

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12373436

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>2</sup>	: 26.1 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.0049 kgm <sup>2</sup>
Design	: B		

	1	1	1	1
Output [HP]	1	1	1	1
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	1.47	1.71	1.65	1.63
L. R. Amperes [A]	12.6	10.9	11.5	12.1
LRC [A]	8.6x(Code M)	6.4x(Code J)	7.0x(Code K)	7.4x(Code K)
No load current [A]	0.940	0.930	1.00	1.08
Rated speed [RPM]	1760	1450	1455	1455
Slip [%]	2.22	3.33	3.00	3.00
Rated torque [kgfm]	0.412	0.501	0.499	0.499
Locked rotor torque [%]	290	220	240	260
Breakdown torque [%]	350	250	290	310
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	78.4	79.6	78.4
	50%	80.0	80.0	80.0
	75%	84.0	82.5	82.5
	100%	85.5	82.5	84.0
Power Factor	25%	0.31	0.36	0.33
	50%	0.55	0.62	0.58
	75%	0.68	0.74	0.71
	100%	0.75	0.81	0.78

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

Losses (%)	P1 (0,9;1,0)		P2 (0,5;1,0)		P3 (0,25;1,0)		P4 (0,9;0,5)		P5 (0,5;0,5)		P6 (0,5;0,25)		P7 (0,25;0,25)	
	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end
	15.9	15.9	12.8	12.8	12.5	12.5	10.1	10.1	7.0	7.0	5.8	5.8	4.3	4.3

Bearing type	: 6205 C3	6204 C3	Foundation loads Max. traction : 31 kgf Max. compression : 57 kgf
Sealing	: Inpro/Seal	Inpro/Seal	
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 4 g	4 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.

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

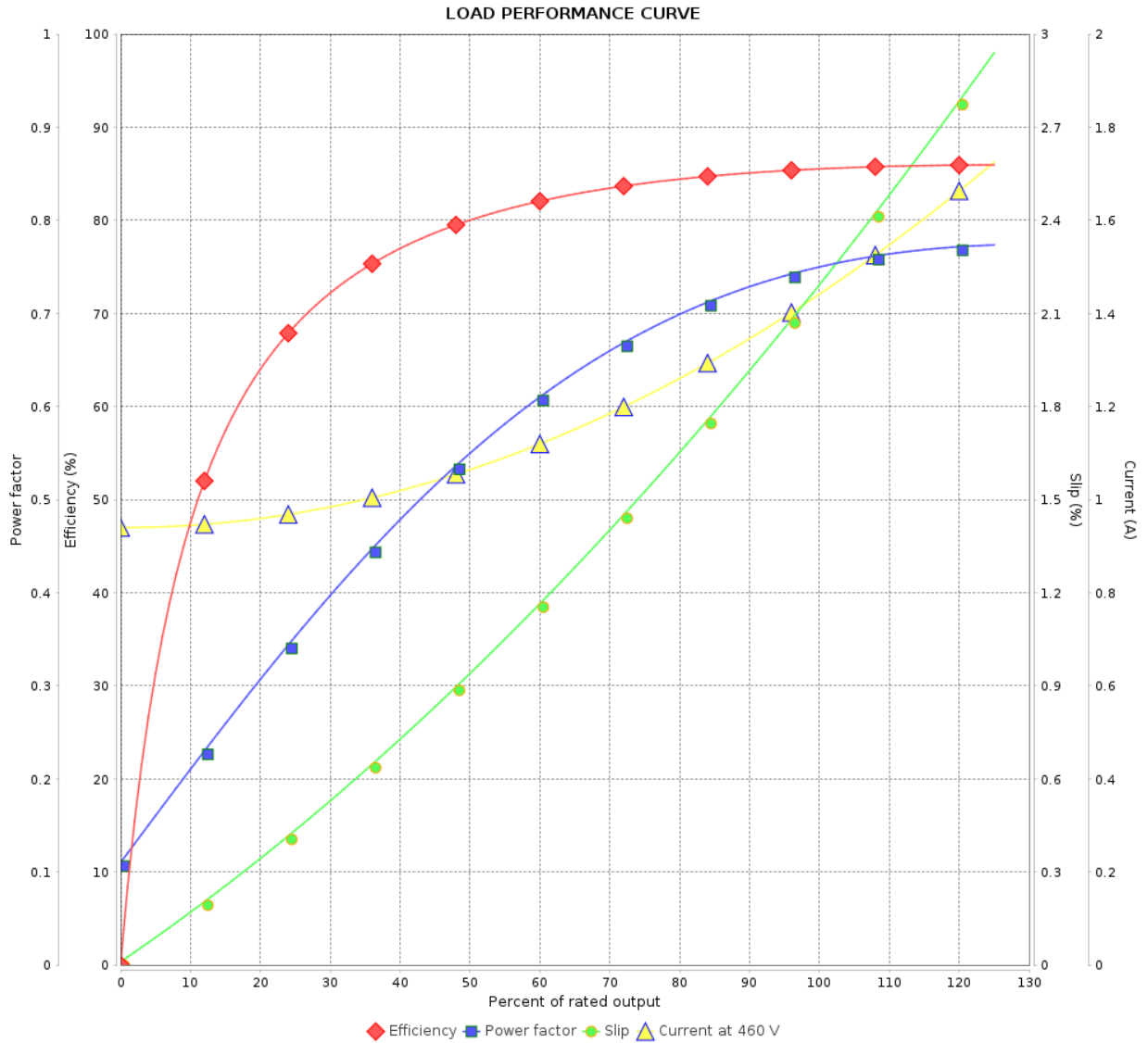
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 12373436



Performance : 460 V 60 Hz 4P

Rated current : 1.47 A  
 LRC : 8.6  
 Rated torque : 0.412 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 350 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0049 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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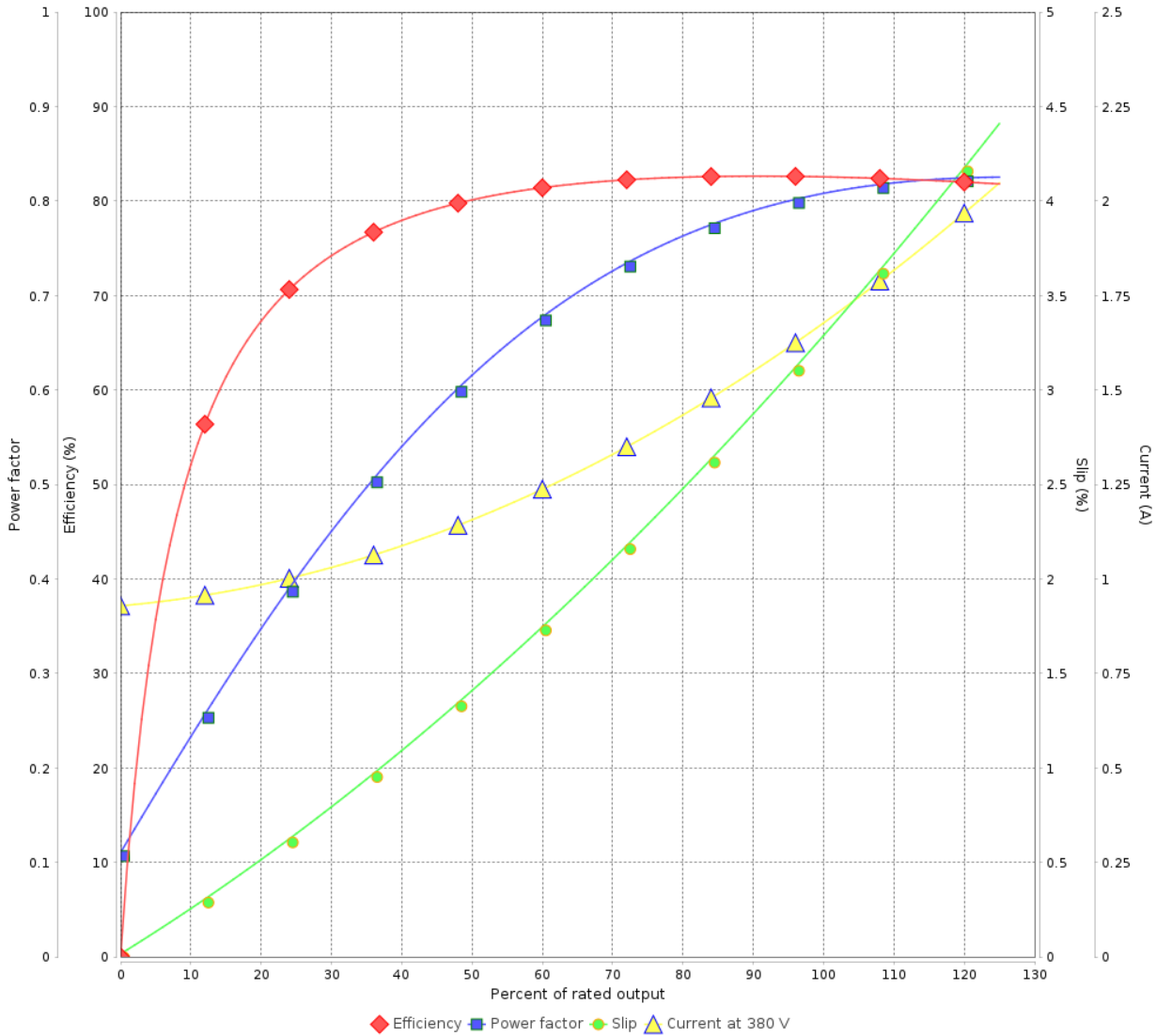
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12373436

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 1.71 A	Moment of inertia (J)	: 0.0049 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.501 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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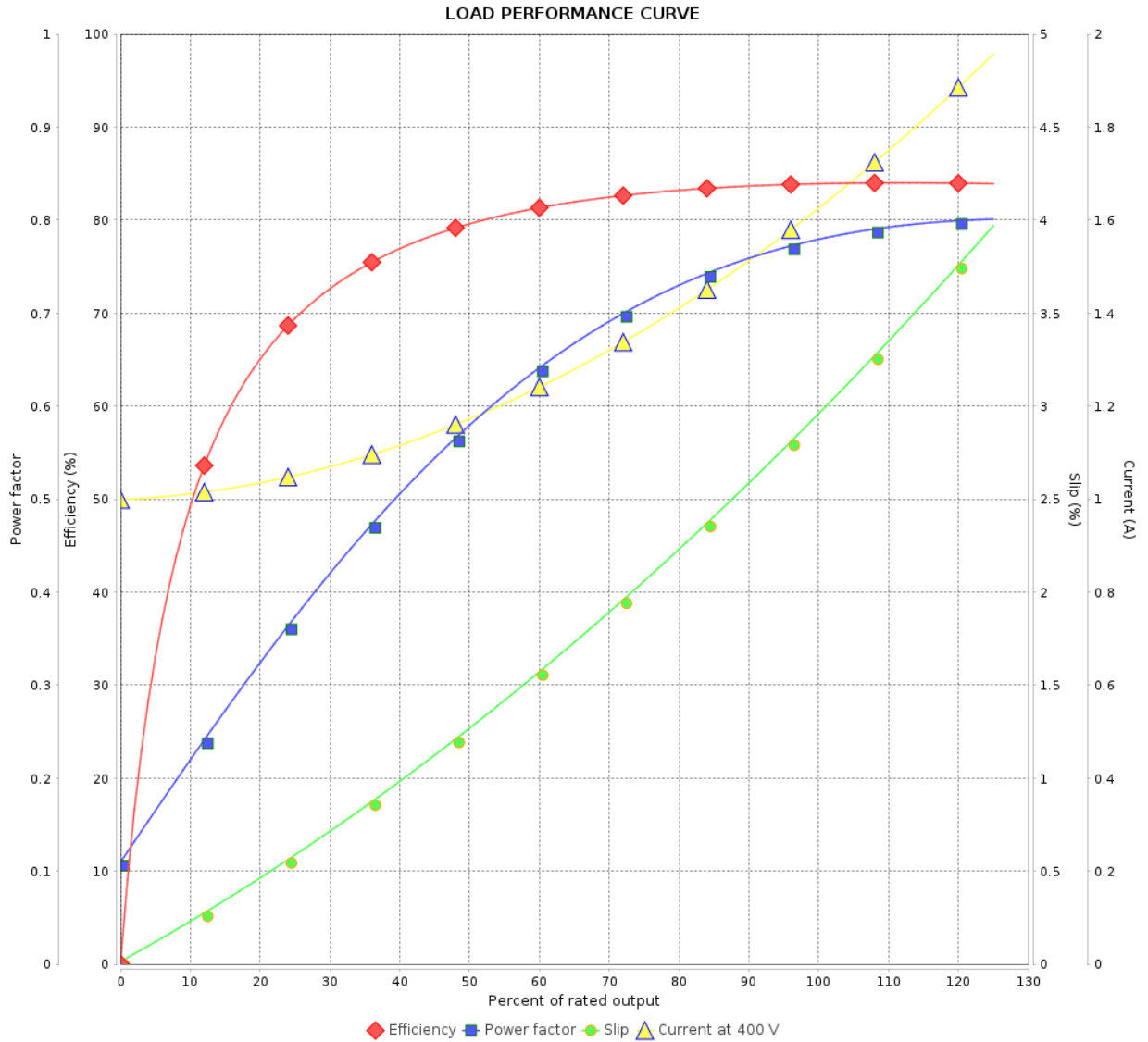
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12373436



Performance : 400 V 50 Hz 4P IE3

Rated current : 1.65 A	Moment of inertia (J) : 0.0049 kgm <sup>2</sup>
LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 0.499 kgfm	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.25
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1455 rpm	Design : B

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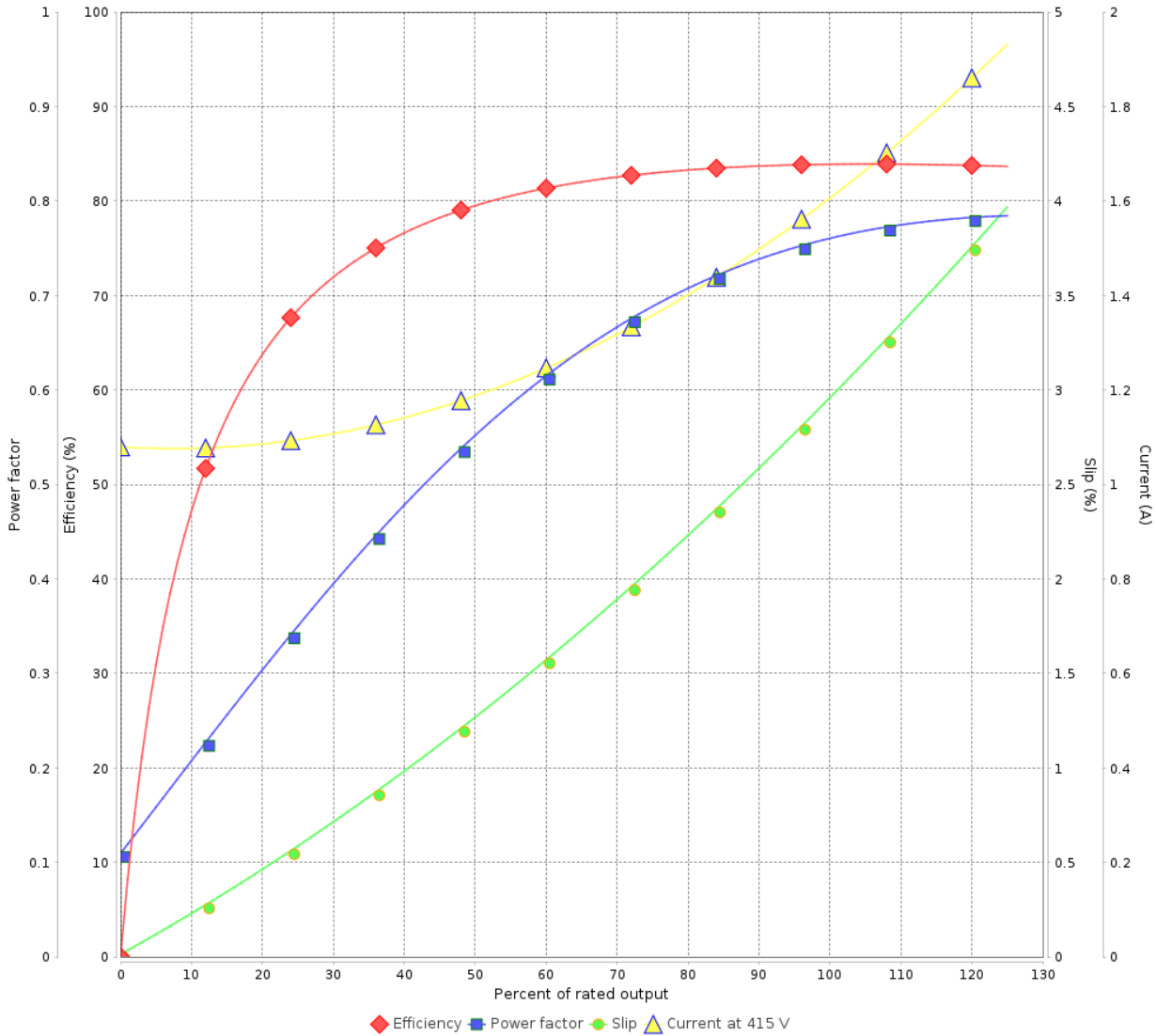
Three Phase Induction Motor - Squirrel Cage



Customer :

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LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 1.63 A	Moment of inertia (J)	: 0.0049 kgm <sup>2</sup>
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.499 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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