

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12636593
Frame	: 254/6T	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>	: 99.4 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0514 kgm <sup>2</sup>
Design	: B		
Output [HP]	20	15	15
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	45.4/22.7	40.8/20.4	36.8/19.5
L. R. Amperes [A]	300/150	302/151	298/158
LRC [A]	6.6x(Code G)	7.4x(Code H)	8.1x(Code J)
No load current [A]	13.8/6.88	13.6/6.79	13.7/7.26
Rated speed [RPM]	3515	2925	2935
Slip [%]	2.36	2.50	2.17
Rated torque [kgfm]	4.13	3.72	3.71
Locked rotor torque [%]	200	210	240
Breakdown torque [%]	290	310	340
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	80 K
Locked rotor time	21s (cold) 12s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level <sup>2</sup>	75.0 dB(A)	72.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%	89.7	91.8
	50%	90.0	91.5
	75%	91.0	92.0
	100%	91.0	91.4
Power Factor	25%	0.55	0.48
	50%	0.81	0.75
	75%	0.88	0.85
	100%	0.91	0.89
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 148 kgf
Lubrication interval	: 15797 h 20000 h	Max. compression	: 248 kgf
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 50.2A SF 1.00 SFA 50.2A			
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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# LOAD PERFORMANCE CURVE

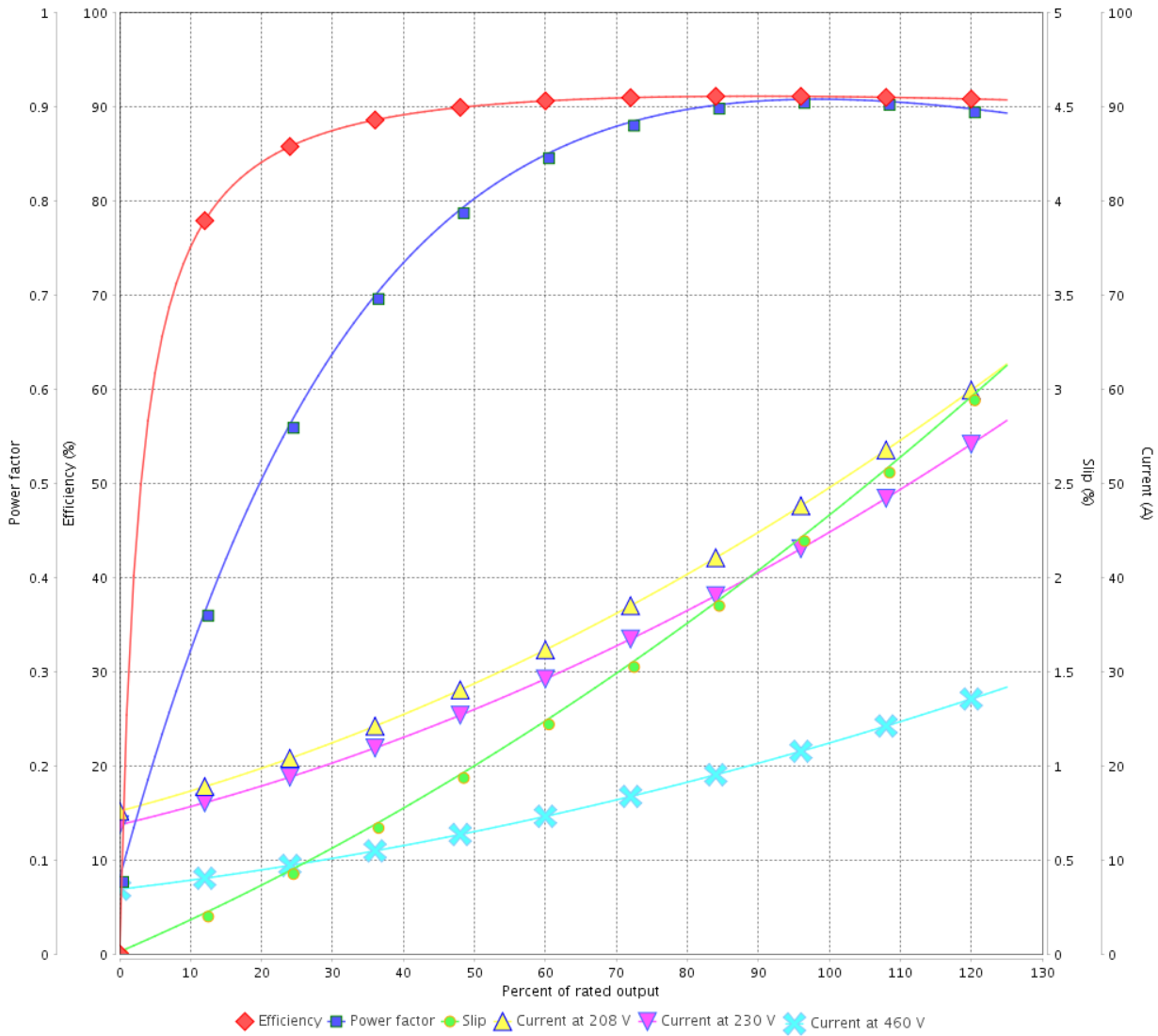
Three Phase Induction Motor - Squirrel Cage



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

Product line : NEMA Premium Efficiency Three-Phase      Product code : 12636593

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 45.4/22.7 A  
 LRC : 6.6  
 Rated torque : 4.13 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 290 %  
 Rated speed : 3515 rpm

Moment of inertia (J) : 0.0514 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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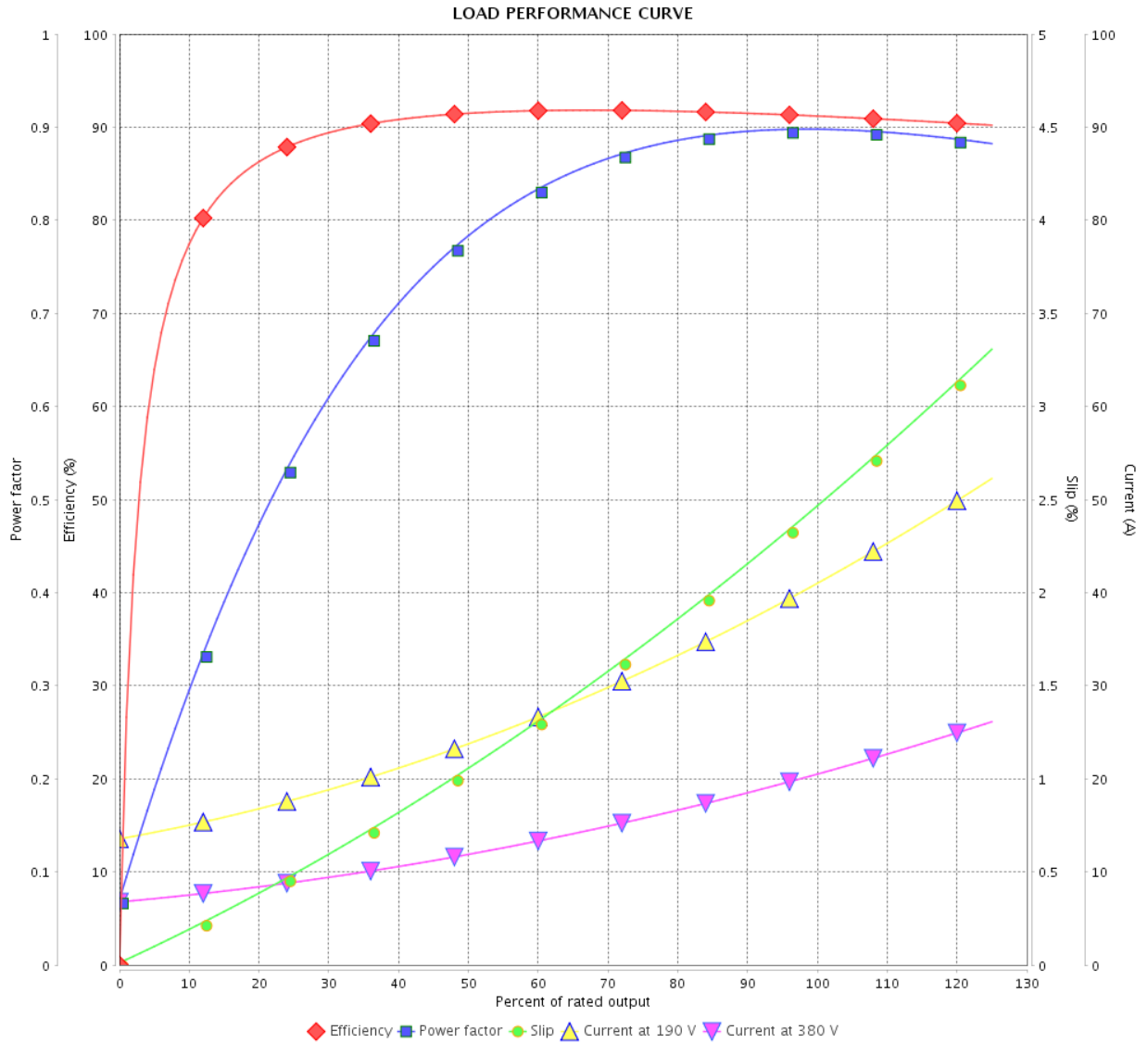
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

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Performance : 190/380 V 50 Hz 2P

Rated current : 40.8/20.4 A  
 LRC : 7.4  
 Rated torque : 3.72 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 310 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.0514 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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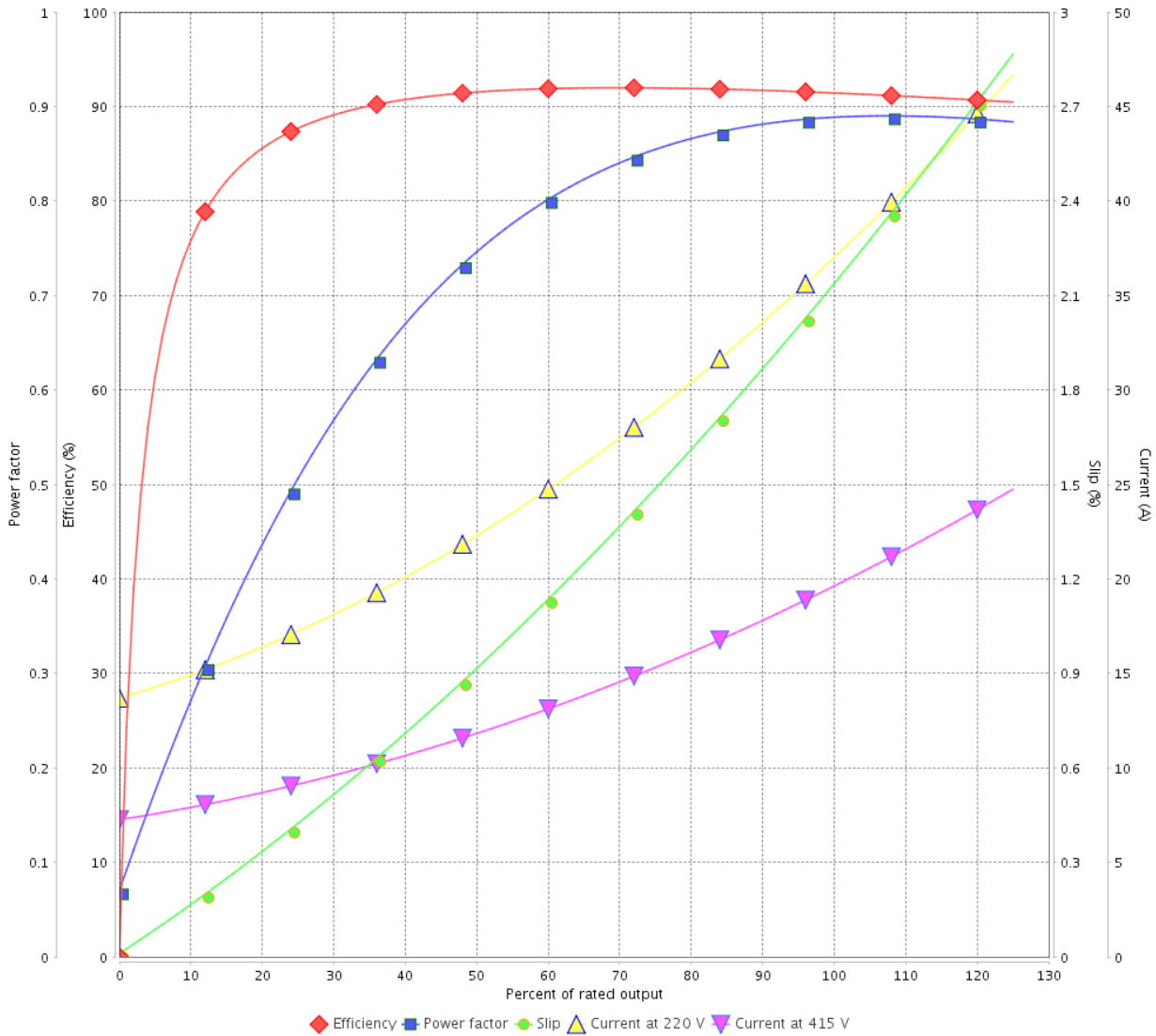
Three Phase Induction Motor - Squirrel Cage



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

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LOAD PERFORMANCE CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 36.8/19.5 A  
 LRC : 8.1  
 Rated torque : 3.71 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.0514 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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