

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	12376408		
Frame	: 213/5TC	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>	: 78.8 kg		
Protection degree	: IP56	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>		
Design	: B				
Output [HP]	3	3	3	3	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	4.41	5.09	4.92	4.87	
L. R. Amperes [A]	30.9	29.5	31.5	33.1	
LRC [A]	7.0x(Code K)	5.8x(Code H)	6.4x(Code J)	6.8x(Code J)	
No load current [A]	2.75	2.72	2.91	3.05	
Rated speed [RPM]	1175	965	970	970	
Slip [%]	2.08	3.50	3.00	3.00	
Rated torque [kgfm]	1.85	2.26	2.24	2.24	
Locked rotor torque [%]	200	170	200	220	
Breakdown torque [%]	280	210	240	270	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	104s (cold) 58s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	
Noise level <sup>2</sup>	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	
Efficiency (%)	25%				
	50%	86.5	87.5	86.5	
	75%	88.5	88.5	88.5	
	100%	89.5	87.5	88.5	
Power Factor	25%				
	50%	0.50	0.57	0.53	
	75%	0.63	0.70	0.66	
	100%	0.70	0.75	0.73	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	11.0	11.0	11.0	11.0
	P2 (0,5;1,0)	8.5	8.5	8.5	8.5
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	6.7	6.7	6.7	6.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.4	3.4	3.4	3.4
	P7 (0,25;0,25)	2.5	2.5	2.5	2.5
Bearing type	: Drive end : 6308 C3 Non drive end : 6207 C3	Foundation loads			
Sealing	: Inpro/Seal Inpro/Seal	Max. traction	: 72 kgf		
Lubrication interval	: 20000 h 20000 h	Max. compression	: 151 kgf		
Lubricant amount	: 11 g 7 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.			
Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
Checked by			Page	Revision	
Date	30/10/2024		1 / 6		

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	30/10/2024		2 / 6	

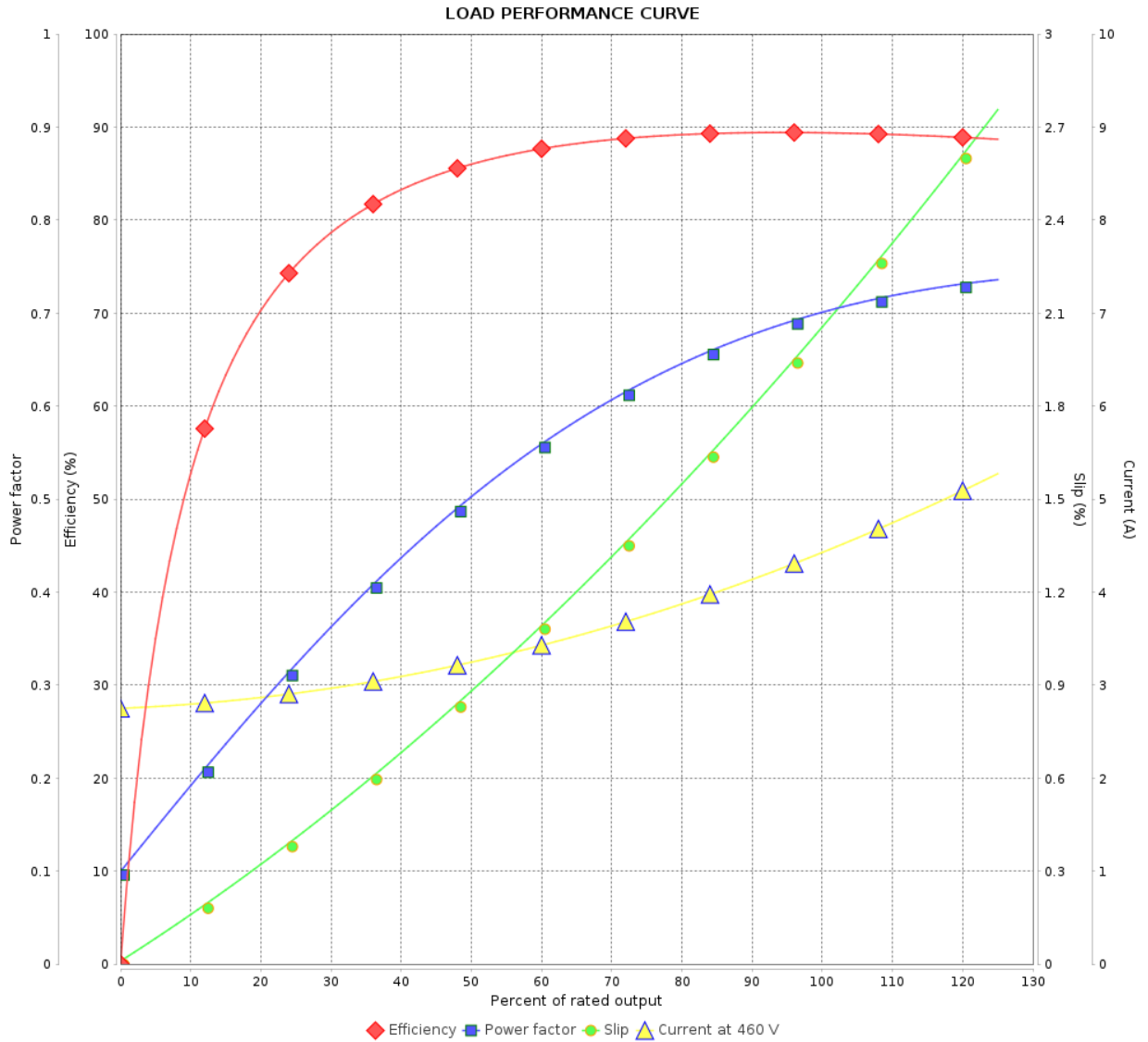
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12376408



Performance : 460 V 60 Hz 6P

Rated current : 4.41 A  
 LRC : 7.0  
 Rated torque : 1.85 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

# LOAD PERFORMANCE CURVE

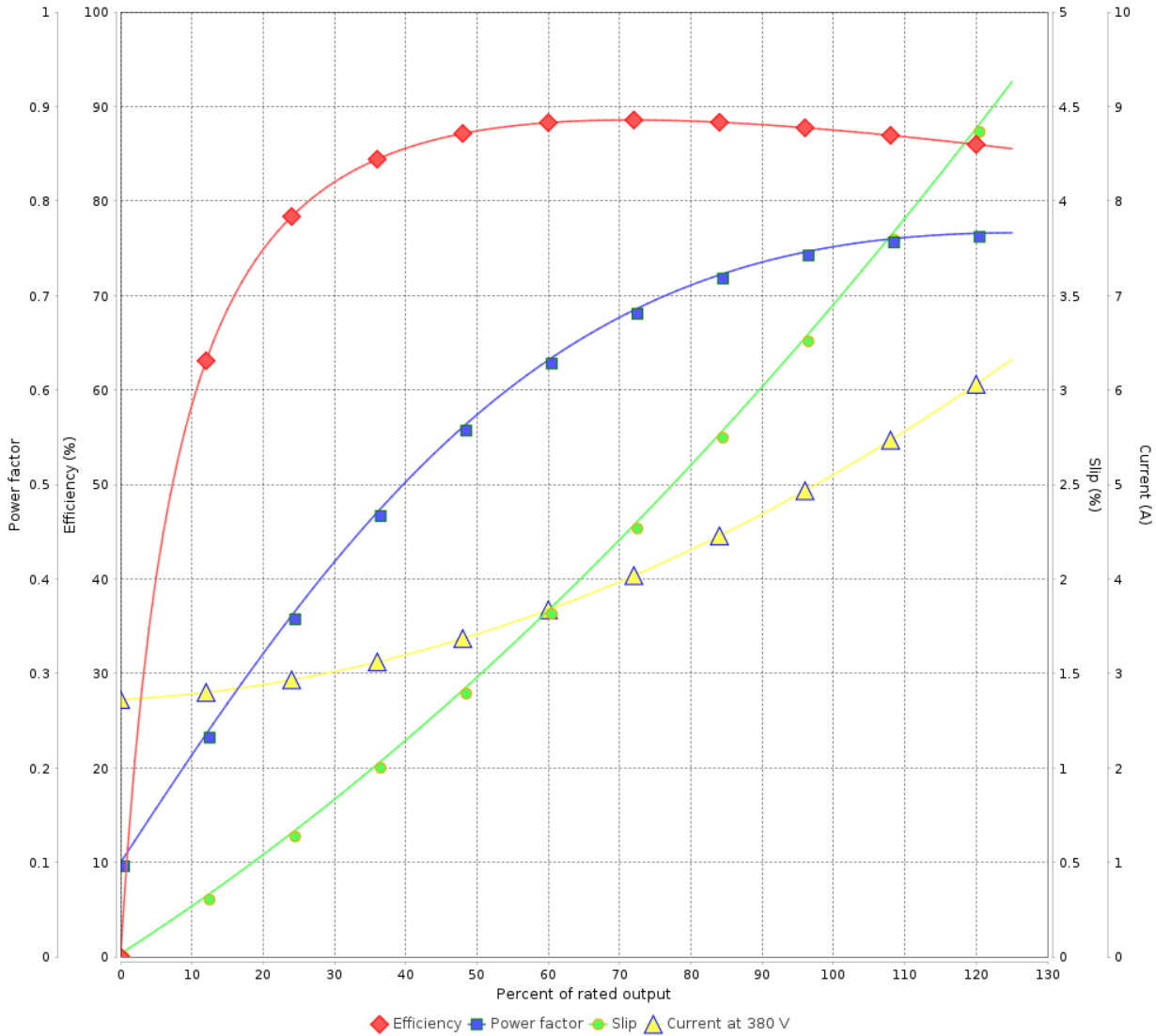
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12376408

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 6P IE4

Rated current	: 5.09 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 2.26 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 6		
Date	30/10/2024			

# LOAD PERFORMANCE CURVE

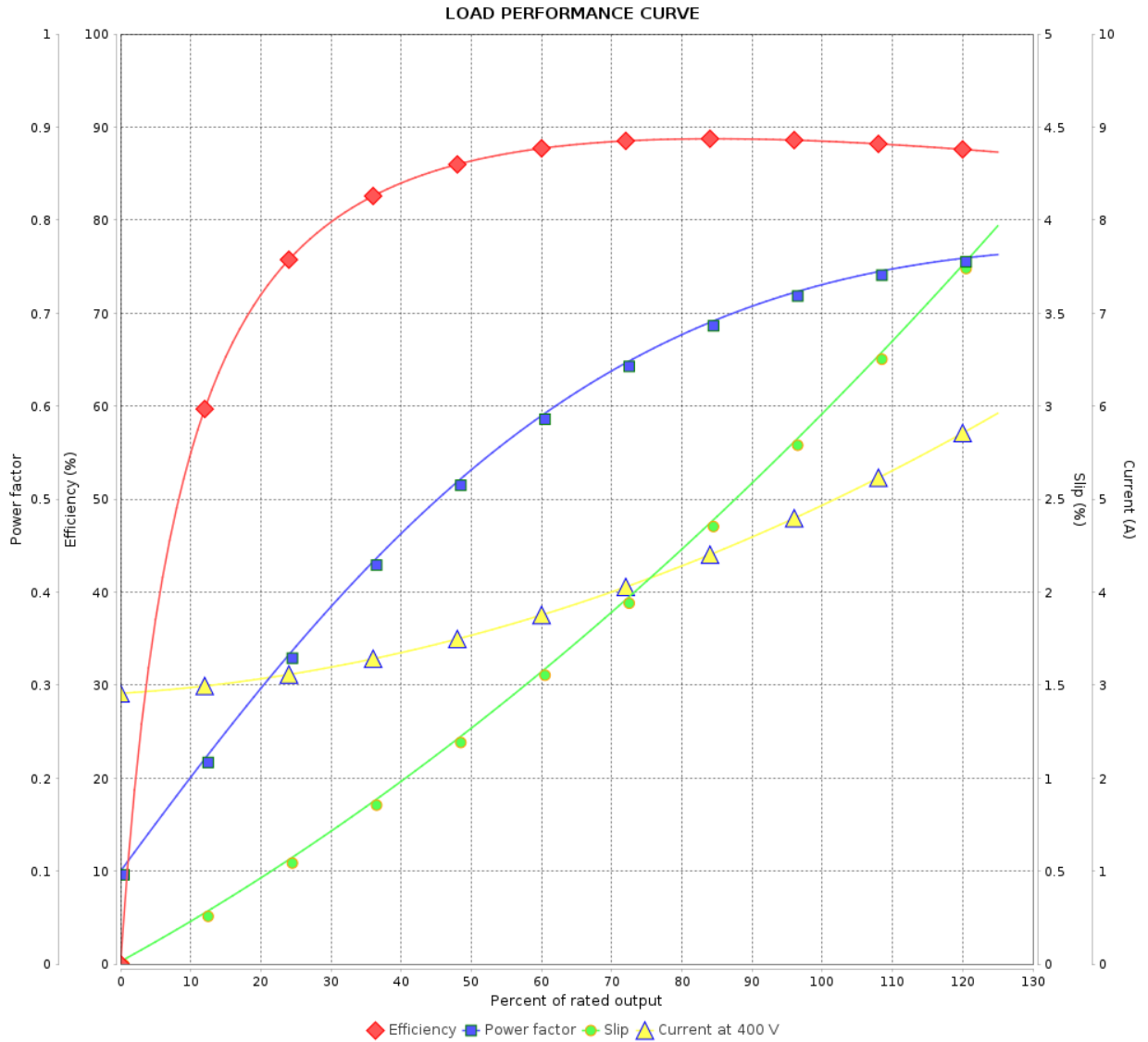
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12376408



Performance : 400 V 50 Hz 6P IE4

Rated current : 4.92 A  
 LRC : 6.4  
 Rated torque : 2.24 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

# LOAD PERFORMANCE CURVE

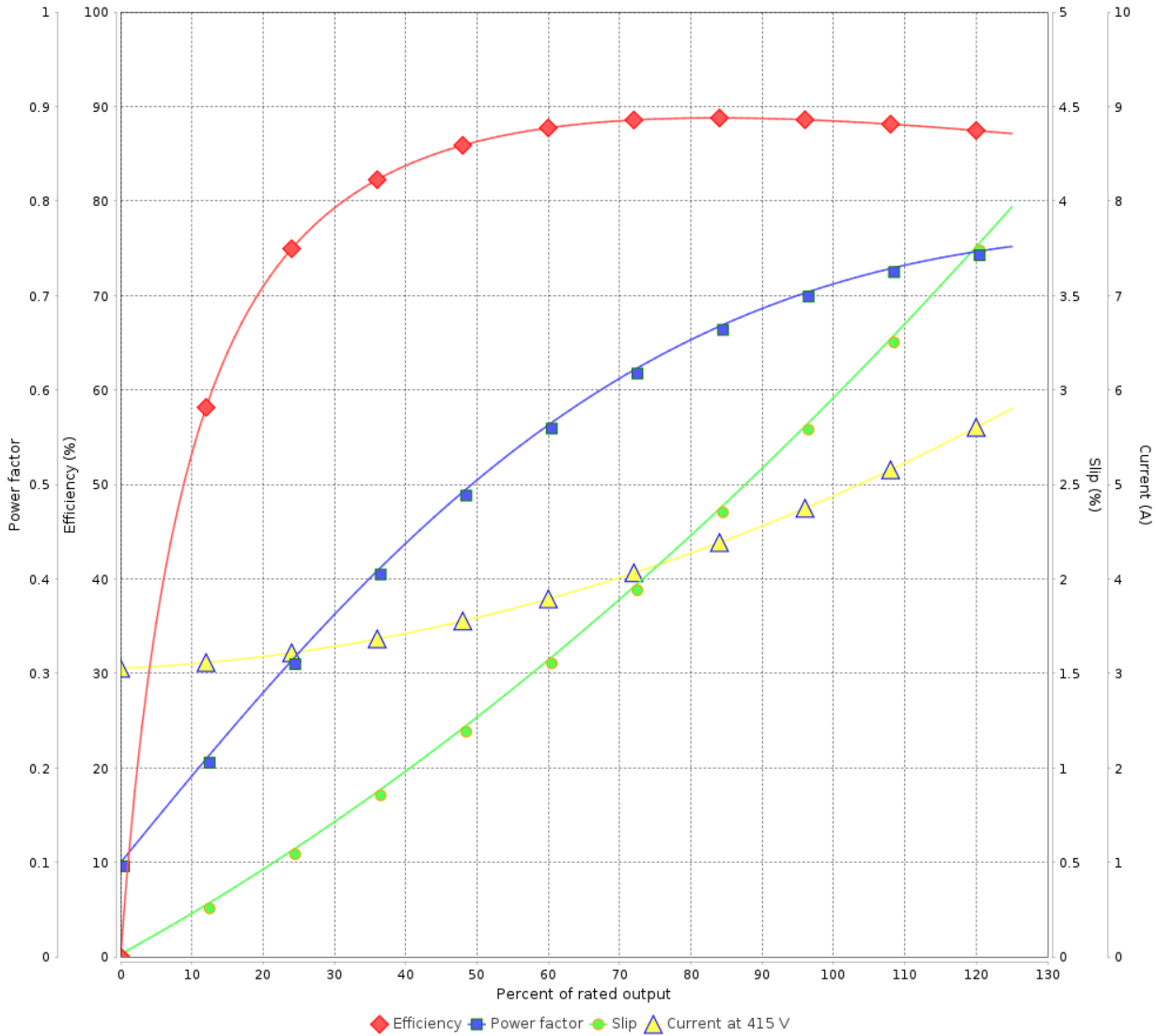
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12376408

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 6P IE4

Rated current	: 4.87 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 2.24 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			6 / 6	
Date	30/10/2024			