

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Close Coupled Pump JM Product code : 12082015
 NEMA Premium Efficiency Three-Phase

Frame : 213/5JM	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 ² : 82.7 kg
Protection degree : IP55	Moment of inertia (J) : 0.0636 kgm ²
Design : B	

Output [HP]	10	7.5	7.5	7.5	10	10	10
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	25.3/12.7	11.5	11.4	11.3	15.2	14.4	14.1
L. R. Amperes [A]	162/81.1	86.2	91.5	96.1	90.9	93.6	98.8
LRC [A]	6.4x(Code H)	7.5x(Code J)	8.0x(Code K)	8.5x(Code L)	6.0x(Code G)	6.5x(Code H)	7.0x(Code H)
No load current [A]	11.3/5.65	5.60	6.00	6.35	5.60	6.00	6.35
Rated speed [RPM]	1765	1465	1470	1470	1450	1455	1460
Slip [%]	1.94	2.33	2.00	2.00	3.33	3.00	2.67
Rated torque [kgfm]	4.11	3.70	3.69	3.69	5.01	4.99	4.95
Locked rotor torque [%]	200	200	240	260	150	180	190
Breakdown torque [%]	295	300	340	360	220	250	270
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	58.0 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%	91.0	90.0	89.2	88.7	90.3	90.3
	75%	91.7	90.0	89.9	89.8	90.2	90.2
	100%	91.7	89.8	90.1	90.3	88.5	89.5
Power Factor	25%						
	50%	0.65	0.61	0.57	0.53	0.72	0.68
	75%	0.76	0.74	0.70	0.67	0.81	0.79
	100%	0.81	0.81	0.77	0.75	0.85	0.84

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

Losses (%)	P1 (0,9;1,0)	8.8	11.0	10.7	10.4	12.6	11.4	10.6
	P2 (0,5;1,0)	7.3	9.2	8.9	8.7	10.5	9.5	8.8
	P3 (0,25;1,0)	7.0	8.8	8.5	8.3	10.1	9.1	8.4
	P4 (0,9;0,5)	4.6	5.8	5.6	5.5	6.6	6.0	5.6
	P5 (0,5;0,5)	3.2	4.0	3.9	3.8	4.6	4.1	3.8
	P6 (0,5;0,25)	2.3	2.8	2.7	2.7	3.2	2.9	2.7
	P7 (0,25;0,25)	1.6	2.0	1.9	1.9	2.2	2.0	1.9

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6309 Z C3	6207 ZZ	Max. traction : 207 kgf
Sealing	: V'Ring	V'Ring	Max. compression : 289 kgf
Lubrication interval	: 20000 h	40000 h	
Lubricant amount	: 13 g	0 g	
Lubricant type	: Mobil Polyrex EM		

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Notes

USABLE @208V 27.4A SF 1.15 SFA 31.5A

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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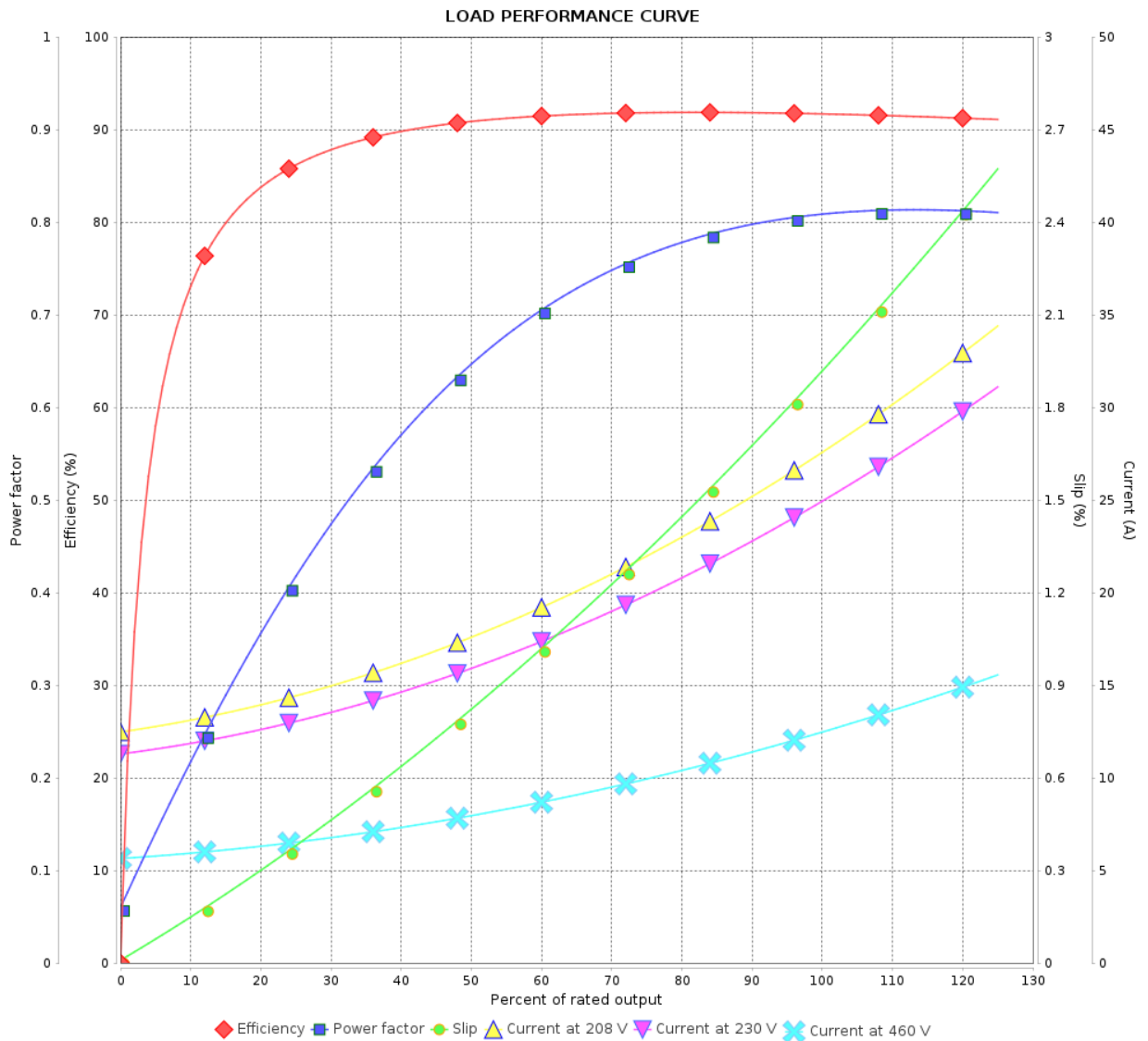
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM
NEMA Premium Efficiency Three-Phase

Product code : 12082015



Performance : 230/460 V 60 Hz 4P

Rated current : 25.3/12.7 A
 LRC : 6.4
 Rated torque : 4.11 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 295 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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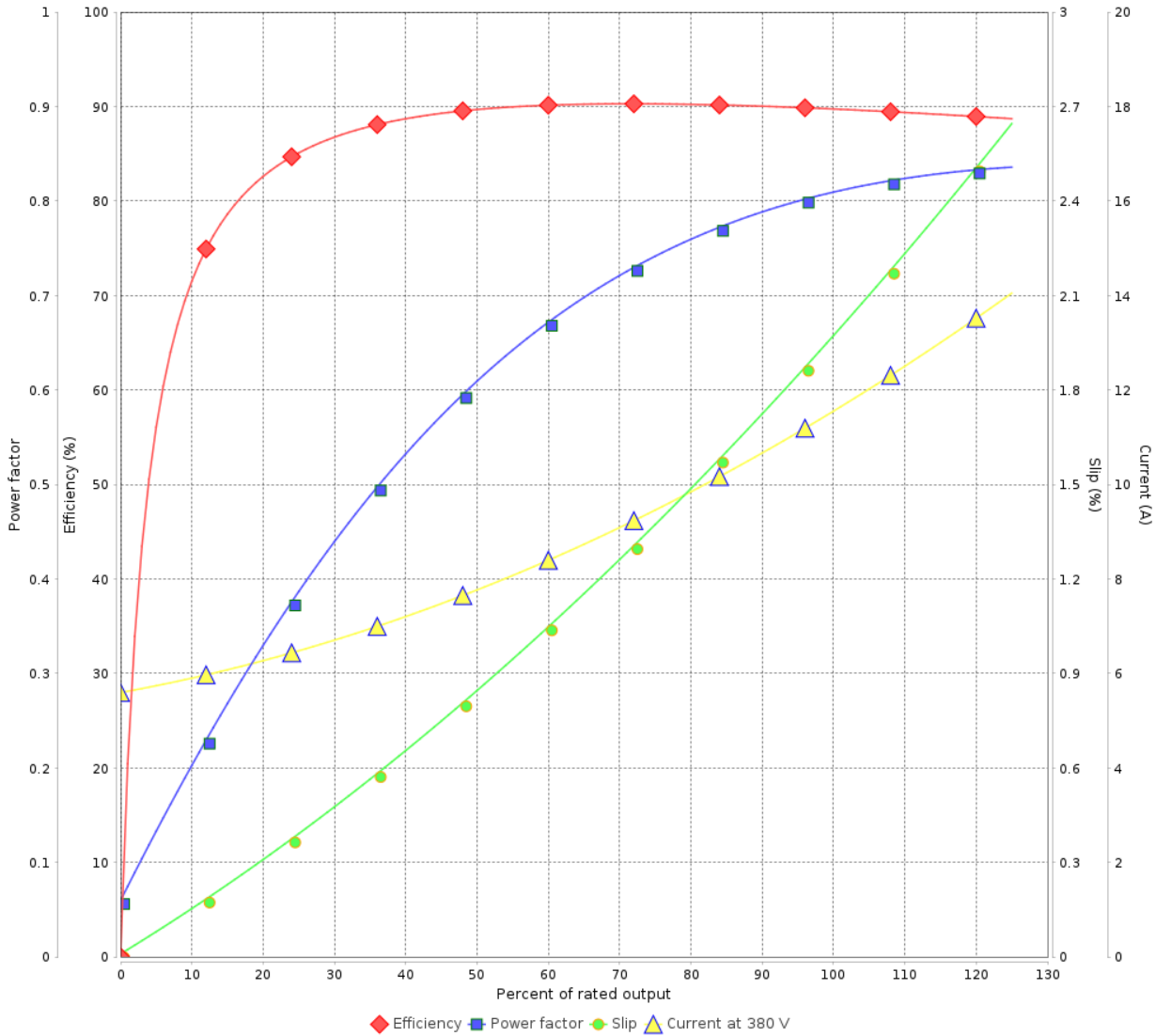
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM
 NEMA Premium Efficiency Three-Phase
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Performance : 380 V 50 Hz 4P IE3

Rated current	: 11.5 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.70 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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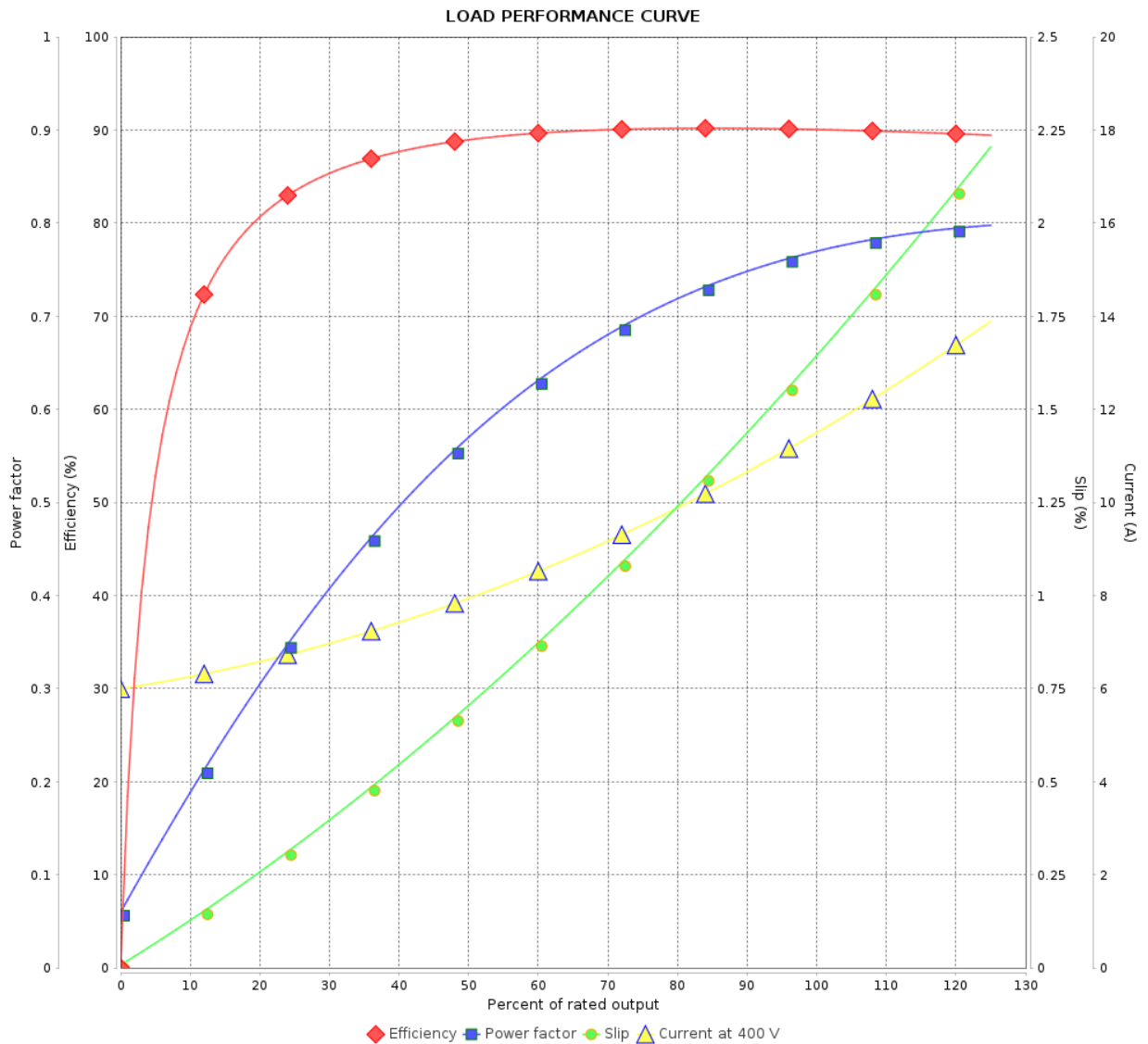
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM
NEMA Premium Efficiency Three-Phase

Product code : 12082015



Performance : 400 V 50 Hz 4P IE3

Rated current : 11.4 A
 LRC : 8.0
 Rated torque : 3.69 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 340 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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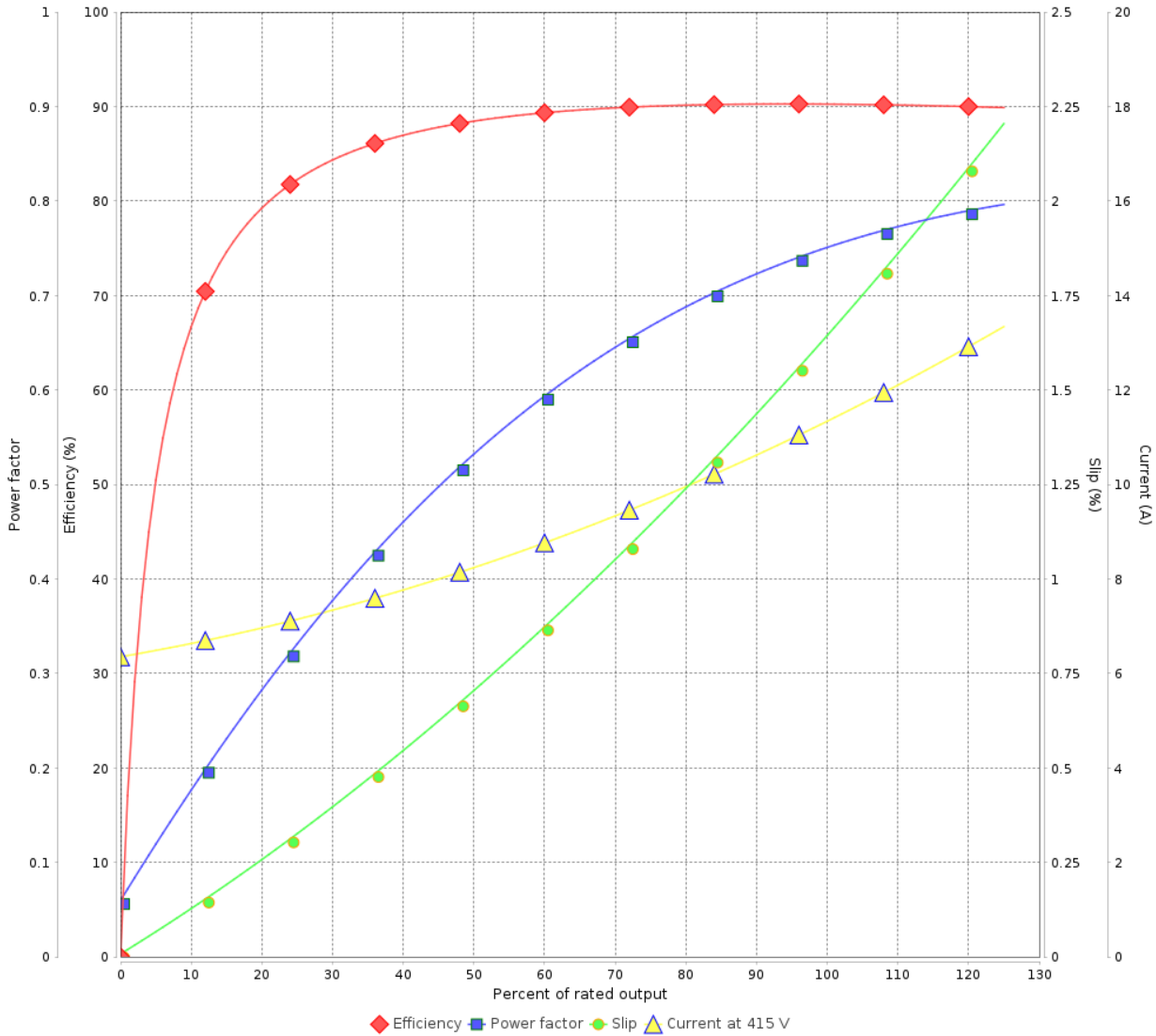
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM
 NEMA Premium Efficiency Three-Phase
 Product code : 12082015

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 11.3 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.69 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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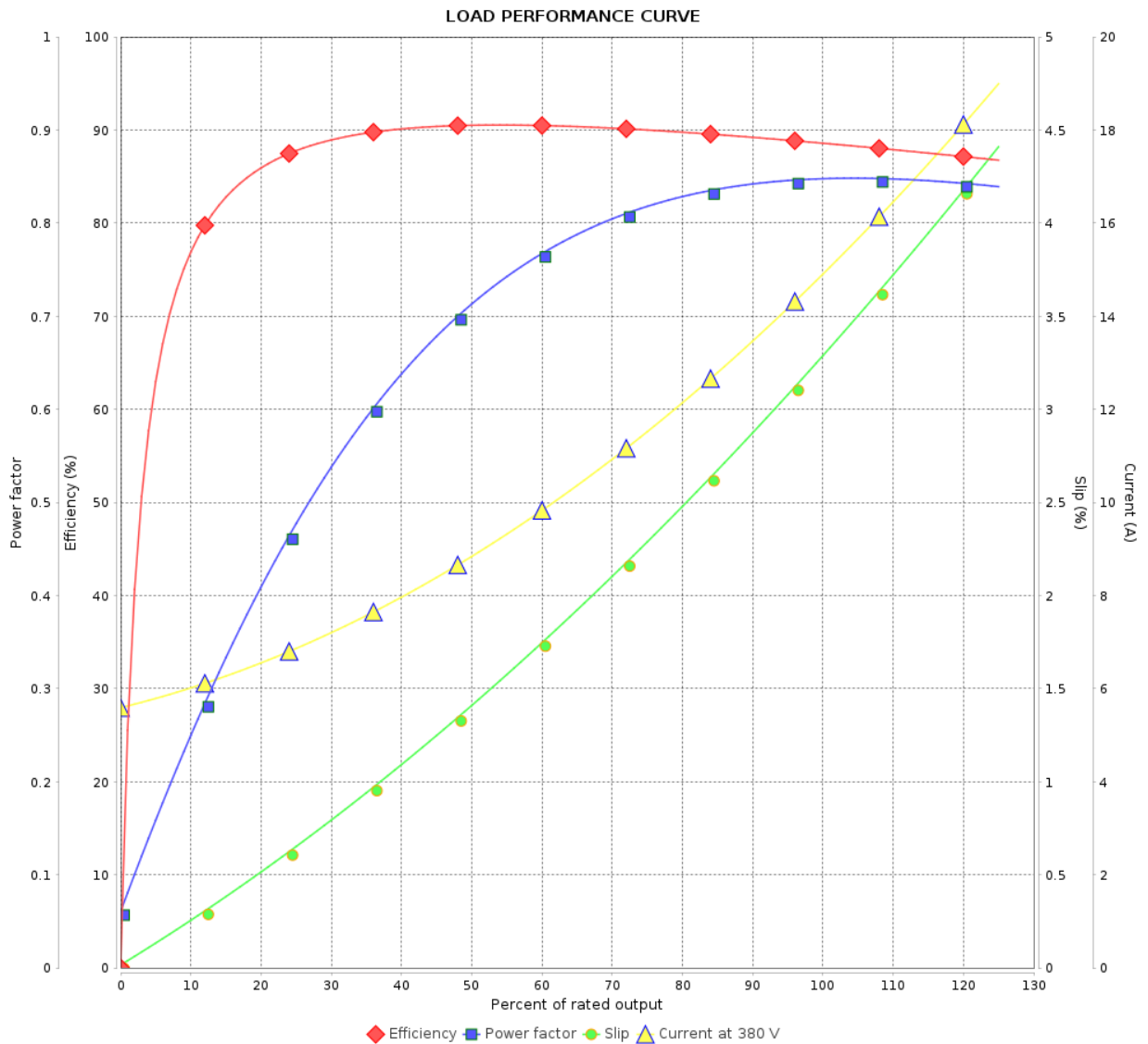
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM
NEMA Premium Efficiency Three-Phase

Product code : 12082015



Performance : 380 V 50 Hz 4P IE1

Rated current : 15.2 A
LRC : 6.0
Rated torque : 5.01 kgfm
Locked rotor torque : 150 %
Breakdown torque : 220 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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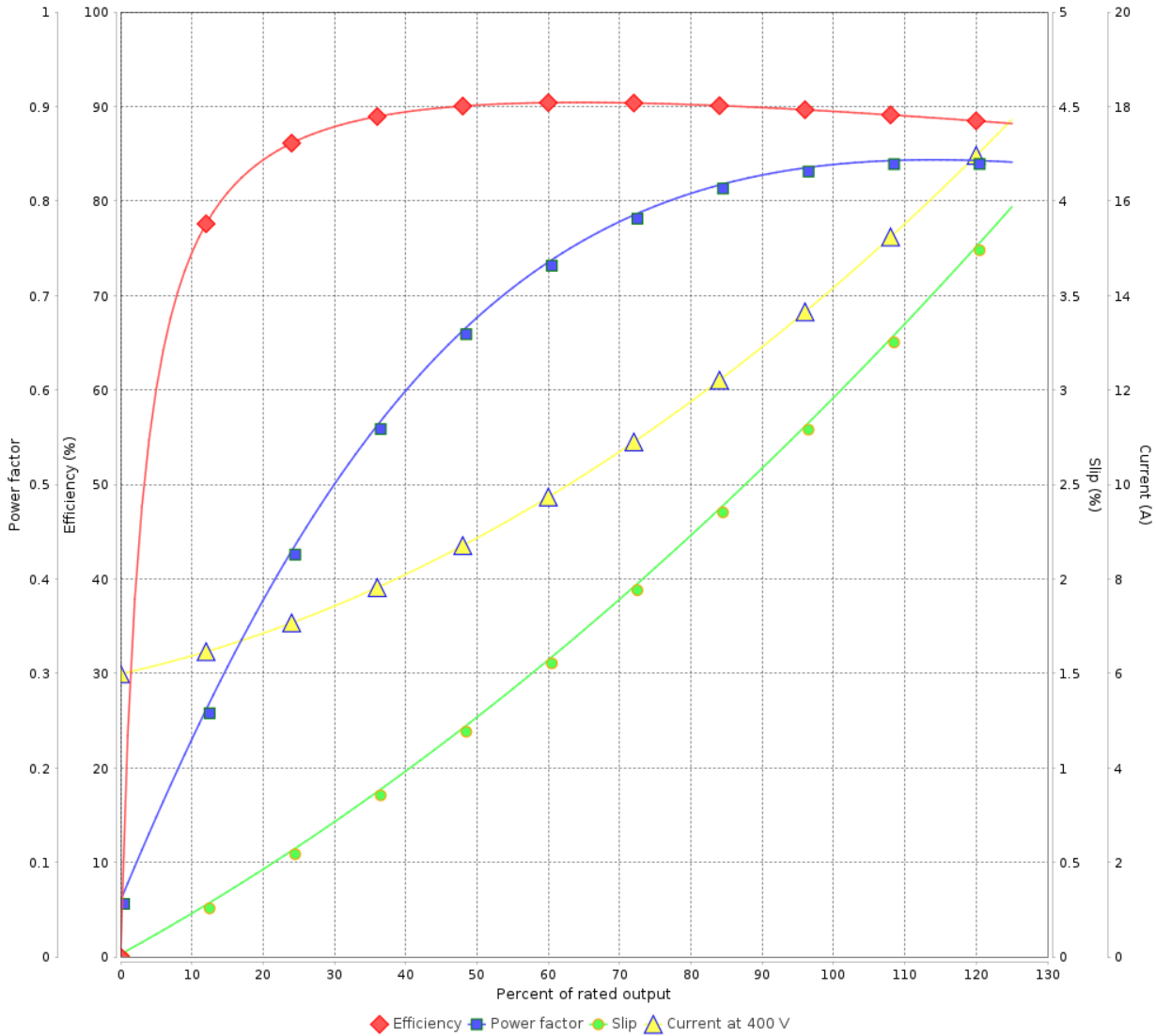
Three Phase Induction Motor - Squirrel Cage



Customer :

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 NEMA Premium Efficiency Three-Phase
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Performance : 400 V 50 Hz 4P IE2

Rated current	: 14.4 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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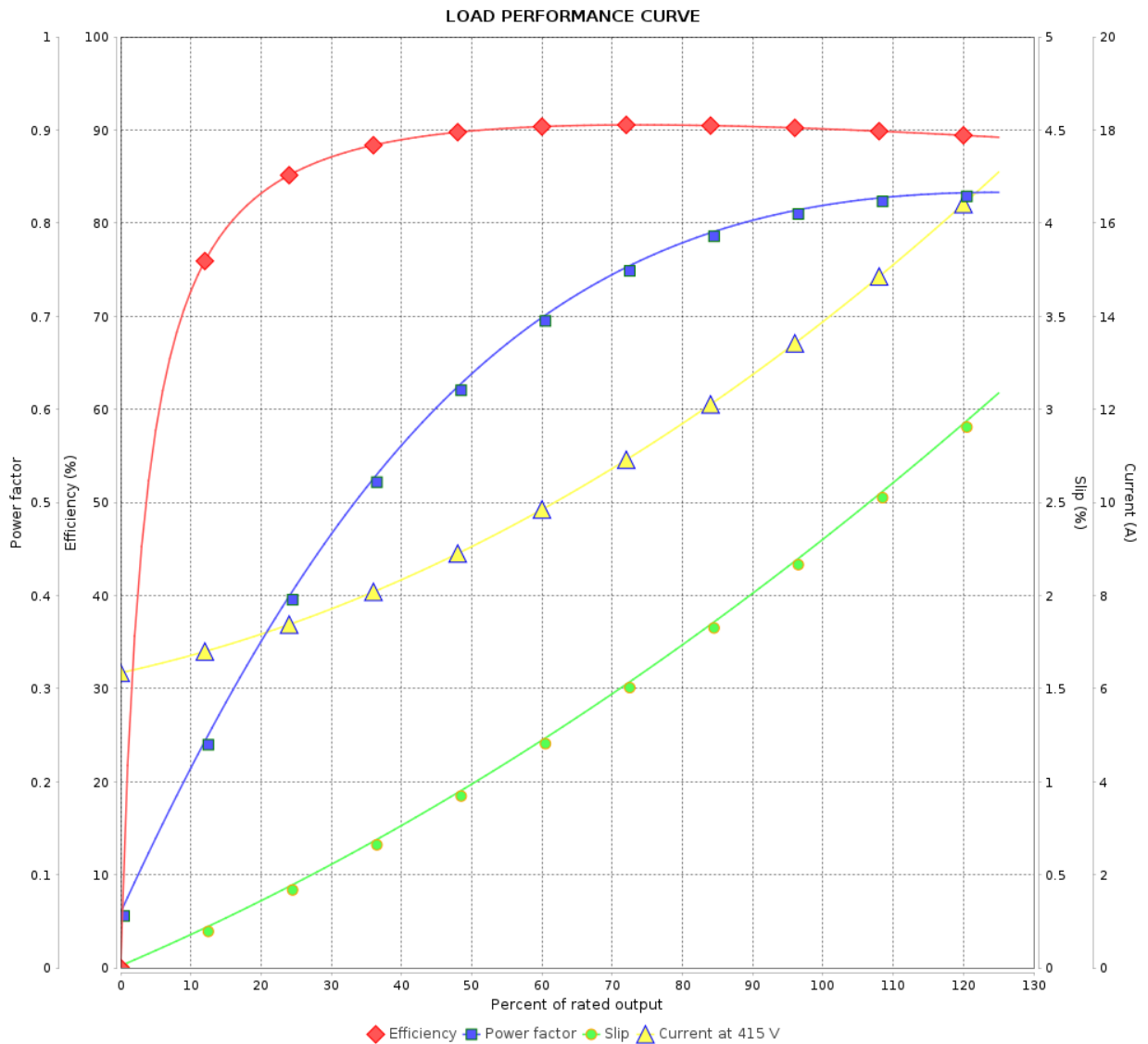
Three Phase Induction Motor - Squirrel Cage



Customer :

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NEMA Premium Efficiency Three-Phase

Product code : 12082015

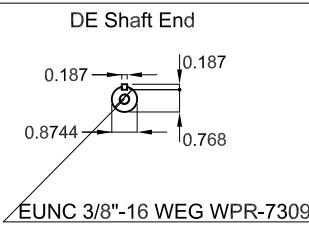
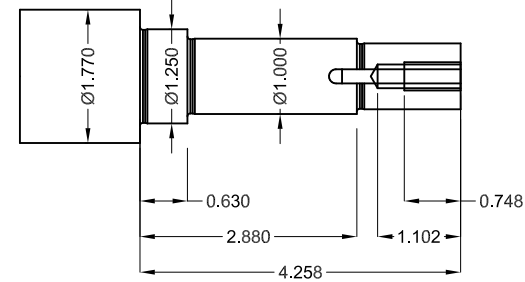
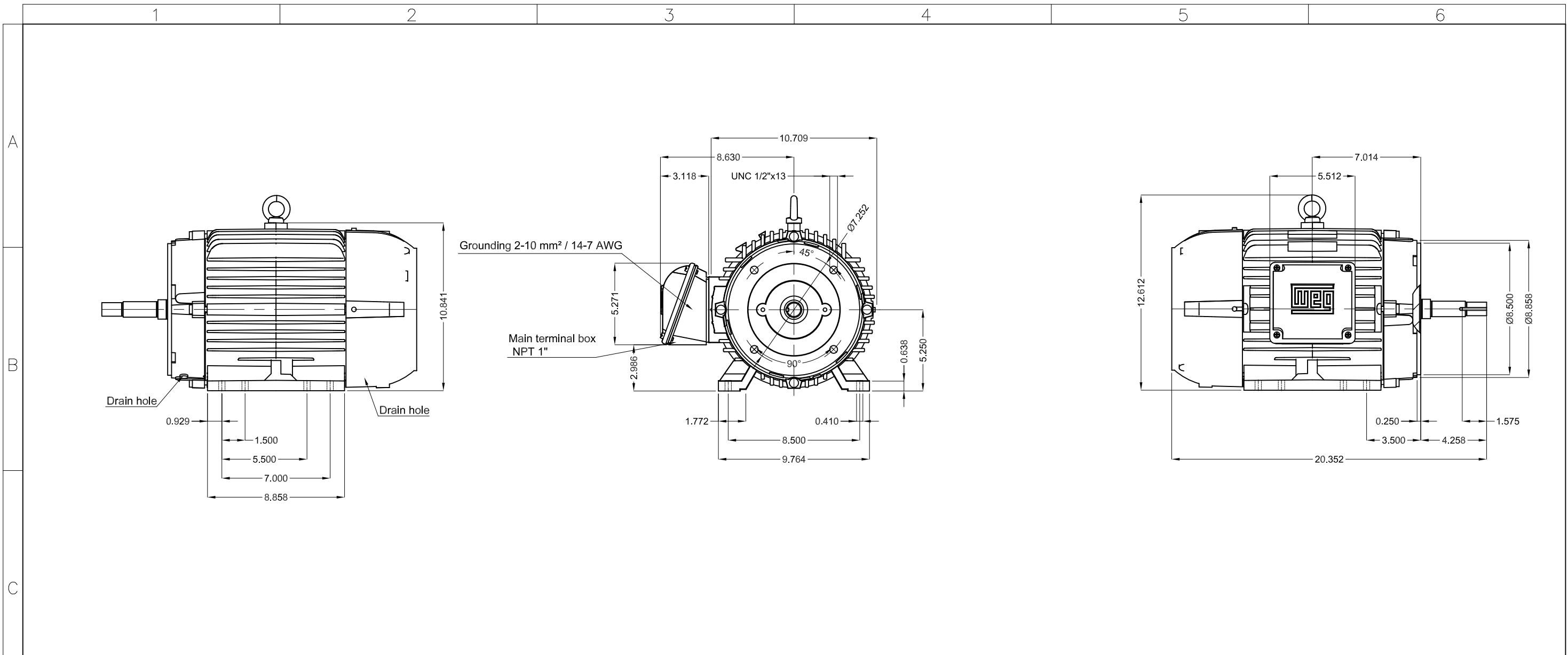


Performance : 415 V 50 Hz 4P IE2

Rated current : 14.1 A
LRC : 7.0
Rated torque : 4.95 kgfm
Locked rotor torque : 190 %
Breakdown torque : 270 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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Color RAL 5009
 Painting plan 207A
 Mounting B34R(D)

10 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR JM/JP/JET PUMP W22 NEMA PREM. EFF. FRAME 213/5JM IP55 TEFC					
CHECKED							
RELEASED							
REL. DATE							

PREVIEW
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