

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 14163055		
Frame	: 180L	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: B35L(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>	: 220 kg	
Protection degree	: IP55	Moment of inertia (J)	: 0.2272 kgm <sup>2</sup>	
Design	: N			
Output [HP]	30	30	30	
Poles	4	4	4	
Frequency [Hz]	50	50	60	
Rated voltage [V]	380	415	230/460	
Rated current [A]	42.3	40.4	72.0/36.0	
L. R. Amperes [A]	317	351	684/342	
LRC [A]	7.5	8.7	9.5	
No load current [A]	16.5	19.5	33.6/16.8	
Rated speed [RPM]	1470	1475	1778	
Slip [%]	2.00	1.67	1.22	
Rated torque [kgfm]	14.8	14.8	12.2	
Locked rotor torque [%]	270	340	360	
Breakdown torque [%]	300	360	380	
Service factor	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	32s (cold) 18s (hot)	
Noise level <sup>2</sup>	61.0 dB(A)	61.0 dB(A)	63.0 dB(A)	
Efficiency (%)	25%			
	50%	90.2	90.2	91.0
	75%	93.1	92.8	92.4
	100%	93.0	93.2	93.6
Power Factor	25%			
	50%	0.70	0.62	0.65
	75%	0.80	0.74	0.76
	100%	0.85	0.81	0.82
Losses at normative operating points (speed;torque), in percentage of rated output power				
Losses (%)	P1 (0,9;1,0)	7.2	7.0	6.5
	P2 (0,5;1,0)	5.5	5.3	5.0
	P3 (0,25;1,0)	4.9	4.7	4.4
	P4 (0,9;0,5)	4.2	4.1	3.8
	P5 (0,5;0,5)	2.7	2.6	2.4
	P6 (0,5;0,25)	2.0	2.0	1.8
	P7 (0,25;0,25)	1.3	1.3	1.2
Bearing type	: Drive end : 6311 C3	Non drive end : 6211 C3	Foundation loads	
Sealing	: V'Ring	V'Ring	Max. traction	: 557 kgf
Lubrication interval	: 20000 h	20000 h	Max. compression	: 776 kgf
Lubricant amount	: 18 g	11 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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Customer : \_\_\_\_\_

Notes

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# LOAD PERFORMANCE CURVE

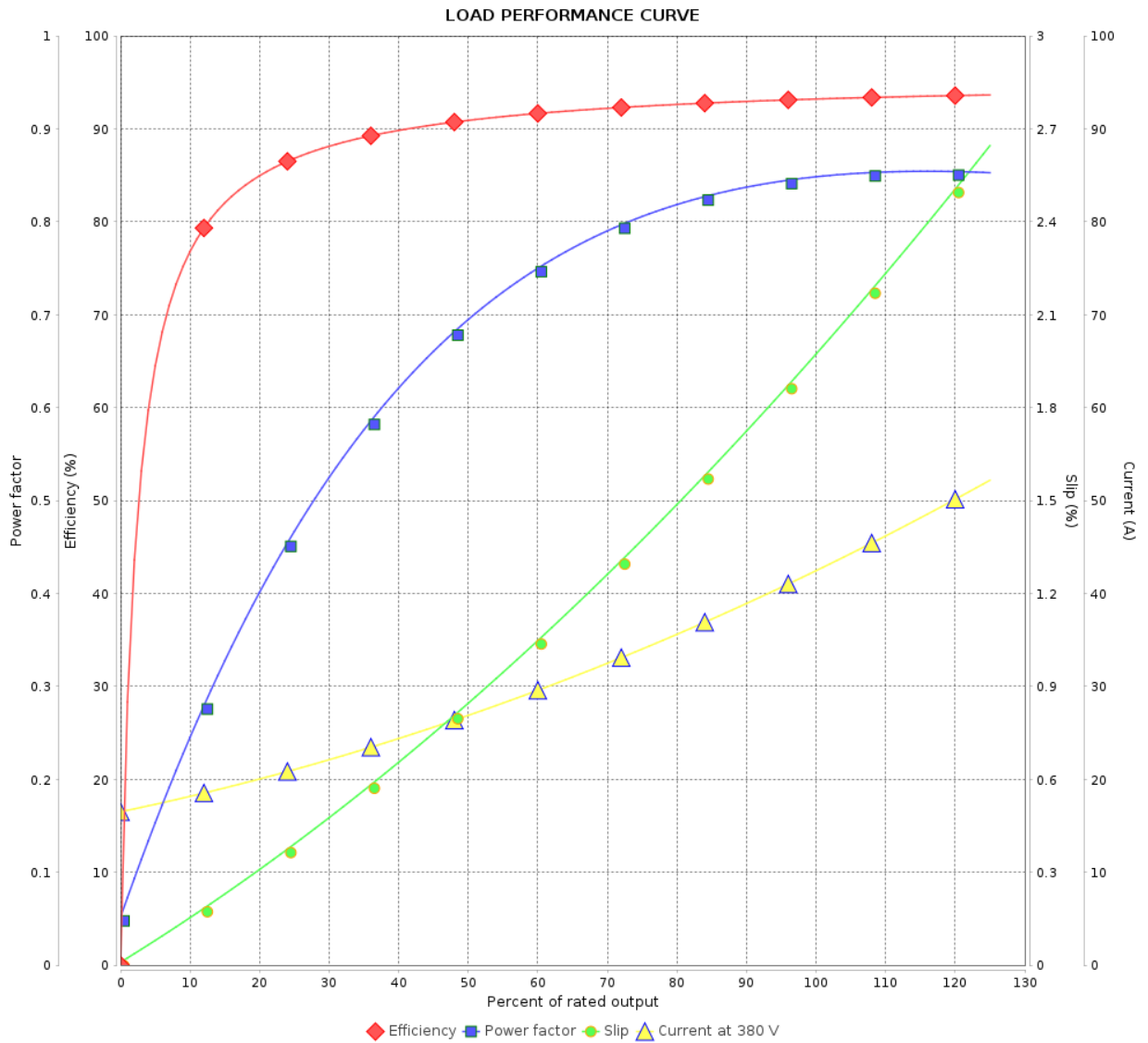
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14163055



Performance : 380 V 50 Hz 4P

Rated current : 42.3 A  
 LRC : 7.5  
 Rated torque : 14.8 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.2272 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

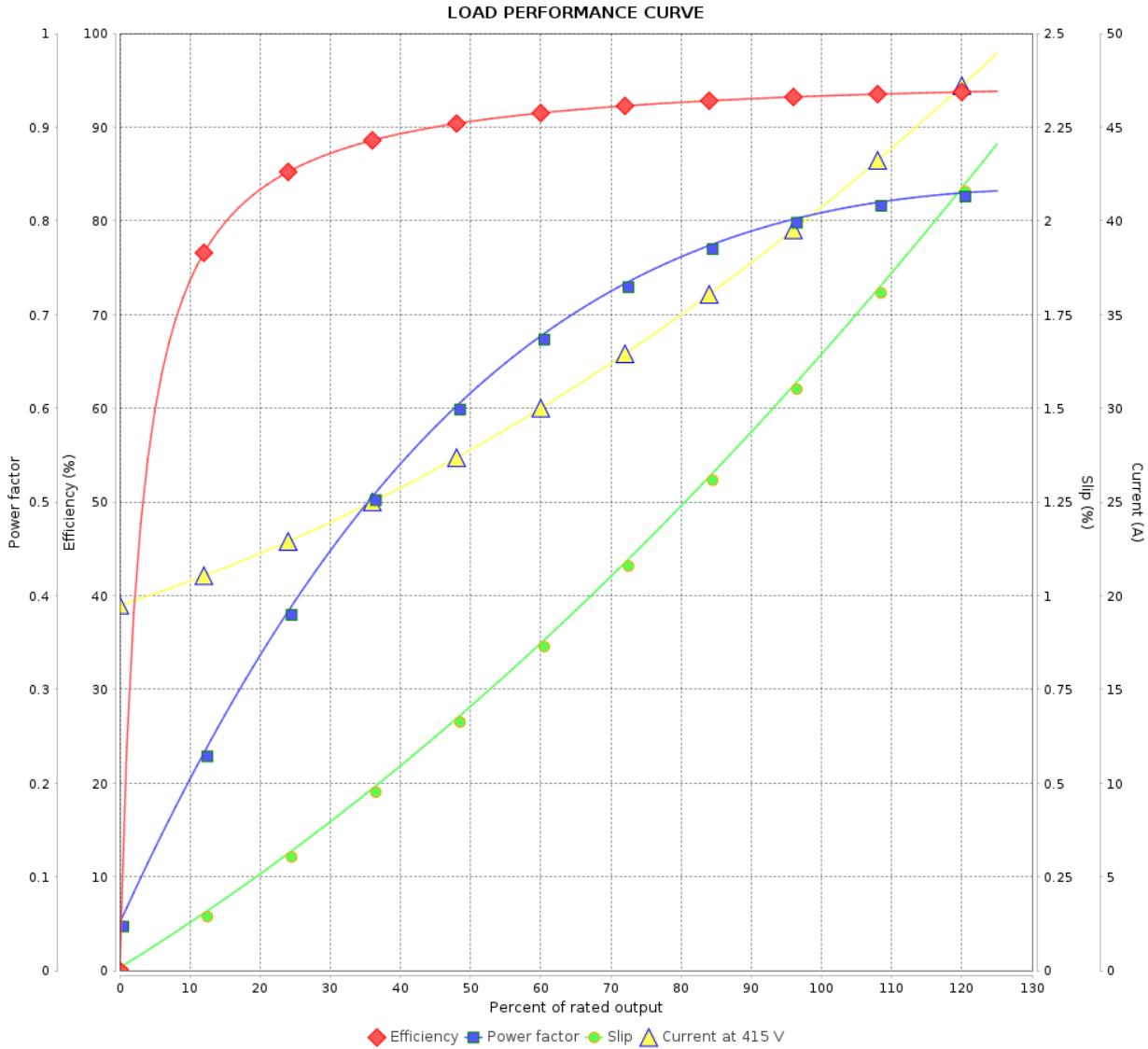


Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

14163055



Performance : 415 V 50 Hz 4P

Rated current : 40.4 A  
 LRC : 8.7  
 Rated torque : 14.8 kgfm  
 Locked rotor torque : 340 %  
 Breakdown torque : 360 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.2272 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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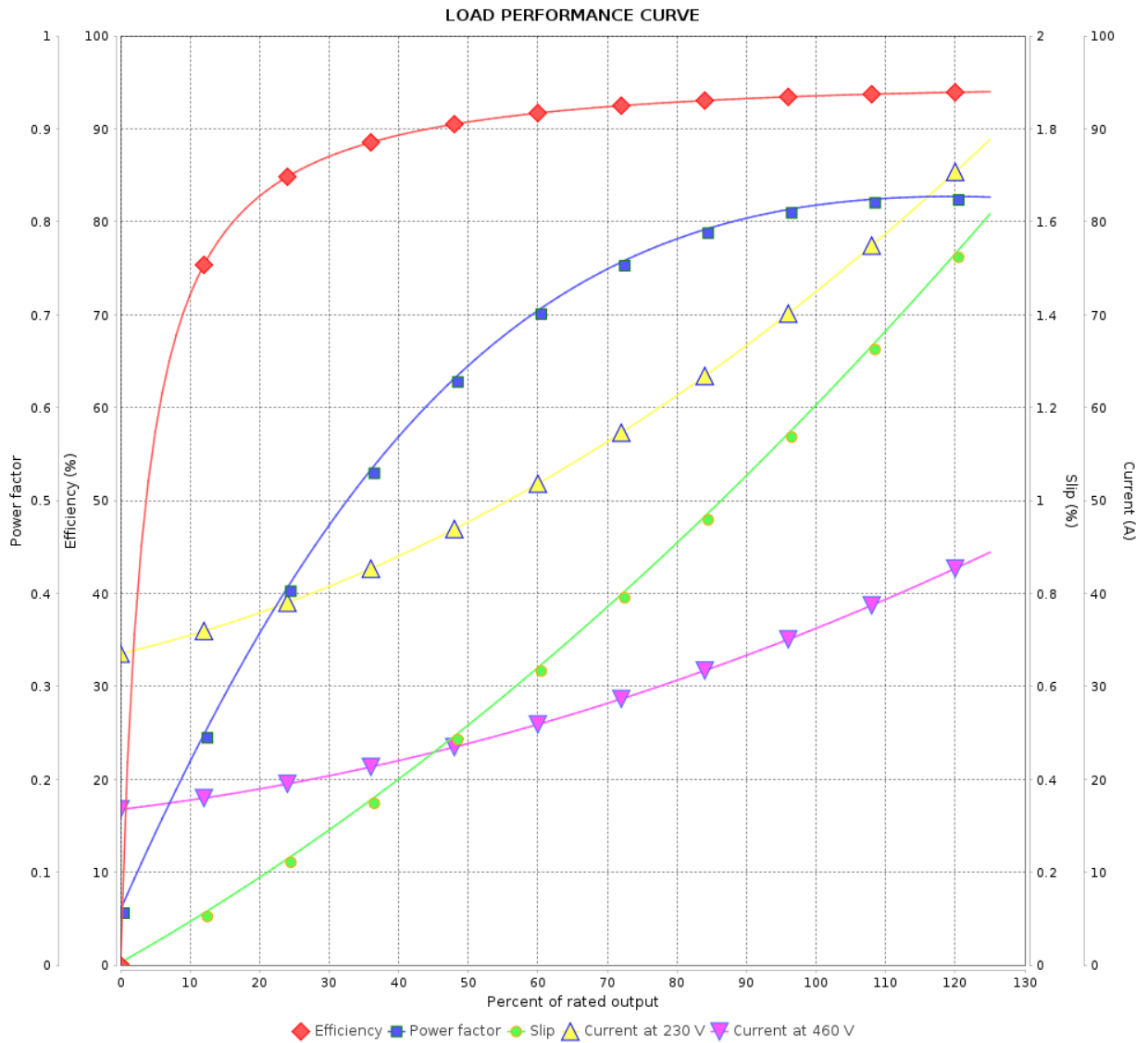
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14163055



Performance : 230/460 V 60 Hz 4P

Rated current : 72.0/36.0 A  
 LRC : 9.5  
 Rated torque : 12.2 kgfm  
 Locked rotor torque : 360 %  
 Breakdown torque : 380 %  
 Rated speed : 1778 rpm

Moment of inertia (J) : 0.2272 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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