

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 12387996			
Frame : 586/7TS	Insulation class : F	Duty cycle : Cont.(S1)	Ambient temperature : -20°C to +40°C	Altitude : 1000 m.a.s.l.	
Protection degree : IP55	Design : B	Cooling method : IC411 - TEFC	Mounting : F-1	Rotation <sup>1</sup> : Both (CW and CCW)	
		Starting method : Direct On Line	Approx. weight <sup>3</sup> : 1889 kg	Moment of inertia (J) : 5.17 kgm <sup>2</sup>	
Output [HP]	300	250	250	250	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	655/328	335	318	305	
L. R. Amperes [A]	4323/2162	2077	2226	2318	
LRC [A]	6.6x(Code G)	6.2x(Code F)	7.0x(Code G)	7.6x(Code H)	
No load current [A]	100/50.0	50.0	53.0	56.0	
Rated speed [RPM]	3580	2980	2980	2983	
Slip [%]	0.56	0.67	0.67	0.57	
Rated torque [kgfm]	60.8	60.9	60.9	60.8	
Locked rotor torque [%]	130	110	120	130	
Breakdown torque [%]	220	210	229	250	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	61s (cold) 34s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	
Noise level <sup>2</sup>	85.0 dB(A)	81.0 dB(A)	81.0 dB(A)	81.0 dB(A)	
Efficiency (%)	25%				
	50%	94.5	94.5	94.5	
	75%	95.4	95.4	95.4	
	100%	95.8	95.4	95.8	
Power Factor	25%				
	50%	0.86	0.86	0.85	
	75%	0.87	0.87	0.87	
	100%	0.88	0.88	0.88	
Bearing type	: <u>Drive end</u> 6314 C3	<u>Non drive end</u> 6314 C3	Foundation loads		
Sealing	: Oil Seal	Lip Seal	Max. traction	: 96 kgf	
Lubrication interval	: 3604 h	3604 h	Max. compression	: 1985 kgf	
Lubricant amount	: 27 g	27 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 724A SF 1.00 SFA 724A					
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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## Three Phase Induction Motor - Squirrel Cage



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

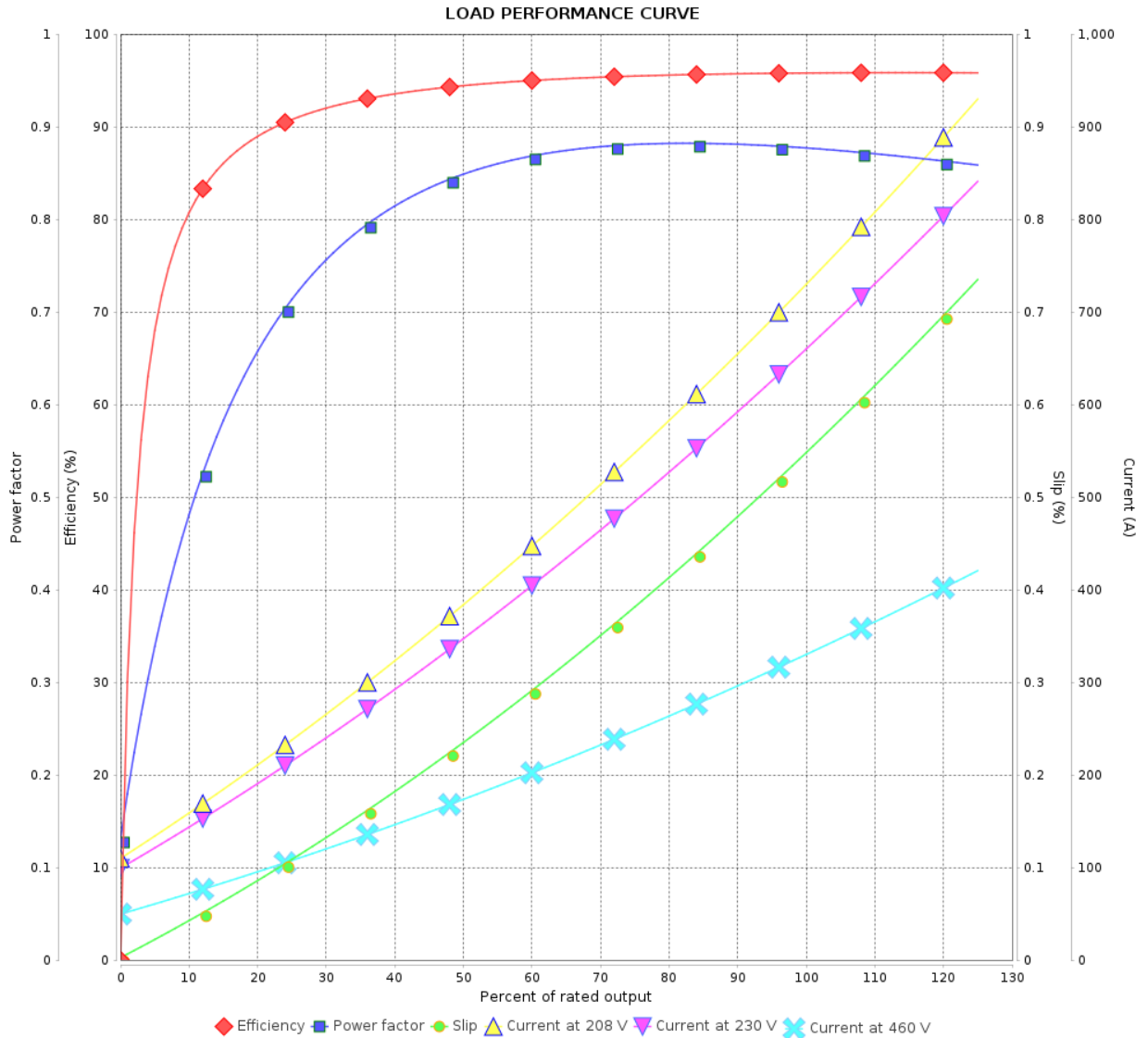
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 12387996



Performance : 230/460 V 60 Hz 2P

Rated current : 655/328 A  
LRC : 6.6  
Rated torque : 60.8 kgfm  
Locked rotor torque : 130 %  
Breakdown torque : 220 %  
Rated speed : 3580 rpm

Moment of inertia (J) : 5.17 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

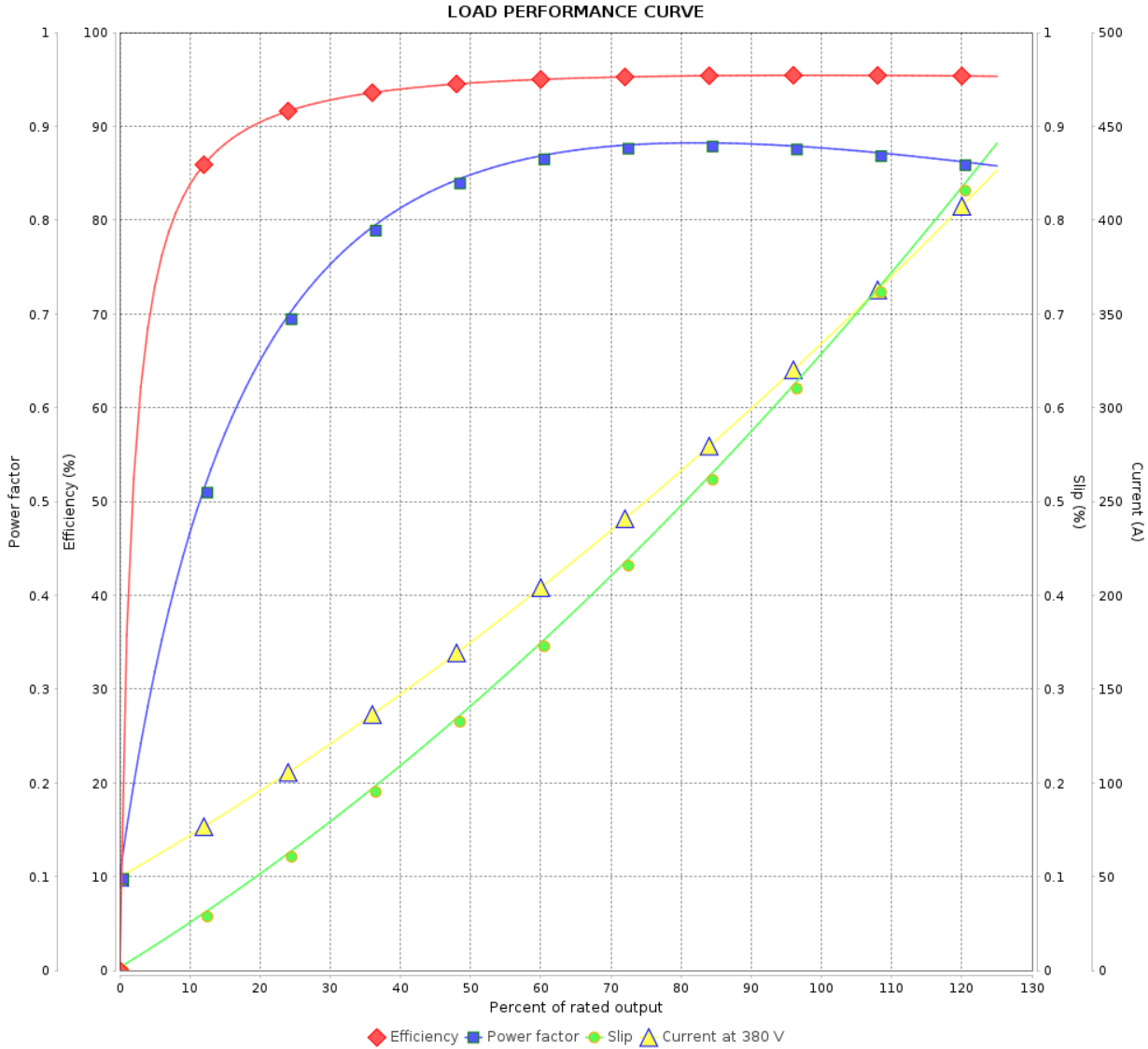
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12387996



Performance : 380 V 50 Hz 2P IE2

Rated current	: 335 A	Moment of inertia (J)	: 5.17 kgm <sup>2</sup>
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 60.9 kgfm	Insulation class	: F
Locked rotor torque	: 110 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 2980 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

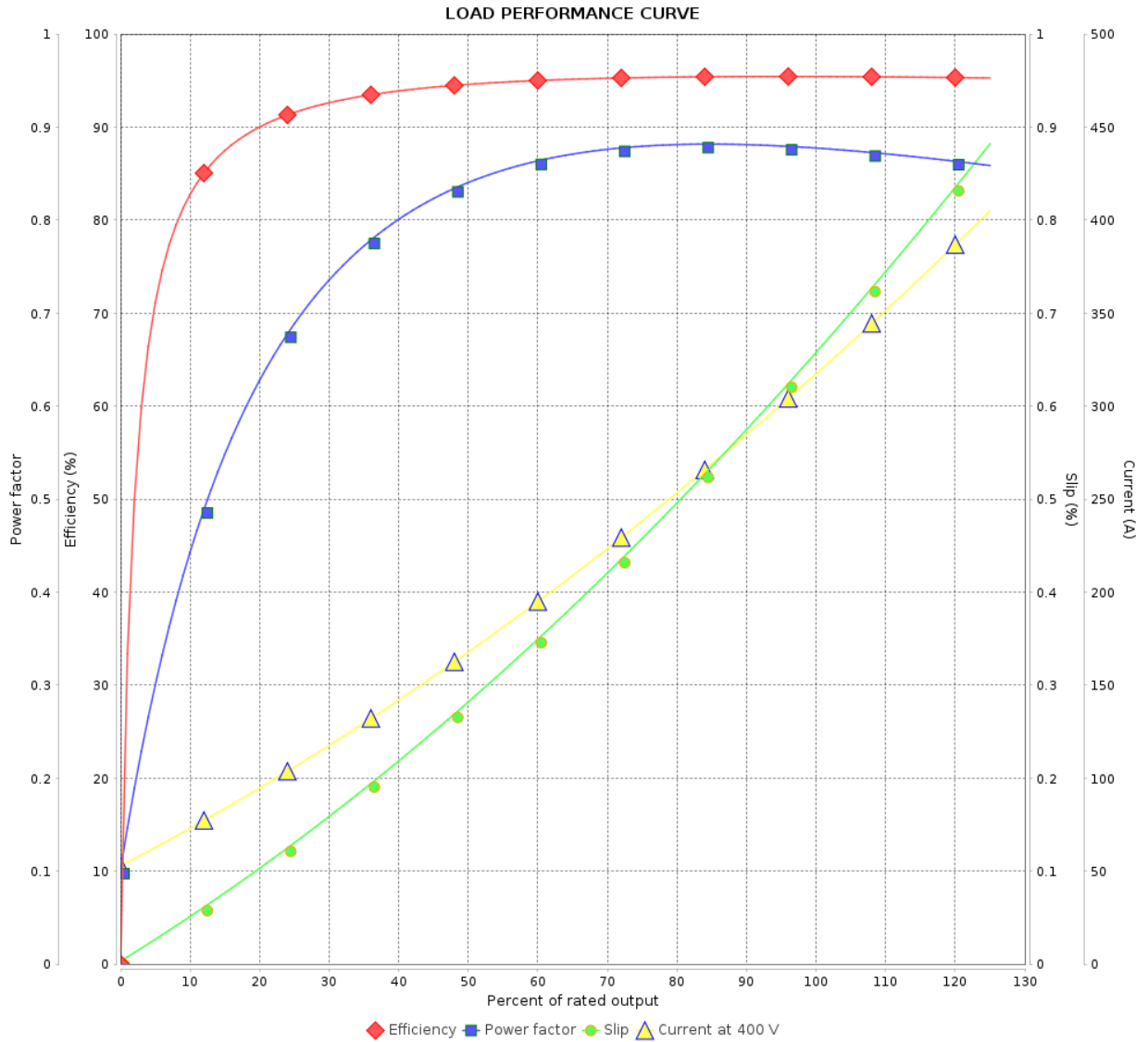
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 12387996



Performance : 400 V 50 Hz 2P IE2

Rated current : 318 A  
LRC : 7.0  
Rated torque : 60.9 kgfm  
Locked rotor torque : 120 %  
Breakdown torque : 229 %  
Rated speed : 2980 rpm

Moment of inertia (J) : 5.17 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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# LOAD PERFORMANCE CURVE

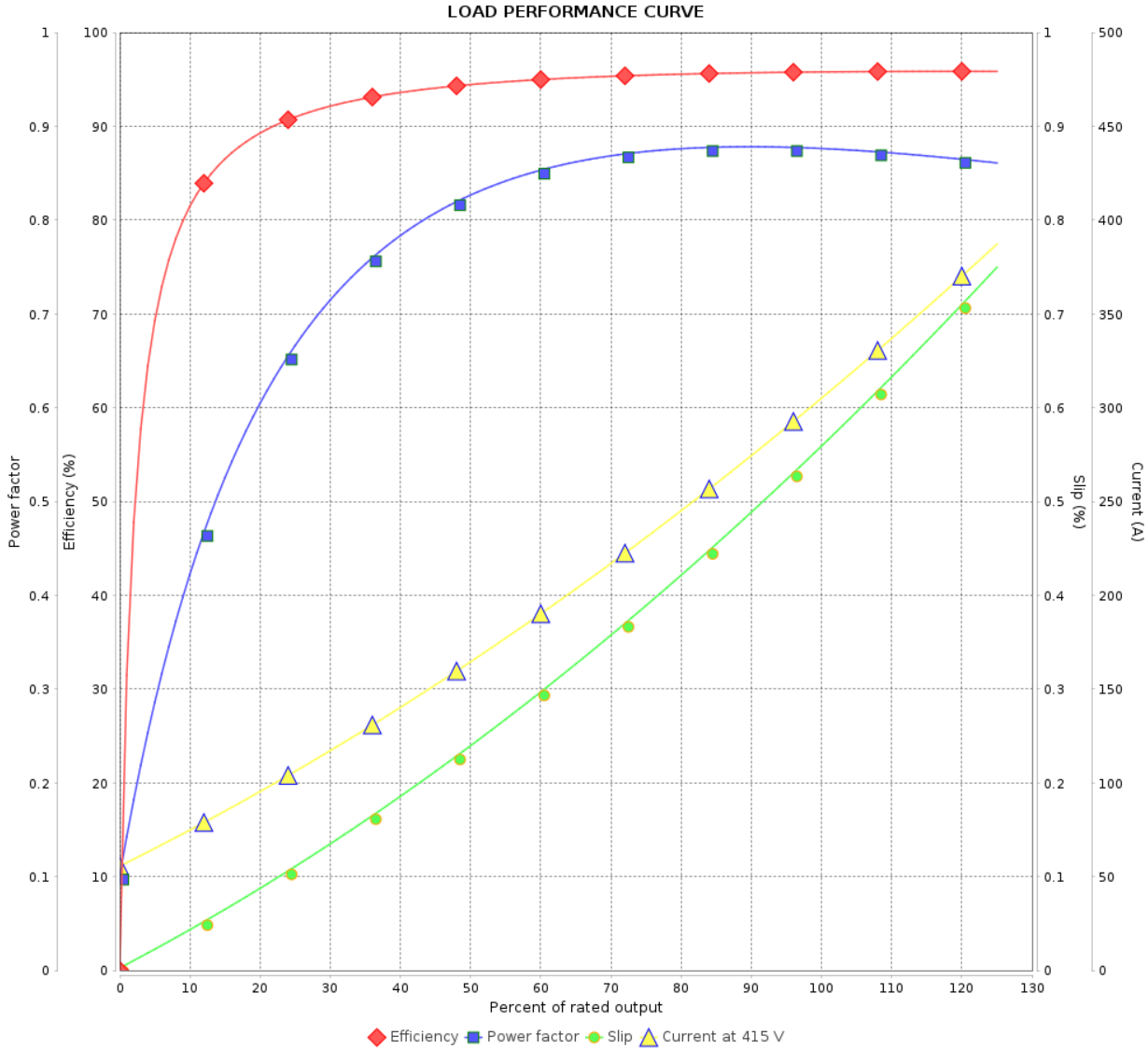
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12387996



Performance : 415 V 50 Hz 2P IE3

Rated current	: 305 A	Moment of inertia (J)	: 5.17 kgm <sup>2</sup>
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 60.8 kgfm	Insulation class	: F
Locked rotor torque	: 130 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2983 rpm	Design	: B

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