

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: W22 Tru-Metric IE3 Three-Phase	Product code :	12645345	
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>2</sup>	: 142 kg	
Protection degree	: IP55	Moment of inertia (J)	: 0.1004 kgm <sup>2</sup>	
Design	: N			
Output [HP]	15	15	15	
Poles	4	4	4	
Frequency [Hz]	50	50	60	
Rated voltage [V]	380	415	230/460	
Rated current [A]	21.5	20.7	36.4/18.2	
L. R. Amperes [A]	161	176	309/155	
LRC [A]	7.5	8.5	8.5	
No load current [A]	9.00	10.2	18.2/9.08	
Rated speed [RPM]	1470	1476	1780	
Slip [%]	2.00	1.60	1.11	
Rated torque [kgfm]	7.41	7.38	6.12	
Locked rotor torque [%]	220	270	300	
Breakdown torque [%]	250	310	330	
Service factor	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	19s (cold) 11s (hot)	28s (cold) 16s (hot)	
Noise level <sup>2</sup>	61.0 dB(A)	61.0 dB(A)	64.0 dB(A)	
Efficiency (%)	25%			
	50%	91.0	90.4	
	75%	91.4	91.4	
	100%	91.4	91.4	
Power Factor	25%			
	50%	0.69	0.62	
	75%	0.79	0.74	
	100%	0.85	0.81	
Losses at normative operating points (speed;torque), in percentage of rated output power				
Losses (%)	P1 (0,9;1,0)	9.0	9.0	7.9
	P2 (0,5;1,0)	7.3	7.3	6.4
	P3 (0,25;1,0)	6.9	6.9	6.0
	P4 (0,9;0,5)	5.2	5.2	4.6
	P5 (0,5;0,5)	3.5	3.5	3.1
	P6 (0,5;0,25)	2.6	2.6	2.3
	P7 (0,25;0,25)	1.9	1.9	1.6
Bearing type	: Drive end : 6309 C3	Non drive end : 6209 C3	Foundation loads	
Sealing	: V'Ring	V'Ring	Max. traction : 246 kgf	
Lubrication interval	: 20000 h	20000 h	Max. compression : 388 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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Customer : \_\_\_\_\_

Notes

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# LOAD PERFORMANCE CURVE

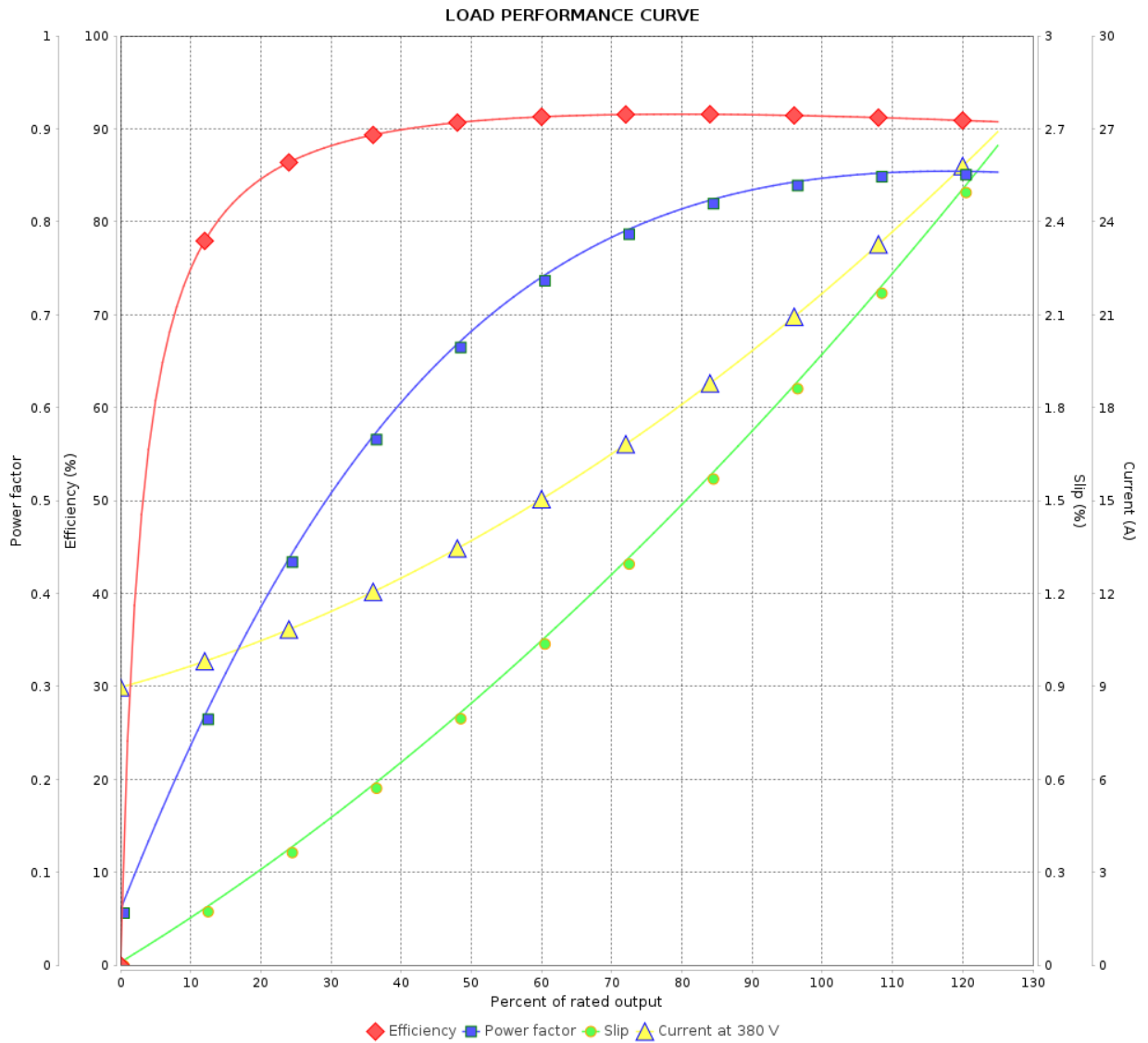
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12645345



Performance : 380 V 50 Hz 4P

Rated current : 21.5 A  
 LRC : 7.5  
 Rated torque : 7.41 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1004 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

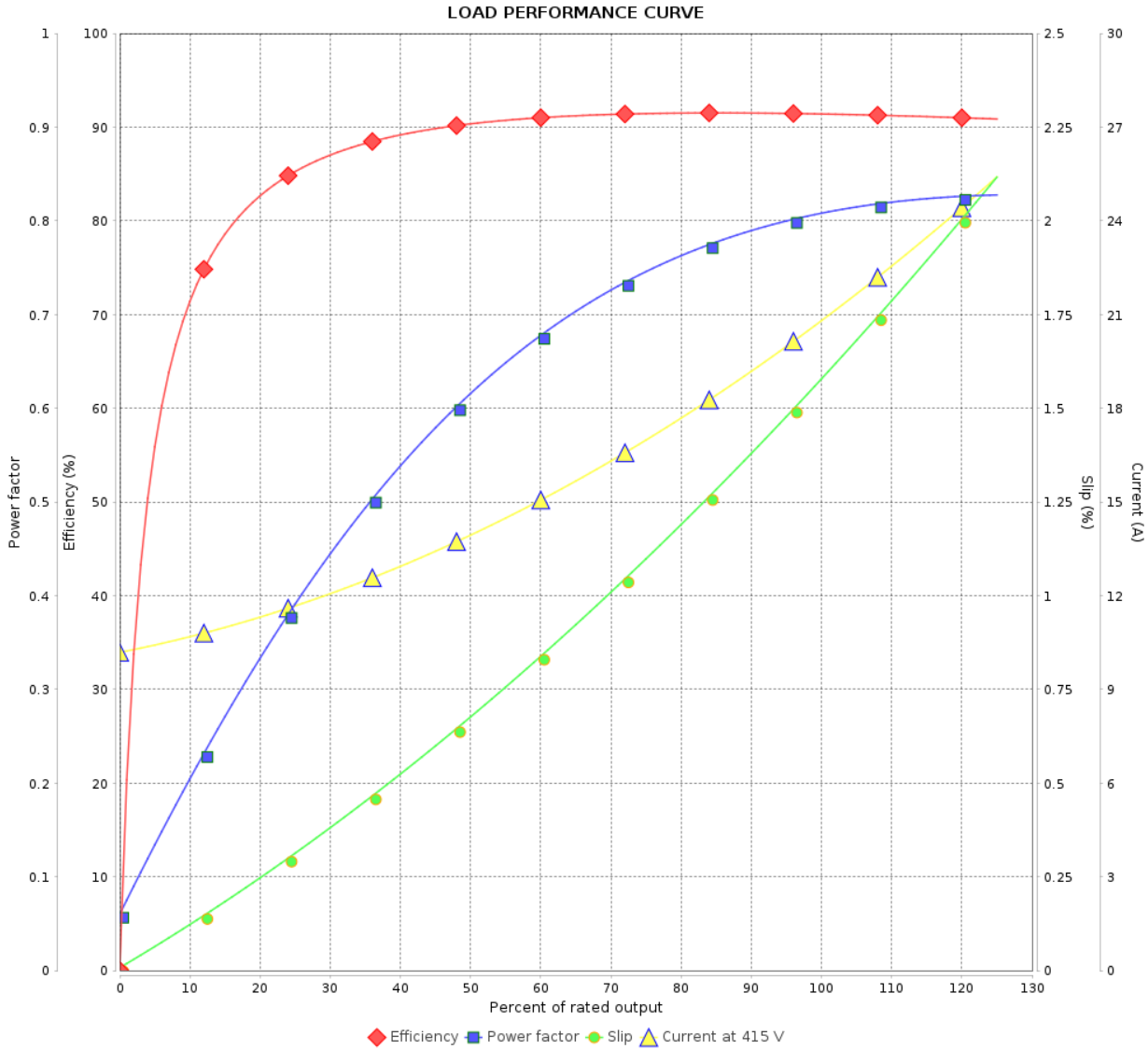
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12645345



Performance : 415 V 50 Hz 4P

Rated current : 20.7 A  
 LRC : 8.5  
 Rated torque : 7.38 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 1476 rpm

Moment of inertia (J) : 0.1004 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

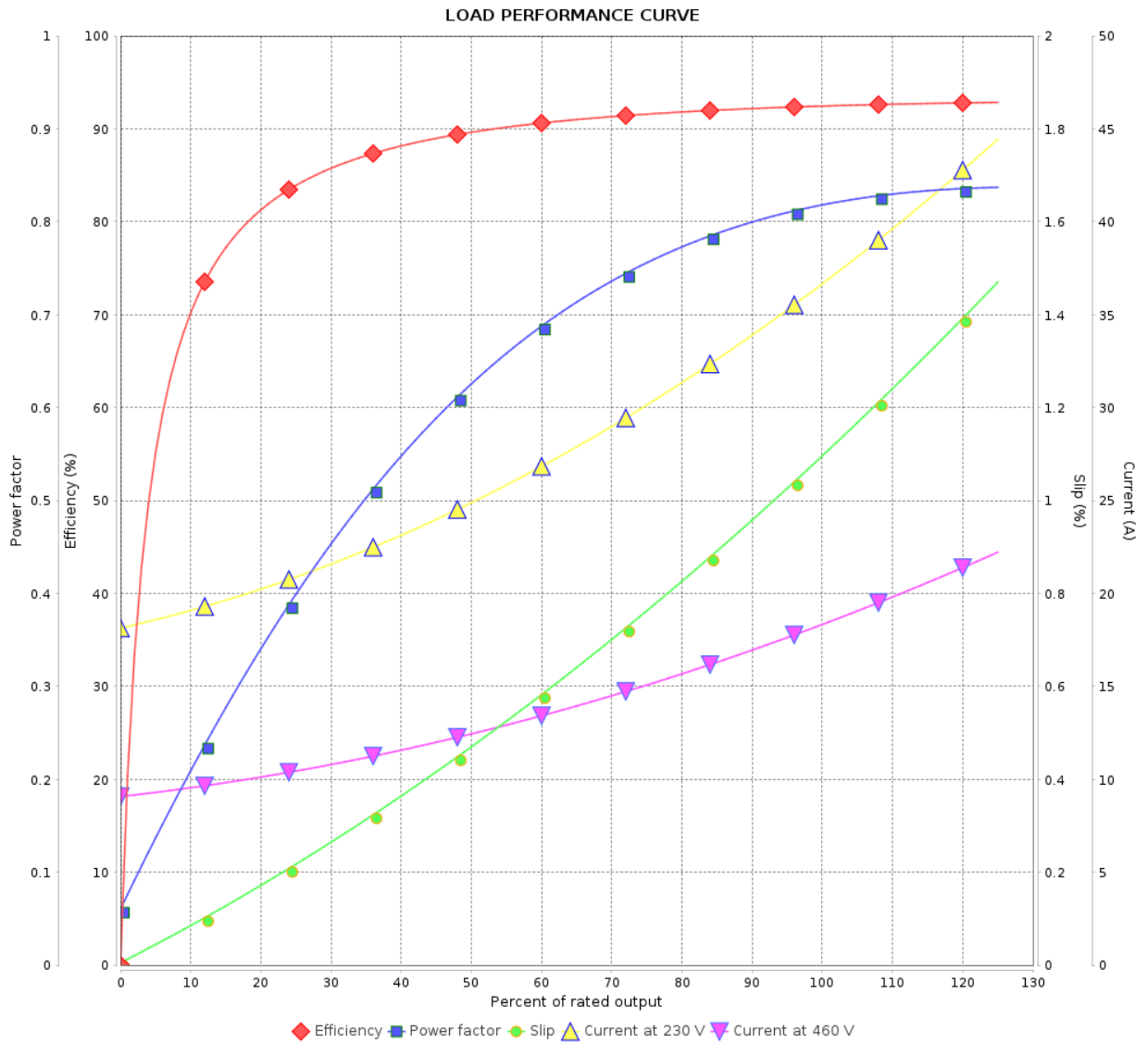


Customer : \_\_\_\_\_

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

12645345



Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A  
 LRC : 8.5  
 Rated torque : 6.12 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.1004 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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