

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943459

Frame : 364/5T	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> : 436 kg
Protection degree : IP55	Moment of inertia (J) : 0.9798 kgm <sup>2</sup>
Design : B	

Output [HP]	75	75	75	75
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	87.2	106	102	98.7
L. R. Amperes [A]	558	541	571	602
LRC [A]	6.4x(Code G)	5.1x(Code E)	5.6x(Code F)	6.1x(Code G)
No load current [A]	33.0	33.0	35.0	38.0
Rated speed [RPM]	1780	1475	1475	1480
Slip [%]	1.11	1.67	1.67	1.33
Rated torque [kgfm]	30.5	36.9	36.8	36.8
Locked rotor torque [%]	240	170	200	210
Breakdown torque [%]	260	200	220	240
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level <sup>2</sup>	67.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%			
	50%	94.5	94.5	94.1
	75%	95.0	94.1	94.5
	100%	95.4	93.6	94.5
Power Factor	25%			
	50%	0.68	0.75	0.67
	75%	0.78	0.82	0.78
	100%	0.83	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	4.7	4.7	4.7	4.7
	P2 (0,5;1,0)	3.7	3.7	3.7	3.7
	P3 (0,25;1,0)	3.4	3.4	3.4	3.4
	P4 (0,9;0,5)	2.4	2.4	2.4	2.4
	P5 (0,5;0,5)	1.6	1.6	1.6	1.6
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.7	0.7	0.7	0.7

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 773 kgf
Sealing :	Taconite	Taconite	Max. compression : 1209 kgf
	Labyrinth	Labyrinth	
Lubrication interval :	12000 h	12000 h	
Lubricant amount :	27 g	27 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).

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 :

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# LOAD PERFORMANCE CURVE

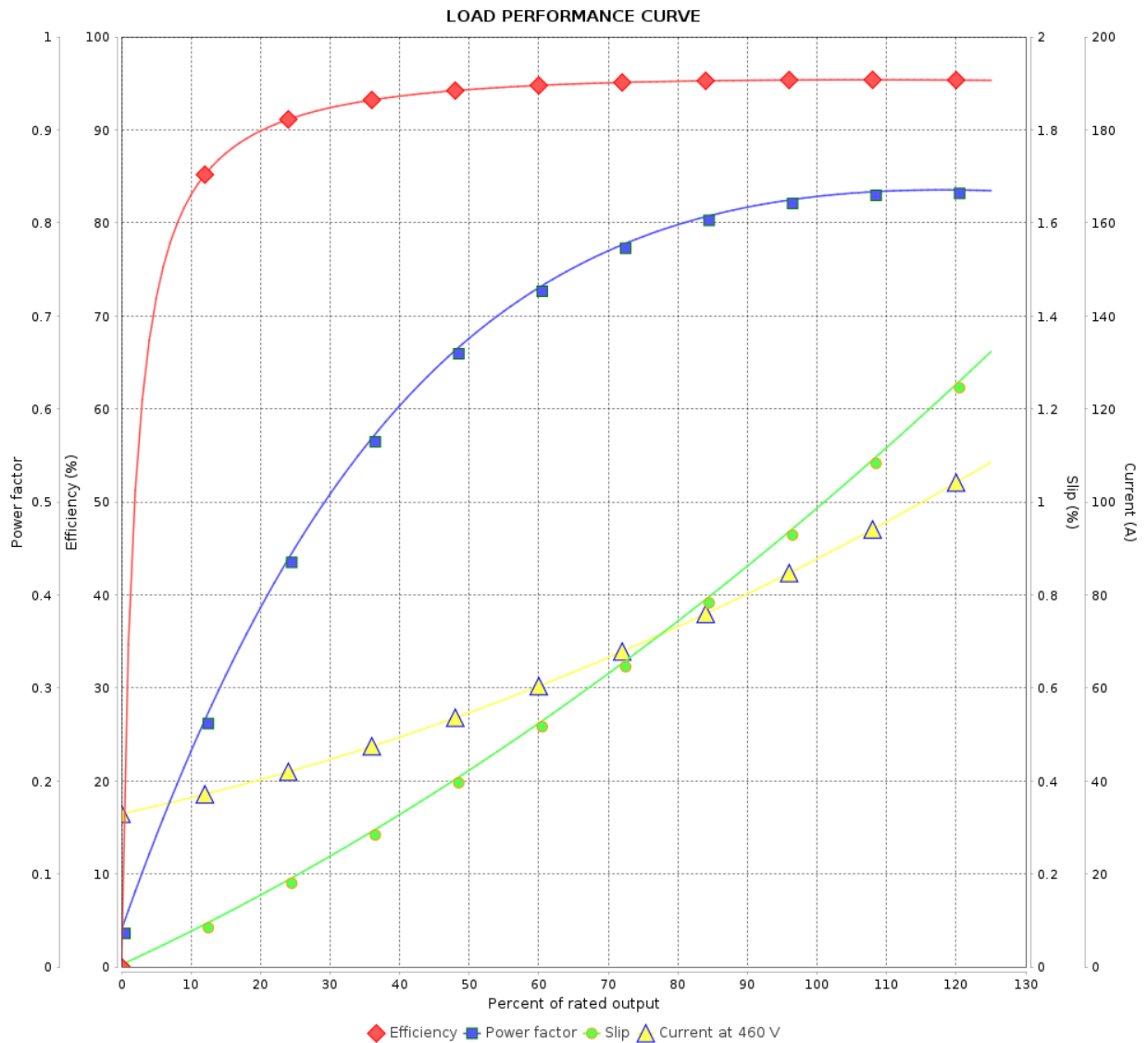
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943459



Performance : 460 V 60 Hz 4P

Rated current	: 87.2 A	Moment of inertia (J)	: 0.9798 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 30.5 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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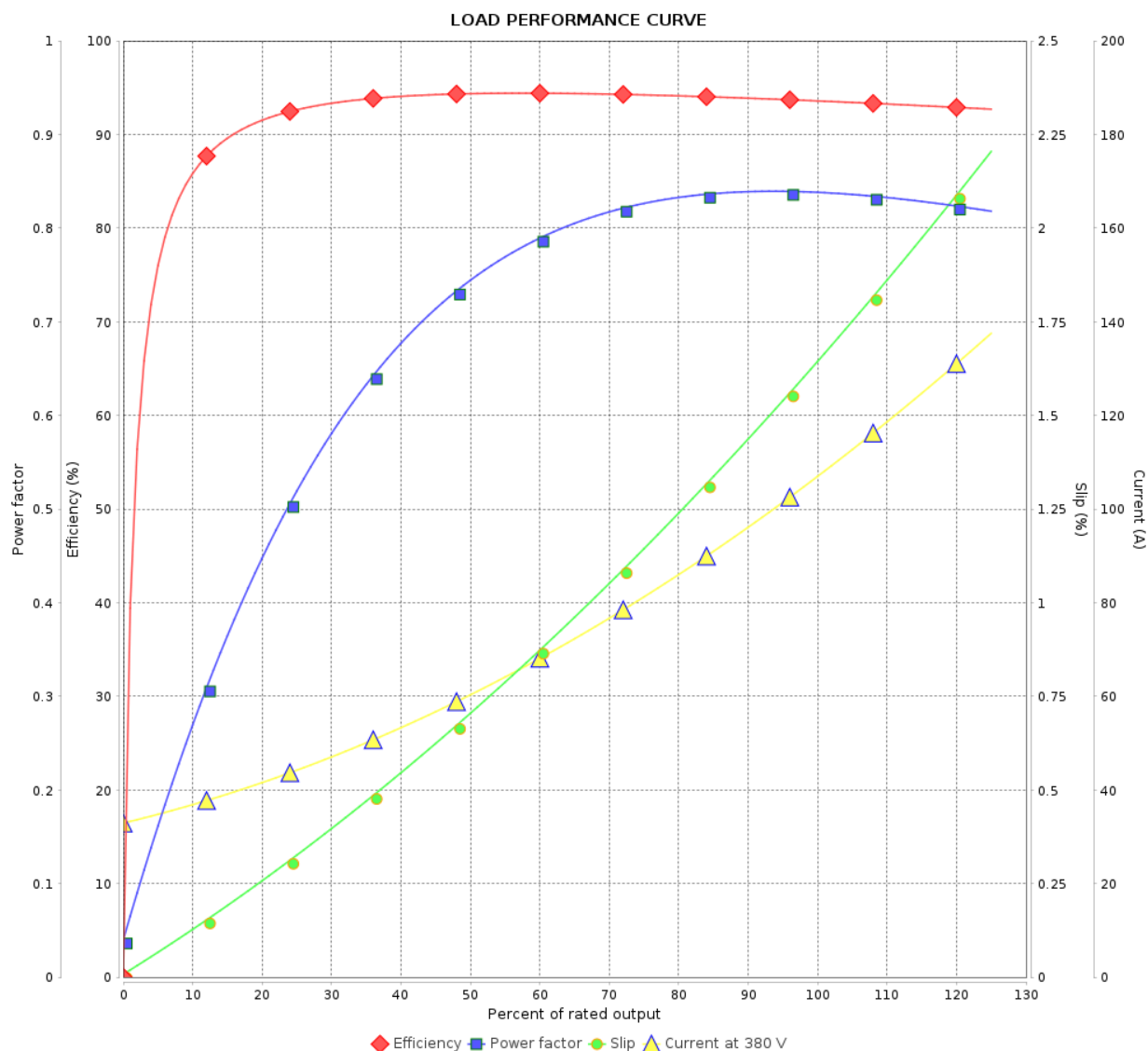
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943459



Performance : 380 V 50 Hz 4P IE2

Rated current : 106 A  
LRC : 5.1  
Rated torque : 36.9 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 200 %  
Rated speed : 1475 rpm

Moment of inertia (J) : 0.9798 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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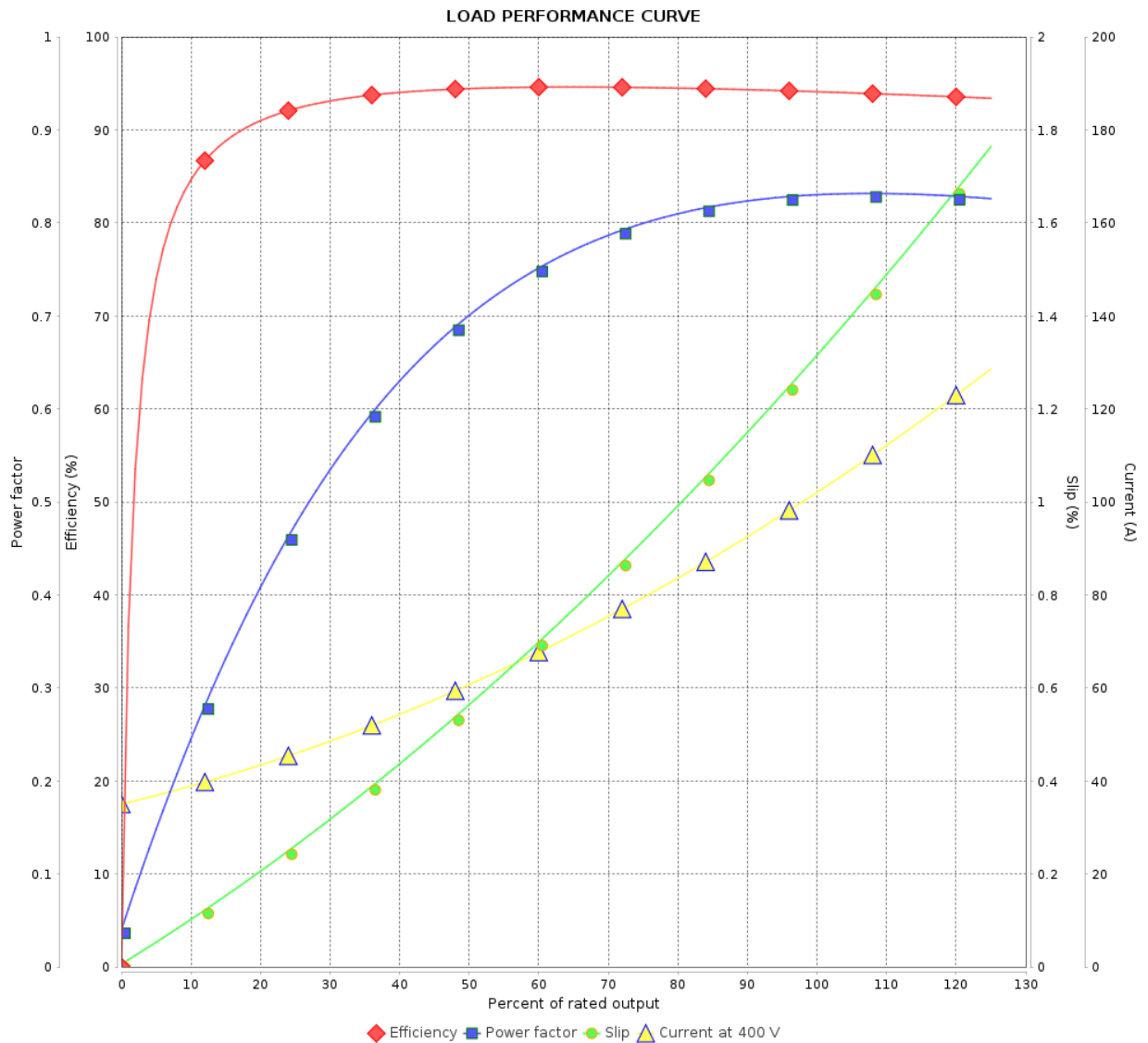
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943459



Performance : 400 V 50 Hz 4P IE2

Rated current : 102 A  
LRC : 5.6  
Rated torque : 36.8 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 220 %  
Rated speed : 1475 rpm

Moment of inertia (J) : 0.9798 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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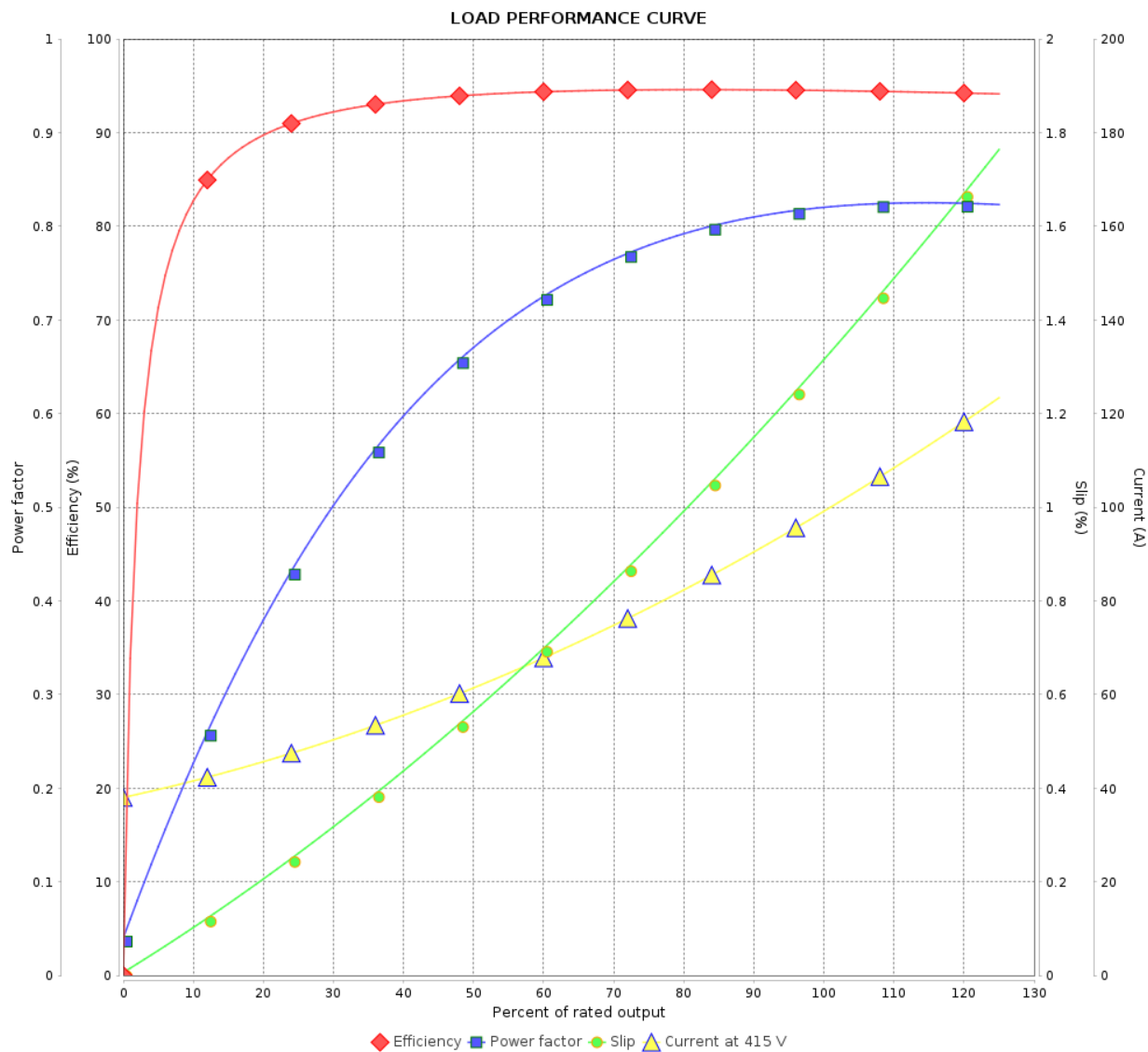
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943459



Performance : 415 V 50 Hz 4P IE2

Rated current : 98.7 A  
LRC : 6.1  
Rated torque : 36.8 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 240 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.9798 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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