

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W22 P Base NEMA Premium Efficiency Three-Phase	Product code : 14605782		
Frame	: 404/5HPH	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: W-6		
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>	: 512 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.5561 kgm <sup>2</sup>		
Design	: B				
Output [HP]	100	75	75	75	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	224/112	99.6	94.6	92.2	
L. R. Amperes [A]	1456/728	677	719	756	
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.6x(Code H)	8.2x(Code J)	
No load current [A]	52.0/26.0	25.7	27.5	29.1	
Rated speed [RPM]	3545	2955	2960	2965	
Slip [%]	1.53	1.50	1.33	1.17	
Rated torque [kgfm]	20.5	18.4	18.4	18.4	
Locked rotor torque [%]	240	250	280	300	
Breakdown torque [%]	260	280	310	330	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	
Noise level <sup>2</sup>	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	
Efficiency (%)	25%				
	50%	93.0	93.0	93.1	
	75%	94.1	93.8	93.8	
	100%	94.1	94.3	94.3	
Power Factor	25%				
	50%	0.83	0.82	0.80	
	75%	0.88	0.88	0.86	
	100%	0.89	0.89	0.89	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	5.9	5.9	5.9	5.9
	P2 (0,5;1,0)	4.6	4.6	4.6	4.6
	P3 (0,25;1,0)	4.4	4.4	4.4	4.4
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.6	1.6	1.6	1.6
	P6 (0,5;0,25)	0.9	0.9	0.9	0.9
	P7 (0,25;0,25)	0.5	0.5	0.5	0.5
Bearing type	: Drive end : 6316 C3 Non drive end : 6314 C3	Foundation loads			
Sealing	: Lip Seal Lip Seal	Max. traction			
Lubrication interval	: 2000 h 3000 h	Max. compression			
Lubricant amount	: 34 g 27 g				
Lubricant type	: Isoflex NBU-15				
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	29/10/2024			1 / 6	

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

Notes  
USABLE @208V 243A SF 1.10 SFA 268A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	29/10/2024		2 / 6	

# LOAD PERFORMANCE CURVE

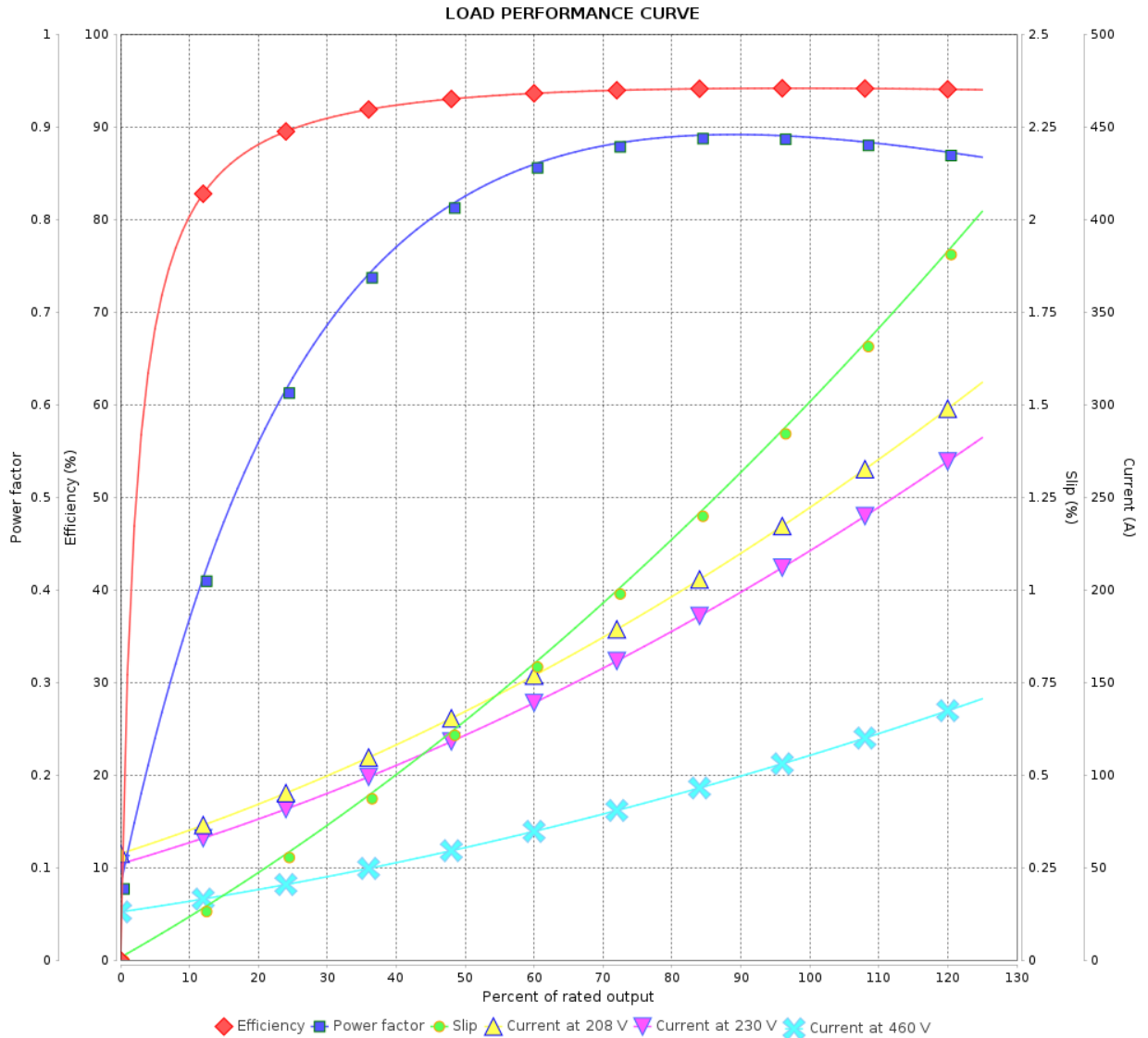
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase

Product code : 14605782



Performance : 230/460 V 60 Hz 2P

Rated current : 224/112 A  
 LRC : 6.5  
 Rated torque : 20.5 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 0.5561 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

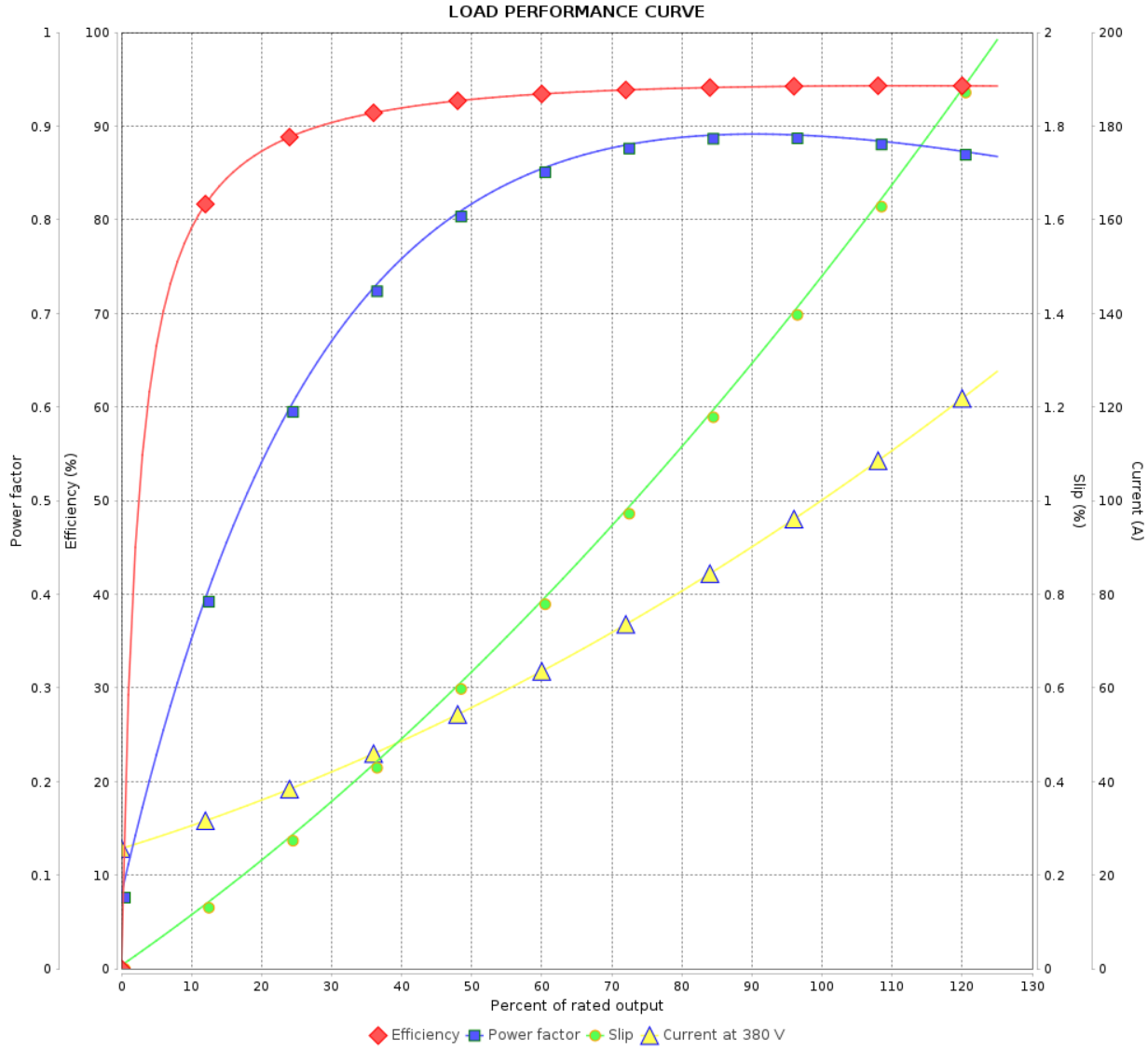
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 14605782



Performance : 380 V 50 Hz 2P IE3

Rated current : 99.6 A  
LRC : 6.8  
Rated torque : 18.4 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 280 %  
Rated speed : 2955 rpm

Moment of inertia (J) : 0.5561 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 4 / 6	Revision
Checked by				
Date	29/10/2024			

# LOAD PERFORMANCE CURVE

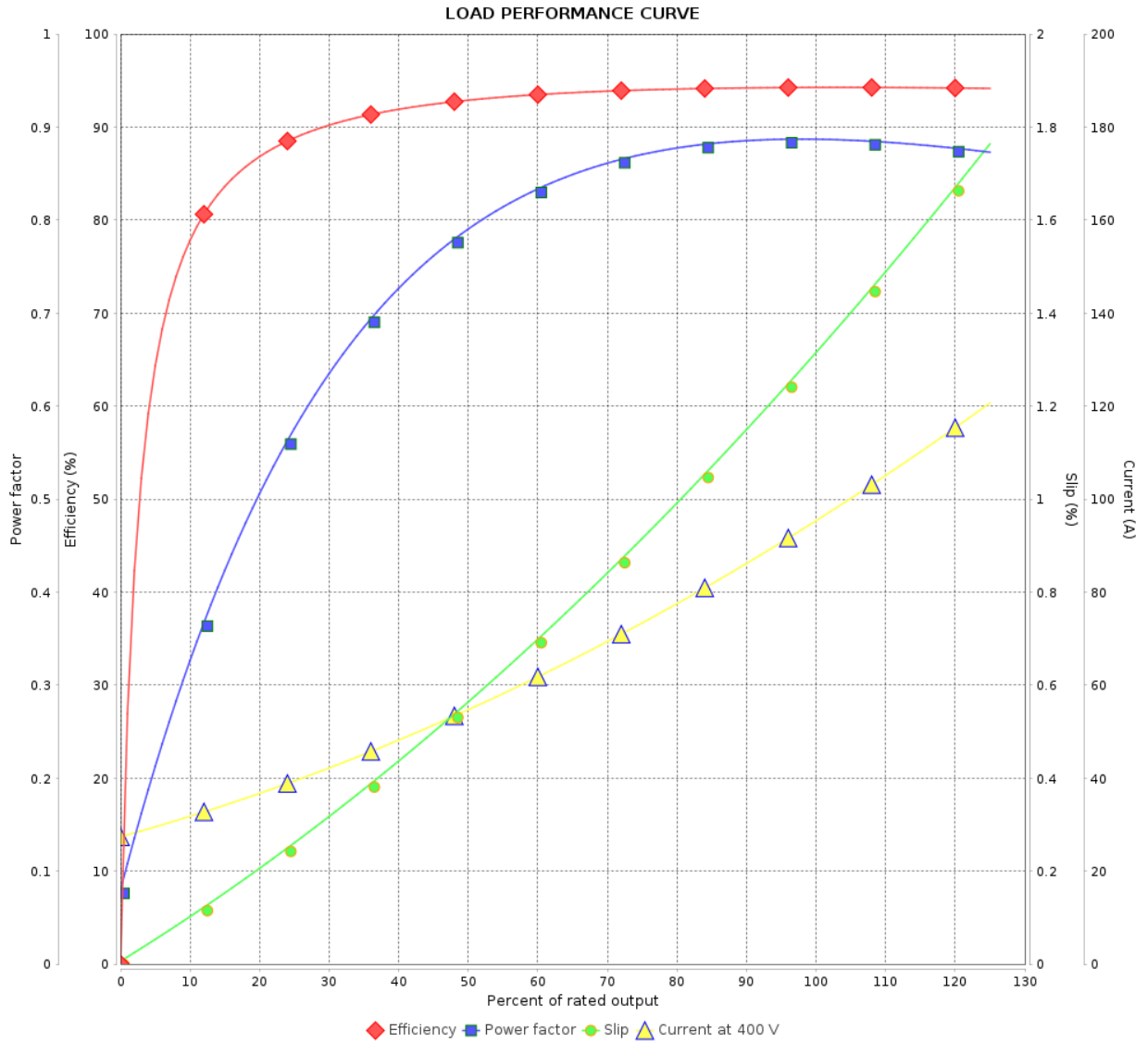
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 14605782



Performance : 400 V 50 Hz 2P IE3

Rated current : 94.6 A  
 LRC : 7.6  
 Rated torque : 18.4 kgfm  
 Locked rotor torque : 280 %  
 Breakdown torque : 310 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.5561 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				
Checked by				
Date				
			Page	Revision
			5 / 6	

# LOAD PERFORMANCE CURVE

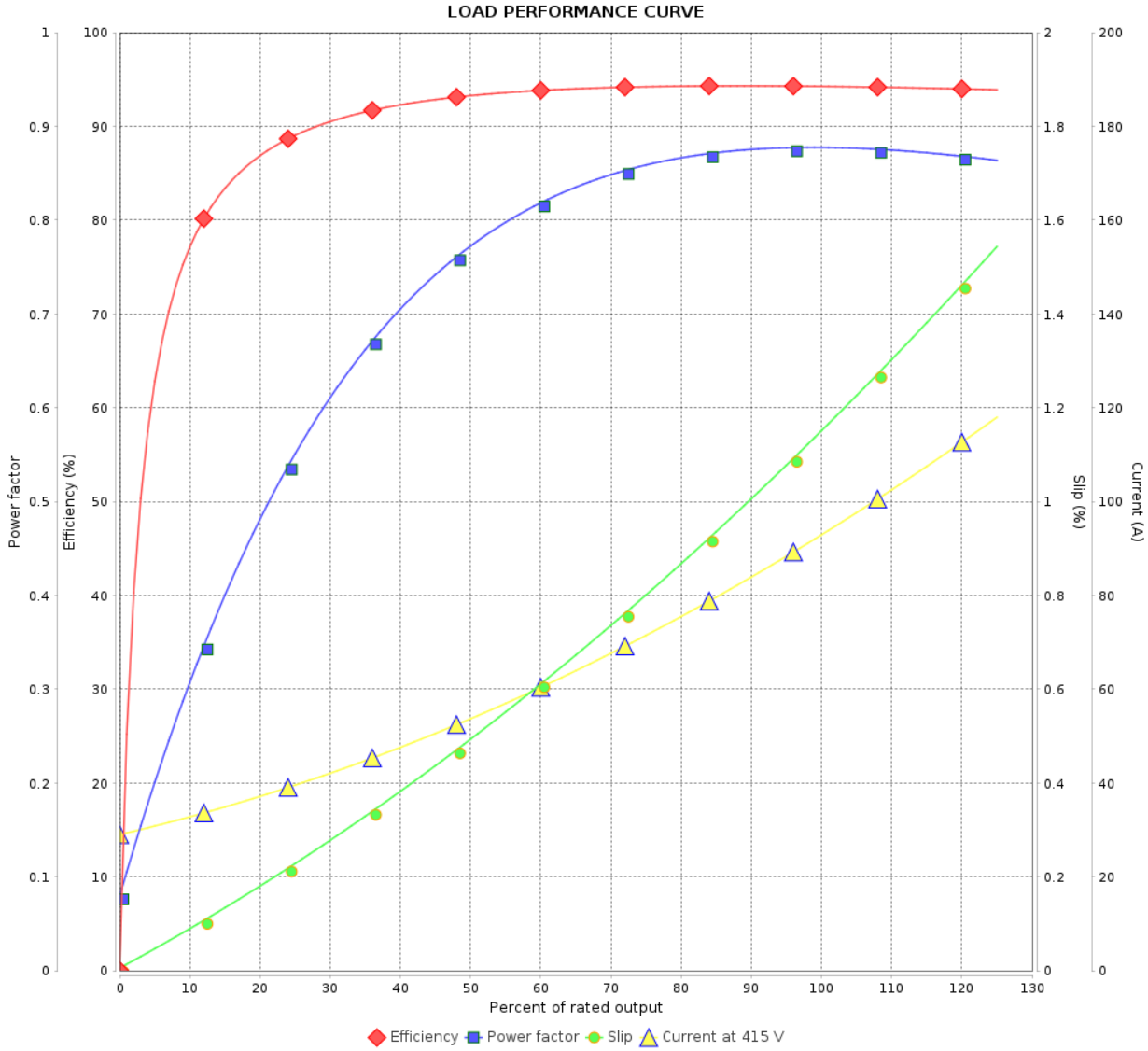
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 14605782



Performance : 415 V 50 Hz 2P IE3

Rated current : 92.2 A  
LRC : 8.2  
Rated torque : 18.4 kgfm  
Locked rotor torque : 300 %  
Breakdown torque : 330 %  
Rated speed : 2965 rpm

Moment of inertia (J) : 0.5561 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				