

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 14163103			
Frame	: 160L	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B3L(E)		
Duty cycle	: S1	Rotation ¹	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight ³	: 146 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0472 kgm ²		
Design	: N				
Output [HP]	20	20	20		
Poles	2	2	2		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	28.2	26.4	47.8/23.9		
L. R. Amperes [A]	197	224	454/227		
LRC [A]	7.0	8.5	9.5		
No load current [A]	9.10	10.4	18.6/9.30		
Rated speed [RPM]	2935	2950	3555		
Slip [%]	2.17	1.67	1.25		
Rated torque [kgfm]	4.95	4.92	4.08		
Locked rotor torque [%]	250	290	330		
Breakdown torque [%]	310	370	400		
Service factor	1.25	1.25	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	14s (cold) 8s (hot)	14s (cold) 8s (hot)	19s (cold) 11s (hot)		
Noise level ²	67.0 dB(A)	67.0 dB(A)	72.0 dB(A)		
Efficiency (%)	25%				
	50%	91.5	91.3	91.0	
	75%	91.7	91.7	91.7	
	100%	91.9	91.9	91.7	
Power Factor	25%				
	50%	0.77	0.70	0.70	
	75%	0.85	0.81	0.81	
	100%	0.88	0.86	0.86	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	8.3	8.3	8.6	
	P2 (0,5;1,0)	6.5	6.5	6.7	
	P3 (0,25;1,0)	6.2	6.2	6.3	
	P4 (0,9;0,5)	4.8	4.8	4.9	
	P5 (0,5;0,5)	2.9	2.9	3.0	
	P6 (0,5;0,25)	2.1	2.1	2.2	
	P7 (0,25;0,25)	1.4	1.4	1.4	
Bearing type	: Drive end 6309 C3	Non drive end 6209 C3	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 184 kgf	
Lubrication interval	: 19000 h	20000 h	Max. compression	: 330 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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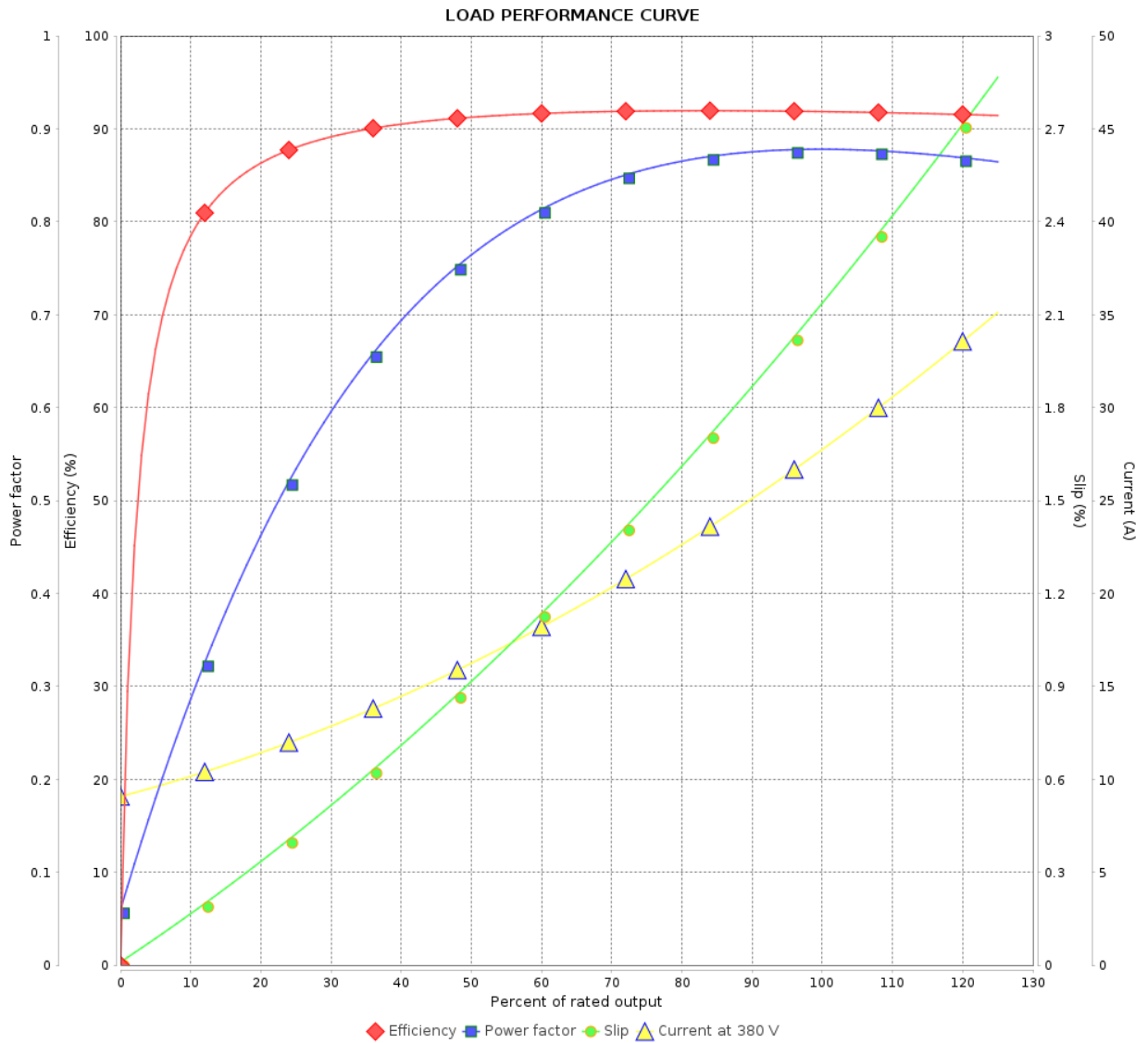
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

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Performance : 380 V 50 Hz 2P

Rated current : 28.2 A
 LRC : 7.0
 Rated torque : 4.95 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 310 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.0472 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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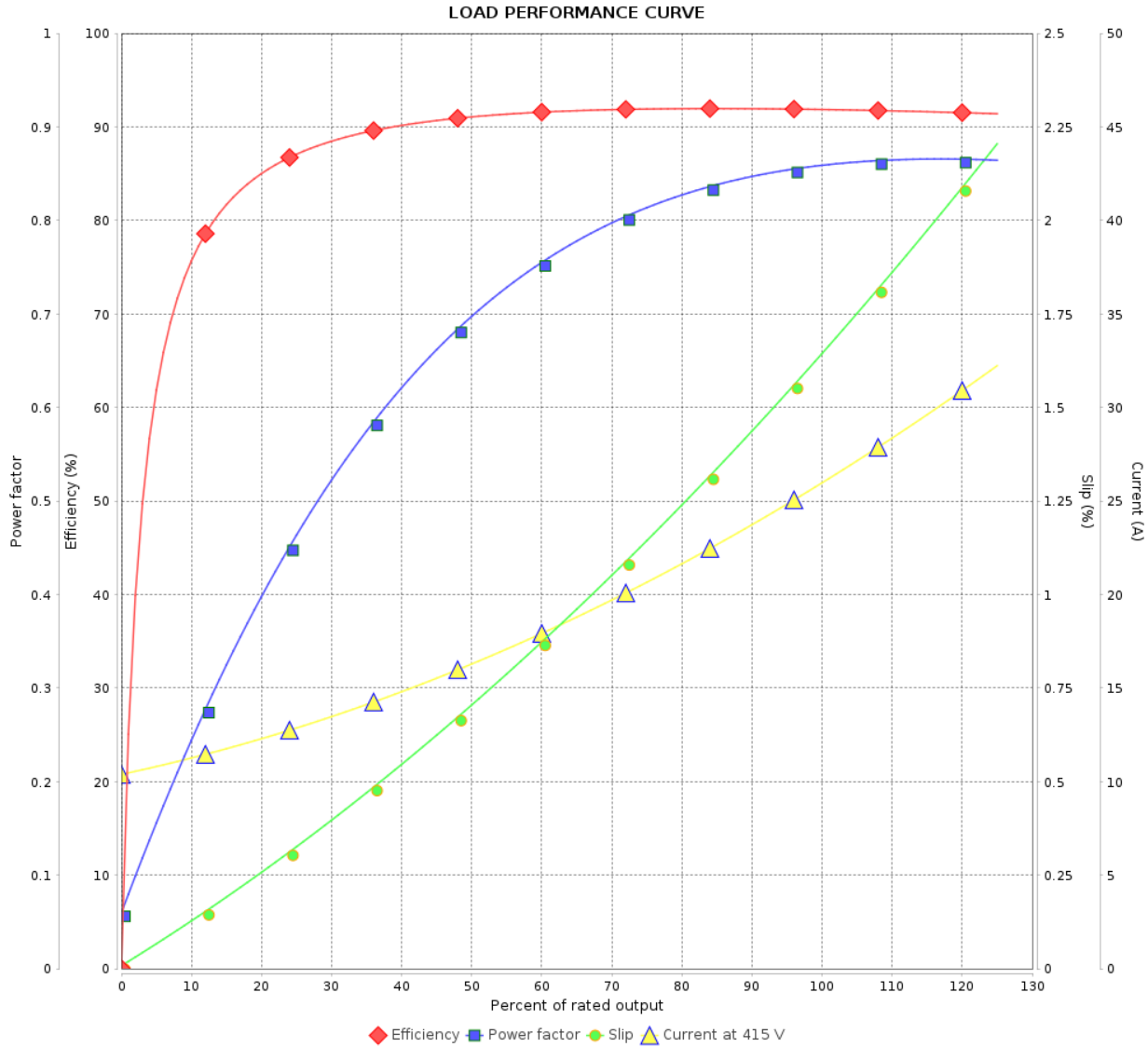
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

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Performance : 415 V 50 Hz 2P

Rated current : 26.4 A
 LRC : 8.5
 Rated torque : 4.92 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 370 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 0.0472 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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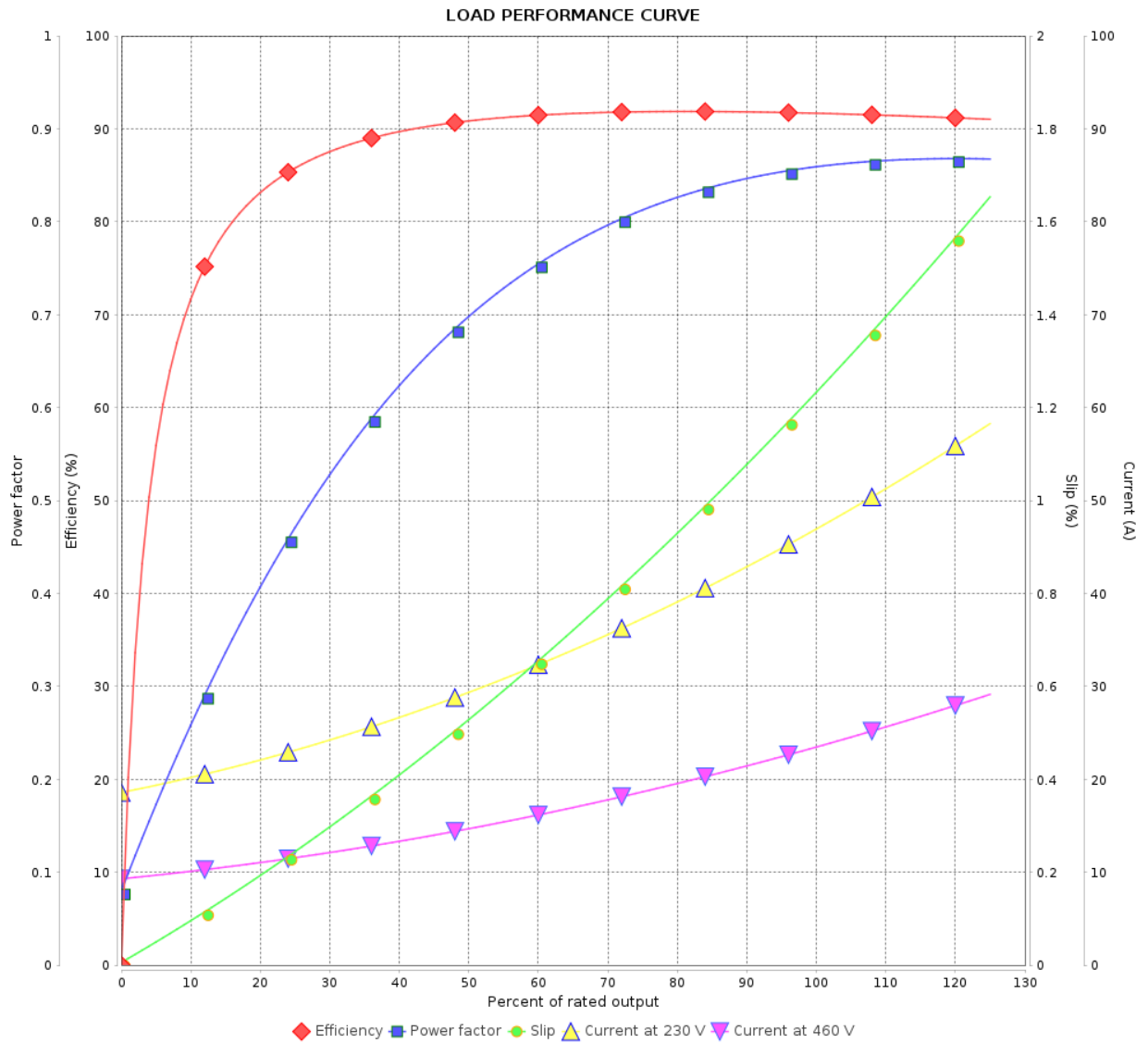
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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Performance : 230/460 V 60 Hz 2P

Rated current : 47.8/23.9 A
 LRC : 9.5
 Rated torque : 4.08 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 400 %
 Rated speed : 3555 rpm

Moment of inertia (J) : 0.0472 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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