

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 11705683			
Frame : 444/5T	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>2</sup> : 900 kg	Moment of inertia (J) : 2.41 kgm <sup>2</sup>	
Output [HP]	125	100	100	100	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	278/139	142	136	132	
L. R. Amperes [A]	1890/945	852	952	977	
LRC [A]	6.8x(Code G)	6.0x(Code G)	7.0x(Code H)	7.4x(Code H)	
No load current [A]	90.0/45.0	44.5	47.2	49.3	
Rated speed [RPM]	1785	1485	1487	1488	
Slip [%]	0.83	1.00	0.87	0.80	
Rated torque [kgfm]	50.8	48.9	48.8	48.8	
Locked rotor torque [%]	200	190	210	229	
Breakdown torque [%]	220	210	240	260	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	75s (cold) 42s (hot)	84s (cold) 47s (hot)	77s (cold) 43s (hot)	73s (cold) 41s (hot)	
Noise level <sup>2</sup>	76.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	
Efficiency (%)	25%				
	50%	94.3	94.5	94.5	
	75%	95.2	94.5	95.0	
	100%	95.4	94.5	95.0	
Power Factor	25%				
	50%	0.75	0.75	0.73	
	75%	0.82	0.83	0.81	
	100%	0.85	0.85	0.84	
Bearing type	Drive end : NU-219 C3	Non drive end : 6316 C3	Foundation loads		
Sealing	: Oil Seal	: Lip Seal	Max. traction	: 659 kgf	
Lubrication interval	: 5526 h	: 8569 h	Max. compression	: 1559 kgf	
Lubricant amount	: 28 g	: 34 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 314A SF 1.00 SFA 314A					
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

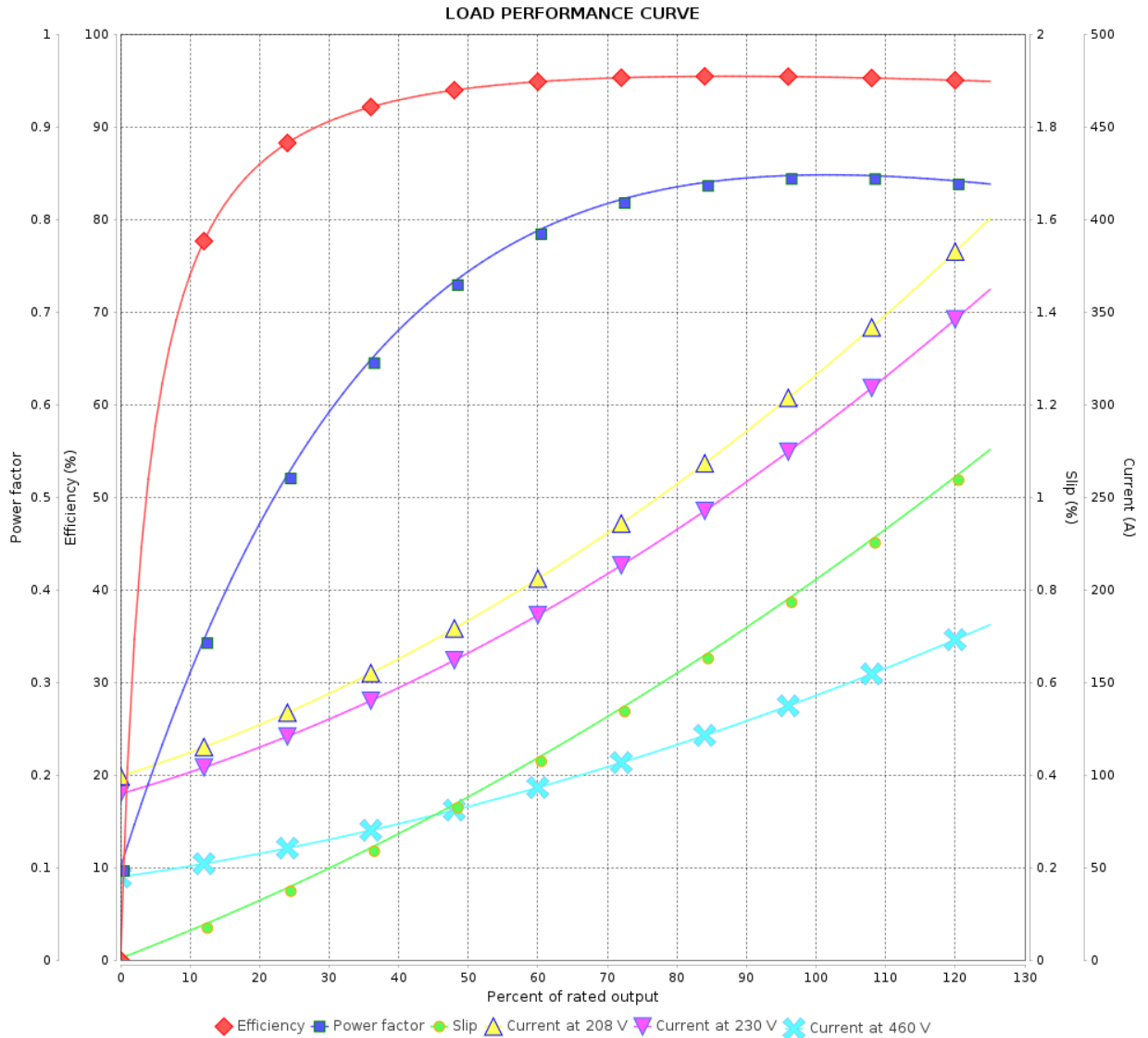
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11705683



Performance : 230/460 V 60 Hz 4P

Rated current : 278/139 A  
LRC : 6.8  
Rated torque : 50.8 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 220 %  
Rated speed : 1785 rpm

Moment of inertia (J) : 2.41 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

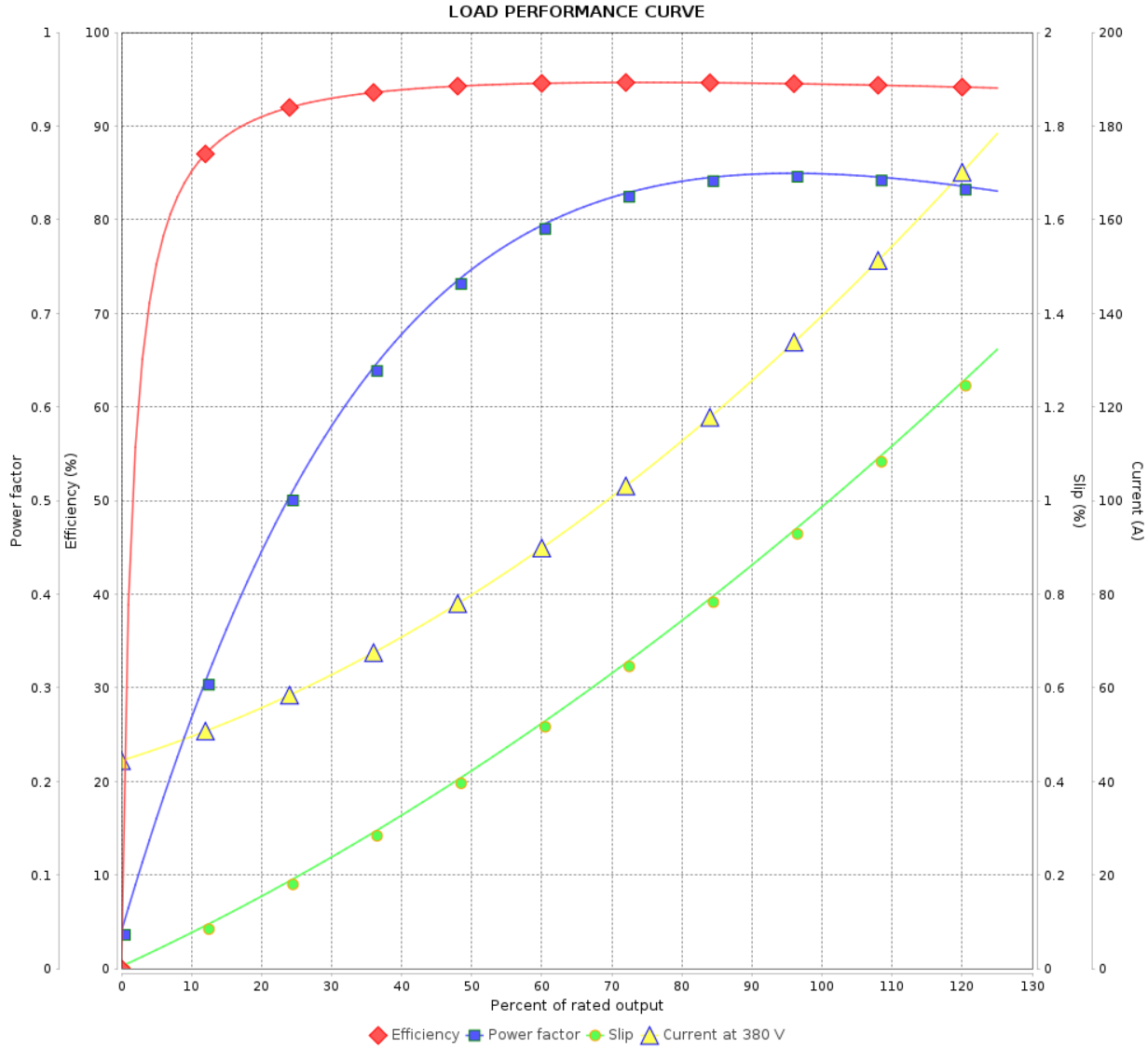
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11705683



Performance : 380 V 50 Hz 4P IE2

Rated current	: 142 A	Moment of inertia (J)	: 2.41 kgm <sup>2</sup>
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 48.9 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

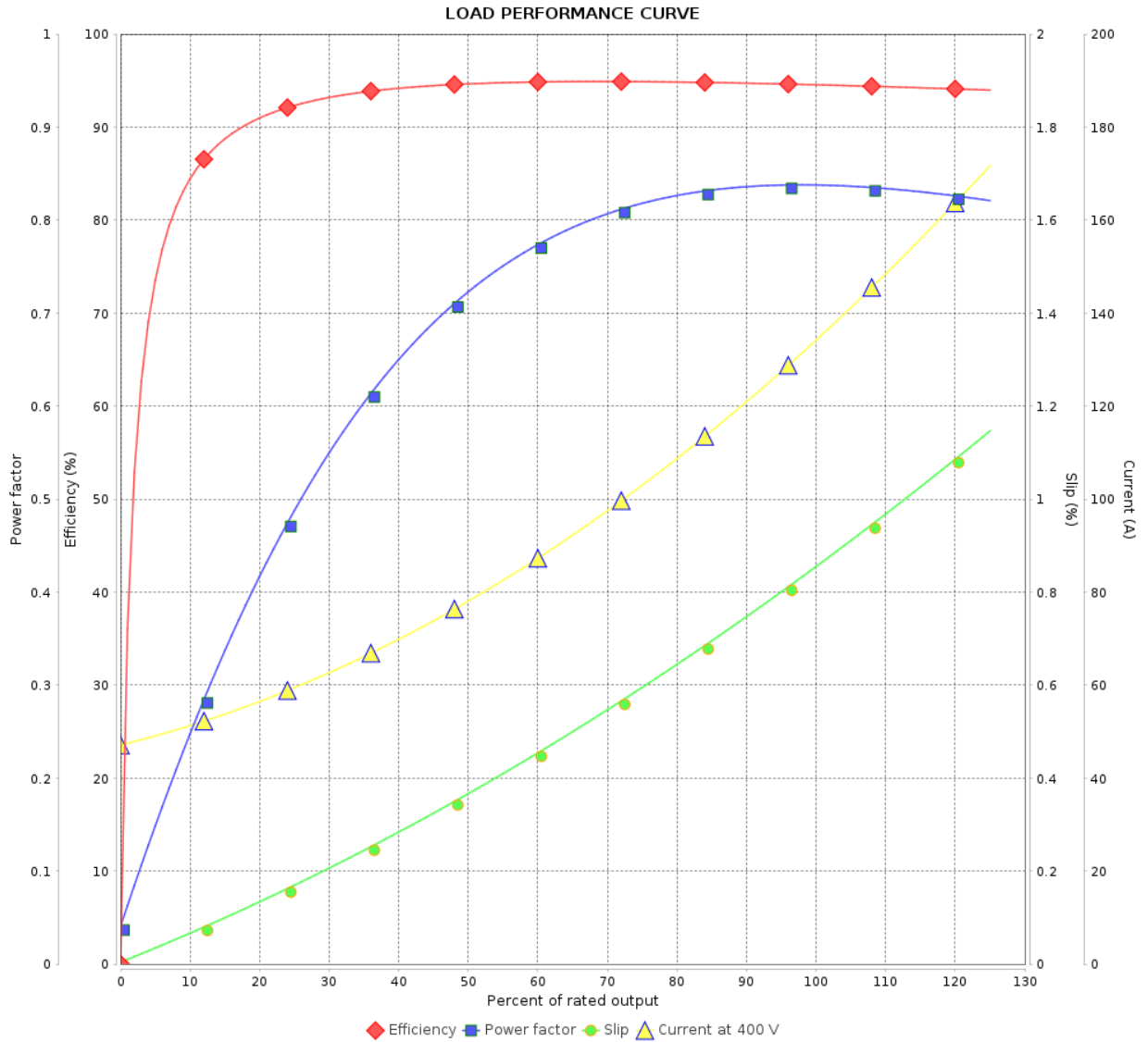
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11705683



Performance : 400 V 50 Hz 4P IE2

Rated current : 136 A  
LRC : 7.0  
Rated torque : 48.8 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 240 %  
Rated speed : 1487 rpm

Moment of inertia (J) : 2.41 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

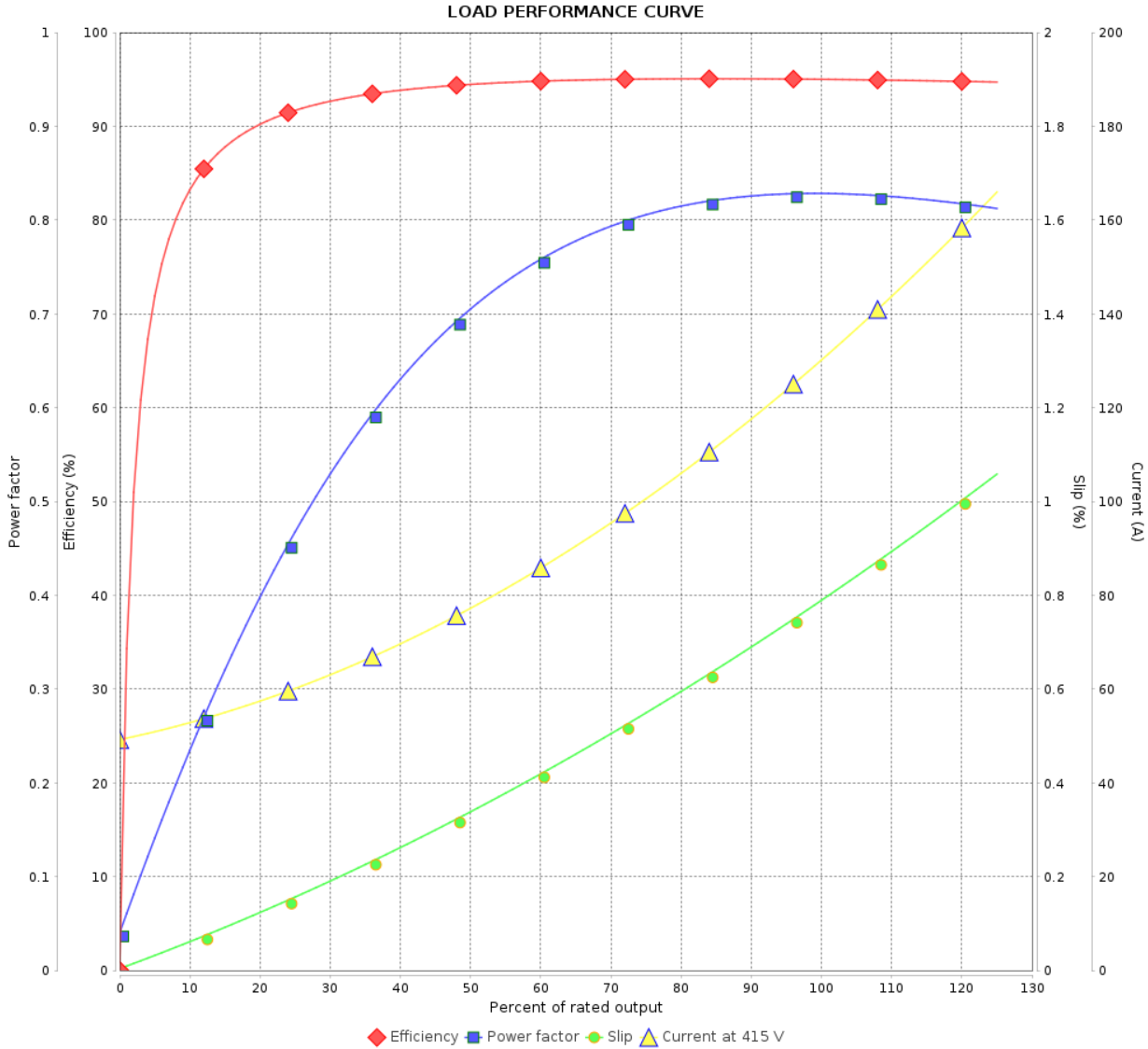
Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11705683



Performance : 415 V 50 Hz 4P IE3

Rated current	: 132 A	Moment of inertia (J)	: 2.41 kgm <sup>2</sup>
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 48.8 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1488 rpm	Design	: B

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