

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12837721
Frame	: 143/5TC	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(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>	: 22.6 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0070 kgm <sup>2</sup>
Design	: B		
Output [HP]	3	3	3
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190-220/380	415
Rated current [A]	7.02/3.51	8.50-7.34/4.25	3.91
L. R. Amperes [A]	66.7/33.3	62.9-54.3/31.5	34.8
LRC [A]	9.5x(Code K)	7.4x(Code H)	8.9x(Code K)
No load current [A]	2.56/1.28	2.52-2.18/1.26	1.44
Rated speed [RPM]	3500	2870	2895
Slip [%]	2.78	4.33	3.50
Rated torque [kgfm]	0.622	0.759	0.752
Locked rotor torque [%]	300	229	290
Breakdown torque [%]	380	280	340
Service factor		1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	14s (cold) 8s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%		
	50%	84.0	86.6
	75%	86.5	86.4
	100%	86.5	84.6
Power Factor	25%		
	50%	0.78	0.83
	75%	0.87	0.90
	100%	0.91	0.93
Bearing type	: <u>Drive end</u> 6205 ZZ	<u>Non drive end</u> 6203 ZZ	Foundation loads
Sealing	: V'Ring	Without Bearing Seal	Max. traction : 61 kgf
Lubrication interval	: -	-	Max. compression : 84 kgf
Lubricant amount	: -	-	
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 7.76A SF 1.00 SFA 7.76A			
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			Page
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# LOAD PERFORMANCE CURVE

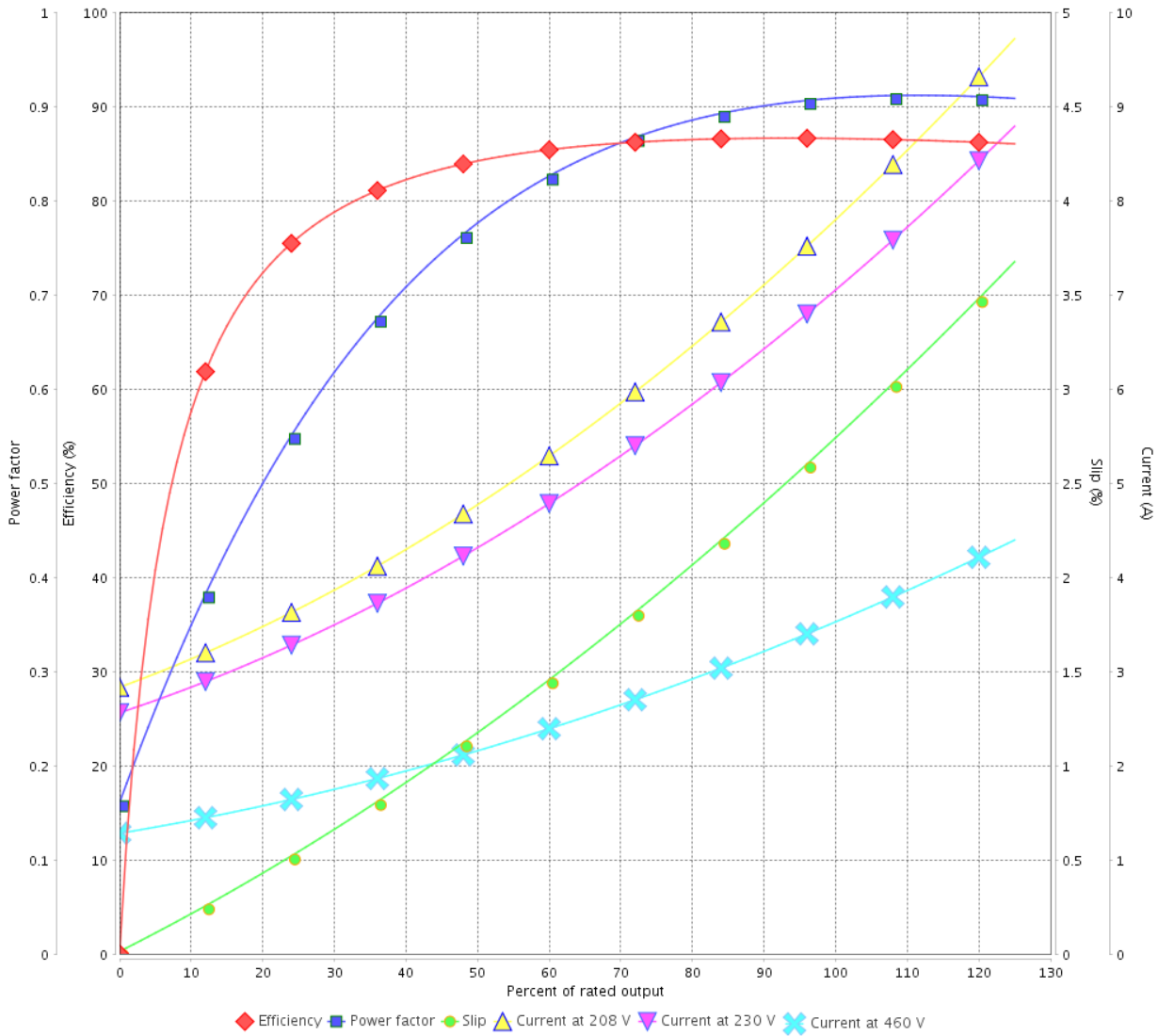
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase      Product code : 12837721

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 0.622 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.0070 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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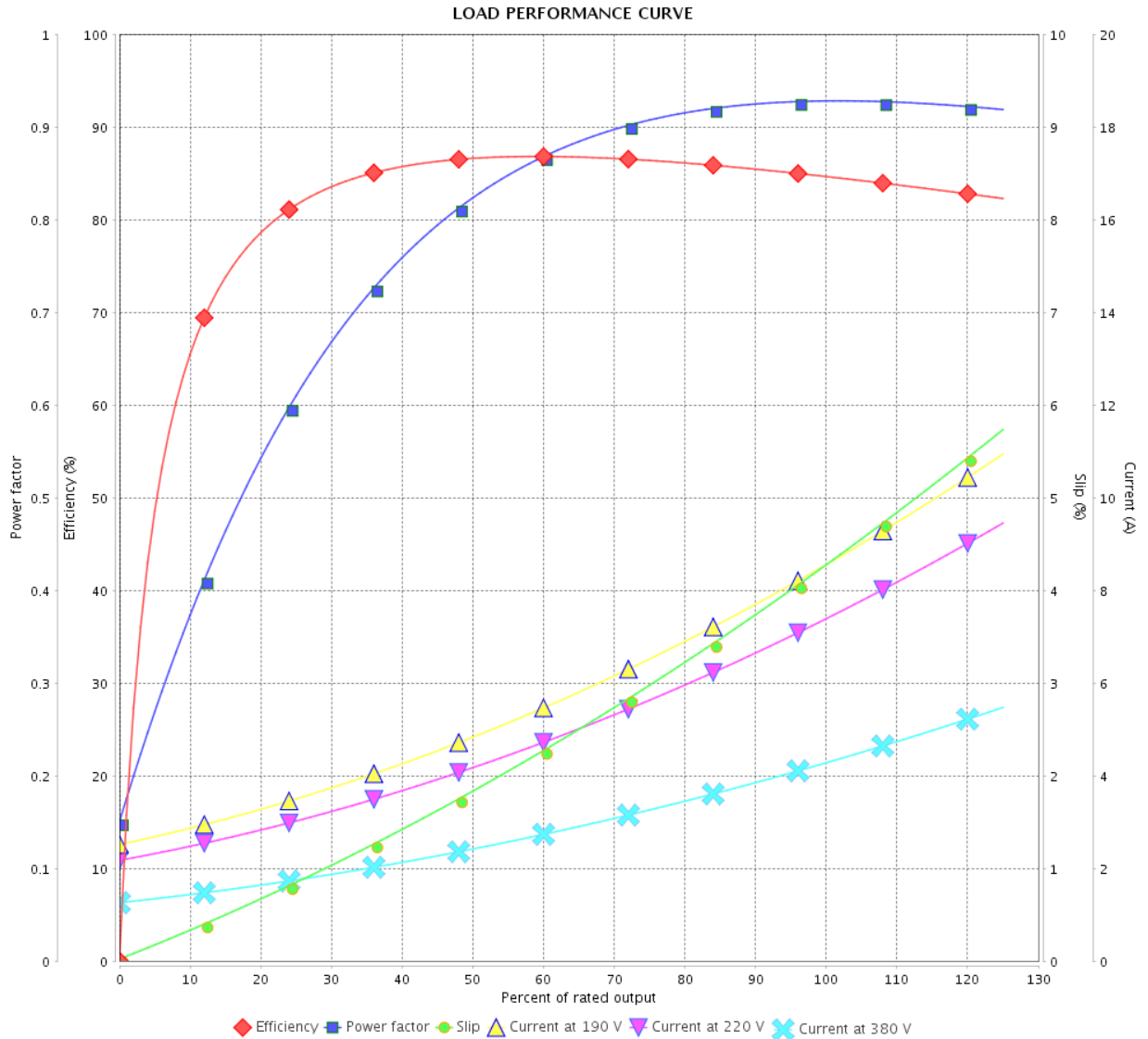
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase      Product code : 12837721



Performance : 190-220/380 V 50 Hz 2P

Rated current : 8.50-7.34/4.25 A  
 LRC : 7.4  
 Rated torque : 0.759 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.0070 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

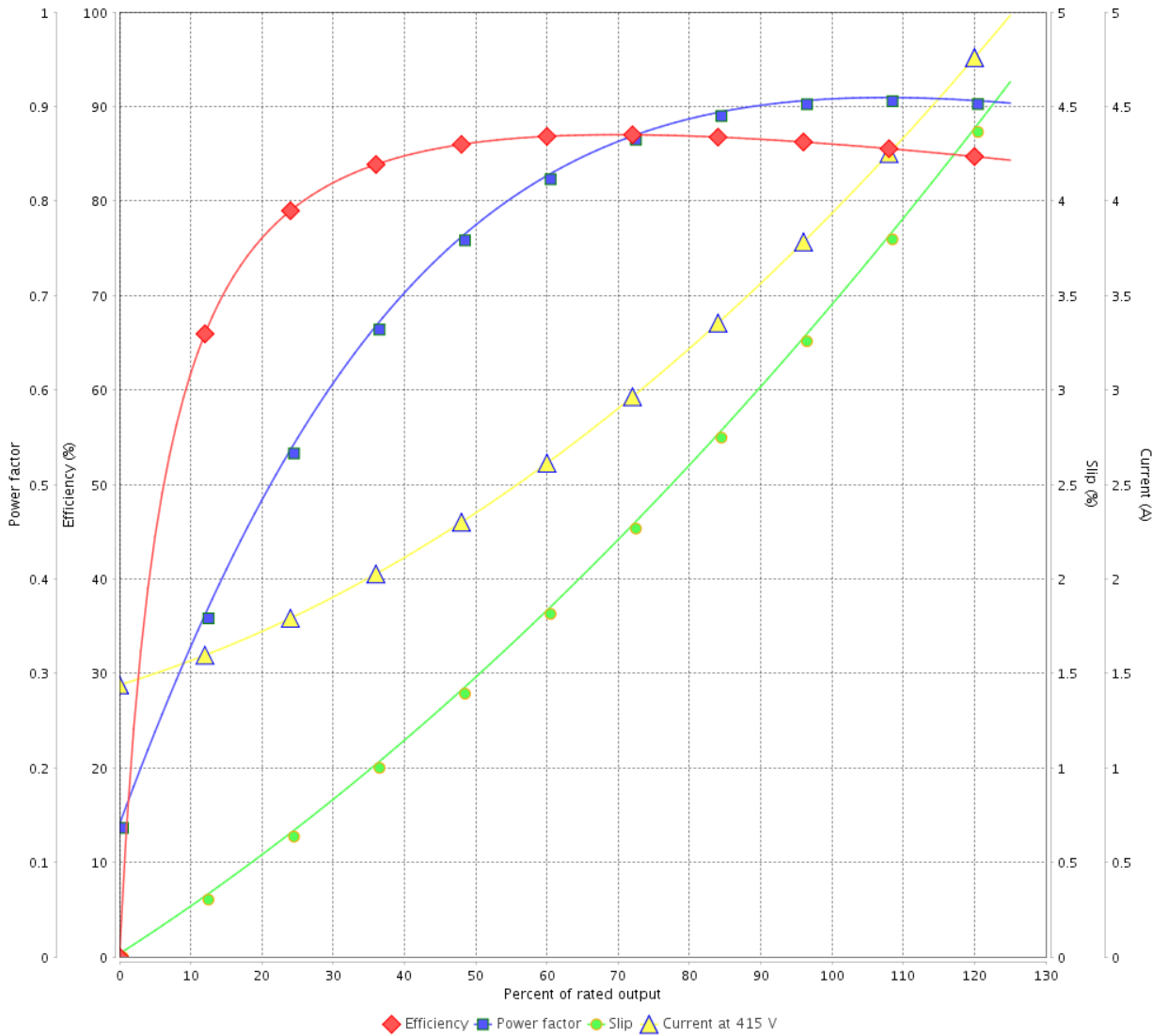
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase      Product code : 12837721

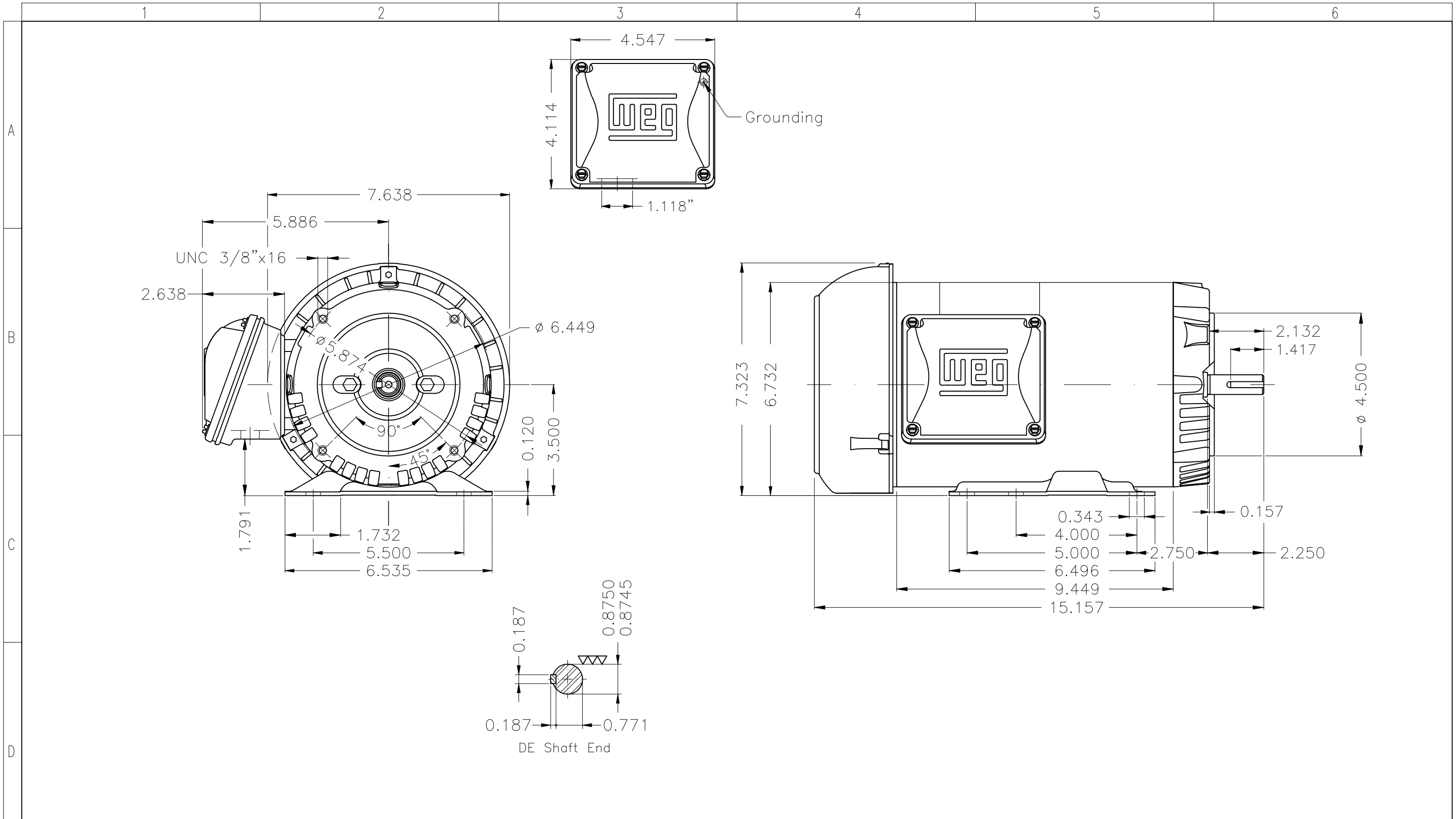
LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P

Rated current	: 3.91 A	Moment of inertia (J)	: 0.0070 kgm <sup>2</sup>
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 0.752 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2895 rpm	Design	: B

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A  
B  
C  
D  
E

Dimensions in inches  
XME A3

Color Munsell N 1 matte black						
Painting plan 207N						
Mounting B34D						
					HYBRISUSER	00
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED
EXECUTED	HYBRISUSER	THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF.				
CHECKED		FRAME 143/5TC IP55 TEFC				
RELEASED						
REL. DATE		WMO	Jaragua do Sul	Product Engineering		

3 HP 02 Poles 60 Hz

A

PREVIEW  
WDD 00  
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