

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	12385056		
Frame	: 254/6TC	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>3</sup>	: 136 kg		
Protection degree	: IP56	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>		
Design	: B				
Output [HP]	7.5	7.5	7.5	7.5	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	9.48	11.4	10.8	10.5	
L. R. Amperes [A]	63.5	58.1	61.6	64.0	
LRC [A]	6.7x(Code H)	5.1x(Code F)	5.7x(Code G)	6.1x(Code G)	
No load current [A]	4.50	4.50	4.75	4.95	
Rated speed [RPM]	1175	970	970	975	
Slip [%]	2.08	3.00	3.00	2.50	
Rated torque [kgfm]	4.63	5.61	5.61	5.58	
Locked rotor torque [%]	240	160	190	210	
Breakdown torque [%]	290	210	229	250	
Service factor	1.25	1.00	1.15	1.15	
Temperature rise	80 K	105 K	105 K	80 K	
Locked rotor time	54s (cold) 30s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)	
Noise level <sup>2</sup>	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)	
Efficiency (%)	25%	88.6	90.2	89.3	88.7
	50%	89.5	89.5	89.5	89.5
	75%	90.2	89.5	89.5	89.5
	100%	91.0	88.5	89.5	90.2
Power Factor	25%	0.38	0.44	0.41	0.39
	50%	0.63	0.70	0.66	0.64
	75%	0.74	0.79	0.77	0.75
	100%	0.80	0.83	0.82	0.81
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	10.9	14.5	13.0	12.0
	P2 (0,5;1,0)	9.4	13.0	11.5	10.5
	P3 (0,25;1,0)	8.9	12.4	11.0	10.0
	P4 (0,9;0,5)	5.6	7.2	6.5	6.1
	P5 (0,5;0,5)	4.0	5.4	4.8	4.4
	P6 (0,5;0,25)	2.9	3.8	3.4	3.2
	P7 (0,25;0,25)	2.0	2.9	2.5	2.3
Bearing type	: Drive end : 6309 C3 Non drive end : 6209 C3	Foundation loads			
Sealing	: Inpro/Seal Inpro/Seal	Max. traction : 151 kgf			
Lubrication interval	: 20000 h 20000 h	Max. compression : 288 kgf			
Lubricant amount	: 13 g 9 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 : \_\_\_\_\_

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# LOAD PERFORMANCE CURVE

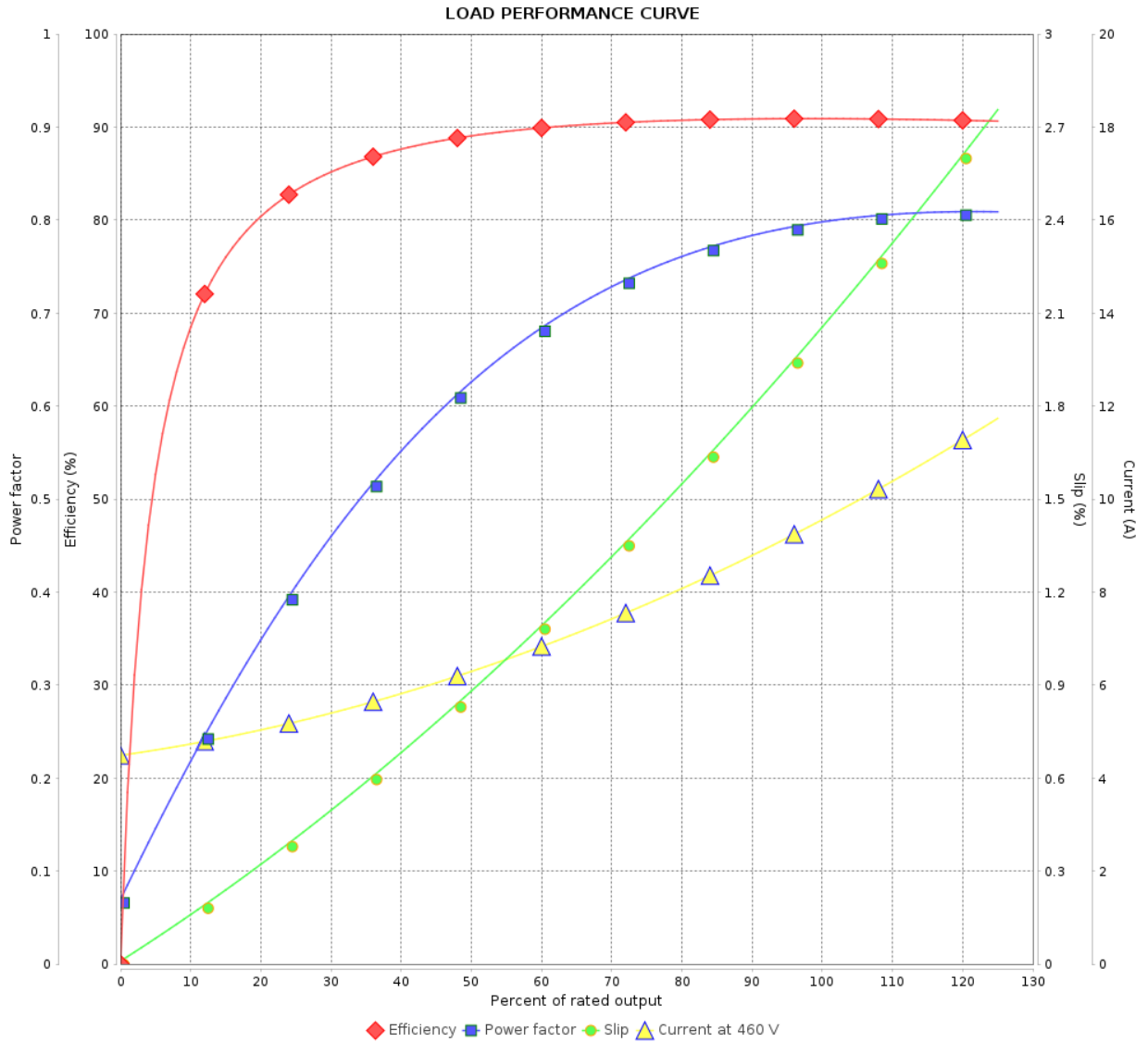
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12385056



Performance : 460 V 60 Hz 6P

Rated current : 9.48 A  
 LRC : 6.7  
 Rated torque : 4.63 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 290 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 0.1652 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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# LOAD PERFORMANCE CURVE

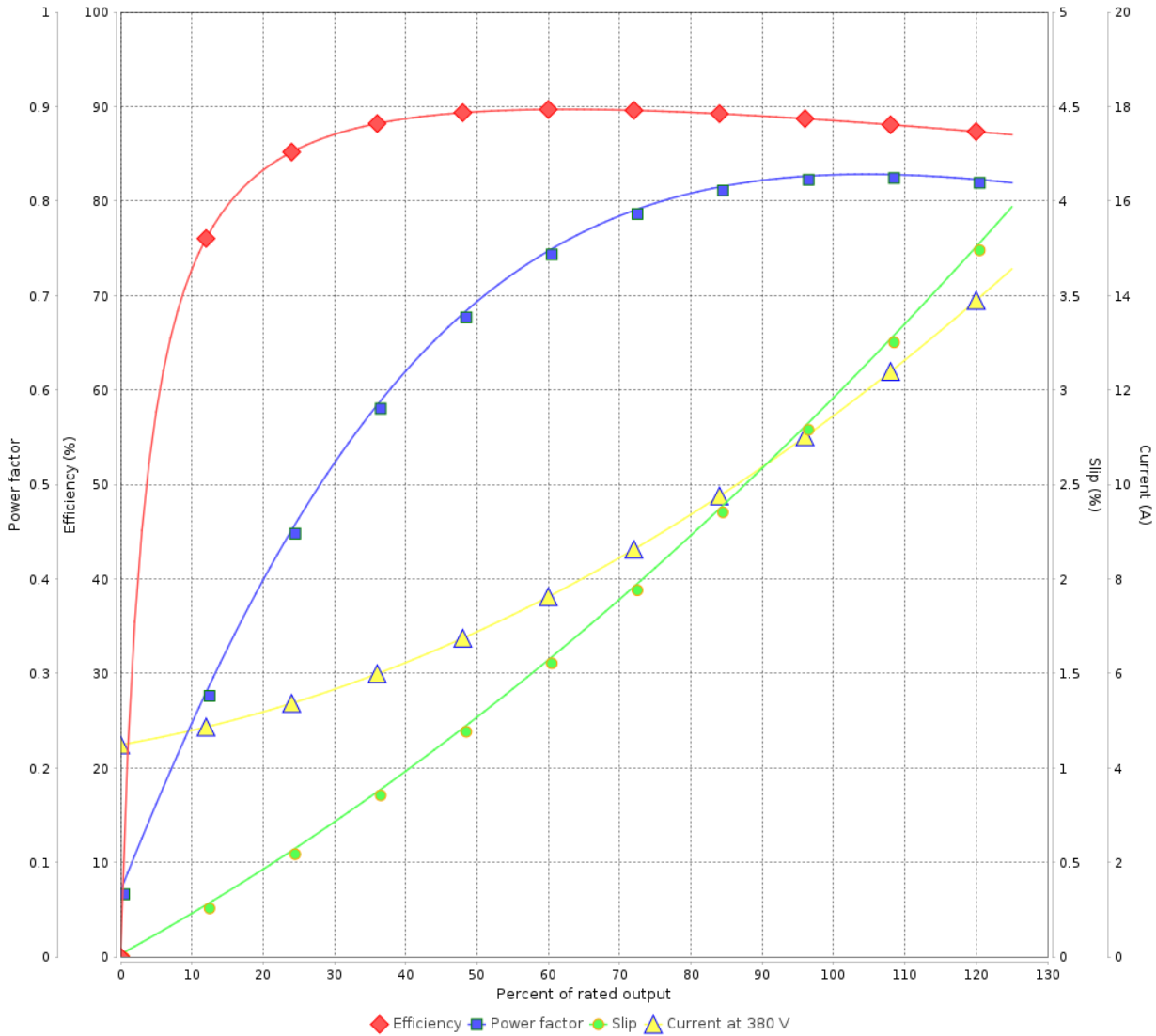
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 6P IE3

Rated current	: 11.4 A	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 5.61 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

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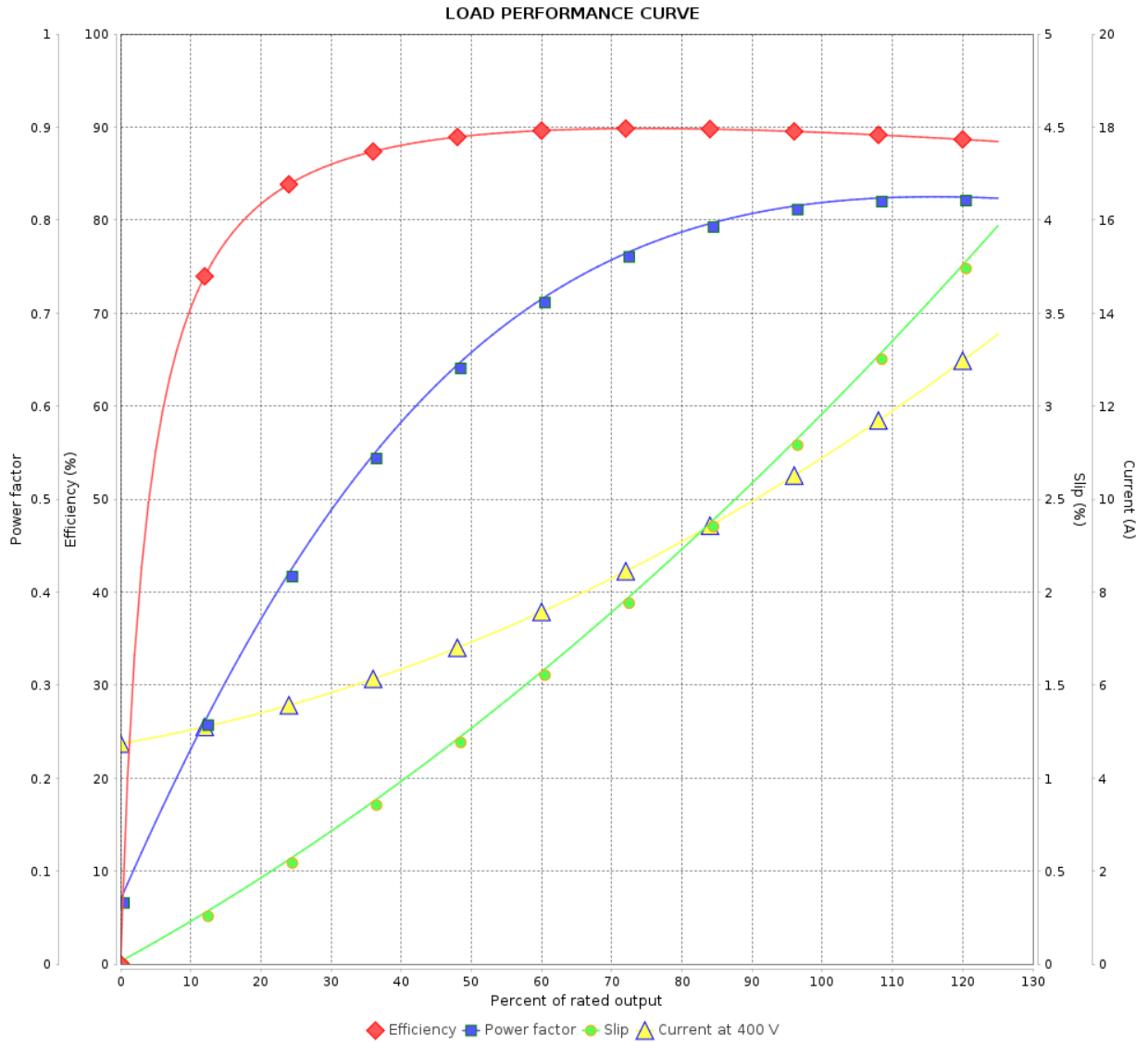
## Three Phase Induction Motor - Squirrel Cage



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

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

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Performance : 400 V 50 Hz 6P IE3

Rated current : 10.8 A  
 LRC : 5.7  
 Rated torque : 5.61 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 0.1652 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

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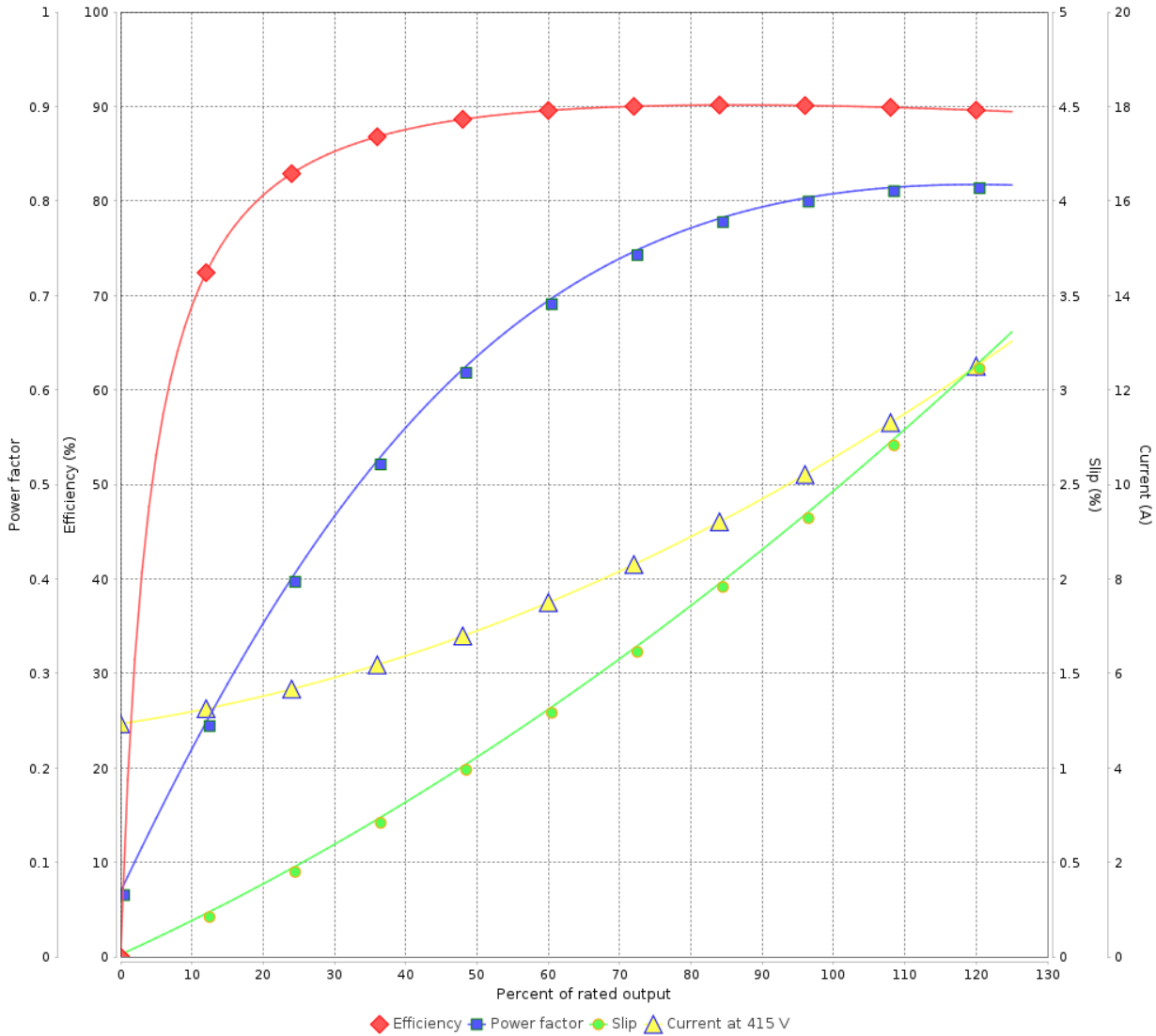
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12385056

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 6P IE3

Rated current	: 10.5 A	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 5.58 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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