

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W22 Tru-Metric IE3 Three-Phase		Product code : 12596563	
Frame	: 160M	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B3L(E)		
Duty cycle	: 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>	: 126 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0419 kgm <sup>2</sup>		
Design	: N				
Output [HP]	15	15	15		
Poles	2	2	2		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	21.1	20.2	35.8/17.9		
L. R. Amperes [A]	158	172	322/161		
LRC [A]	7.5	8.5	9.0		
No load current [A]	7.60	9.00	16.0/8.00		
Rated speed [RPM]	2950	2955	3560		
Slip [%]	1.67	1.50	1.11		
Rated torque [kgfm]	3.70	3.68	3.06		
Locked rotor torque [%]	240	300	330		
Breakdown torque [%]	310	370	400		
Service factor	1.00	1.00	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	21s (cold) 12s (hot)	19s (cold) 11s (hot)	23s (cold) 13s (hot)		
Noise level <sup>2</sup>	67.0 dB(A)	67.0 dB(A)	72.0 dB(A)		
Efficiency (%)	25%				
	50%	90.7	89.9	89.5	
	75%	91.2	91.3	91.0	
	100%	91.2	91.4	91.7	
Power Factor	25%				
	50%	0.74	0.65	0.68	
	75%	0.83	0.77	0.79	
	100%	0.87	0.83	0.84	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	9.0	8.8	8.4	
	P2 (0,5;1,0)	6.5	6.3	6.1	
	P3 (0,25;1,0)	5.8	5.7	5.5	
	P4 (0,9;0,5)	5.7	5.6	5.4	
	P5 (0,5;0,5)	3.3	3.2	3.1	
	P6 (0,5;0,25)	2.5	2.5	2.4	
	P7 (0,25;0,25)	1.6	1.5	1.5	
Bearing type	: Drive end 6309 C3	Non drive end 6209 C3	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 129 kgf	
Lubrication interval	: 19000 h	20000 h	Max. compression	: 255 kgf	
Lubricant amount	: 13 g	9 g			
Lubricant type	: Mobil Polyrex EM				
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 : \_\_\_\_\_

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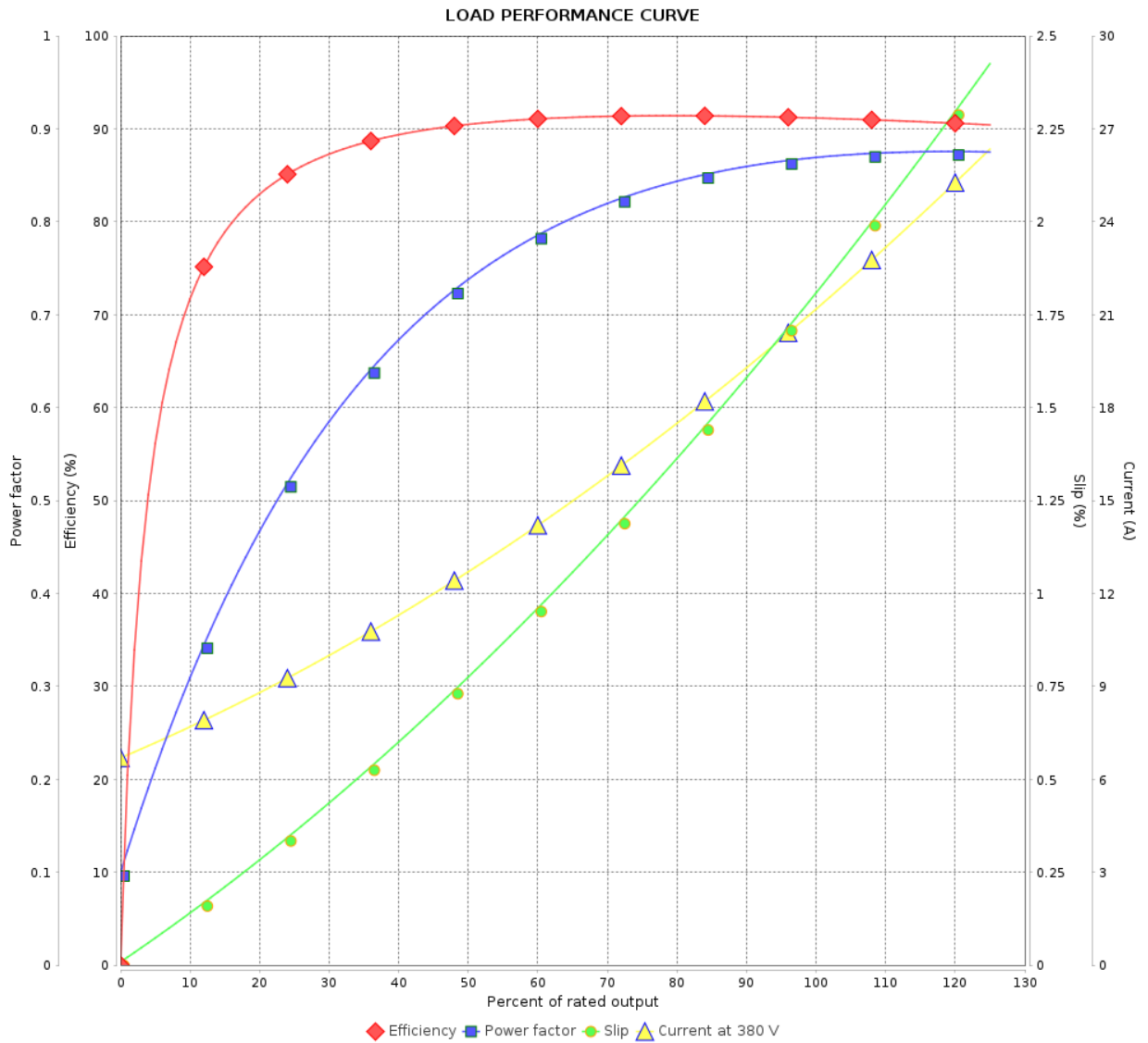
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563



Performance : 380 V 50 Hz 2P

Rated current : 21.1 A  
 LRC : 7.5  
 Rated torque : 3.70 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 310 %  
 Rated speed : 2950 rpm

Moment of inertia (J) : 0.0419 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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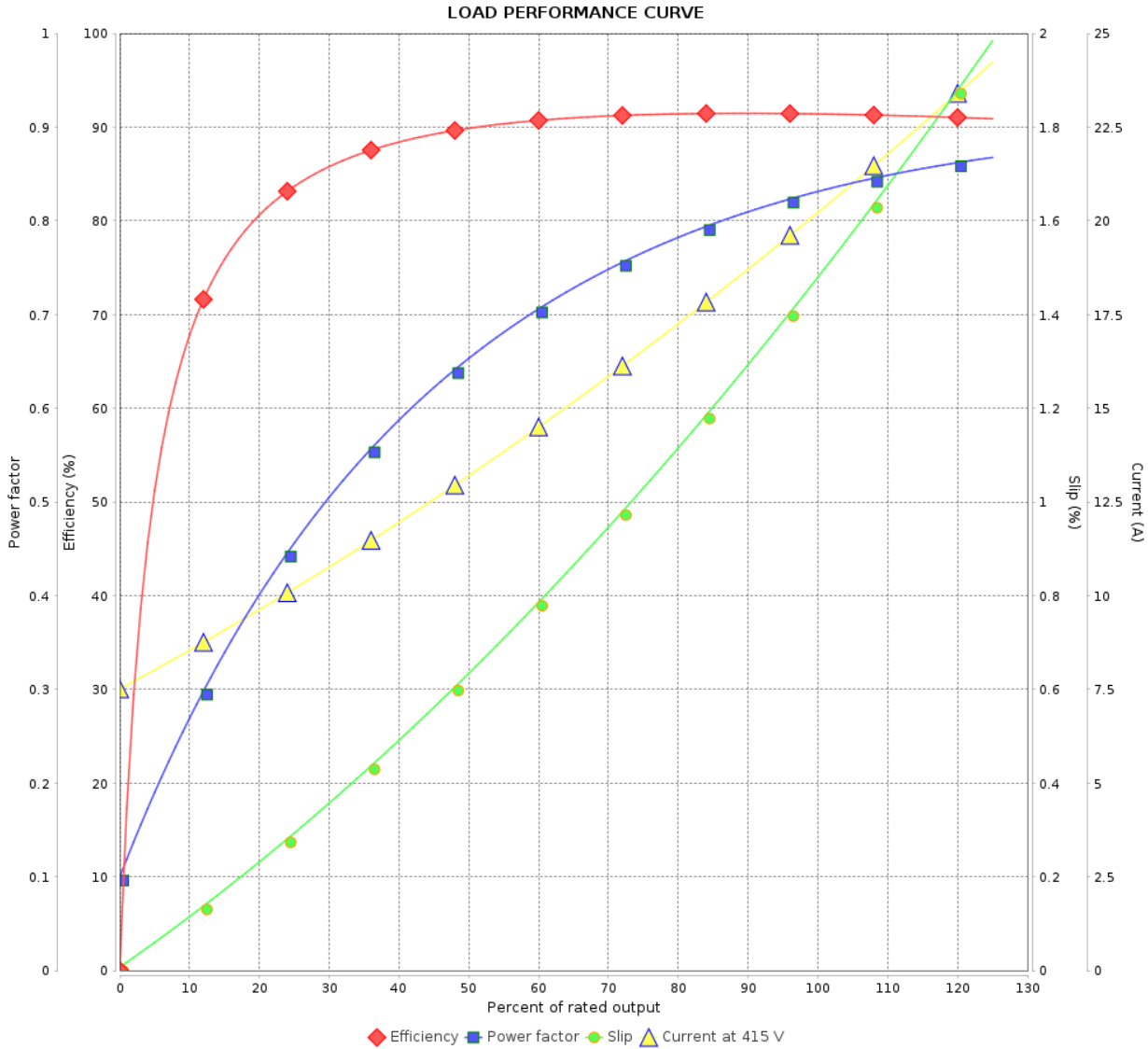
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563



Performance : 415 V 50 Hz 2P

Rated current	: 20.2 A	Moment of inertia (J)	: 0.0419 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 3.68 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: N

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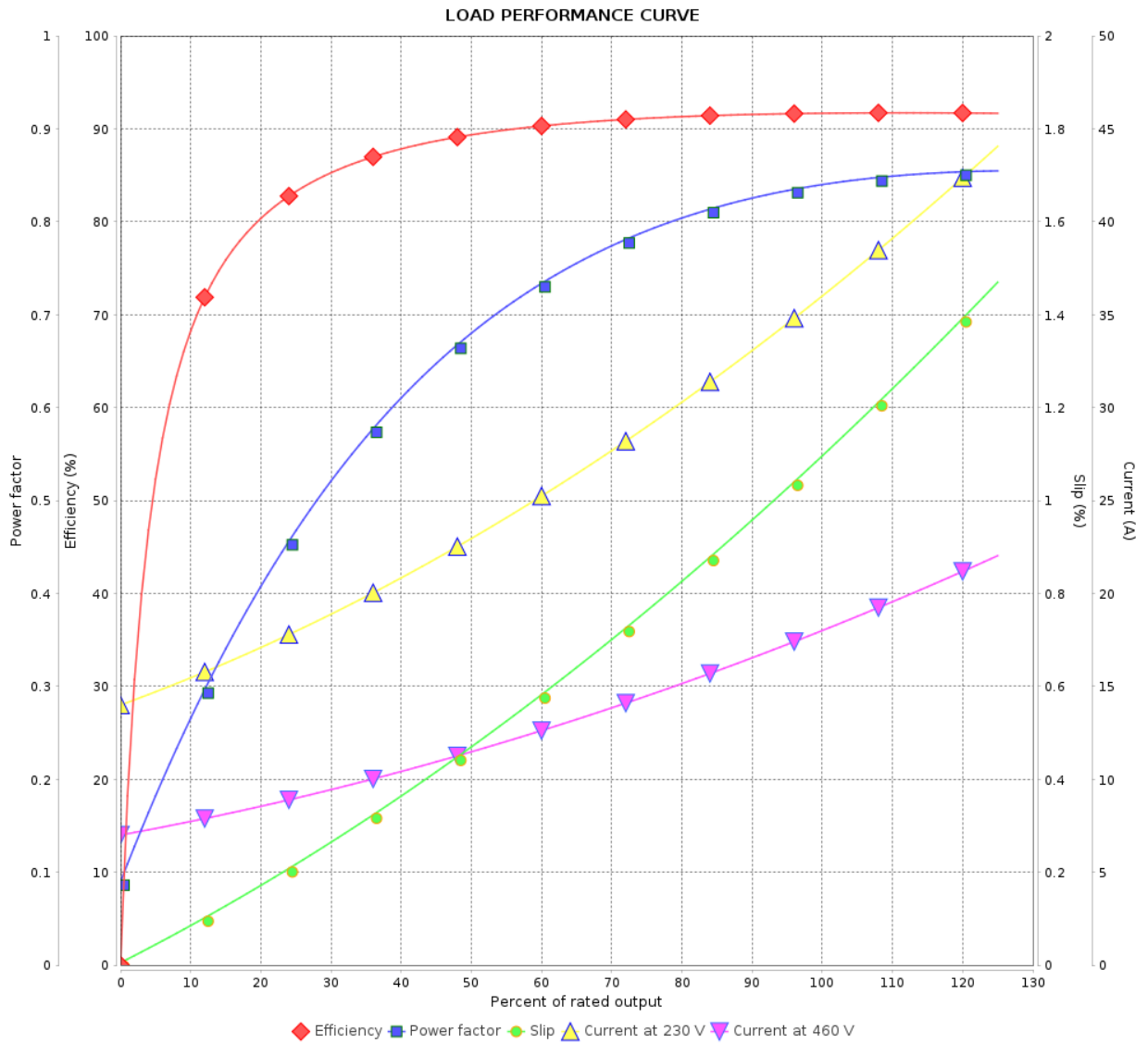
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12596563



Performance : 230/460 V 60 Hz 2P

Rated current : 35.8/17.9 A  
 LRC : 9.0  
 Rated torque : 3.06 kgfm  
 Locked rotor torque : 330 %  
 Breakdown torque : 400 %  
 Rated speed : 3560 rpm

Moment of inertia (J) : 0.0419 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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