

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 12596566			
Frame	: 160L	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>	: 153 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.1214 kgm <sup>2</sup>		
Design	: N				
Output [HP]	20	20	20		
Poles	4	4	4		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	29.4	28.2	50.0/25.0		
L. R. Amperes [A]	206	226	415/208		
LRC [A]	7.0	8.0	8.3		
No load current [A]	11.0	13.0	22.0/11.0		
Rated speed [RPM]	1465	1475	1778		
Slip [%]	2.33	1.67	1.22		
Rated torque [kgfm]	9.91	9.84	8.16		
Locked rotor torque [%]	229	290	300		
Breakdown torque [%]	250	320	330		
Service factor	1.25	1.25	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	32s (cold) 18s (hot)	27s (cold) 15s (hot)	39s (cold) 22s (hot)		
Noise level <sup>2</sup>	61.0 dB(A)	61.0 dB(A)	64.0 dB(A)		
Efficiency (%)	25%				
	50%	92.0	91.4	91.0	
	75%	92.4	92.4	91.7	
	100%	92.4	92.4	93.0	
Power Factor	25%				
	50%	0.69	0.62	0.62	
	75%	0.79	0.74	0.74	
	100%	0.84	0.80	0.81	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	7.8	7.8	7.2	
	P2 (0,5;1,0)	6.0	6.0	5.5	
	P3 (0,25;1,0)	5.4	5.4	4.9	
	P4 (0,9;0,5)	4.6	4.6	4.2	
	P5 (0,5;0,5)	2.9	2.9	2.7	
	P6 (0,5;0,25)	2.2	2.2	2.0	
	P7 (0,25;0,25)	1.4	1.4	1.3	
Bearing type	: Drive end 6309 C3	Non drive end 6209 C3	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 347 kgf	
Lubrication interval	: 20000 h	20000 h	Max. compression	: 500 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 : \_\_\_\_\_

Notes

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

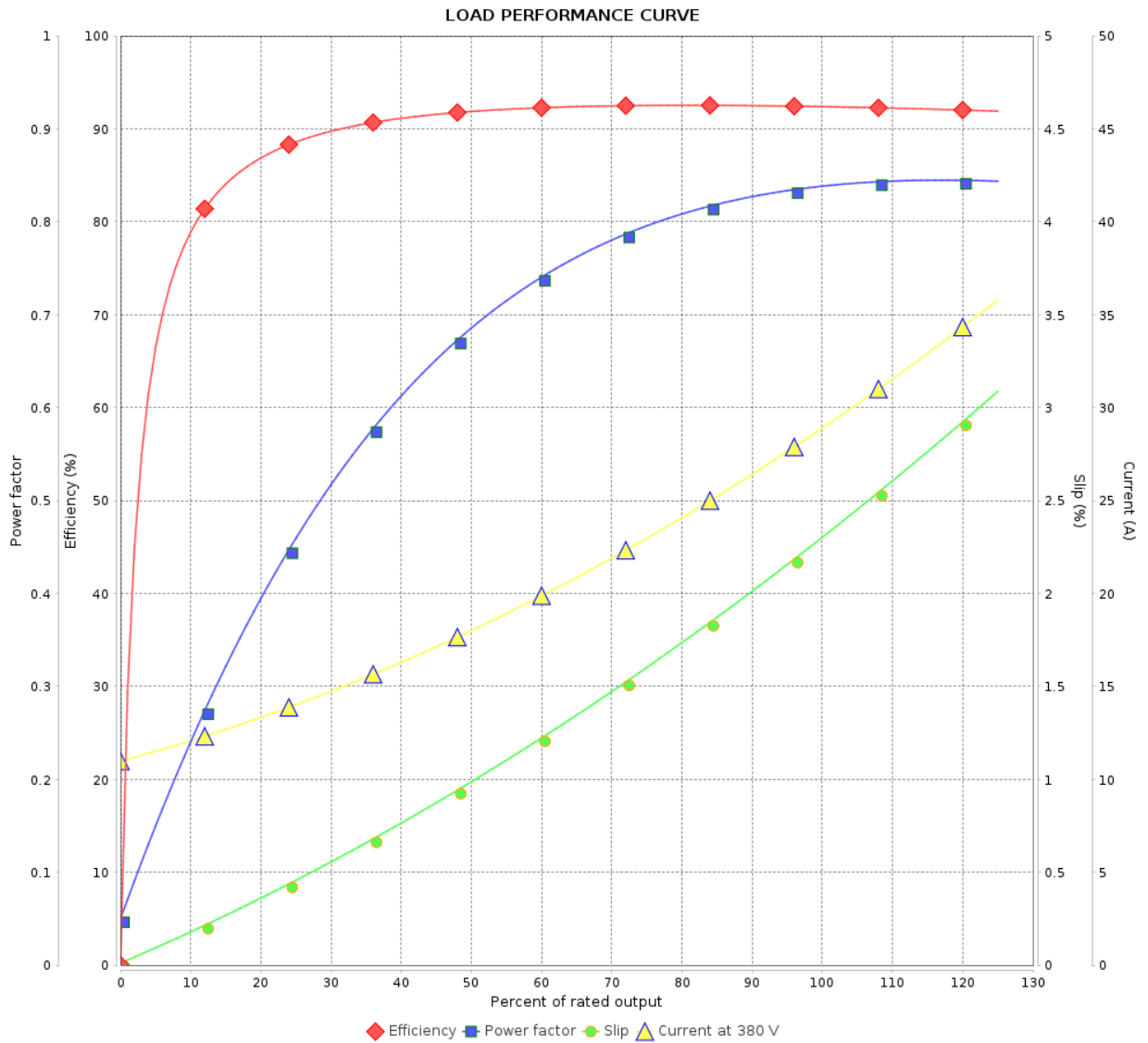


Customer : \_\_\_\_\_

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

12596566



Performance : 380 V 50 Hz 4P

Rated current : 29.4 A  
 LRC : 7.0  
 Rated torque : 9.91 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 250 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1214 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

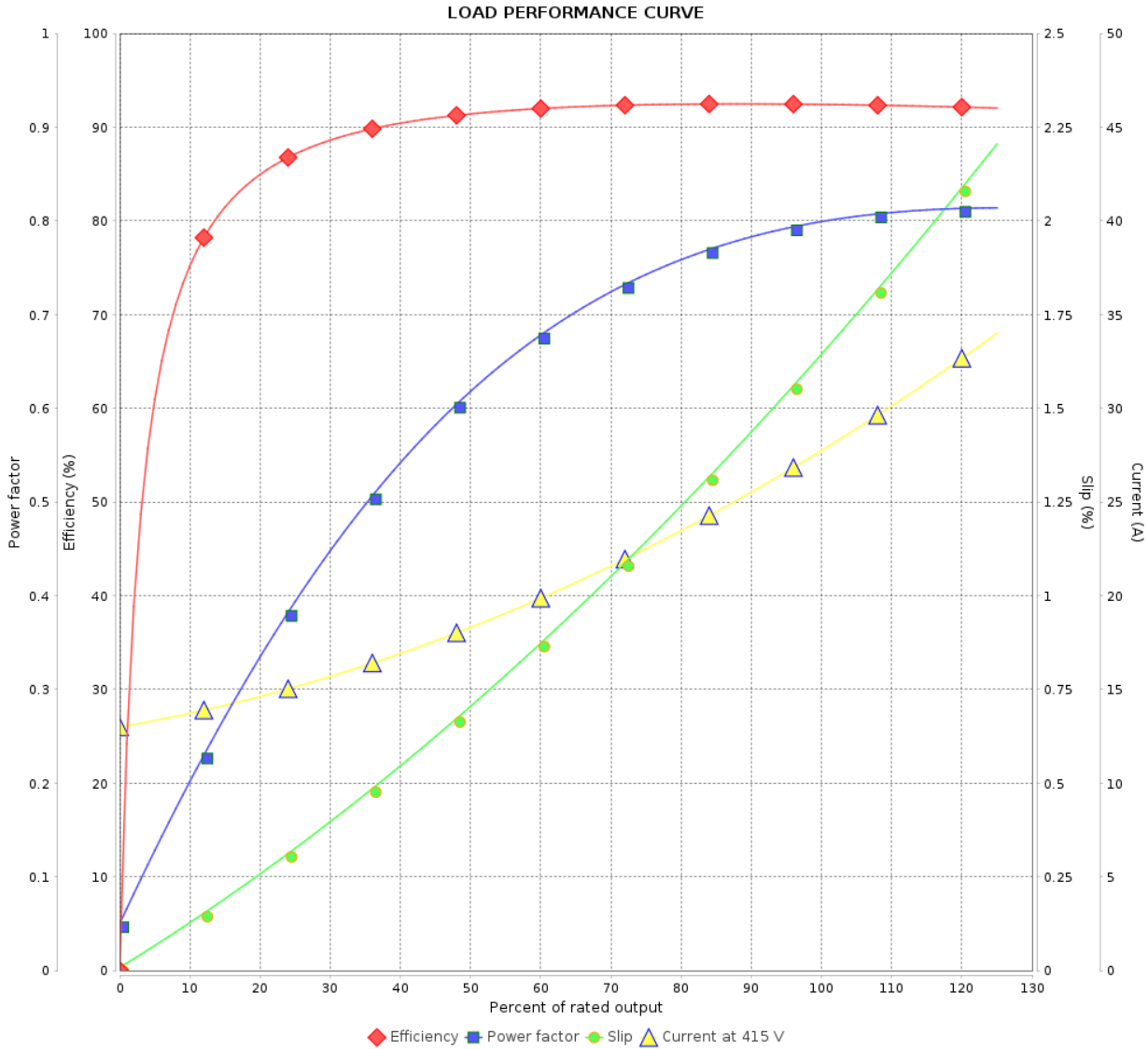
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12596566



Performance : 415 V 50 Hz 4P

Rated current : 28.2 A  
 LRC : 8.0  
 Rated torque : 9.84 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 320 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.1214 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

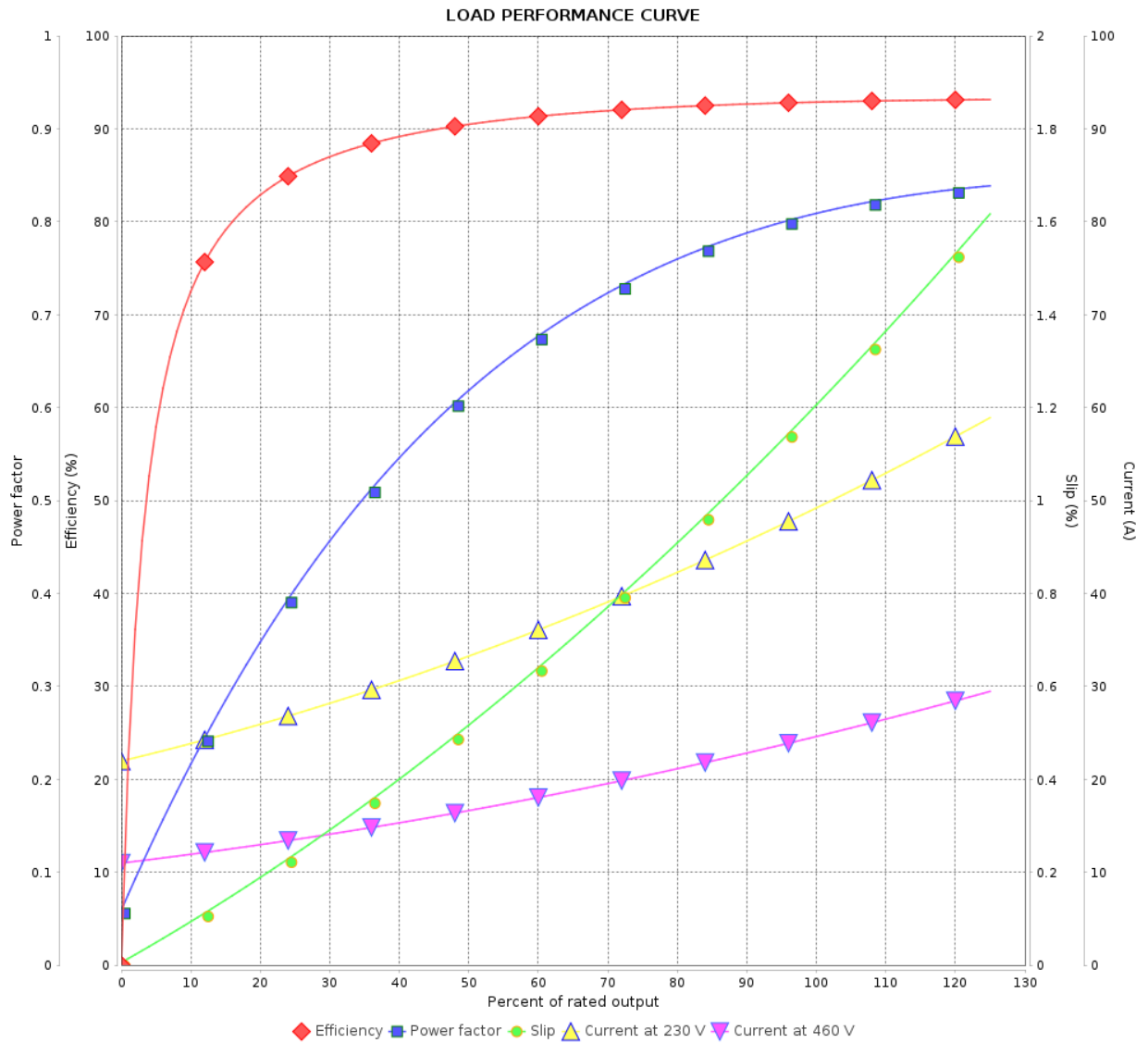


Customer : \_\_\_\_\_

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

12596566



Performance : 230/460 V 60 Hz 4P

Rated current : 50.0/25.0 A  
 LRC : 8.3  
 Rated torque : 8.16 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 1778 rpm

Moment of inertia (J) : 0.1214 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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