

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12424294

Frame	: 284/6TC	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>	: 186 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.2153 kgm <sup>2</sup>
Design	: B		

Output [HP]	25	25	25	25	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	29.5	35.9	34.3	33.2	
L. R. Amperes [A]	183	190	189	196	
LRC [A]	6.2x(Code G)	5.3x(Code F)	5.5x(Code F)	5.9x(Code G)	
No load current [A]	11.0	11.0	11.7	12.4	
Rated speed [RPM]	1770	1455	1460	1465	
Slip [%]	1.67	3.00	2.67	2.33	
Rated torque [kgfm]	10.3	12.5	12.4	12.4	
Locked rotor torque [%]	240	180	200	220	
Breakdown torque [%]	270	210	240	260	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	43s (cold) 24s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level <sup>2</sup>	63.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)	
Efficiency (%)	25%	91.7	92.9	92.8	92.2
	50%	92.4	92.4	92.4	92.4
	75%	93.0	91.7	92.4	92.4
	100%	93.6	91.0	91.7	92.4
Power Factor	25%	0.45	0.52	0.48	0.45
	50%	0.70	0.76	0.73	0.70
	75%	0.80	0.84	0.82	0.80
	100%	0.84	0.86	0.85	0.84

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

Losses (%)	P1 (0,9;1,0)	6.8	6.8	6.8	6.8
	P2 (0,5;1,0)	5.8	5.8	5.8	5.8
	P3 (0,25;1,0)	5.3	5.3	5.3	5.3
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6311 C3	6211 C3	Max. traction : 368 kgf
Sealing	: Inpro/Seal	Inpro/Seal	Max. compression : 553 kgf
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 18 g	11 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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Customer : \_\_\_\_\_

Notes

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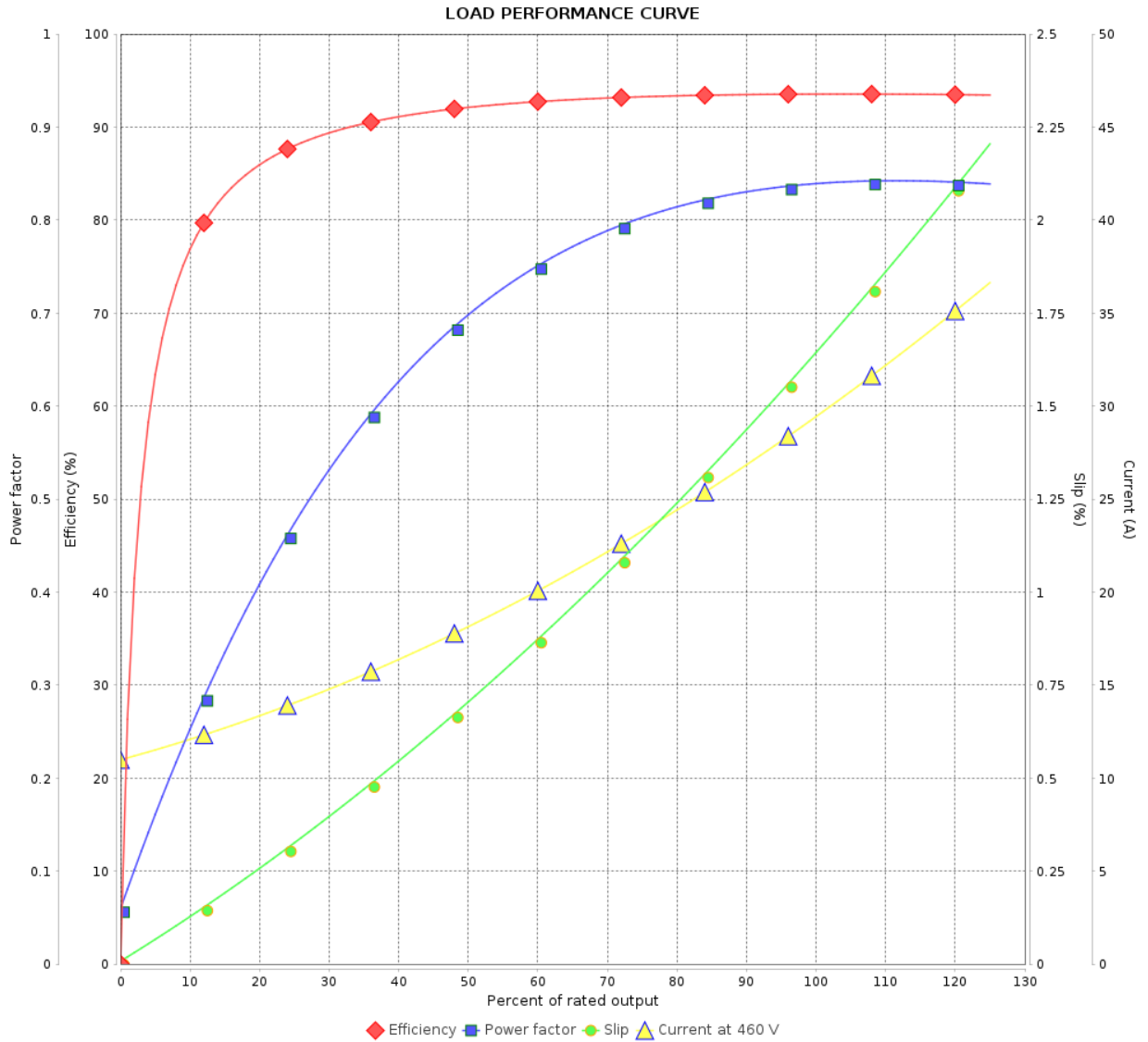
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12424294



Performance : 460 V 60 Hz 4P

Rated current : 29.5 A  
 LRC : 6.2  
 Rated torque : 10.3 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.2153 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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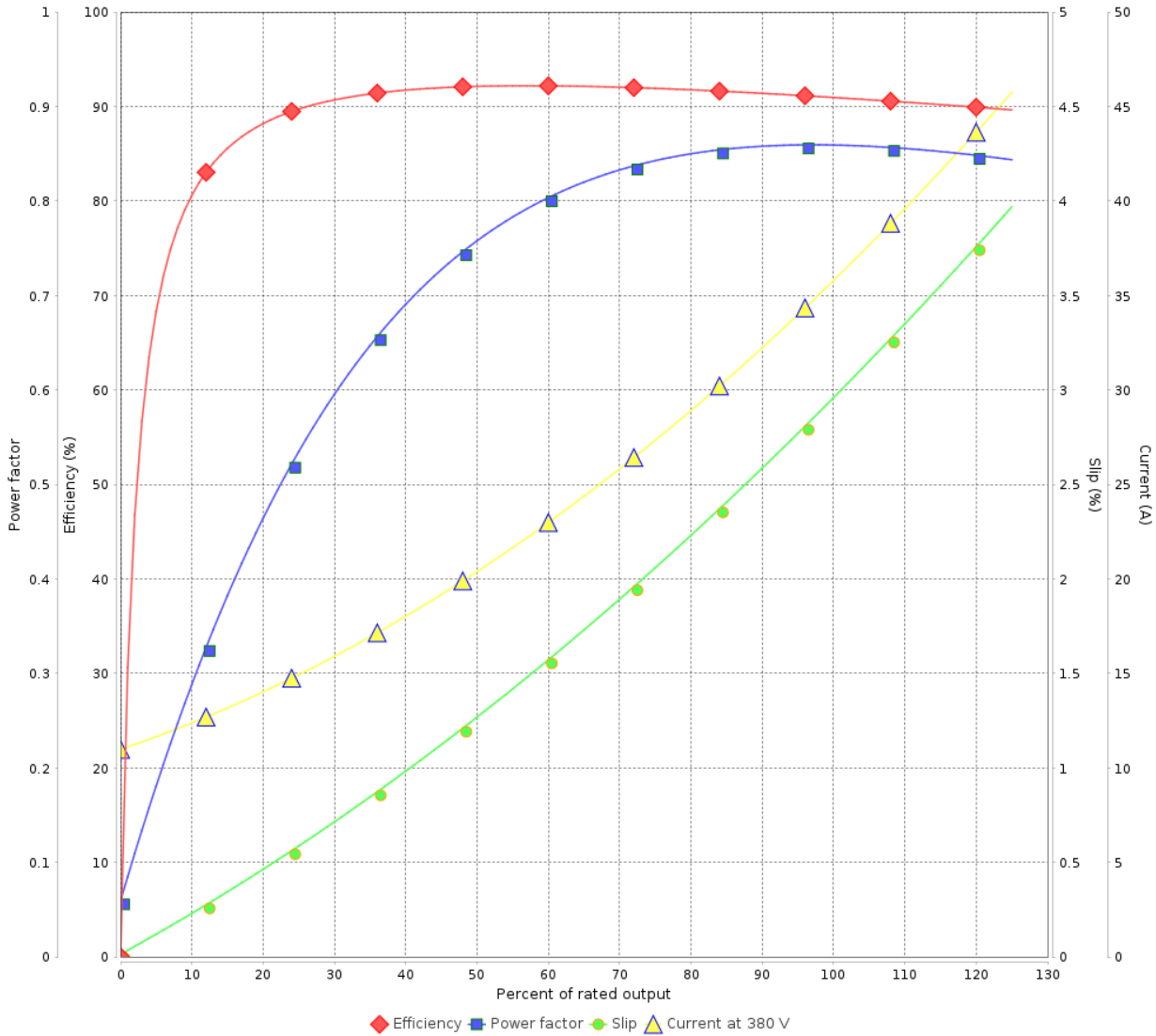
Three Phase Induction Motor - Squirrel Cage



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

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Performance : 380 V 50 Hz 4P IE1

Rated current	: 35.9 A	Moment of inertia (J)	: 0.2153 kgm <sup>2</sup>
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 12.5 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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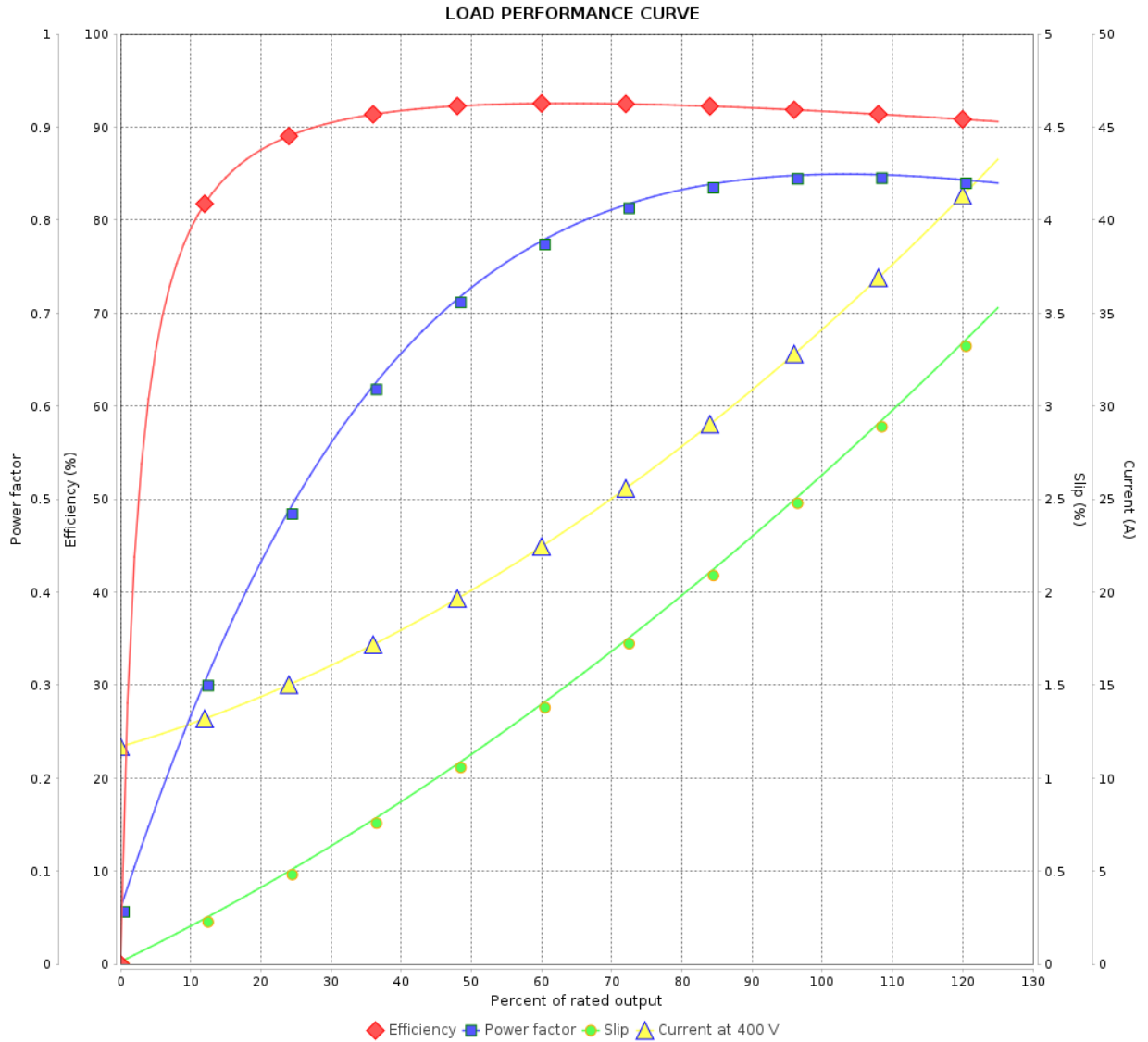
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12424294



Performance : 400 V 50 Hz 4P IE2

Rated current : 34.3 A  
 LRC : 5.5  
 Rated torque : 12.4 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.2153 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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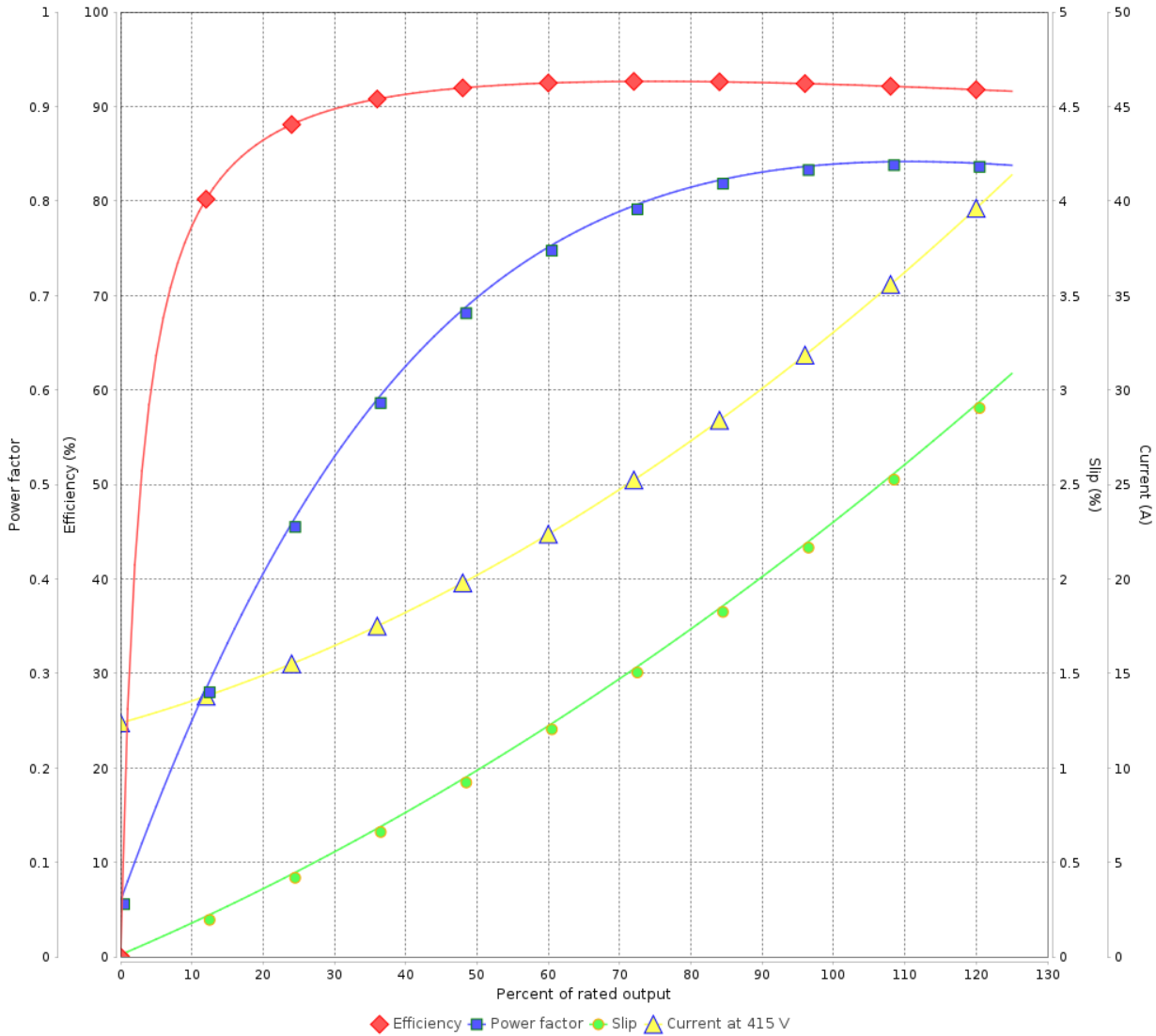
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12424294

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Performance : 415 V 50 Hz 4P IE2

Rated current	: 33.2 A	Moment of inertia (J)	: 0.2153 kgm <sup>2</sup>
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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