

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	11770612		
Frame	: 284/6T	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>	: 206 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.2467 kgm <sup>2</sup>		
Design	: B				
Output [HP]	30	30	30	30	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	35.1	43.1	41.1	39.7	
L. R. Amperes [A]	214	228	247	238	
LRC [A]	6.1x(Code G)	5.3x(Code F)	6.0x(Code G)	6.0x(Code G)	
No load current [A]	12.3	12.2	13.1	13.8	
Rated speed [RPM]	1770	1455	1460	1465	
Slip [%]	1.67	3.00	2.67	2.33	
Rated torque [kgfm]	12.3	15.0	14.9	14.9	
Locked rotor torque [%]	240	170	190	220	
Breakdown torque [%]	240	200	220	250	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	36s (cold) 20s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	63.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)	
Efficiency (%)	25%				
	50%	93.0	90.0	90.5	91.2
	75%	93.0	90.2	91.0	91.7
	100%	93.6	90.2	91.0	91.7
Power Factor	25%				
	50%	0.70	0.76	0.73	0.70
	75%	0.80	0.83	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)	5.2	5.2	5.2	5.2
	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)	0.9	0.9	0.9	0.9
Bearing type	: Drive end : 6311 C3 Non drive end : 6211 C3	Foundation loads			
Sealing	: Taconite Labyrinth	Max. traction : 428 kgf Max. compression : 634 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).		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

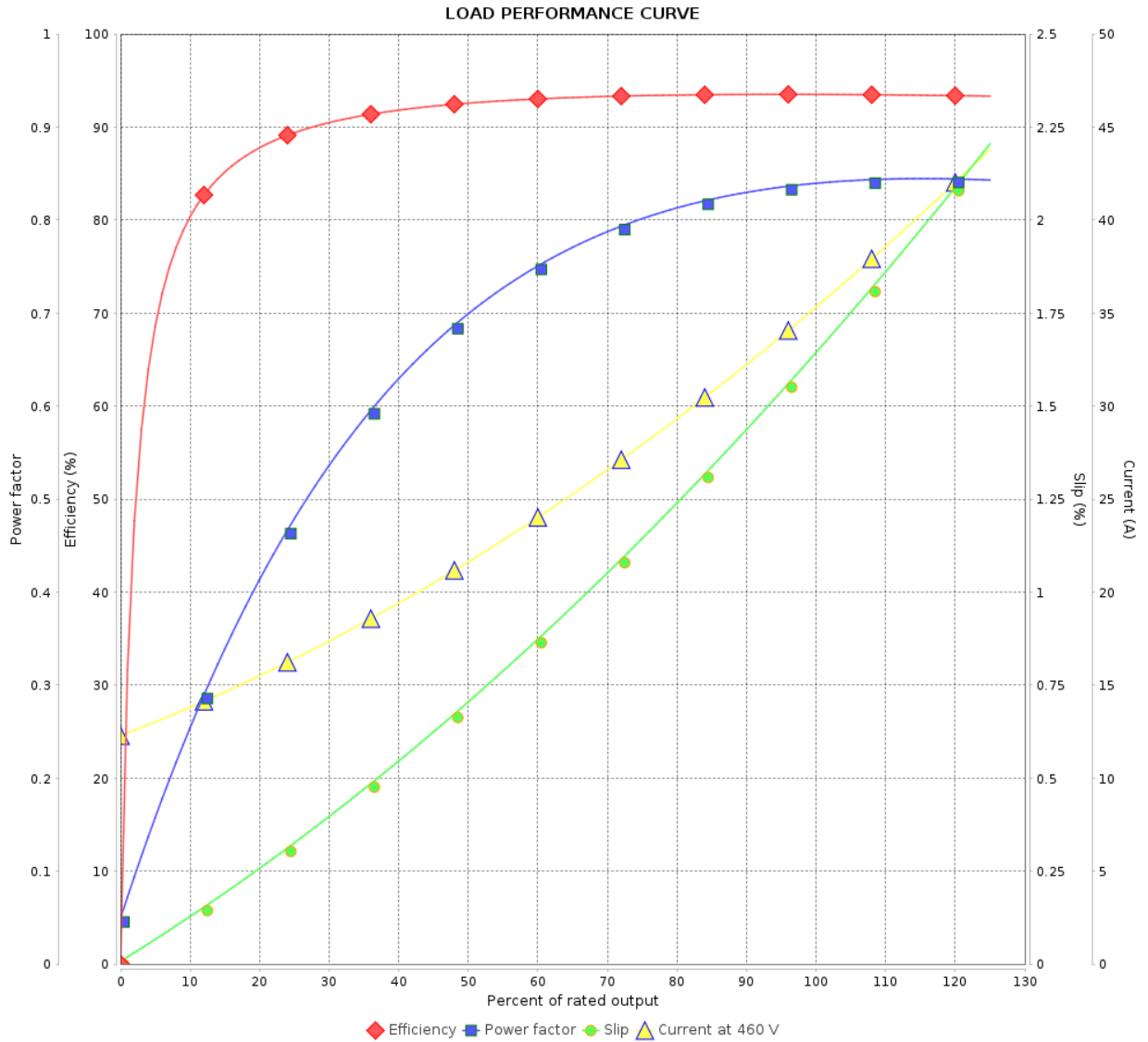
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11770612



Performance : 460 V 60 Hz 4P

Rated current : 35.1 A  
 LRC : 6.1  
 Rated torque : 12.3 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.2467 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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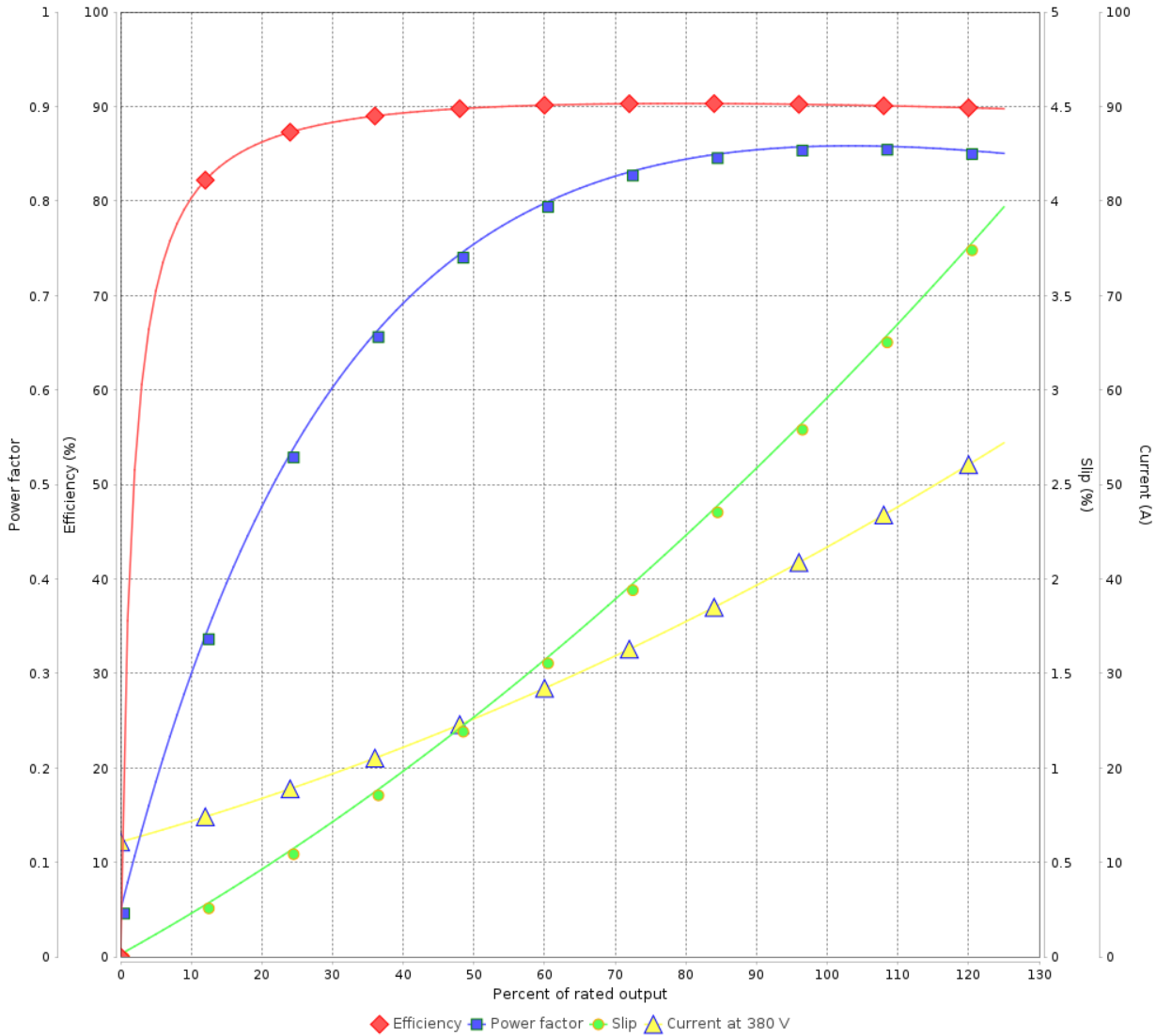
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11770612

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Performance : 380 V 50 Hz 4P IE1

Rated current	: 43.1 A	Moment of inertia (J)	: 0.2467 kgm <sup>2</sup>
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 15.0 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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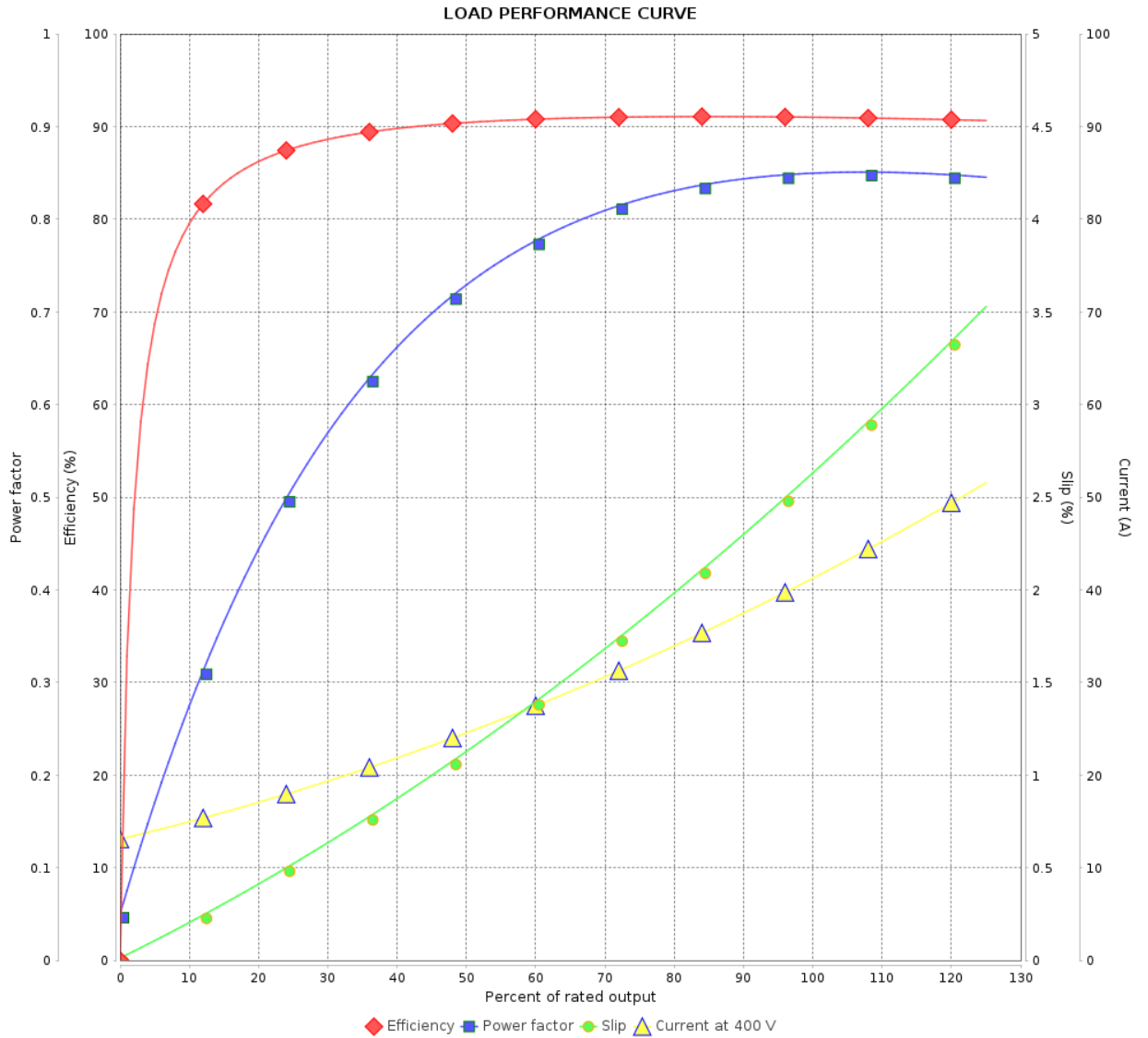
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11770612



Performance : 400 V 50 Hz 4P IE1

Rated current	: 41.1 A	Moment of inertia (J)	: 0.2467 kgm <sup>2</sup>
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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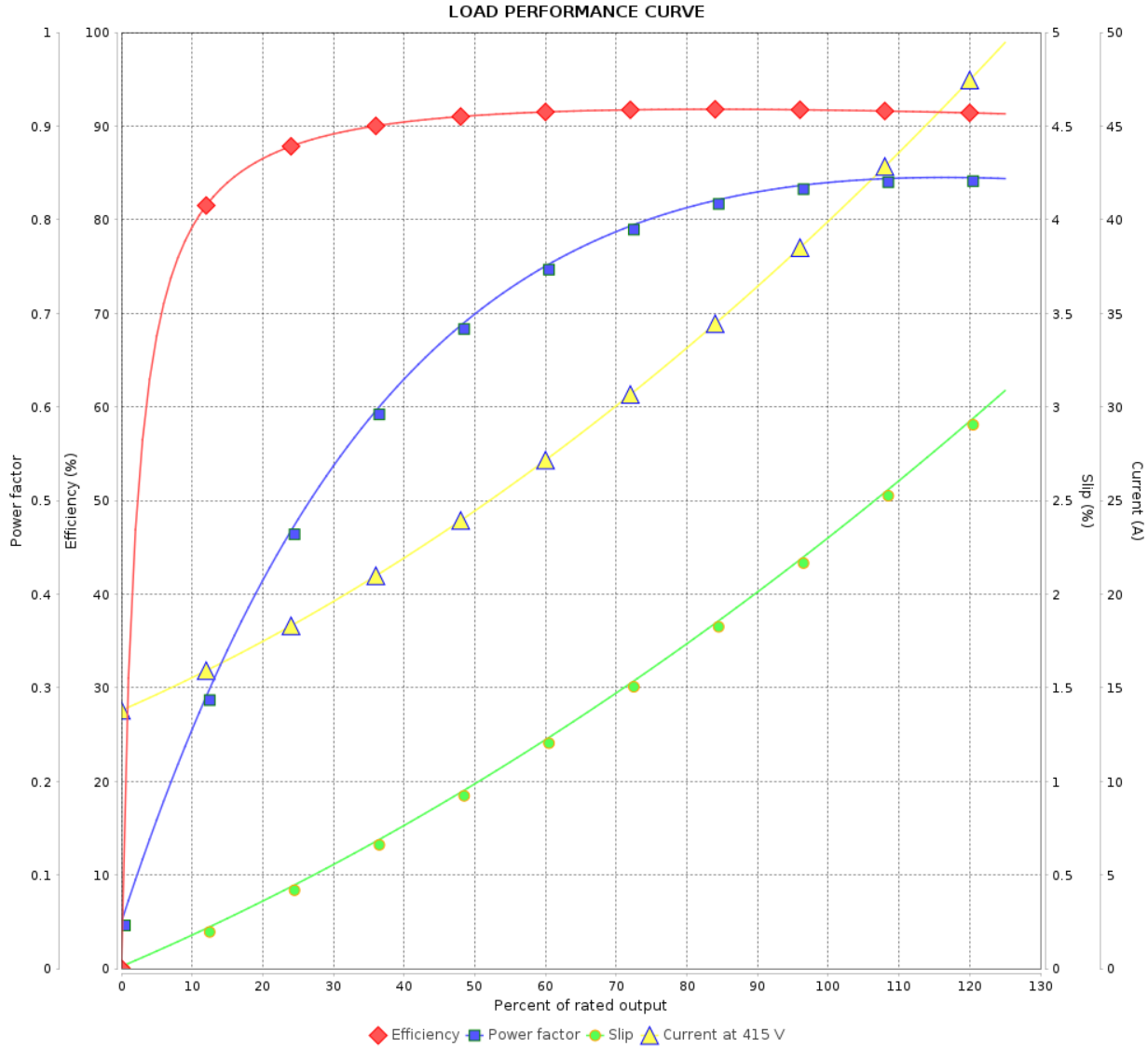
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11770612



Performance : 415 V 50 Hz 4P IE2

Rated current	: 39.7 A	Moment of inertia (J)	: 0.2467 kgm <sup>2</sup>
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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