

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code :	11439789
Frame	: 364/5T	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>	: 468 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.8767 kgm <sup>2</sup>		
Design	: B				
Output [HP]	60	50	50	50	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	137/68.3	69.0	66.0	64.8	
L. R. Amperes [A]	956/478	449	482	505	
LRC [A]	7.0x(Code H)	6.5x(Code G)	7.3x(Code H)	7.8x(Code J)	
No load current [A]	44.0/22.0	21.7	23.5	24.9	
Rated speed [RPM]	1780	1480	1480	1480	
Slip [%]	1.11	1.33	1.33	1.33	
Rated torque [kgfm]	24.5	24.5	24.5	24.5	
Locked rotor torque [%]	250	210	250	270	
Breakdown torque [%]	250	229	260	290	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	36s (cold) 20s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	
Noise level <sup>2</sup>	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	93.5	94.5	93.5	93.1
	50%	94.1	94.1	93.6	93.6
	75%	94.5	94.1	94.1	94.1
	100%	95.0	93.6	94.1	94.5
Power Factor	25%	0.48	0.49	0.45	0.43
	50%	0.72	0.72	0.69	0.66
	75%	0.82	0.82	0.80	0.78
	100%	0.87	0.87	0.86	0.84
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6314 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 565 kgf			
Lubrication interval	: 9789 h 9789 h	Max. compression : 1033 kgf			
Lubricant amount	: 27 g 27 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 151A SF 1.00 SFA 151A					
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	13/01/2024			1 / 6	

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

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/01/2024		2 / 6	

# LOAD PERFORMANCE CURVE

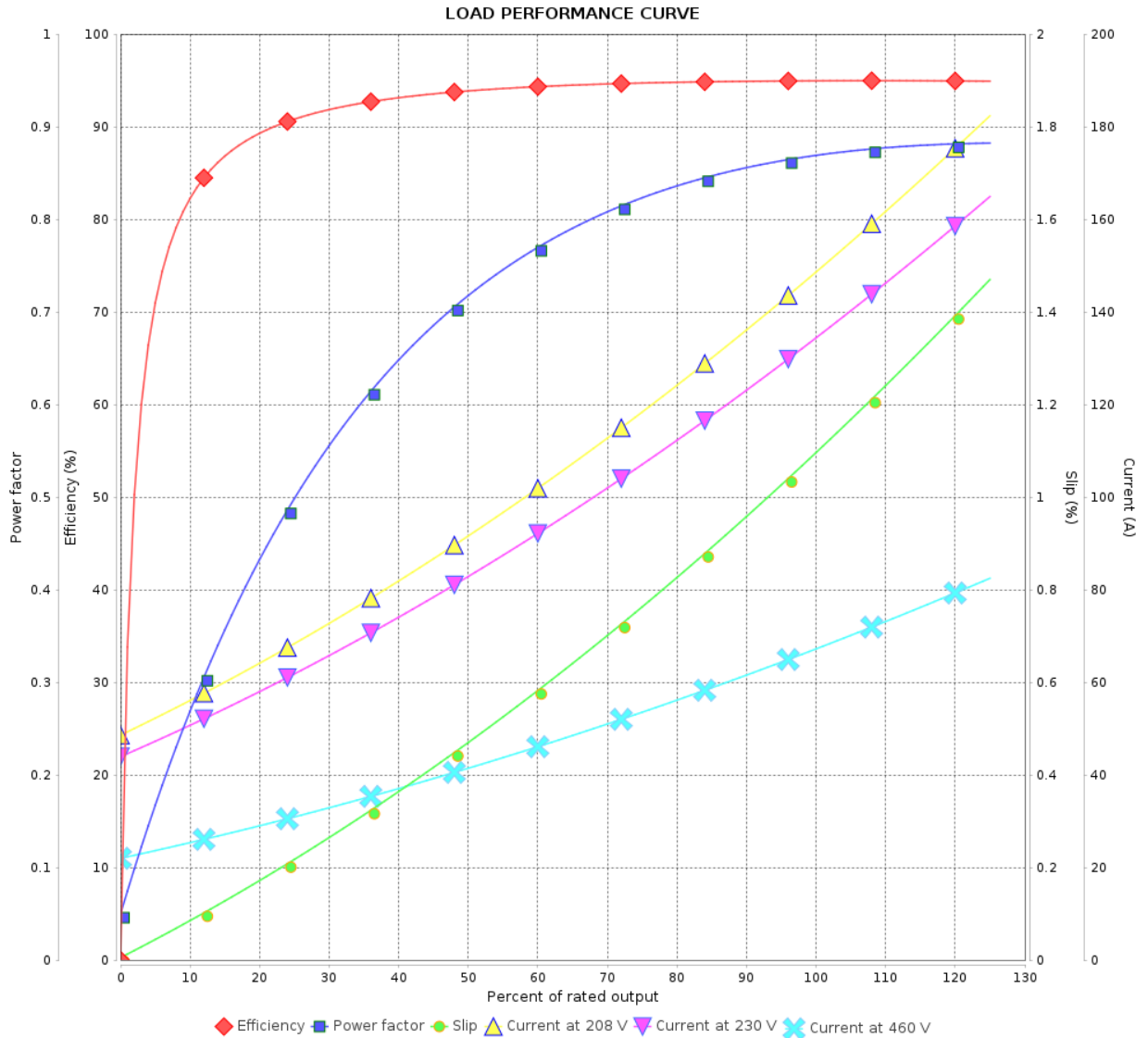
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 11439789



Performance : 230/460 V 60 Hz 4P

Rated current : 137/68.3 A  
 LRC : 7.0  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 250 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.8767 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		3 / 6		
Date		13/01/2024		

# LOAD PERFORMANCE CURVE

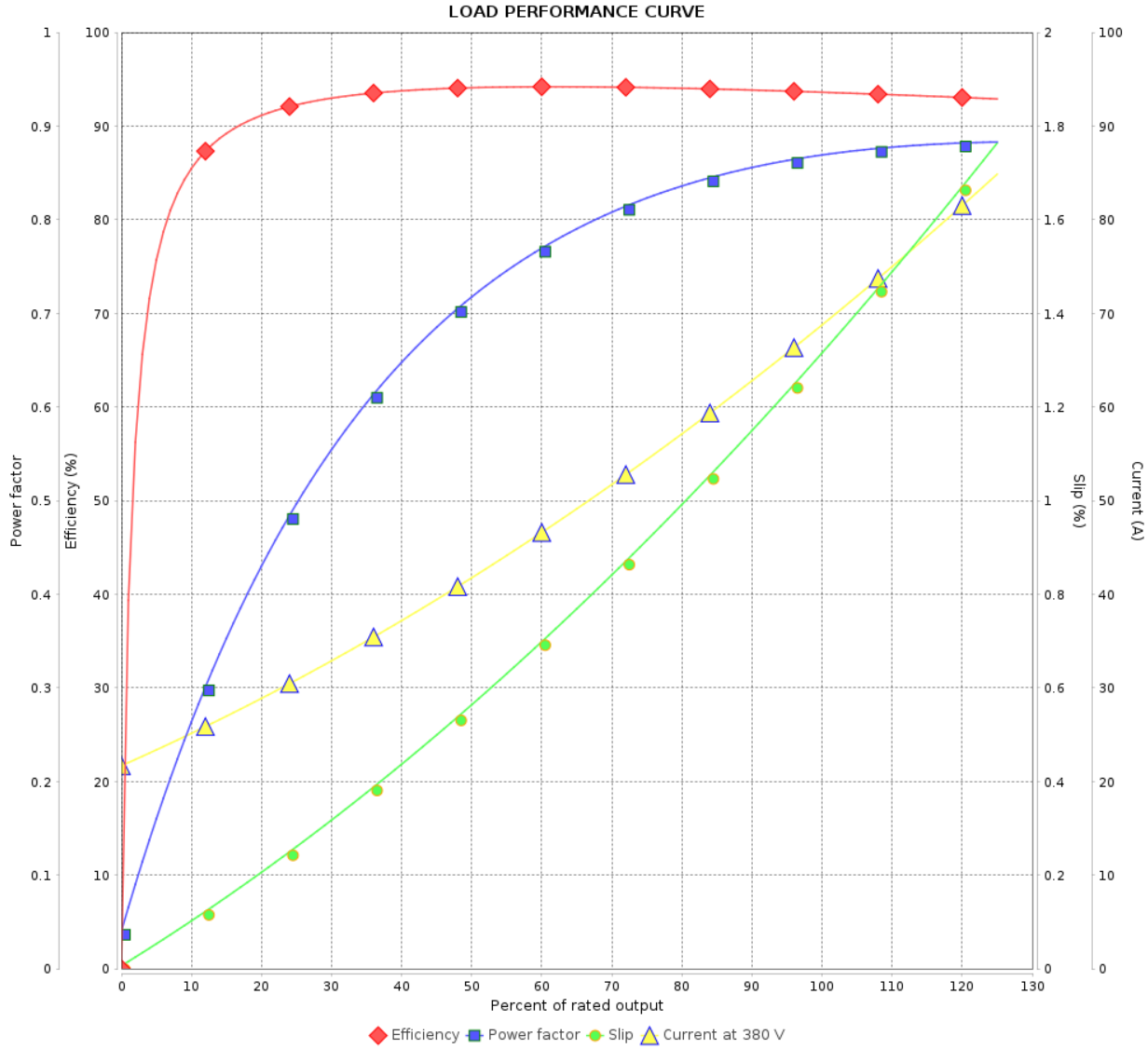
Three Phase Induction Motor - Squirrel Cage



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

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 11439789



Performance : 380 V 50 Hz 4P IE2

Rated current : 69.0 A  
LRC : 6.5  
Rated torque : 24.5 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 229 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.8767 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	13/01/2024			

# LOAD PERFORMANCE CURVE

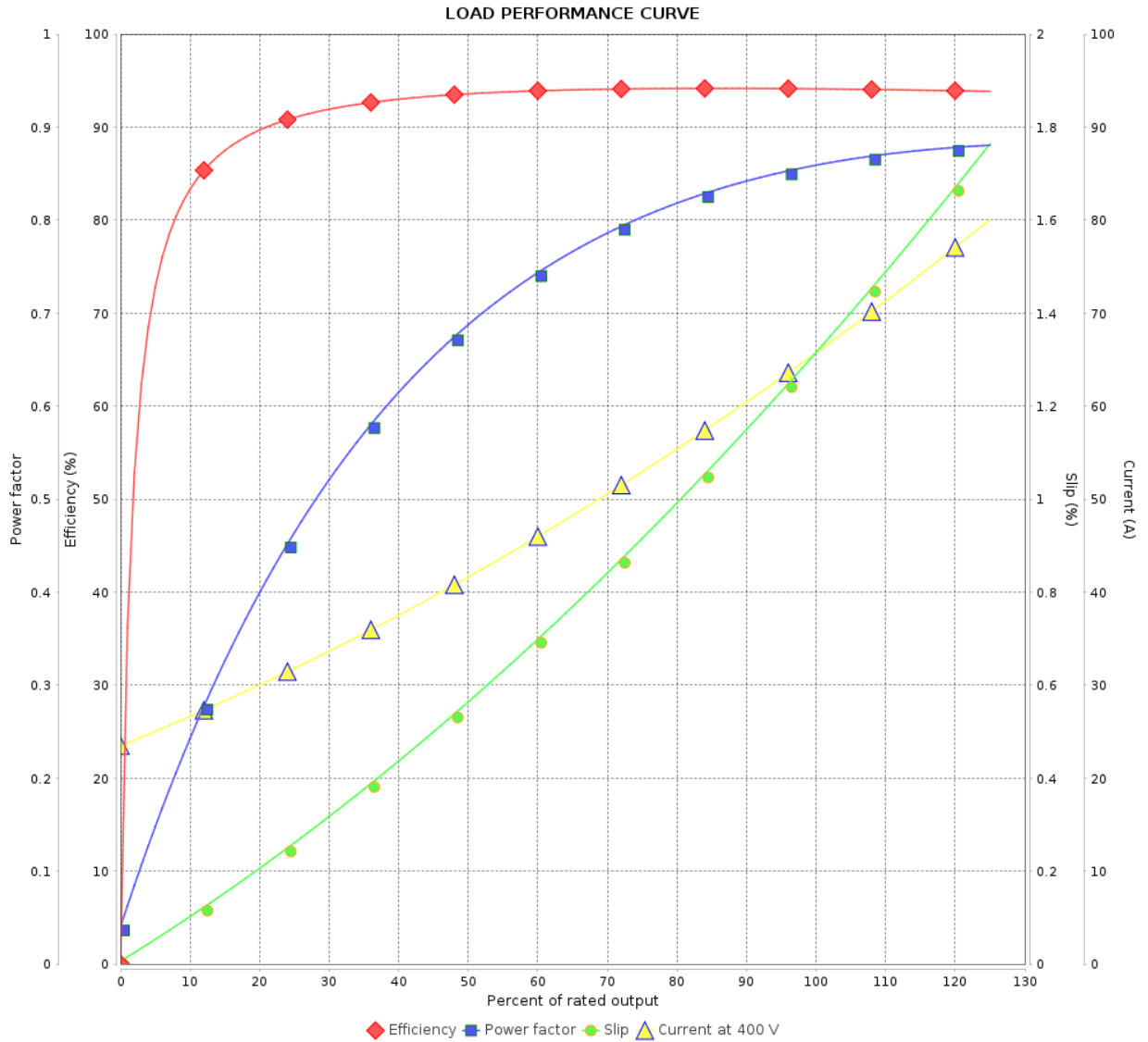
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 11439789



Performance : 400 V 50 Hz 4P IE3

Rated current : 66.0 A  
LRC : 7.3  
Rated torque : 24.5 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 260 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.8767 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

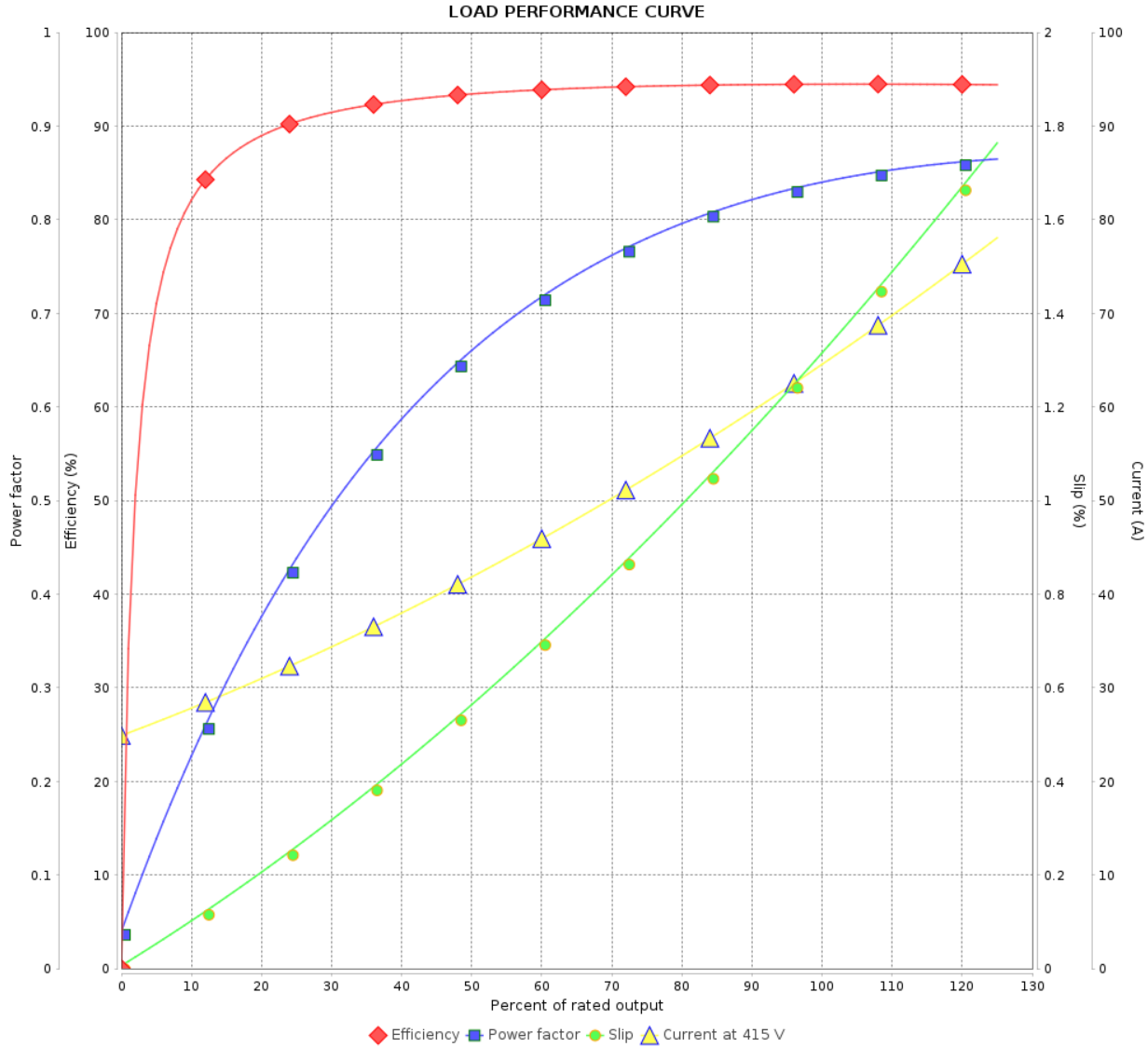
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 11439789



Performance : 415 V 50 Hz 4P IE3

Rated current : 64.8 A  
LRC : 7.8  
Rated torque : 24.5 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 290 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.8767 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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Performed by			Page	Revision
Checked by				
Date				