

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563

Frame	: 160M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3L(E)
Duty cycle	: S1	Rotation <sup>1</sup>	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>3</sup>	: 126 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0419 kgm <sup>2</sup>
Design	: N		

Output [HP]	15	15	15
Poles	2	2	2
Frequency [Hz]	50	50	60
Rated voltage [V]	380	415	230/460
Rated current [A]	21.1	20.2	35.8/17.9
L. R. Amperes [A]	158	172	322/161
LRC [A]	7.5	8.5	9.0
No load current [A]	7.60	9.00	16.0/8.00
Rated speed [RPM]	2950	2955	3560
Slip [%]	1.67	1.50	1.11
Rated torque [kgfm]	3.70	3.68	3.06
Locked rotor torque [%]	240	300	330
Breakdown torque [%]	310	370	400
Service factor	1.00	1.00	1.25
Temperature rise	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	19s (cold) 11s (hot)	23s (cold) 13s (hot)
Noise level <sup>2</sup>	67.0 dB(A)	67.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%		
	50%	90.7	89.9
	75%	91.2	91.3
	100%	91.2	91.4
Power Factor	25%		
	50%	0.74	0.65
	75%	0.83	0.77
	100%	0.87	0.83

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

Losses (%)	P1 (0,9;1,0)	9.0	8.8	8.4
	P2 (0,5;1,0)	6.5	6.3	6.1
	P3 (0,25;1,0)	5.8	5.7	5.5
	P4 (0,9;0,5)	5.7	5.6	5.4
	P5 (0,5;0,5)	3.3	3.2	3.1
	P6 (0,5;0,25)	2.5	2.5	2.4
	P7 (0,25;0,25)	1.6	1.5	1.5

	Drive end	Non drive end	Foundation loads
Bearing type	: 6309 C3	6209 C3	Max. traction : 129 kgf
Sealing	: V'Ring	V'Ring	Max. compression : 255 kgf
Lubrication interval	: 19000 h	20000 h	
Lubricant amount	: 13 g	9 g	
Lubricant type	: Mobil Polyrex EM		

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	25/10/2024			

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Revision

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## Three Phase Induction Motor - Squirrel Cage



Customer :

Notes

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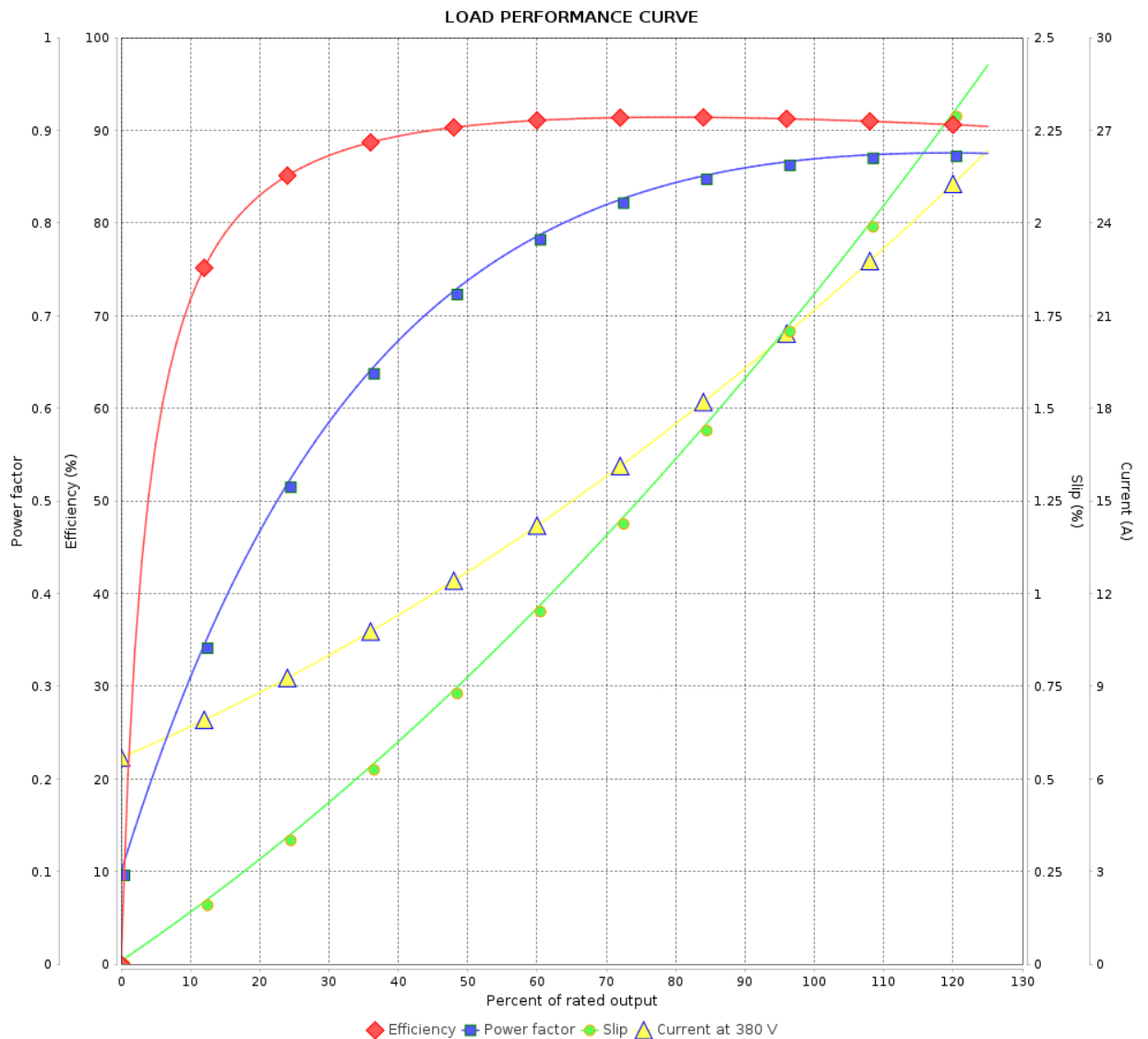
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563



Performance : 380 V 50 Hz 2P

Rated current	: 21.1 A	Moment of inertia (J)	: 0.0419 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 3.70 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: N

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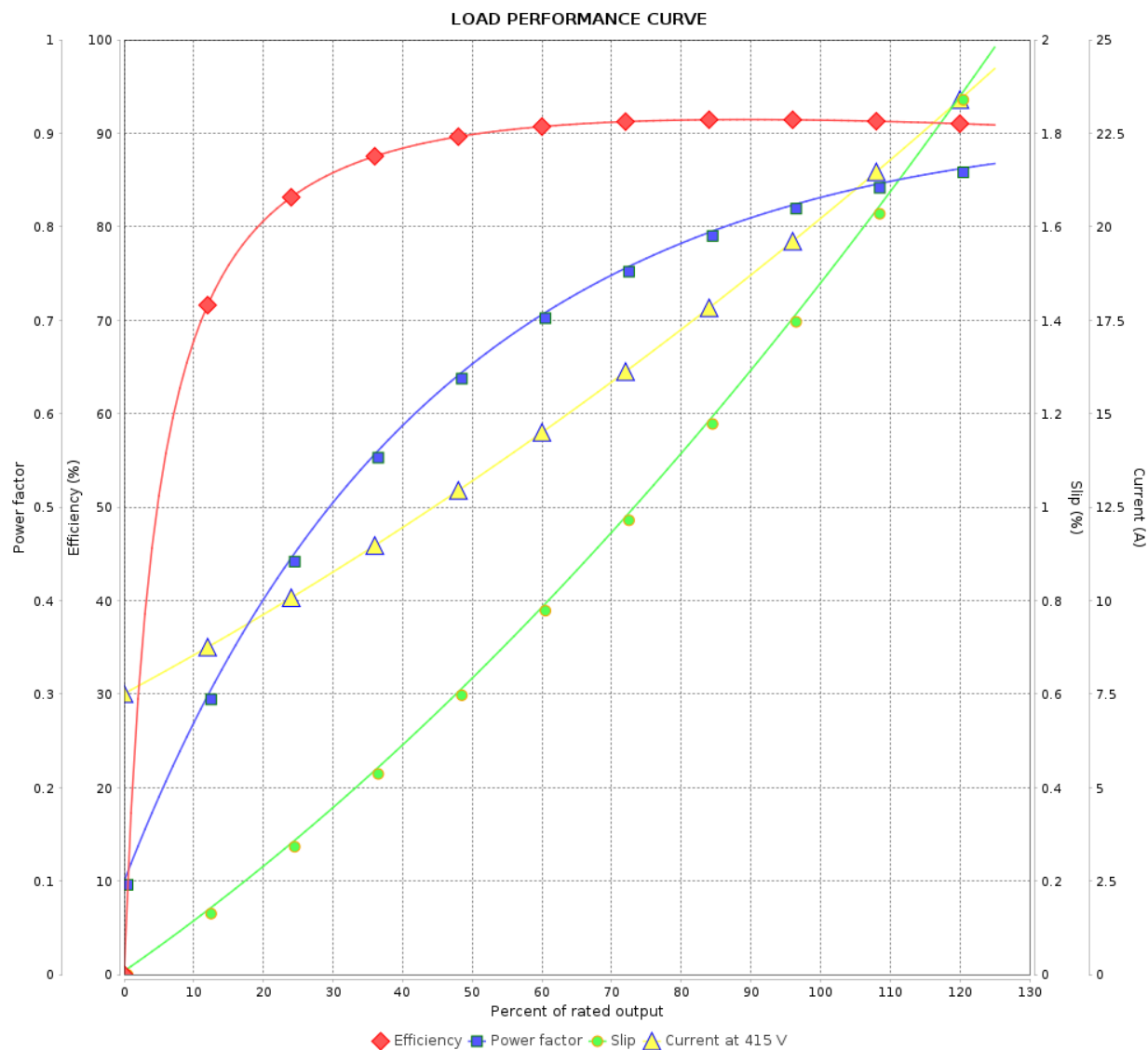
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563



Performance : 415 V 50 Hz 2P

Rated current	: 20.2 A	Moment of inertia (J)	: 0.0419 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 3.68 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: N

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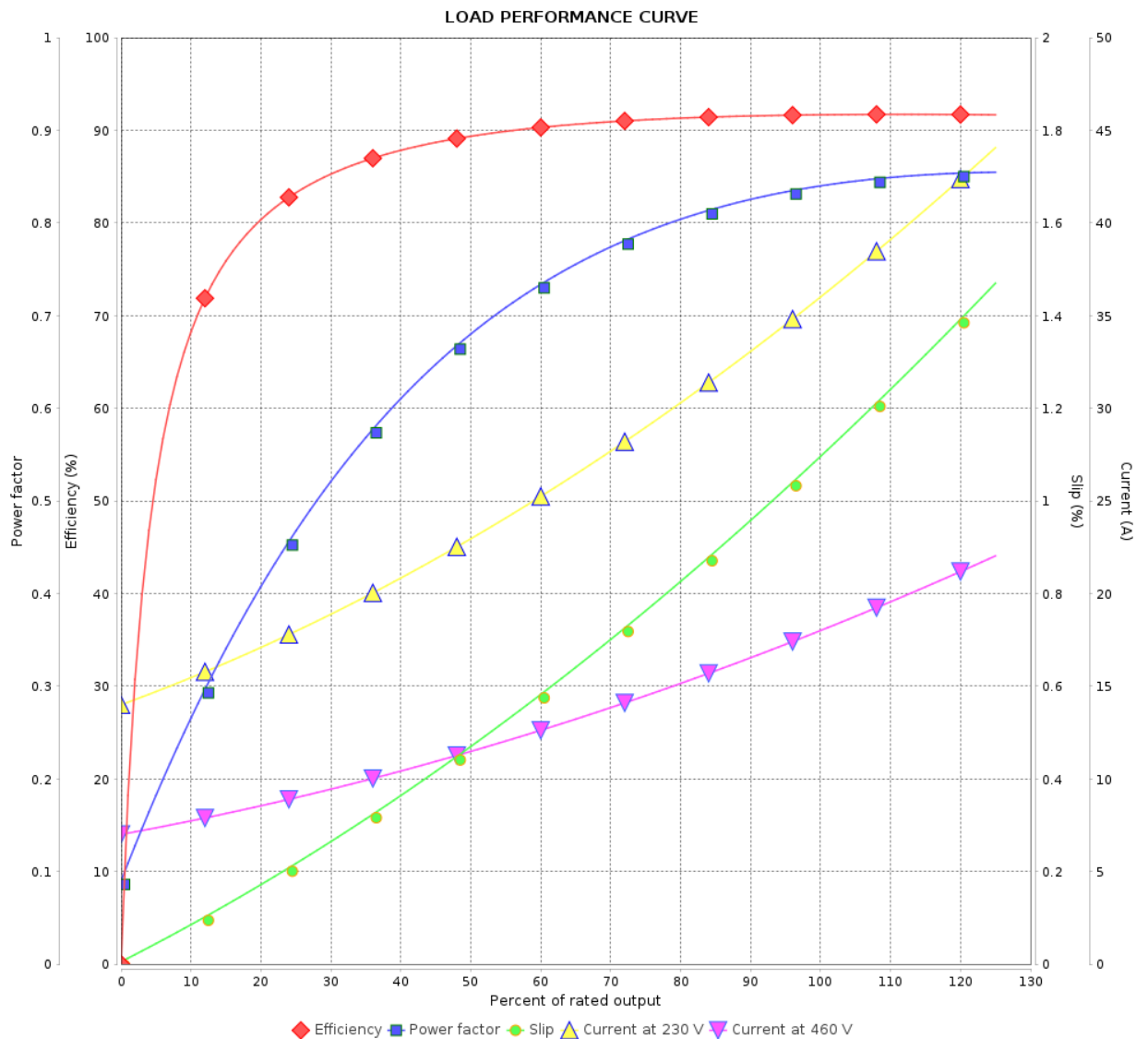
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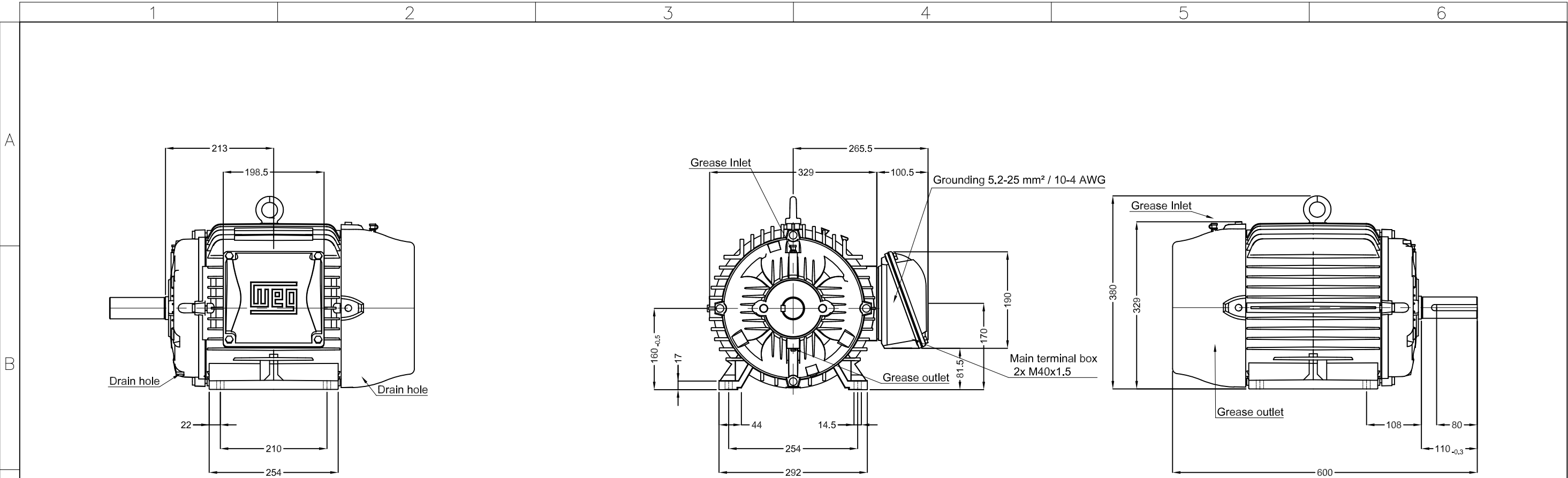


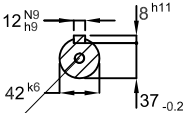

Performance : 230/460 V 60 Hz 2P

Rated current : 35.8/17.9 A  
LRC : 9.0  
Rated torque : 3.06 kgfm  
Locked rotor torque : 330 %  
Breakdown torque : 400 %  
Rated speed : 3560 rpm

Moment of inertia (J) : 0.0419 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : N

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D					15 HP   02 Poles   60 Hz										A
E	<div>DE Shaft End</div> <div></div> <div>DM16 WEG WPR-7339 (DS DIN332)</div>			15 HP   02 Poles   60 Hz										A	
Without vertical jackscrews				HYBRISUSER				THREE PH. MOTOR W22 IE3				PREVIEW			
Color RAL 5009								FRAME 160M IP55 TEFC				WDD   00			
Painting plan 203A												SHEET   /			
Mounting B3L(E)															