

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 14307082
Frame	: 143/5TC	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>	: 34.6 kg	
Protection degree	: IP55	Moment of inertia (J)	: 0.0067 kgm <sup>2</sup>	
Design	: B			
Output [HP]	2	2	2	2
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	5.58/2.79	3.29	3.18	3.18
L. R. Amperes [A]	49.7/24.8	25.0	24.8	24.8
LRC [A]	8.9x(Code L)	7.6x(Code K)	7.8x(Code K)	7.8x(Code K)
No load current [A]	3.20/1.60	1.60	1.80	2.00
Rated speed [RPM]	1750	1425	1435	1445
Slip [%]	2.78	5.00	4.33	3.67
Rated torque [kgfm]	0.829	1.02	1.01	1.00
Locked rotor torque [%]	270	190	220	240
Breakdown torque [%]	320	220	250	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	19s (cold) 11s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%			
	50%	84.0	84.0	82.5
	75%	85.5	84.0	84.0
	100%	86.5	82.5	84.0
Power Factor	25%			
	50%	0.56	0.64	0.59
	75%	0.70	0.77	0.73
	100%	0.78	0.84	0.81
Bearing type	: <u>Drive end</u> 6205 2RS <u>Non drive end</u> 6204 2RS	Foundation loads		
Sealing	: Oil Seal Lip Seal	Max. traction	: 60 kgf	
Lubrication interval	: - -	Max. compression	: 94 kgf	
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 6.02A SF 1.15 SFA 6.92A				
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

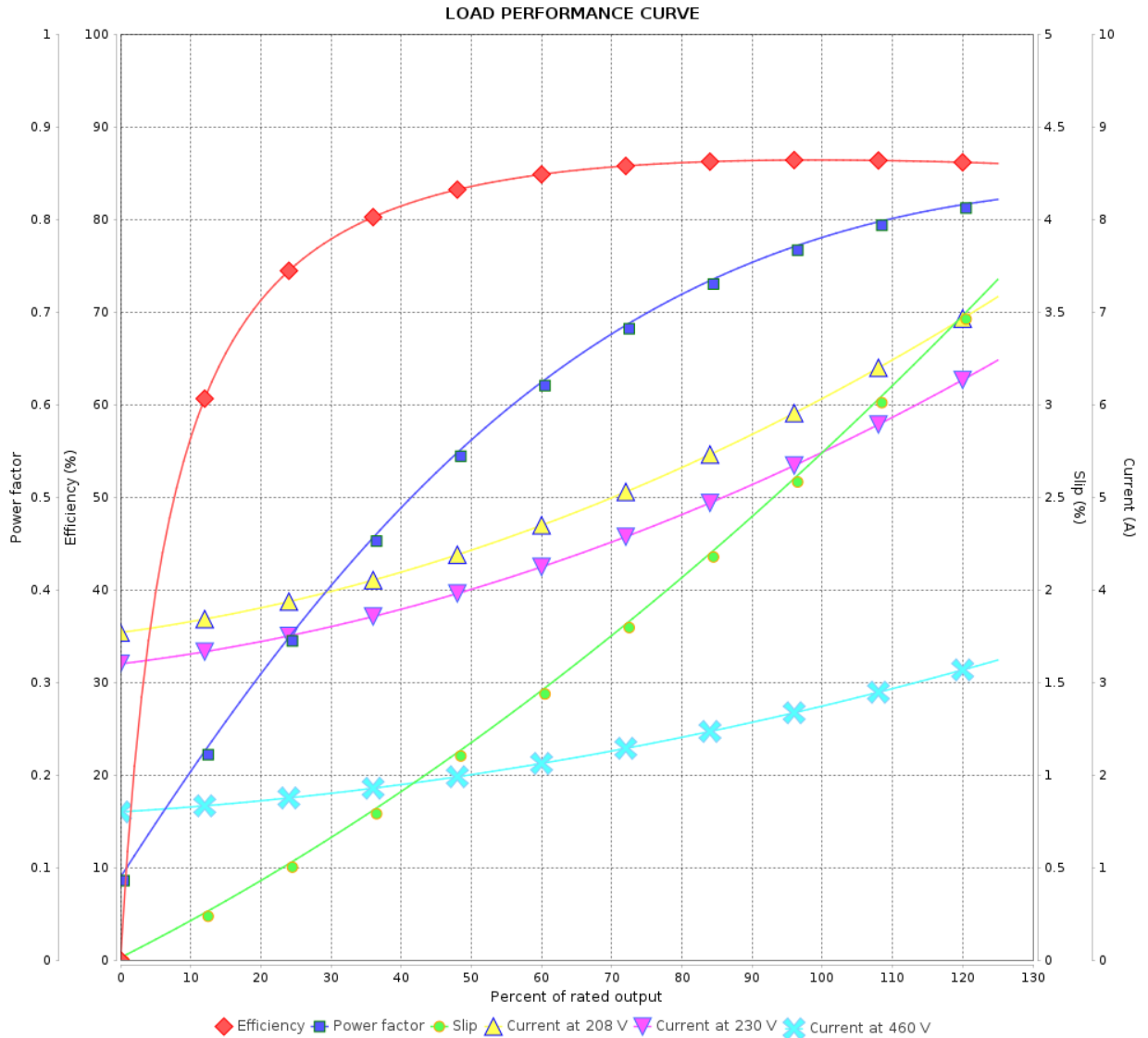
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 14307082



Performance : 230/460 V 60 Hz 4P

Rated current : 5.58/2.79 A  
 LRC : 8.9  
 Rated torque : 0.829 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 320 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0067 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

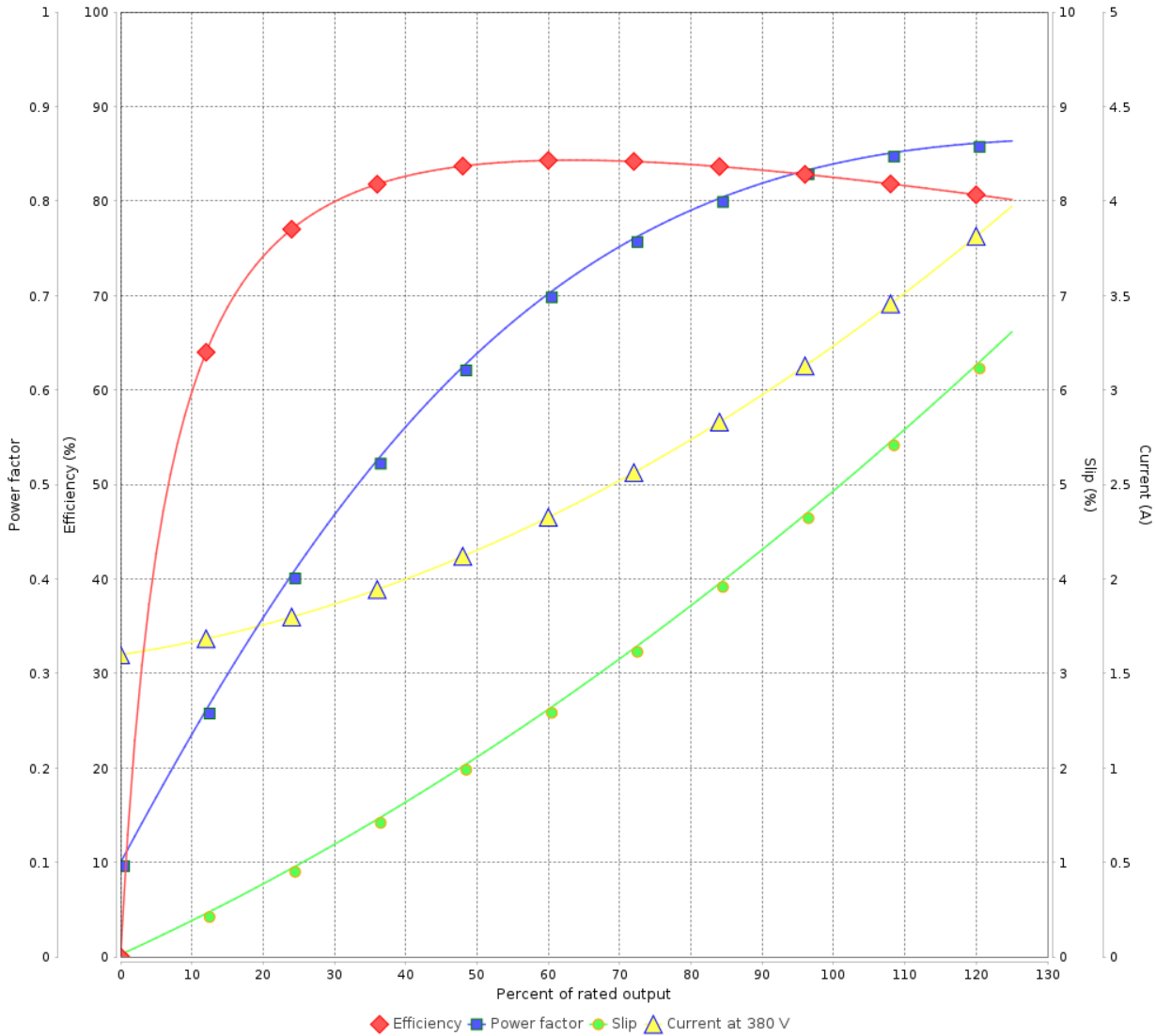


Customer :

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

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Performance : 380 V 50 Hz 4P IE1

Rated current : 3.29 A  
LRC : 7.6  
Rated torque : 1.02 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 220 %  
Rated speed : 1425 rpm

Moment of inertia (J) : 0.0067 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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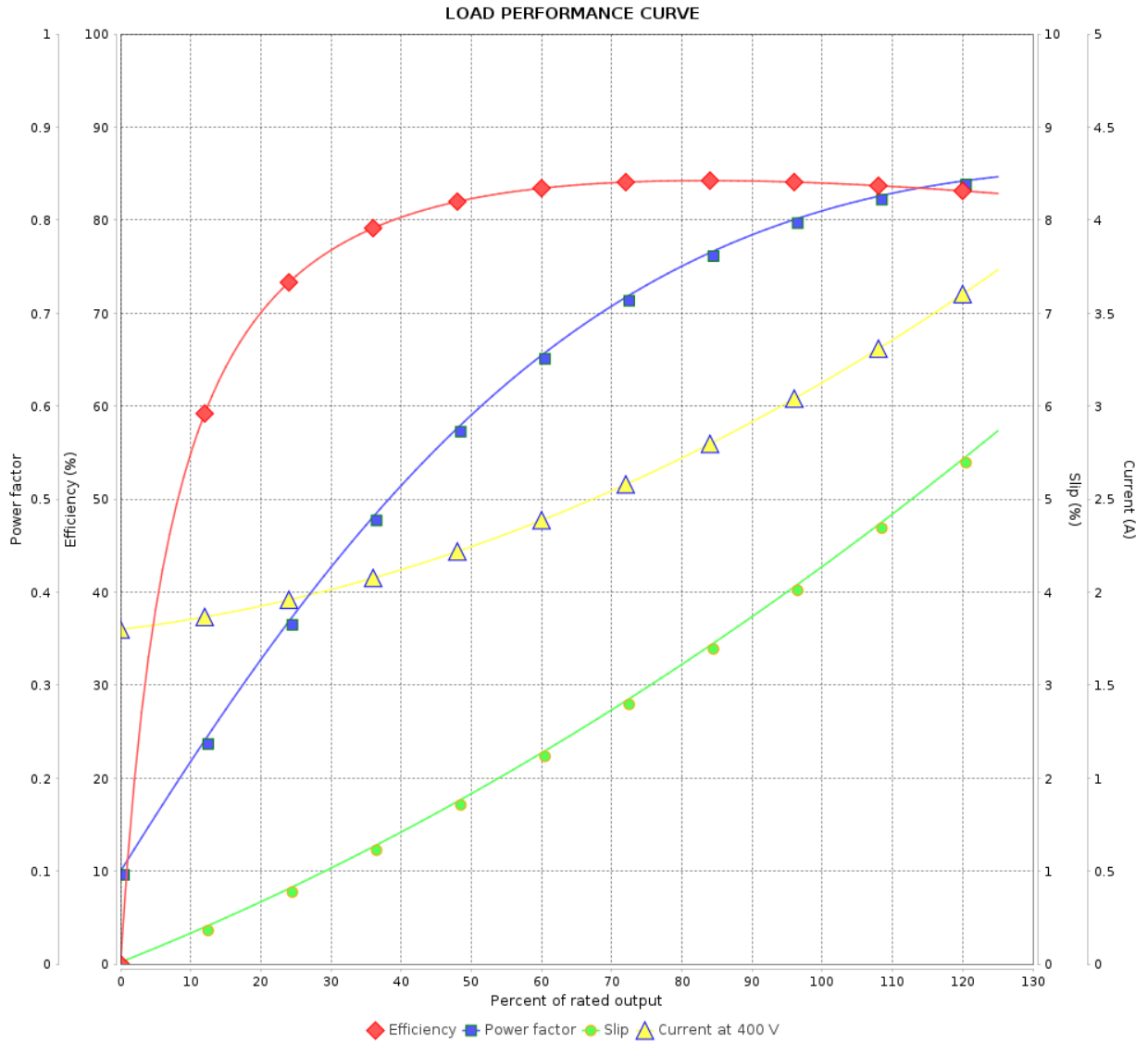
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 14307082



Performance : 400 V 50 Hz 4P IE2

Rated current : 3.18 A  
 LRC : 7.8  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0067 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

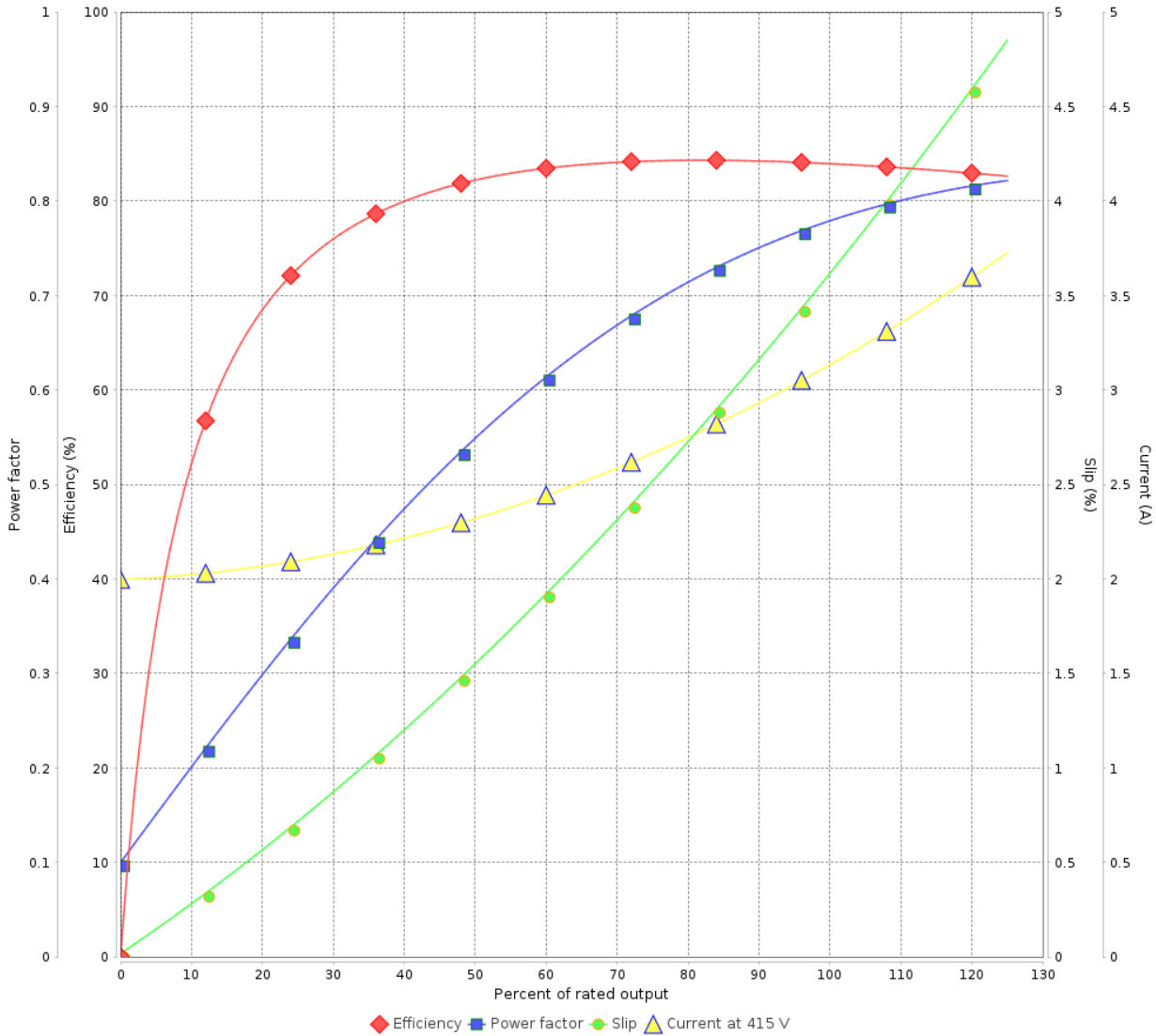


Customer :

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Efficiency Three-Phase

Product code : 14307082

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE2

Rated current	: 3.18 A	Moment of inertia (J)	: 0.0067 kgm <sup>2</sup>
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

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