

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373795

Frame	: 182/4T	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>	: 44.7 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.0143 kgm <sup>2</sup>
Design	: B		

Output [HP]	3	3	3	3
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	3.91	4.78	4.54	4.43
L. R. Amperes [A]	31.7	30.1	32.2	33.7
LRC [A]	8.1x(Code K)	6.3x(Code H)	7.1x(Code J)	7.6x(Code K)
No load current [A]	2.00	2.00	2.10	2.25
Rated speed [RPM]	1760	1445	1450	1455
Slip [%]	2.22	3.67	3.33	3.00
Rated torque [kgfm]	1.24	1.51	1.50	1.50
Locked rotor torque [%]	220	220	220	240
Breakdown torque [%]	330	250	290	320
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	41s (cold) 23s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	86.4	87.2	87.3
	50%	87.5	87.5	87.5
	75%	88.5	87.5	87.5
	100%	89.5	87.5	87.5
Power Factor	25%	0.36	0.43	0.39
	50%	0.61	0.68	0.64
	75%	0.71	0.77	0.75
	100%	0.79	0.80	0.73

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

Losses (%)	P1 (0,9;1,0)	11.0	13.4	13.4	13.4
	P2 (0,5;1,0)	8.9	10.8	10.8	10.8
	P3 (0,25;1,0)	8.8	10.7	10.7	10.7
	P4 (0,9;0,5)	6.1	7.4	7.4	7.4
	P5 (0,5;0,5)	4.0	4.9	4.9	4.9
	P6 (0,5;0,25)	3.0	3.6	3.6	3.6
	P7 (0,25;0,25)	2.1	2.6	2.6	2.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6207 C3	6206 C3	Max. traction	: 78 kgf
Sealing	: Inpro/Seal	Inpro/Seal	Max. compression	: 122 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 7 g	5 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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## Three Phase Induction Motor - Squirrel Cage



Customer :

Notes

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# LOAD PERFORMANCE CURVE

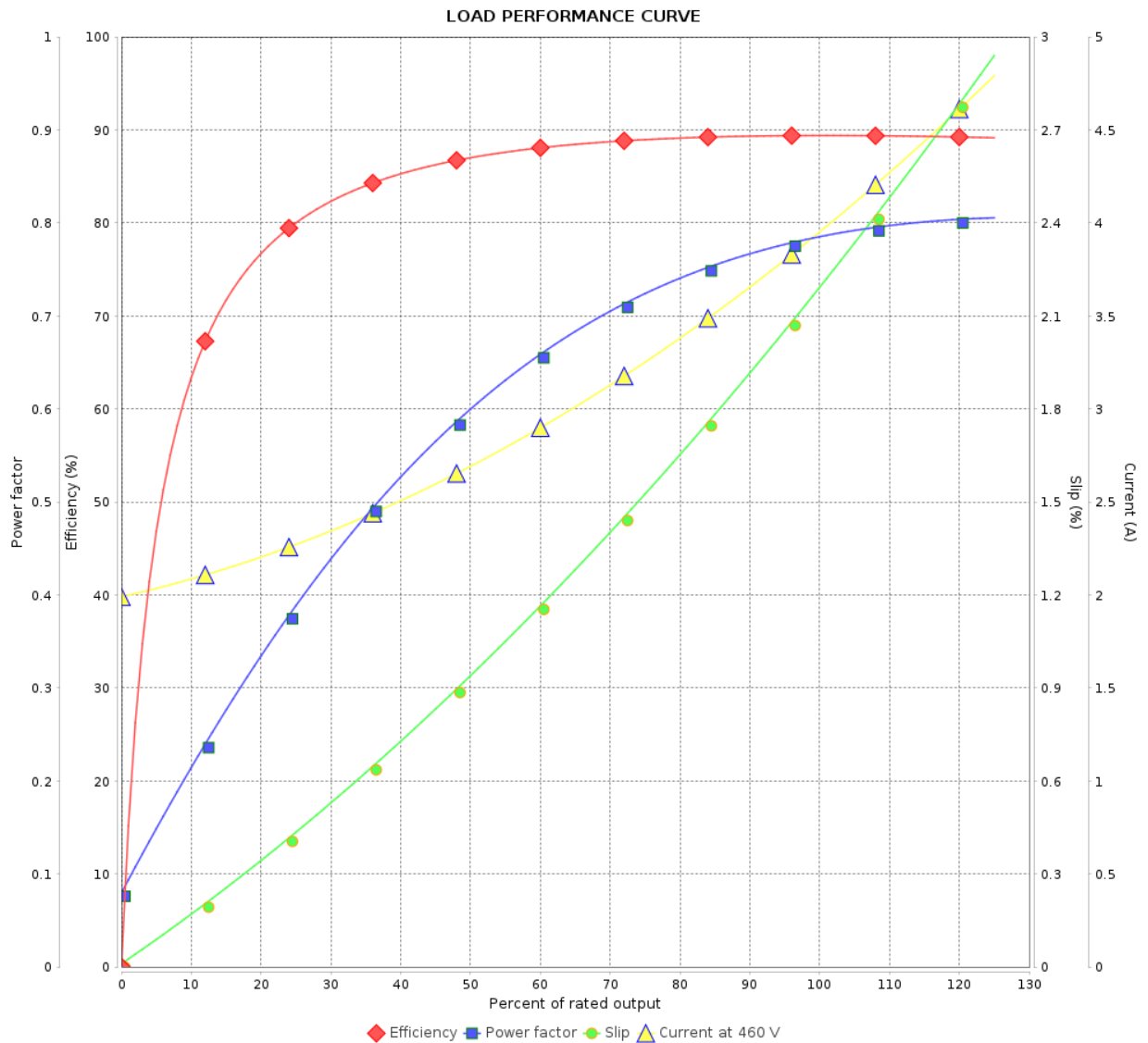
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12373795



Performance : 460 V 60 Hz 4P

Rated current	: 3.91 A	Moment of inertia (J)	: 0.0143 kgm <sup>2</sup>
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 1.24 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

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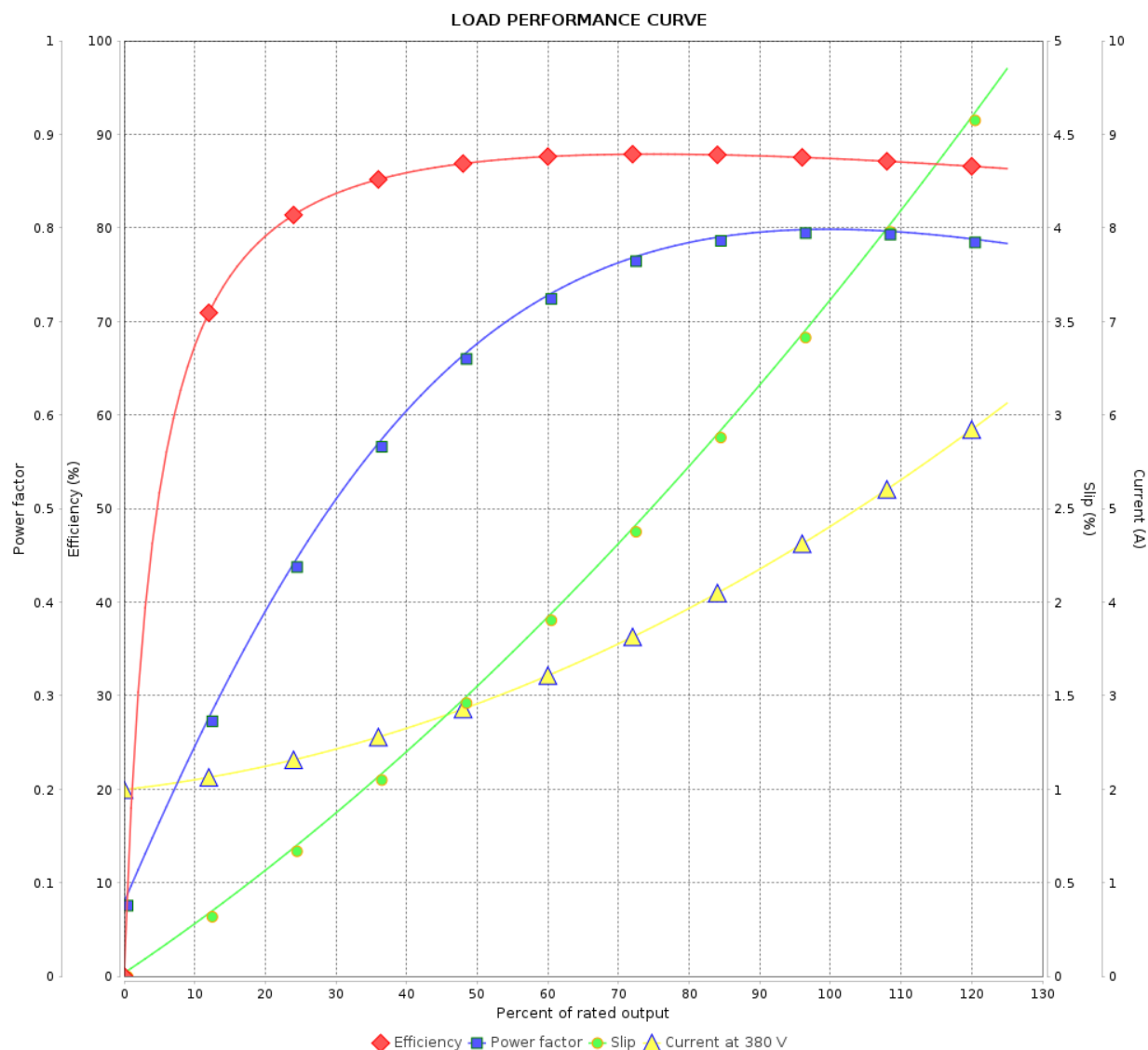
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12373795



Performance : 380 V 50 Hz 4P IE3

Rated current : 4.78 A  
LRC : 6.3  
Rated torque : 1.51 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 250 %  
Rated speed : 1445 rpm

Moment of inertia (J) : 0.0143 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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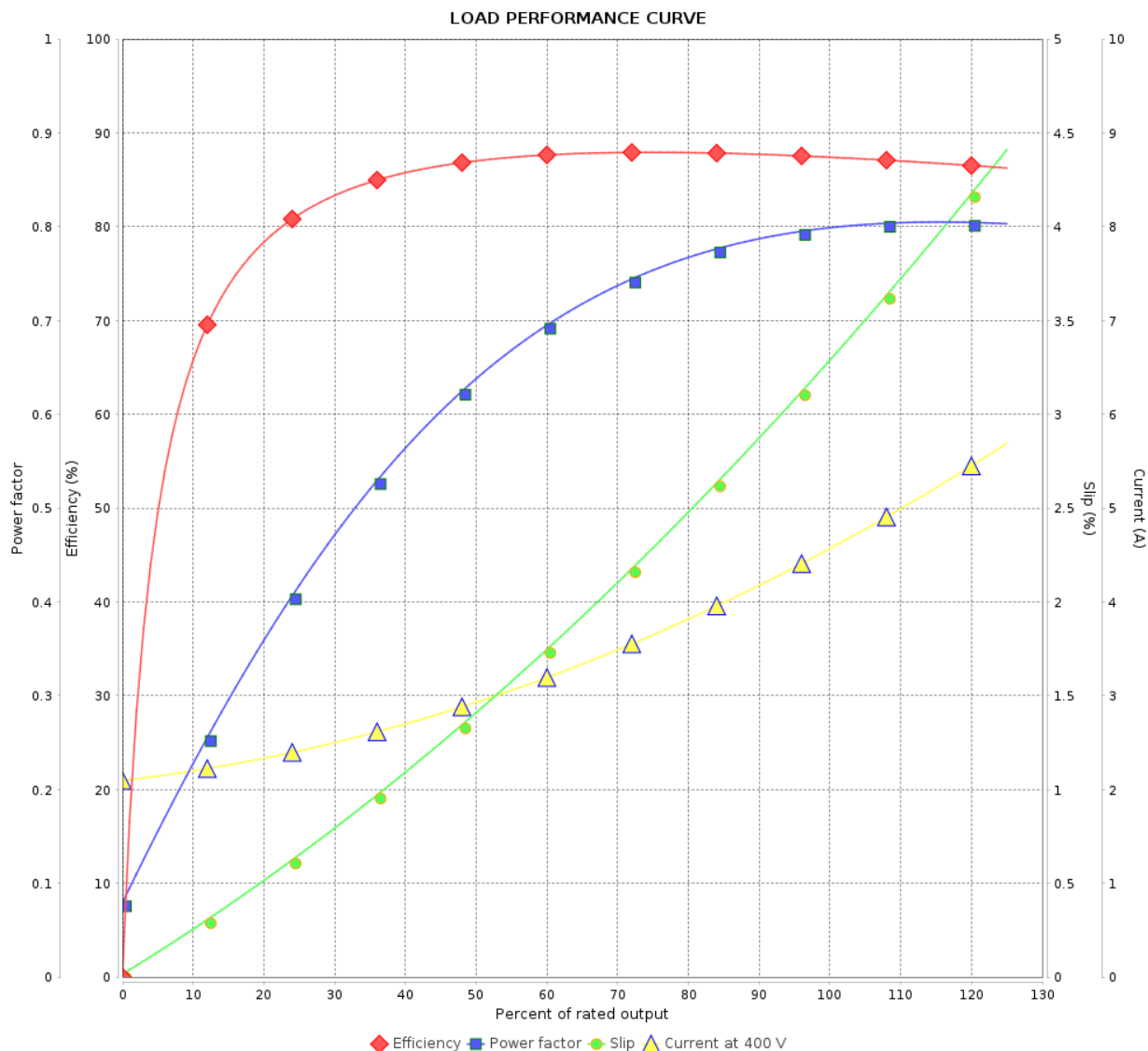
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12373795



Performance : 400 V 50 Hz 4P IE3

Rated current : 4.54 A  
LRC : 7.1  
Rated torque : 1.50 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 290 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0143 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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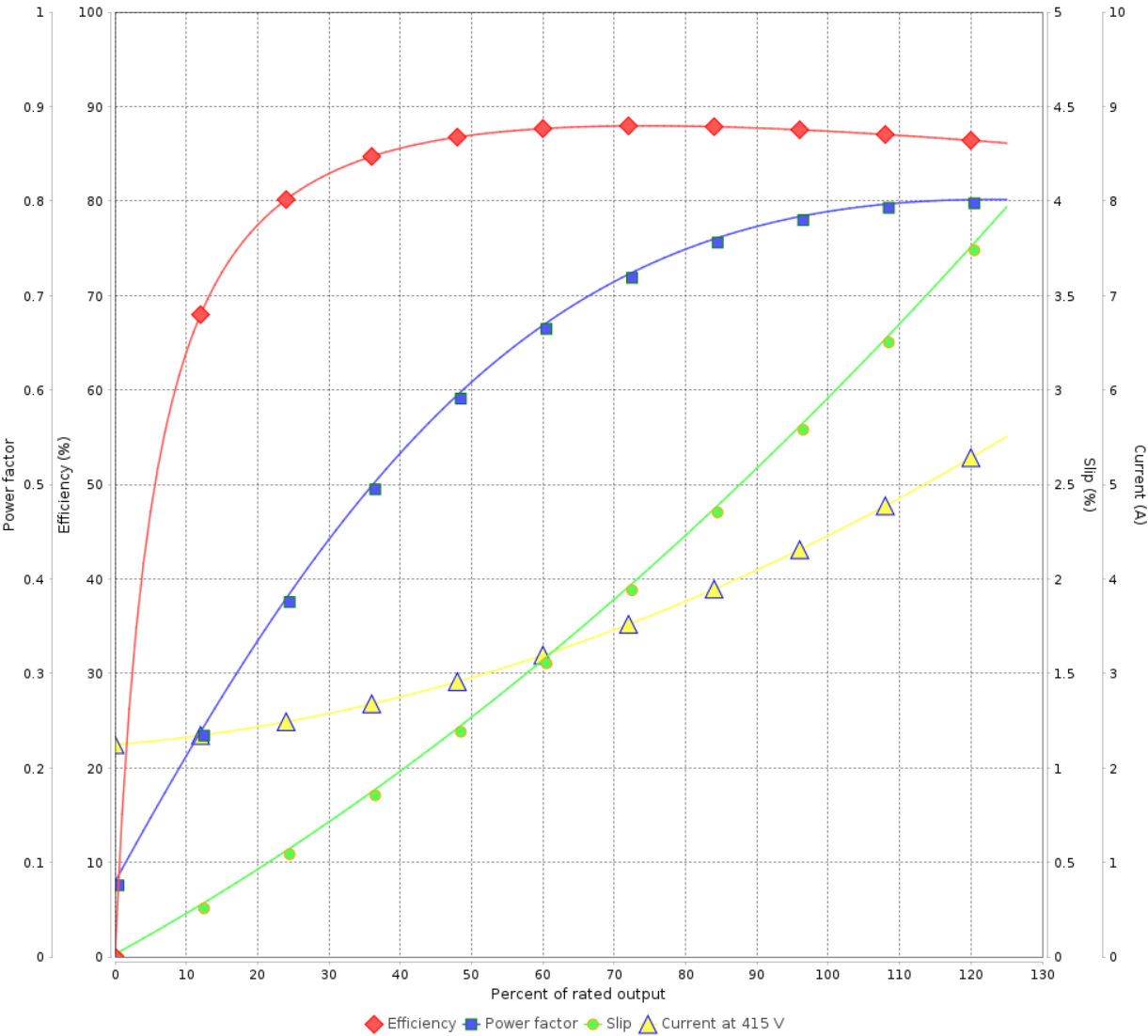
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12373795

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.43 A	Moment of inertia (J)	: 0.0143 kgm²
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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