

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 11439868
Frame	: 404/5T	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>	: 554 kg	
Protection degree	: IP55	Moment of inertia (J)	: 1.11 kgm <sup>2</sup>	
Design	: B			
Output [HP]	100	75	75	75
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	226/113	103	100	98.7
L. R. Amperes [A]	1627/814	773	840	898
LRC [A]	7.2x(Code H)	7.5x(Code H)	8.4x(Code J)	9.1x(Code K)
No load current [A]	78.0/39.0	39.0	42.0	45.0
Rated speed [RPM]	1780	1480	1485	1485
Slip [%]	1.11	1.33	1.00	1.00
Rated torque [kgfm]	40.8	36.8	36.7	36.7
Locked rotor torque [%]	270	270	300	320
Breakdown torque [%]	280	310	360	370
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	94.0	93.9	93.4
	50%	94.5	94.0	93.6
	75%	95.0	94.5	94.5
	100%	95.4	94.5	94.5
Power Factor	25%	0.47	0.44	0.41
	50%	0.72	0.69	0.65
	75%	0.82	0.80	0.77
	100%	0.87	0.86	0.84
Bearing type	: <u>Drive end</u> 6217 C3 <u>Non drive end</u> 6314 C3	Foundation loads		
Sealing	: Oil Seal Lip Seal	Max. traction	: 1057 kgf	
Lubrication interval	: 9149 h 9789 h	Max. compression	: 1611 kgf	
Lubricant amount	: 21 g 27 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 250A SF 1.00 SFA 250A				
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.		
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Customer : \_\_\_\_\_

### Thermal protection

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

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# LOAD PERFORMANCE CURVE

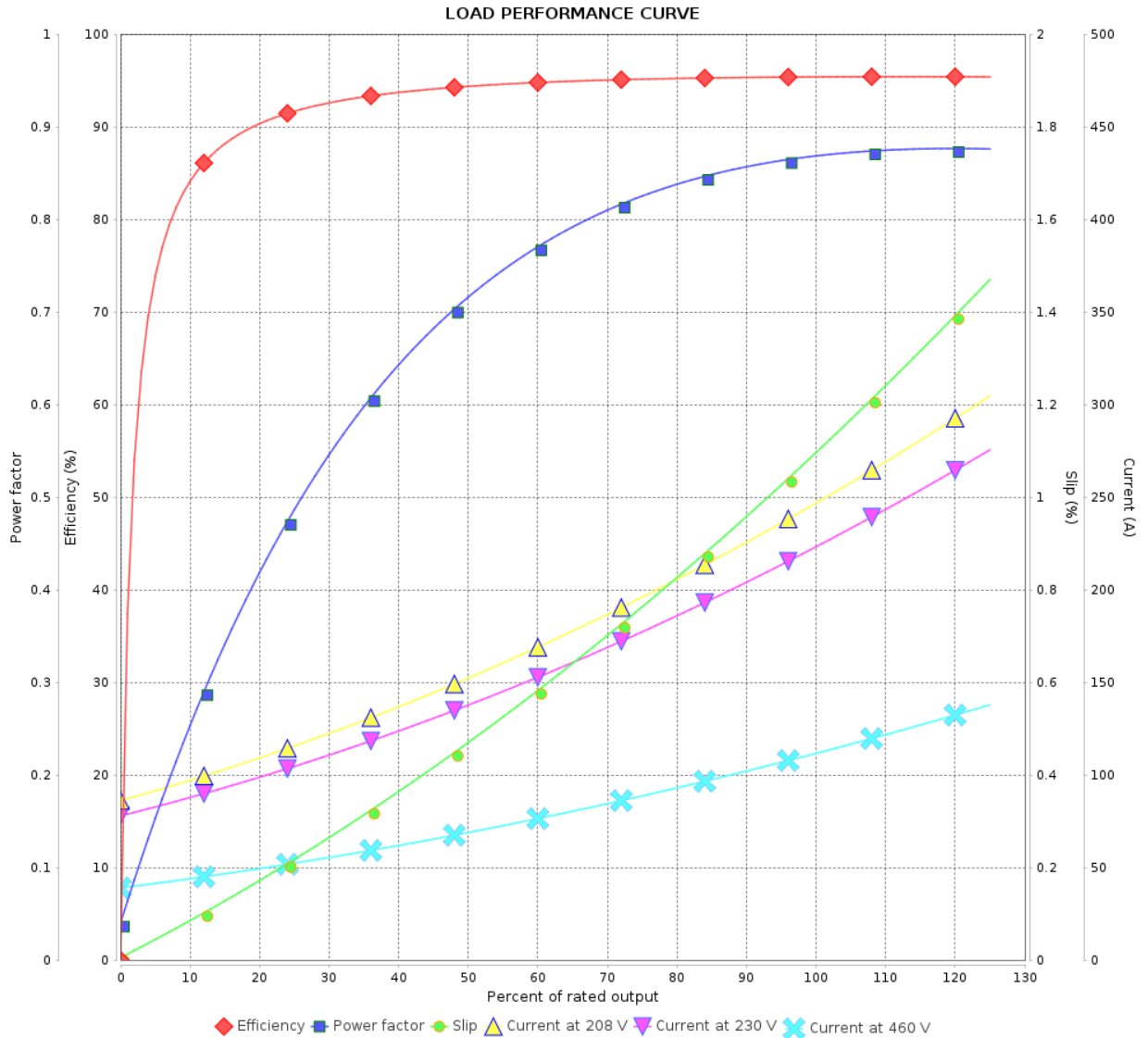
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439868



Performance : 230/460 V 60 Hz 4P

Rated current : 226/113 A  
LRC : 7.2  
Rated torque : 40.8 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 280 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 1.11 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

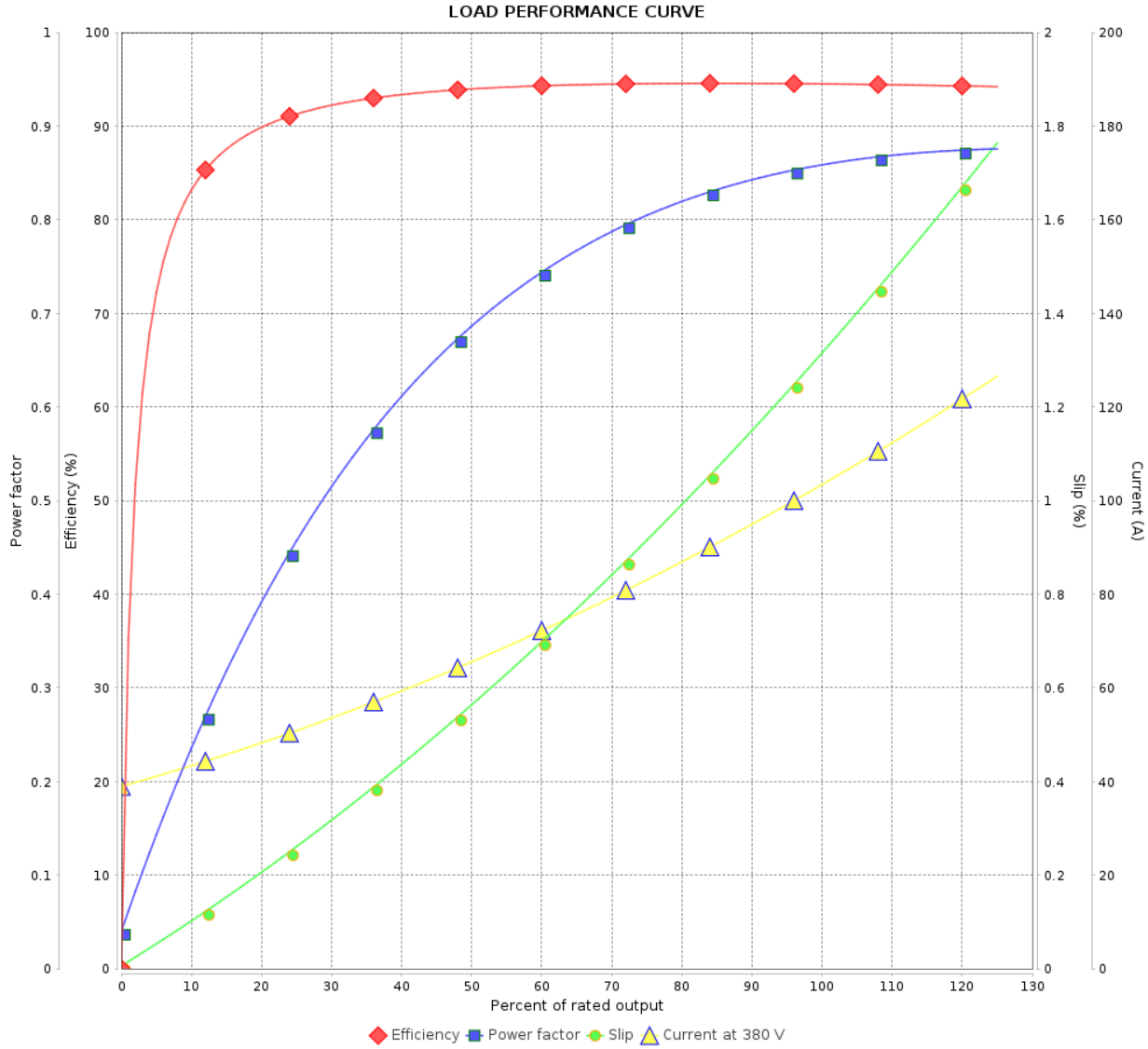
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439868



Performance : 380 V 50 Hz 4P IE2

Rated current	: 103 A	Moment of inertia (J)	: 1.11 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 36.8 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

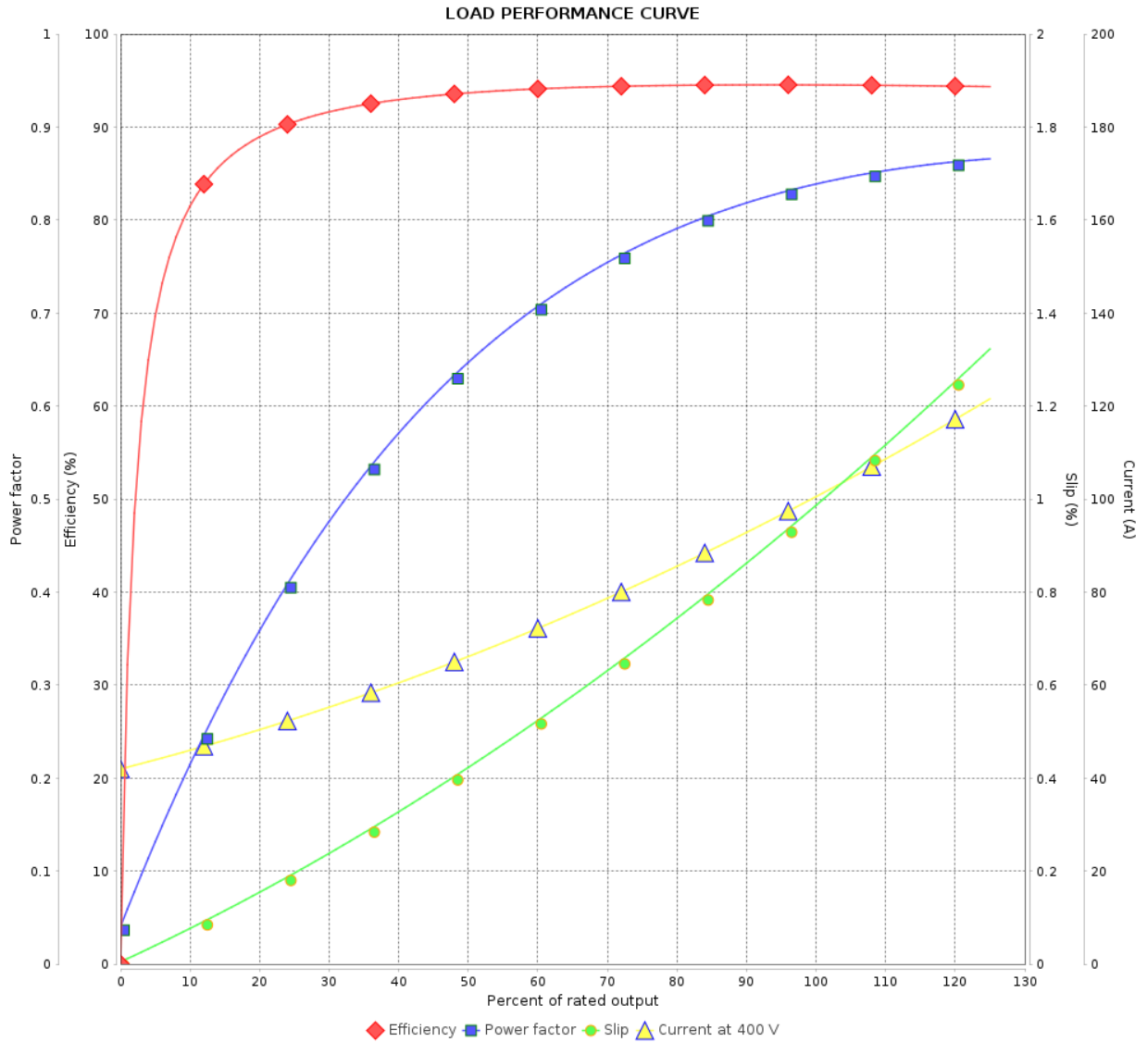
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11439868



Performance : 400 V 50 Hz 4P IE2

Rated current : 100 A  
LRC : 8.4  
Rated torque : 36.7 kgfm  
Locked rotor torque : 300 %  
Breakdown torque : 360 %  
Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 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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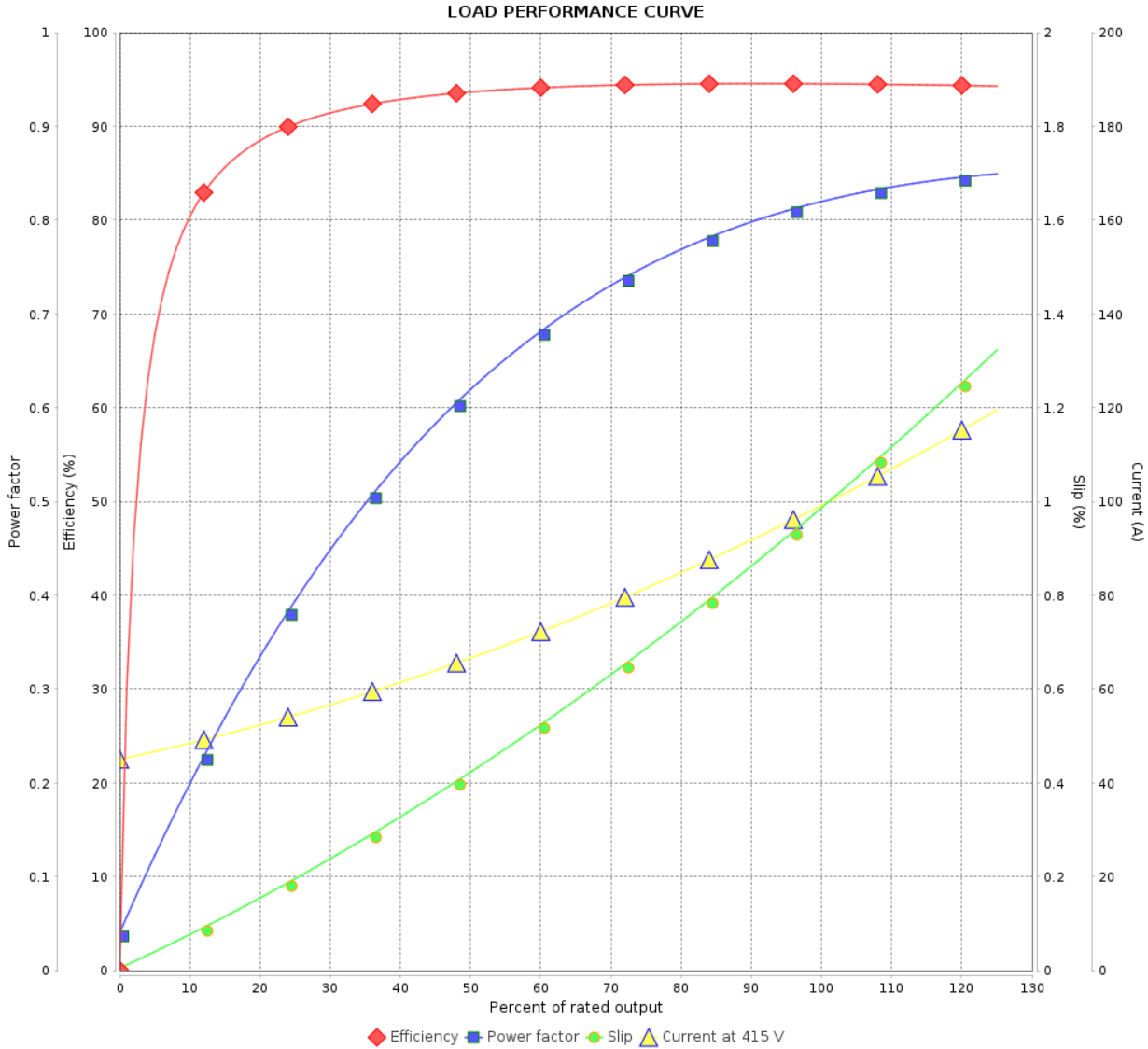
Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11439868



Performance : 415 V 50 Hz 4P IE2

Rated current : 98.7 A  
 LRC : 9.1  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 320 %  
 Breakdown torque : 370 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 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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