

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 14217591
Frame	: 213/5TC	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>	: 97.1 kg	
Protection degree	: IP55	Moment of inertia (J)	: 0.0582 kgm <sup>2</sup>	
Design	: B			
Output [HP]	7.5	7.5	7.5	7.5
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	18.8/9.41	11.2	10.7	10.6
L. R. Amperes [A]	126/63.0	61.6	68.5	72.1
LRC [A]	6.7x(Code H)	5.5x(Code F)	6.4x(Code H)	6.8x(Code H)
No load current [A]	8.00/4.00	4.10	4.40	4.60
Rated speed [RPM]	1765	1460	1460	1465
Slip [%]	1.94	2.67	2.67	2.33
Rated torque [kgfm]	3.08	3.75	3.73	3.73
Locked rotor torque [%]	240	170	180	210
Breakdown torque [%]	280	200	280	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%			
	50%	90.2	88.5	88.5
	75%	91.0	89.5	89.5
	100%	91.7	89.5	90.2
Power Factor	25%			
	50%	0.60	0.66	0.63
	75%	0.73	0.77	0.75
	100%	0.80	0.83	0.82
Bearing type	: <u>Drive end</u> 6308 2RS <u>Non drive end</u> 6207 2RS	Foundation loads		
Sealing	: Oil Seal Lip Seal	Max. traction	: 137 kgf	
Lubrication interval	: - -	Max. compression	: 234 kgf	
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 20.8A SF 1.15 SFA 23.9A				
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

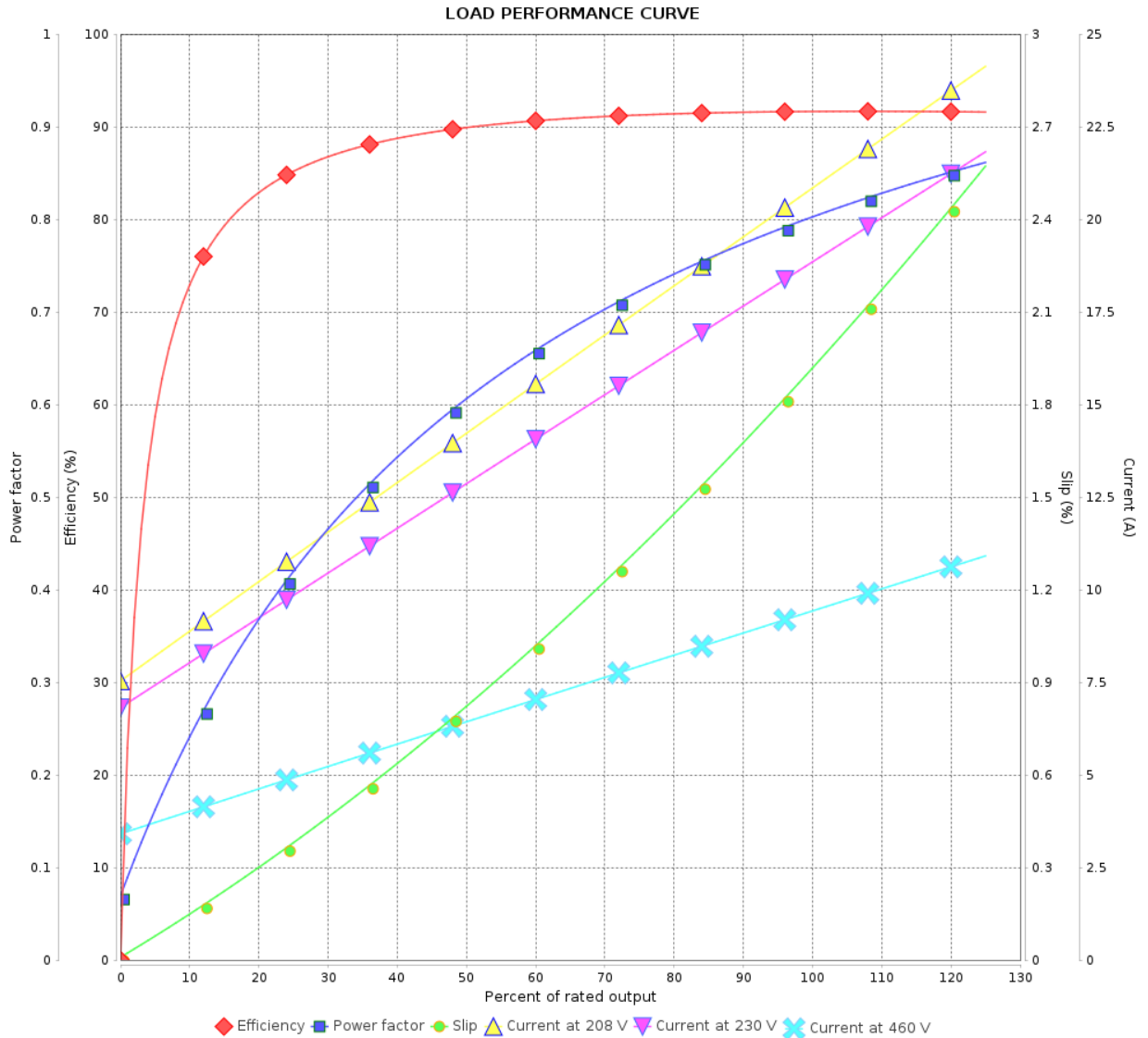
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 14217591



Performance : 230/460 V 60 Hz 4P

Rated current : 18.8/9.41 A  
 LRC : 6.7  
 Rated torque : 3.08 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0582 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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Three Phase Induction Motor - Squirrel Cage

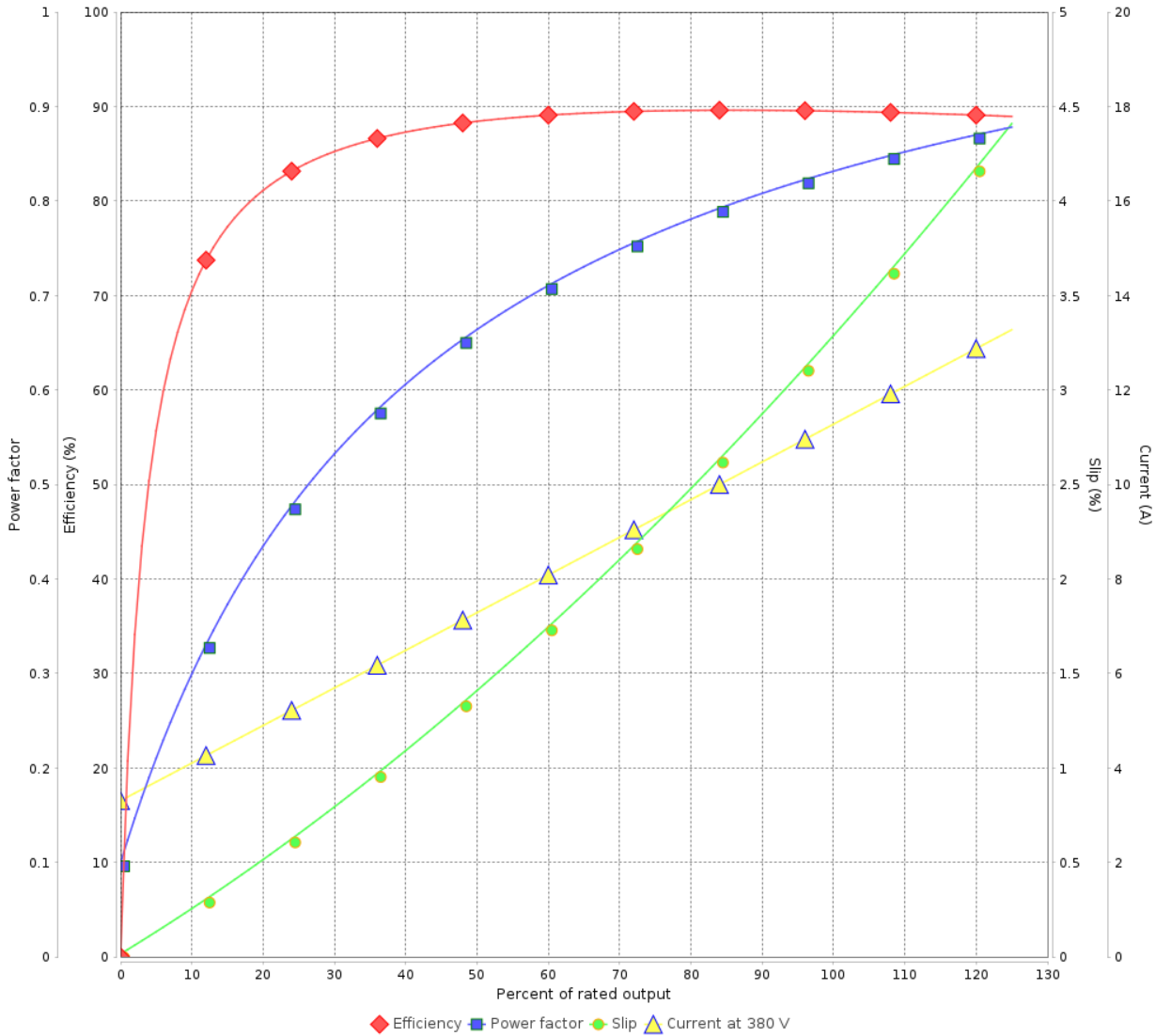


Customer : \_\_\_\_\_

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

Product code : 14217591

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current : 11.2 A  
LRC : 5.5  
Rated torque : 3.75 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 200 %  
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0582 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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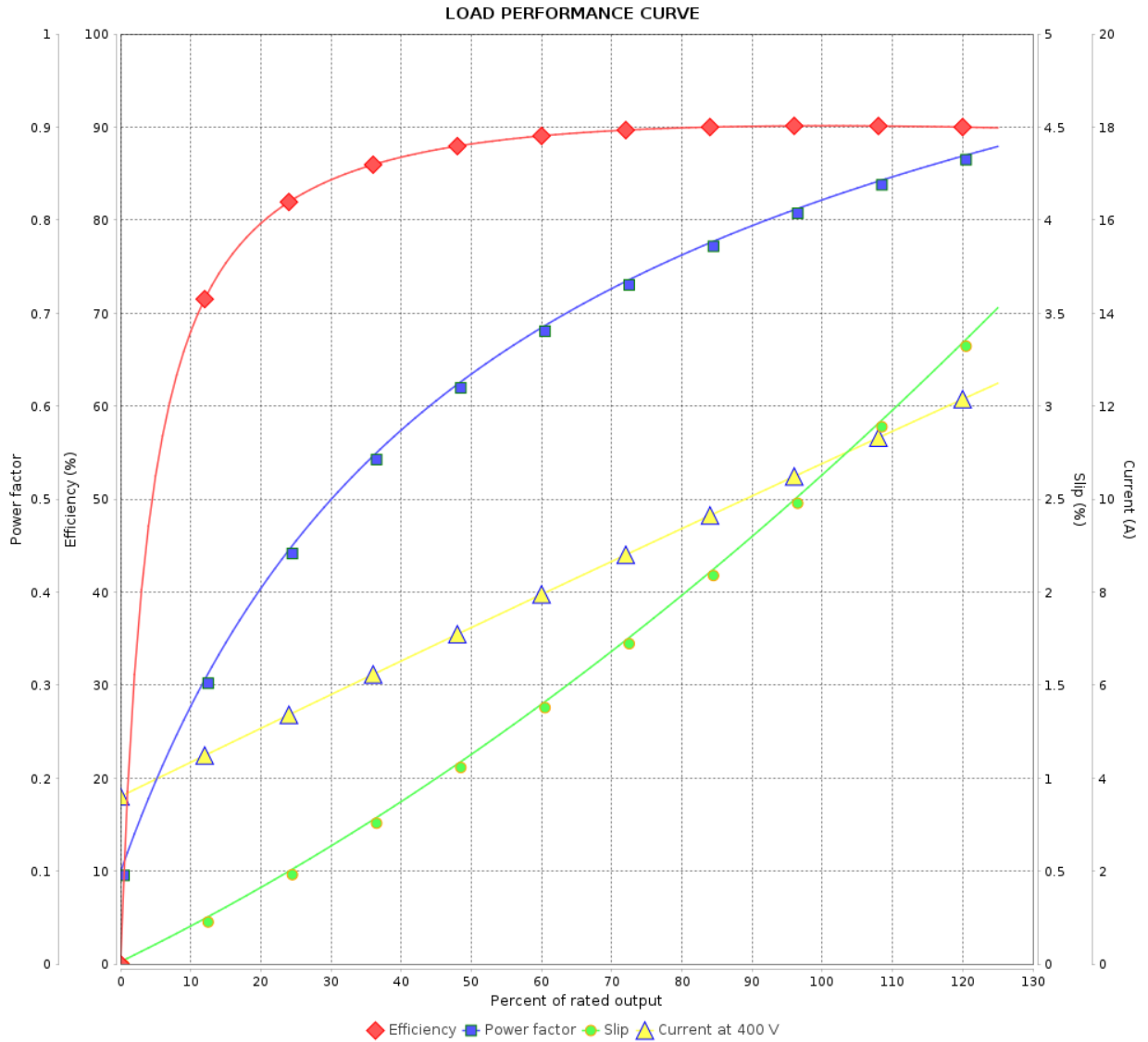
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14217591



Performance : 400 V 50 Hz 4P IE3

Rated current : 10.7 A  
 LRC : 6.4  
 Rated torque : 3.73 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 280 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0582 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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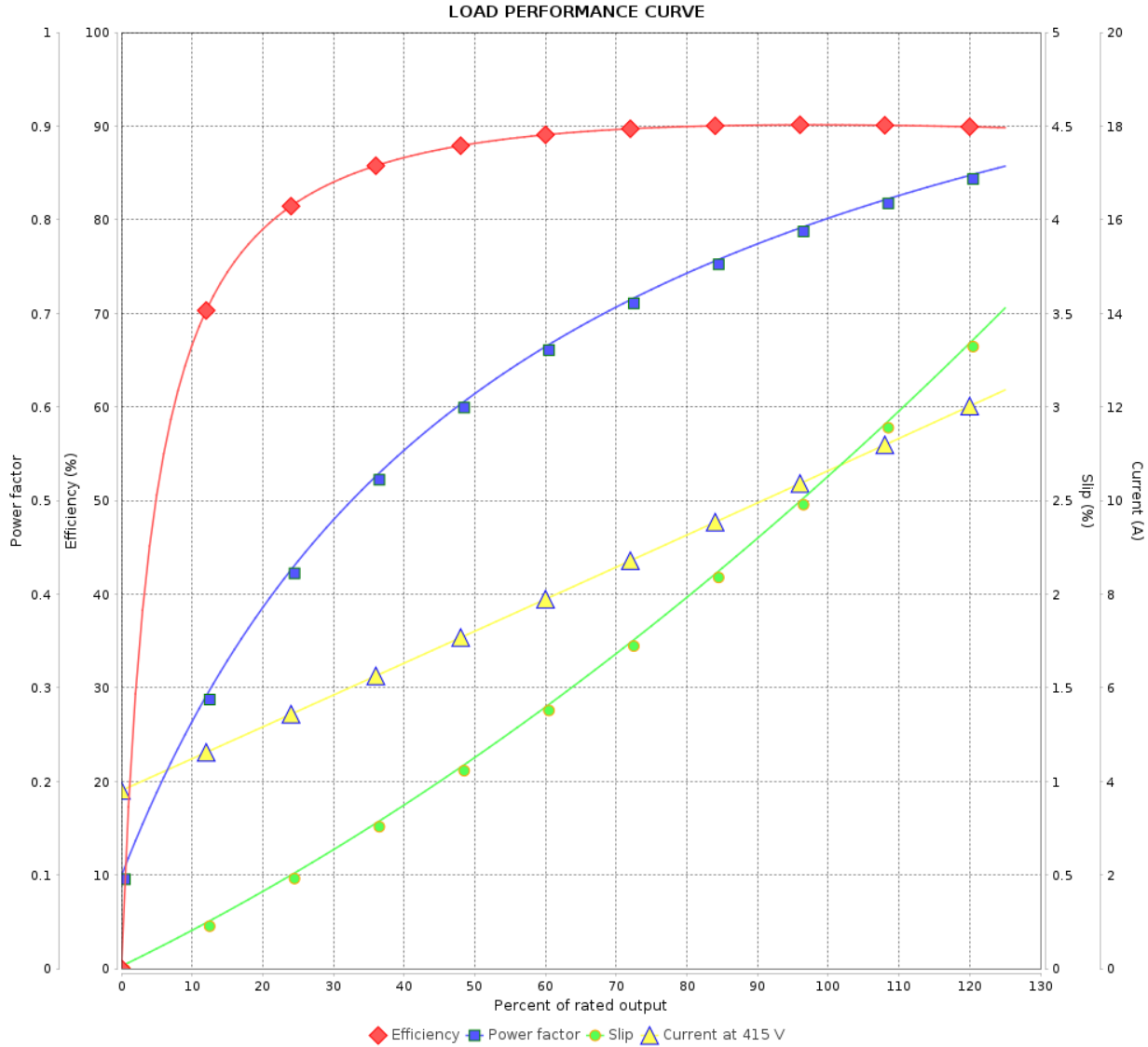
Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 14217591



Performance : 415 V 50 Hz 4P IE3

Rated current : 10.6 A  
LRC : 6.8  
Rated torque : 3.73 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 270 %  
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0582 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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