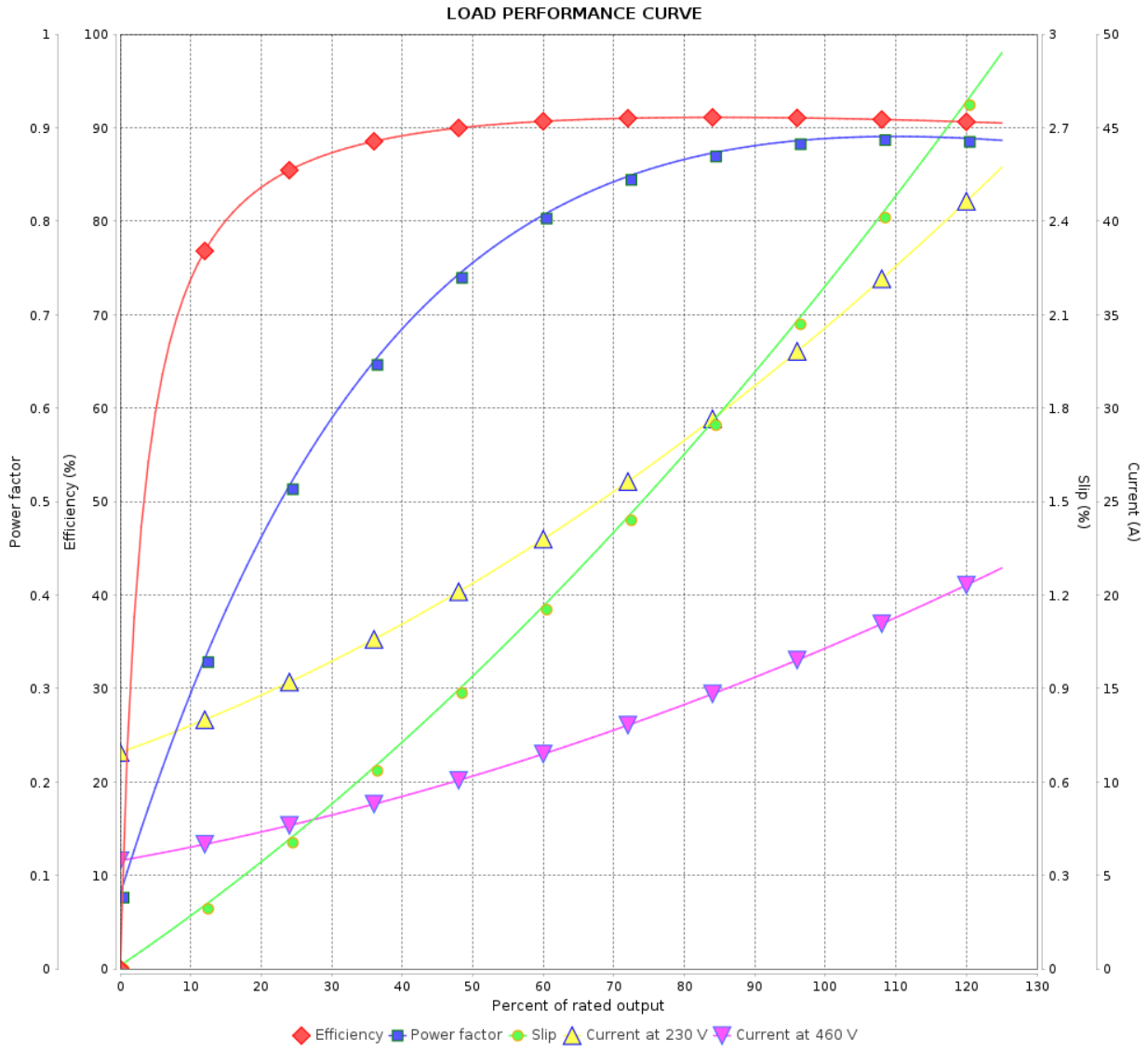
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11783939



Performance	: 230/460 V 60 Hz 2P

Rated current	: 34.0/17.0 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 3.09 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3520 rpm	Design	: A

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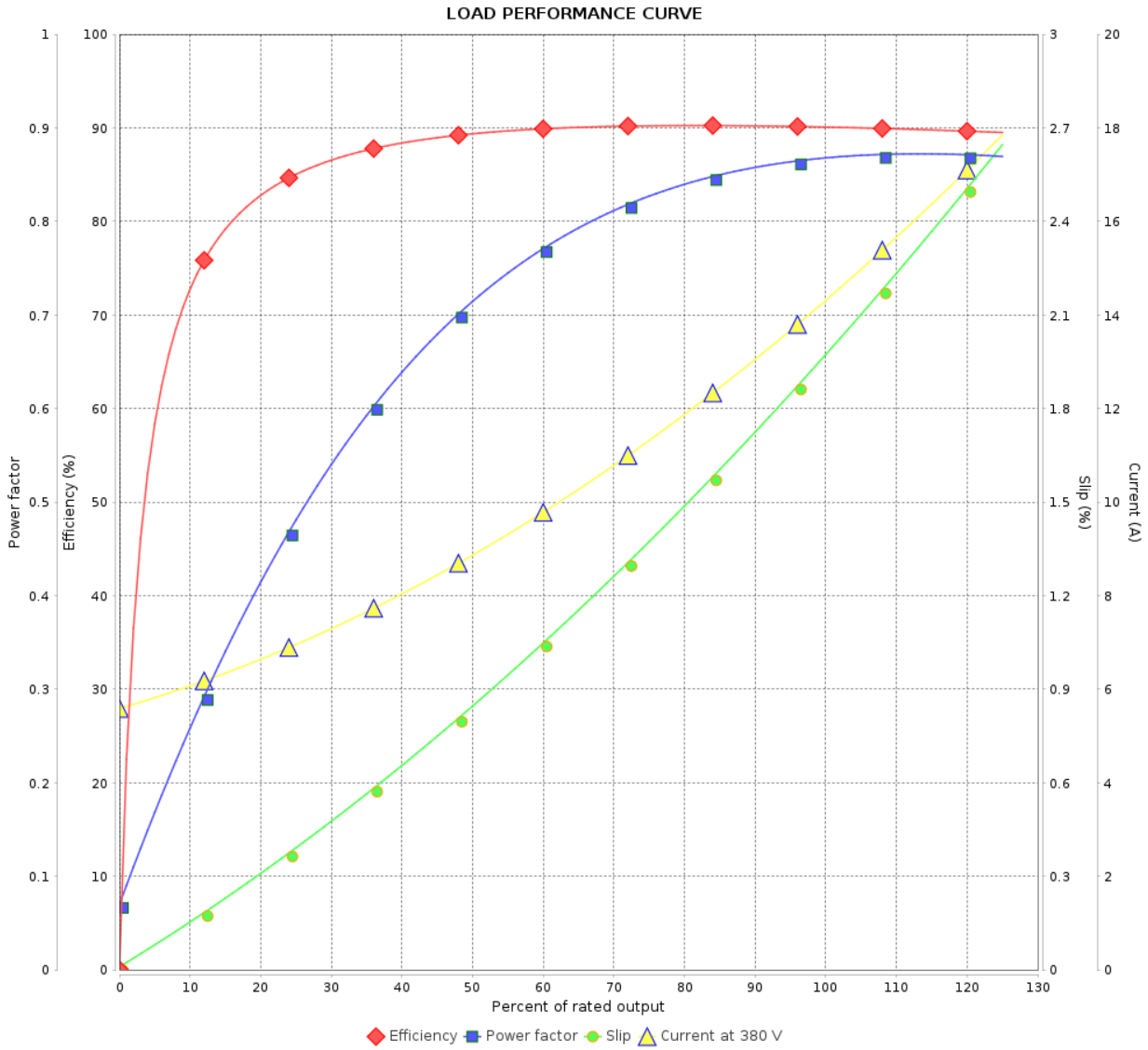
Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11783939



Performance	: 380 V 50 Hz 2P IE3

Rated current	: 14.5 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 2.47 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: A

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Three Phase Induction Motor - Squirrel Cage

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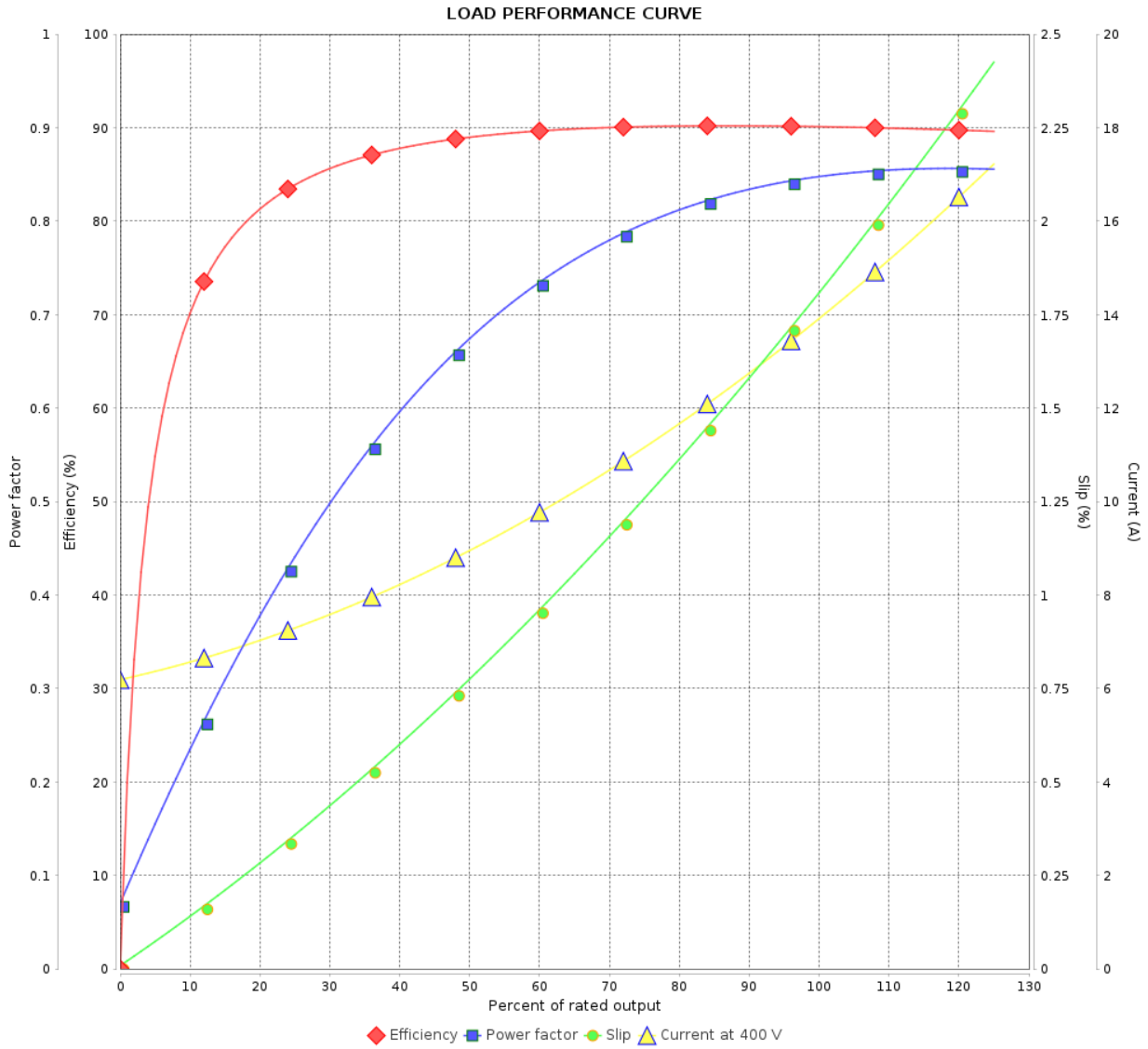
Product code : 11783939



Performance	: 400 V 50 Hz 2P IE3		
Rated current	: 14.1 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 9.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.46 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.15
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: A

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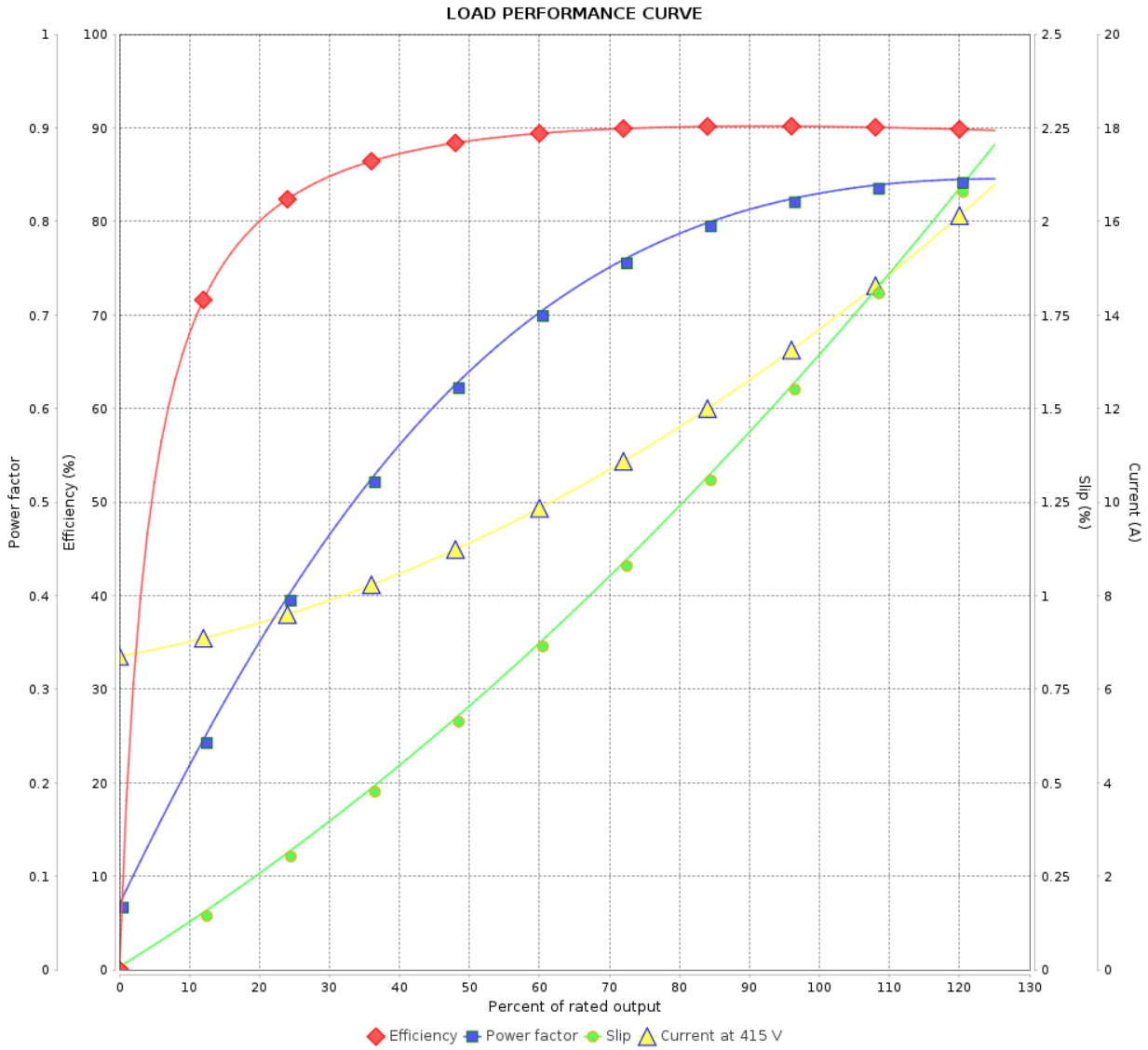

Performance	: 415 V 50 Hz 2P IE3		
Rated current	: 14.0 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 10.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.46 kgfm	Insulation class	: F
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 420 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: A

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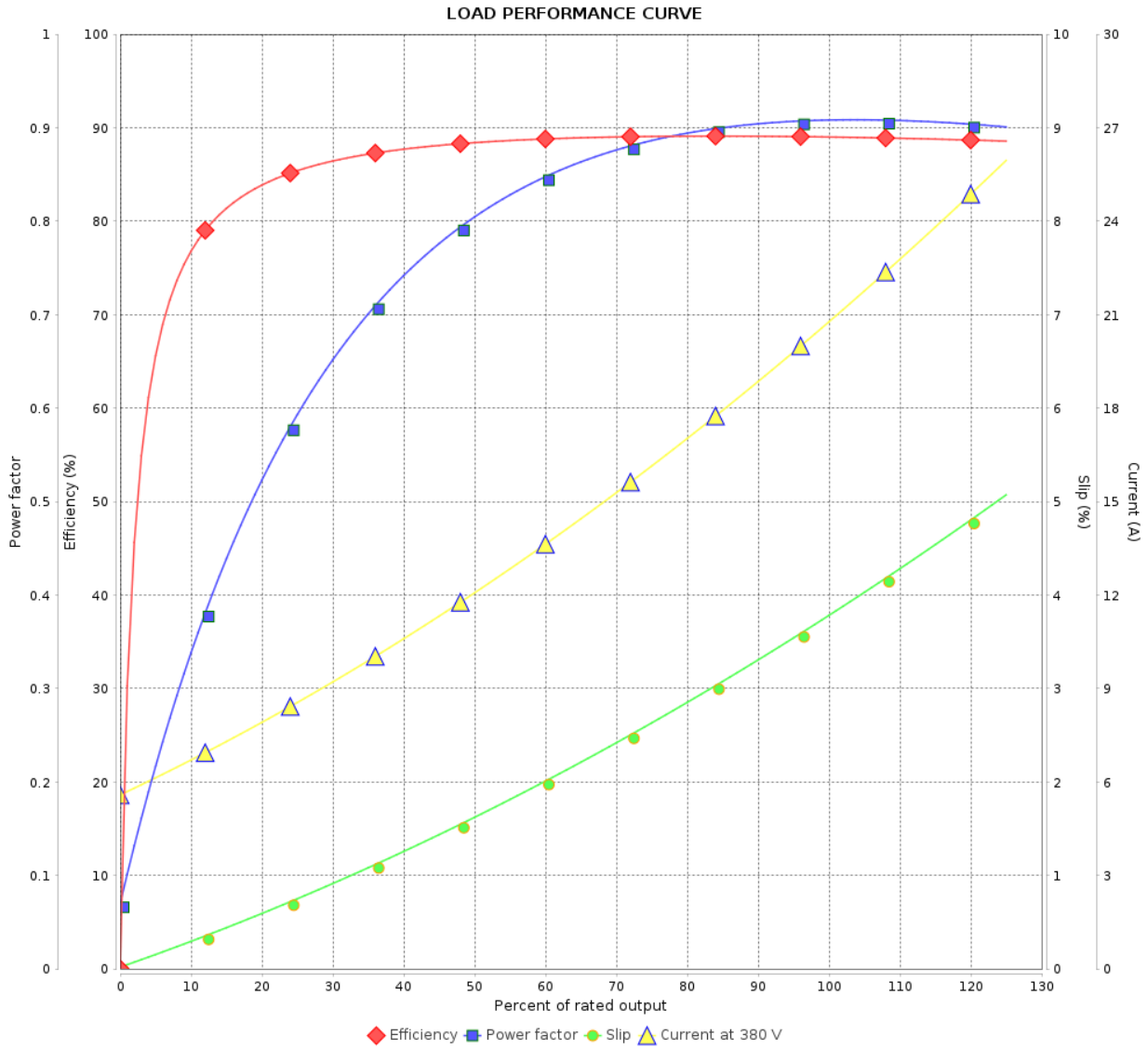

Performance	: 380 V 50 Hz 2P IE1		
Rated current	: 20.6 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.77 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2885 rpm	Design	: A

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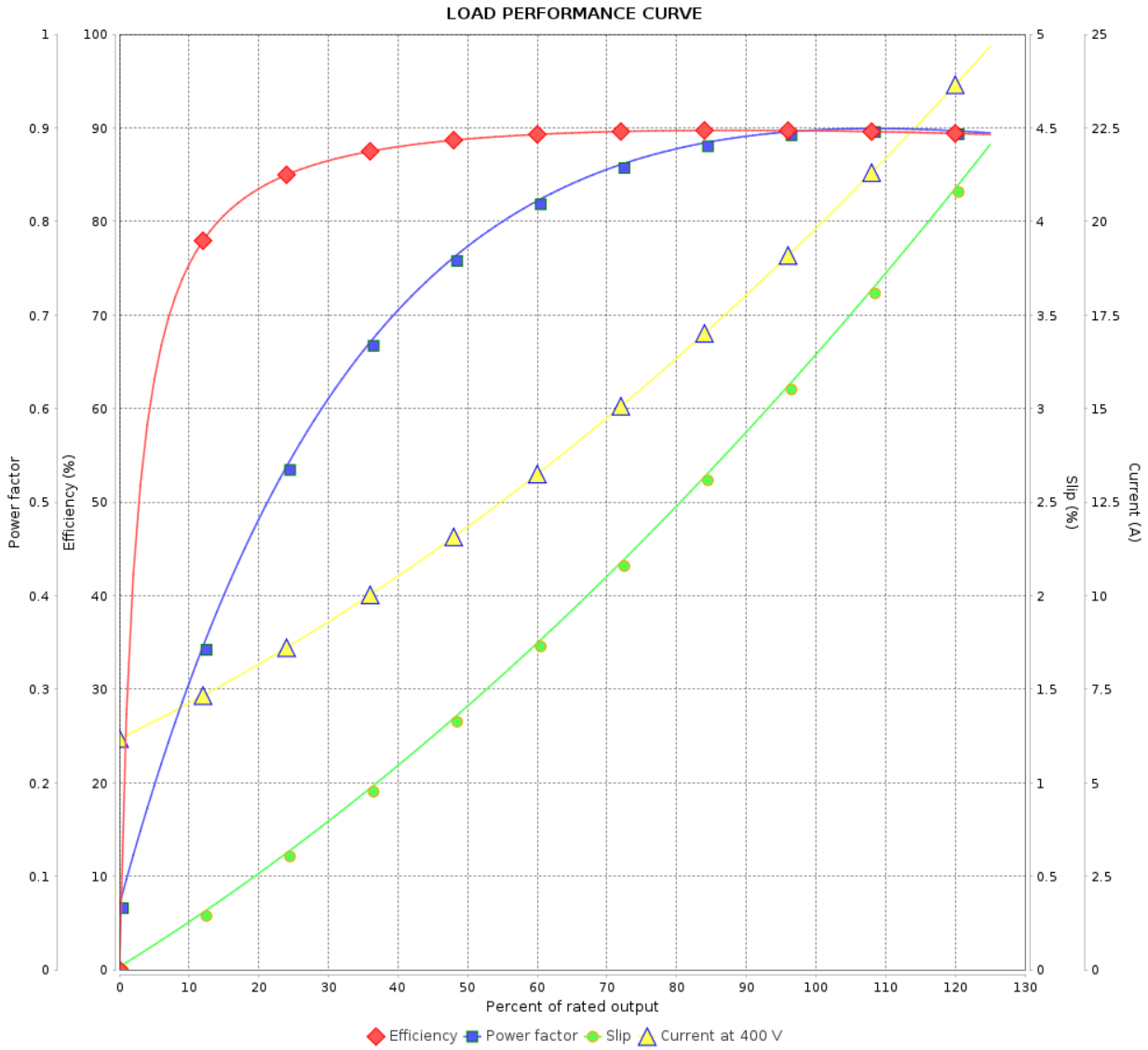

Performance	: 400 V 50 Hz 2P IE2		
Rated current	: 19.7 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 3.75 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 2900 rpm	Design	: A

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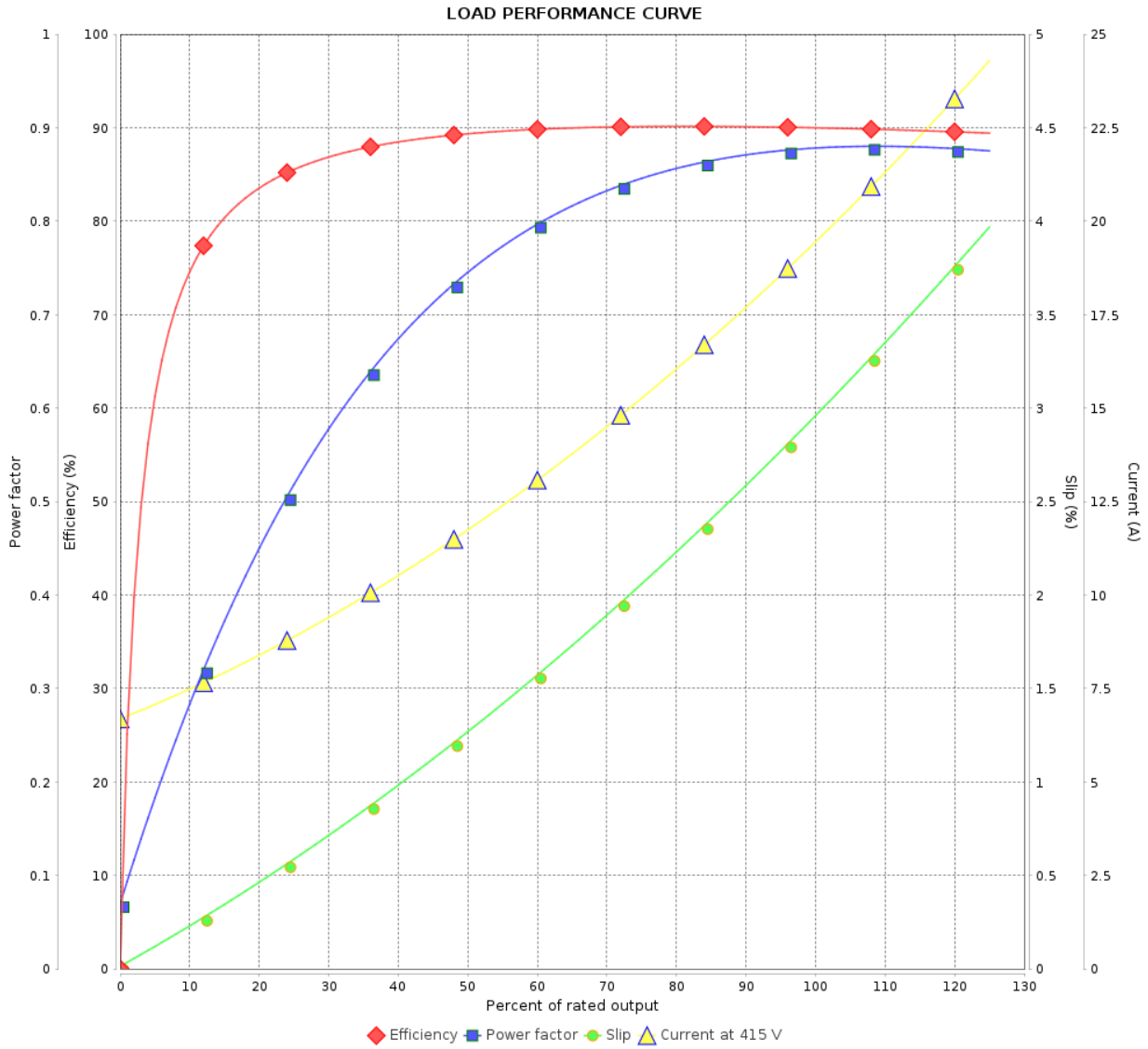

Performance	: 415 V 50 Hz 2P IE2

Rated current	: 19.3 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.74 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 105 K
Rated speed	: 2910 rpm	Design	: A

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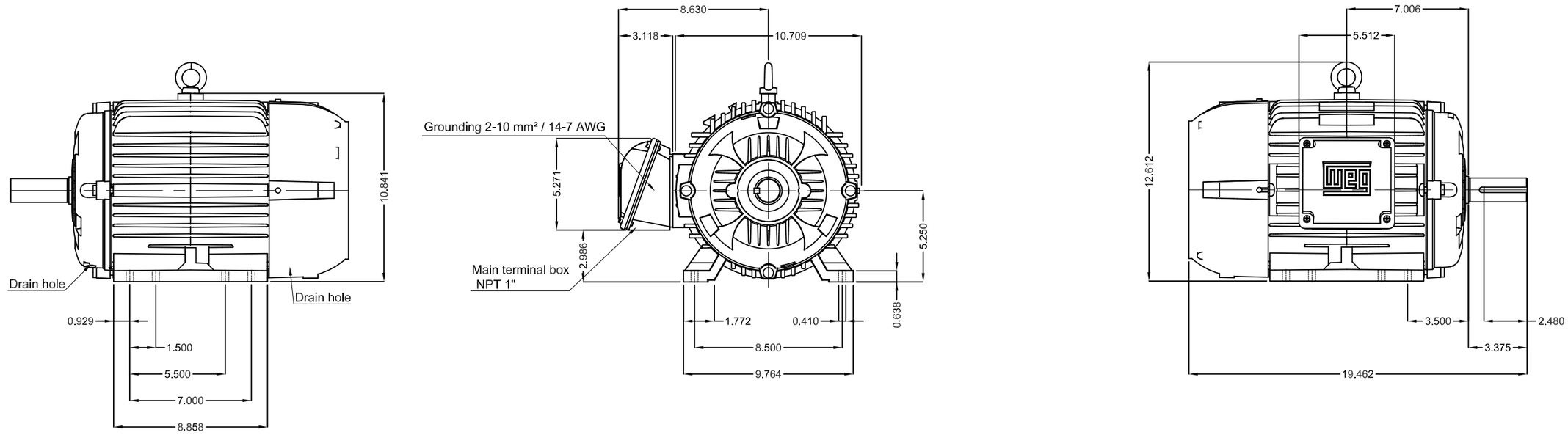
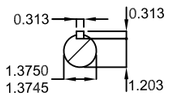


DE Shaft End



Color RAL 5009

Painting plan 207A

Mounting B3R(D)

15 HP 02 Poles 60 Hz | A

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CHECKED	
RELEASED	
REL. DATE	

THREE PH. MOTOR W22 NEMA PREM. EFF.
FRAME 213/5T IP55 TEFC

PREVIEW

WDD 00

SHEET /

Dimensions in inches

A3

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