

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase	Product code :	14865595	
Frame	: 404/5TSD	Cooling method	: IC01 - ODP		
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>	: 427 kg		
Protection degree	: IP23	Moment of inertia (J)	: 0.3708 kgm <sup>2</sup>		
Design	: B				
Output [HP]	150	100	100	100	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	334/167	137	133	133	
L. R. Amperes [A]	2204/1102	986	1051	1117	
LRC [A]	6.6x(Code G)	7.2x(Code H)	7.9x(Code J)	8.4x(Code K)	
No load current [A]	80.0/40.0	43.8	43.7	48.9	
Rated speed [RPM]	3552	2960	2965	2965	
Slip [%]	1.33	1.33	1.17	1.17	
Rated torque [kgfm]	30.7	24.5	24.5	24.5	
Locked rotor torque [%]	200	229	250	270	
Breakdown torque [%]	250	290	330	360	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	16s (cold) 9s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	
Noise level <sup>2</sup>	84.0 dB(A)				
Efficiency (%)	25%				
	50%	93.6	93.7	93.2	
	75%	94.1	94.4	94.2	
	100%	94.1	94.7	94.7	
Power Factor	25%				
	50%	0.79	0.76	0.70	
	75%	0.86	0.85	0.81	
	100%	0.88	0.88	0.86	
Bearing type	: <u>Drive end</u> 6314 C3	<u>Non drive end</u> 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 653 kgf	
	Bearing Seal	Bearing Seal	Max. compression	: 1080 kgf	
Lubrication interval	: 14418 h	20000 h			
Lubricant amount	: 27 g	13 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 369A SF 1.15 SFA 425A					
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. (4) At 100% of full load.			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 / 5	

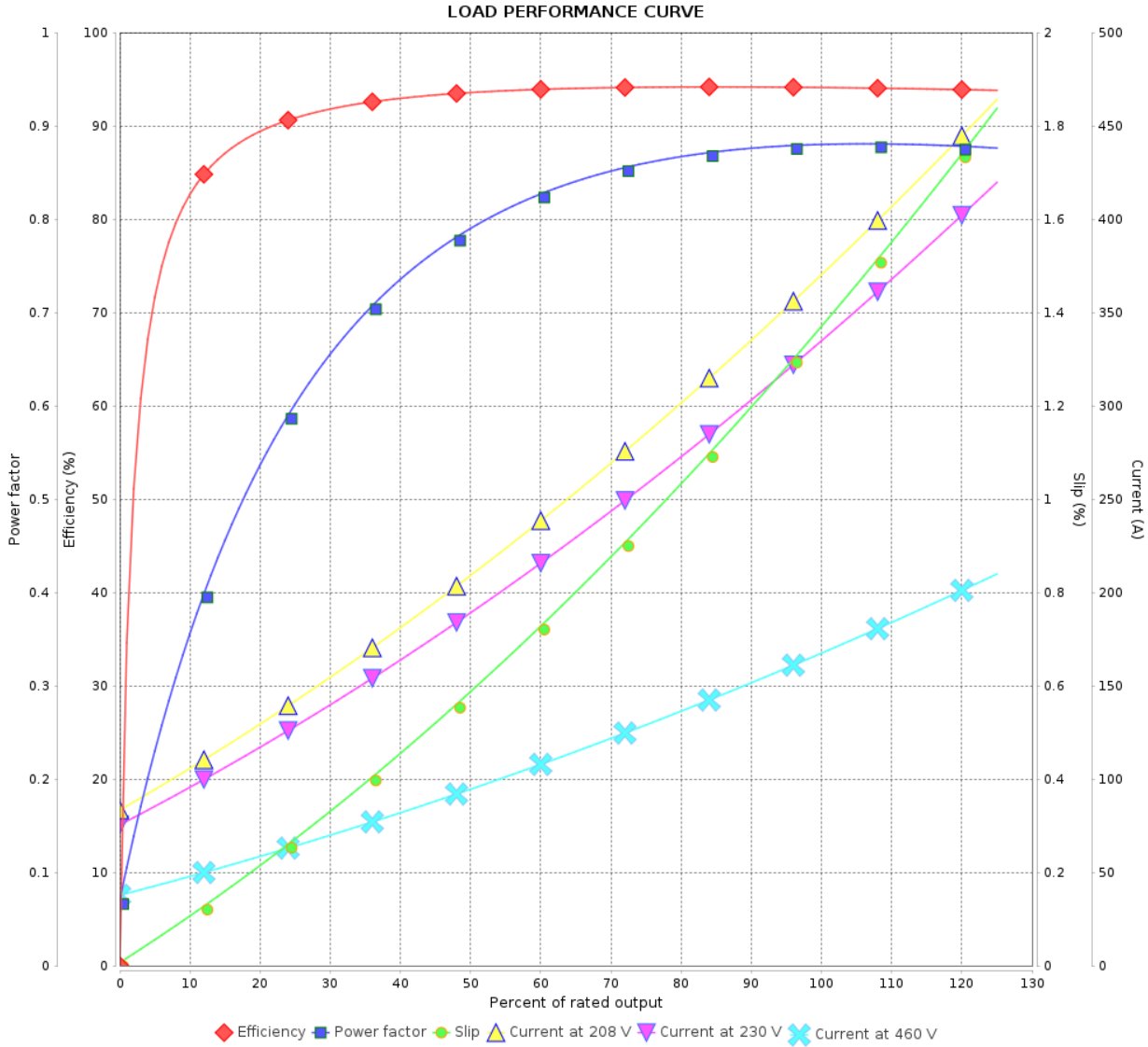
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 14865595



Performance : 230/460 V 60 Hz 2P

Rated current : 334/167 A  
 LRC : 6.6  
 Rated torque : 30.7 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3552 rpm

Moment of inertia (J) : 0.3708 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
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Date				

# LOAD PERFORMANCE CURVE

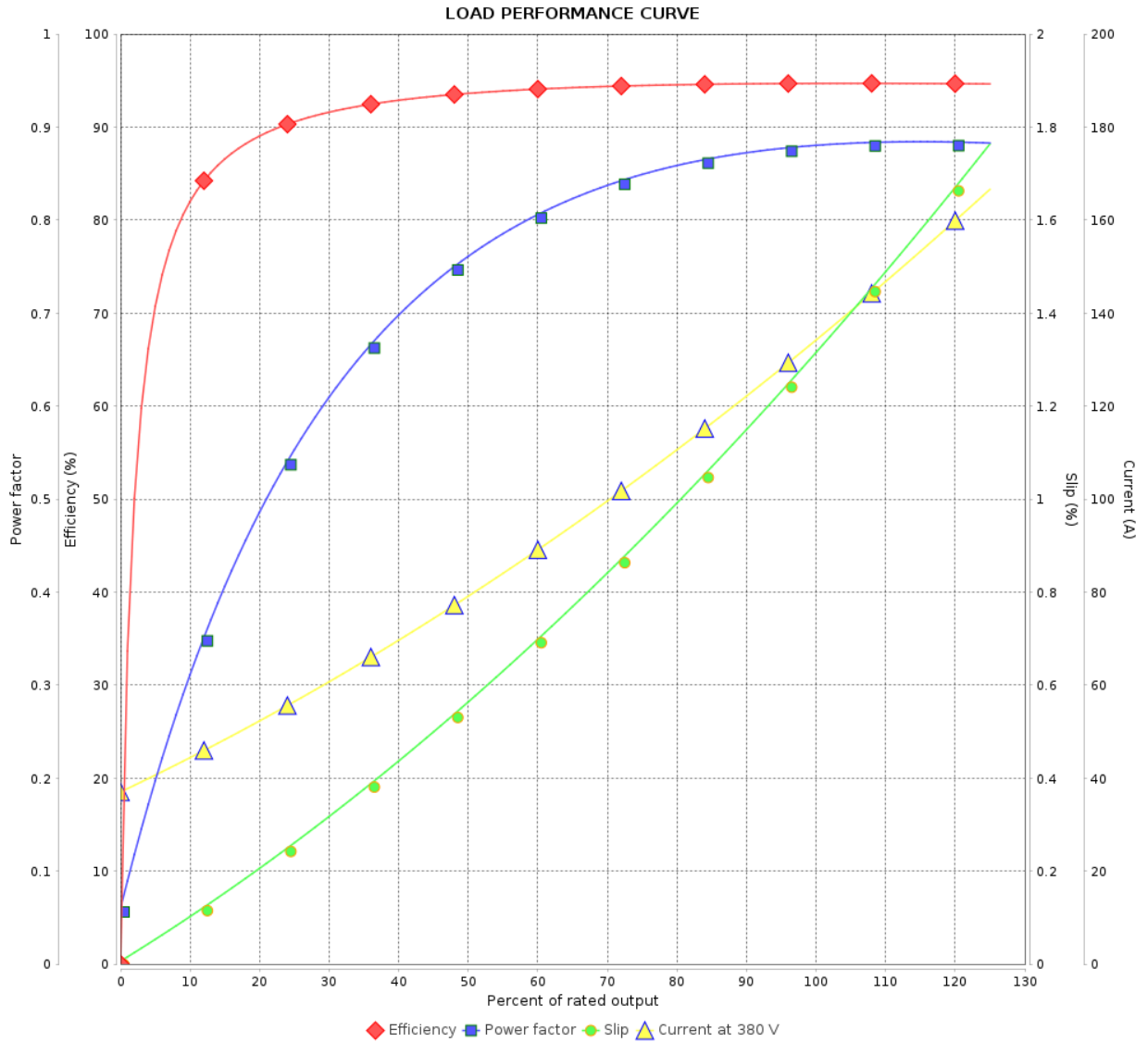
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14865595



Performance : 380 V 50 Hz 2P IE3

Rated current : 137 A  
 LRC : 7.2  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.3708 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		3 / 5		
Date		29/10/2024		

# LOAD PERFORMANCE CURVE

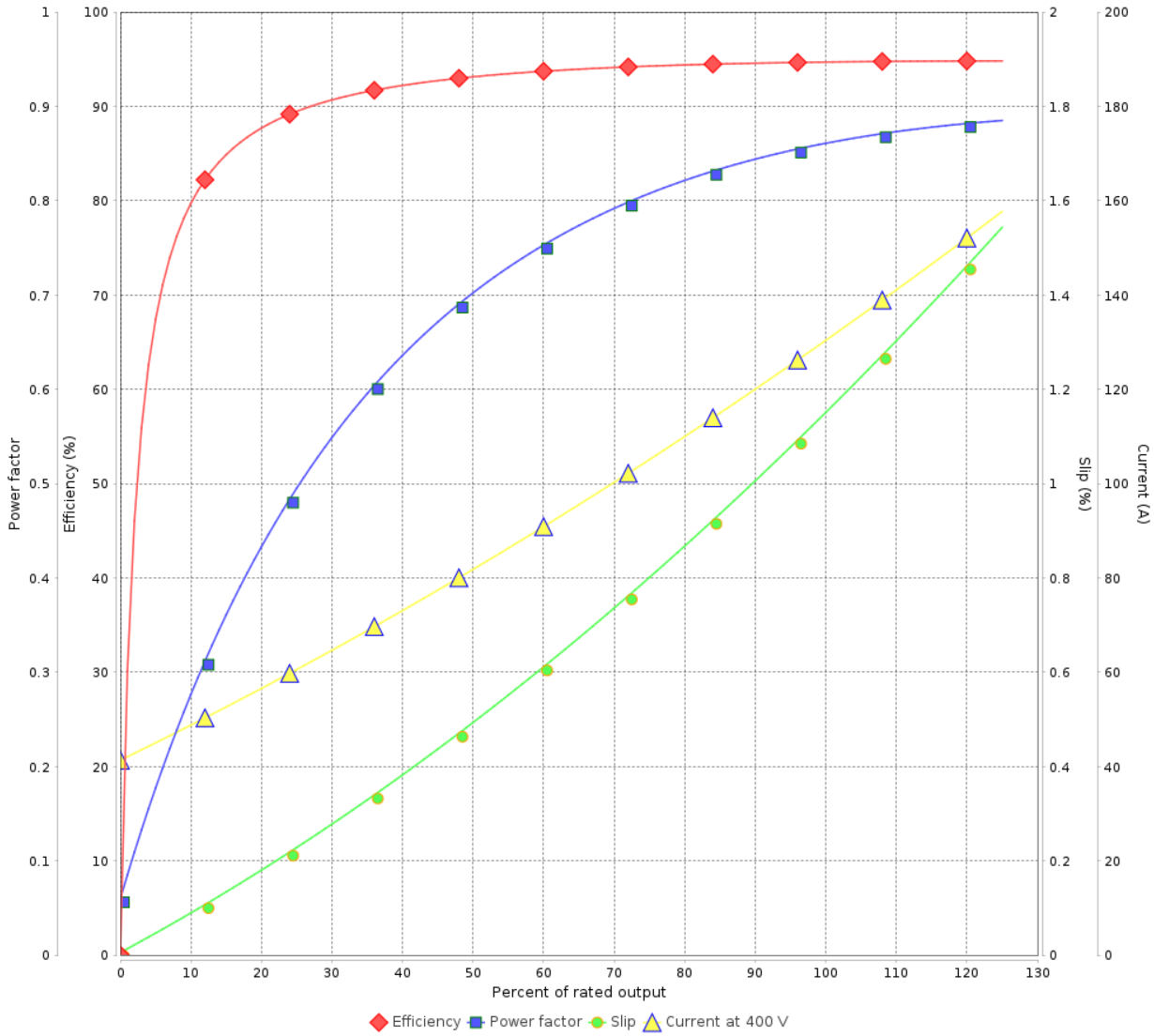
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 14865595

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 133 A	Moment of inertia (J)	: 0.3708 kgm <sup>2</sup>
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 5	Revision
Checked by				
Date	29/10/2024			

# LOAD PERFORMANCE CURVE

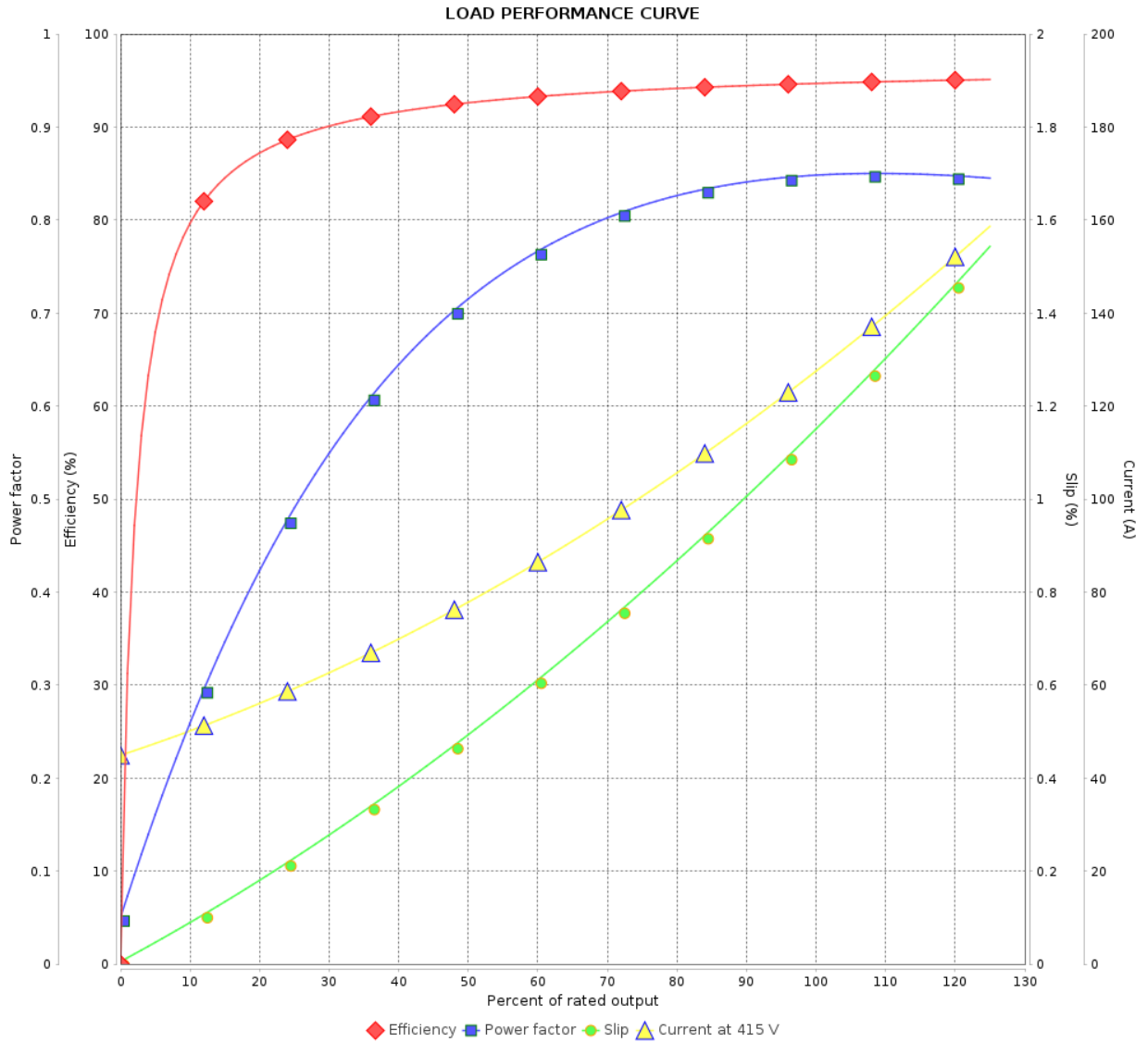
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14865595



Performance : 415 V 50 Hz 2P IE3

Rated current : 133 A  
 LRC : 8.4  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 360 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 0.3708 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					29/10/2024
		Page	Revision		
		5 / 5			