

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase	Product code :	12364105		
Frame	: 213/5JM	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(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	: 73.6 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0504 kgm ²		
Design	: B				
Output [HP]	3	3	3	3	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	8.83/4.41	5.09	4.92	4.87	
L. R. Amperes [A]	61.8/30.9	29.5	31.5	33.1	
LRC [A]	7.0x(Code K)	5.8x(Code H)	6.4x(Code J)	6.8x(Code J)	
No load current [A]	5.50/2.75	2.72	2.91	3.05	
Rated speed [RPM]	1175	965	970	970	
Slip [%]	2.08	3.50	3.00	3.00	
Rated torque [kgfm]	1.85	2.26	2.24	2.24	
Locked rotor torque [%]	200	170	200	220	
Breakdown torque [%]	280	210	240	270	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	104s (cold) 58s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	
Efficiency (%)	25%				
	50%	86.5	87.5	86.5	
	75%	88.5	88.5	88.5	
	100%	89.5	87.5	88.5	
Power Factor	25%				
	50%	0.50	0.57	0.53	
	75%	0.63	0.70	0.66	
	100%	0.70	0.75	0.73	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	11.0	11.0	11.0	11.0
	P2 (0,5;1,0)	8.5	8.5	8.5	8.5
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	6.7	6.7	6.7	6.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.4	3.4	3.4	3.4
	P7 (0,25;0,25)	2.5	2.5	2.5	2.5
Bearing type	: Drive end : 6309 Z C3 Non drive end : 6207 ZZ	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction	: 75 kgf		
Lubrication interval	: 20000 h 40000 h	Max. compression	: 149 kgf		
Lubricant amount	: 13 g 0 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.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.			
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Notes
USABLE @208V 9.76A SF 1.15 SFA 11.2A

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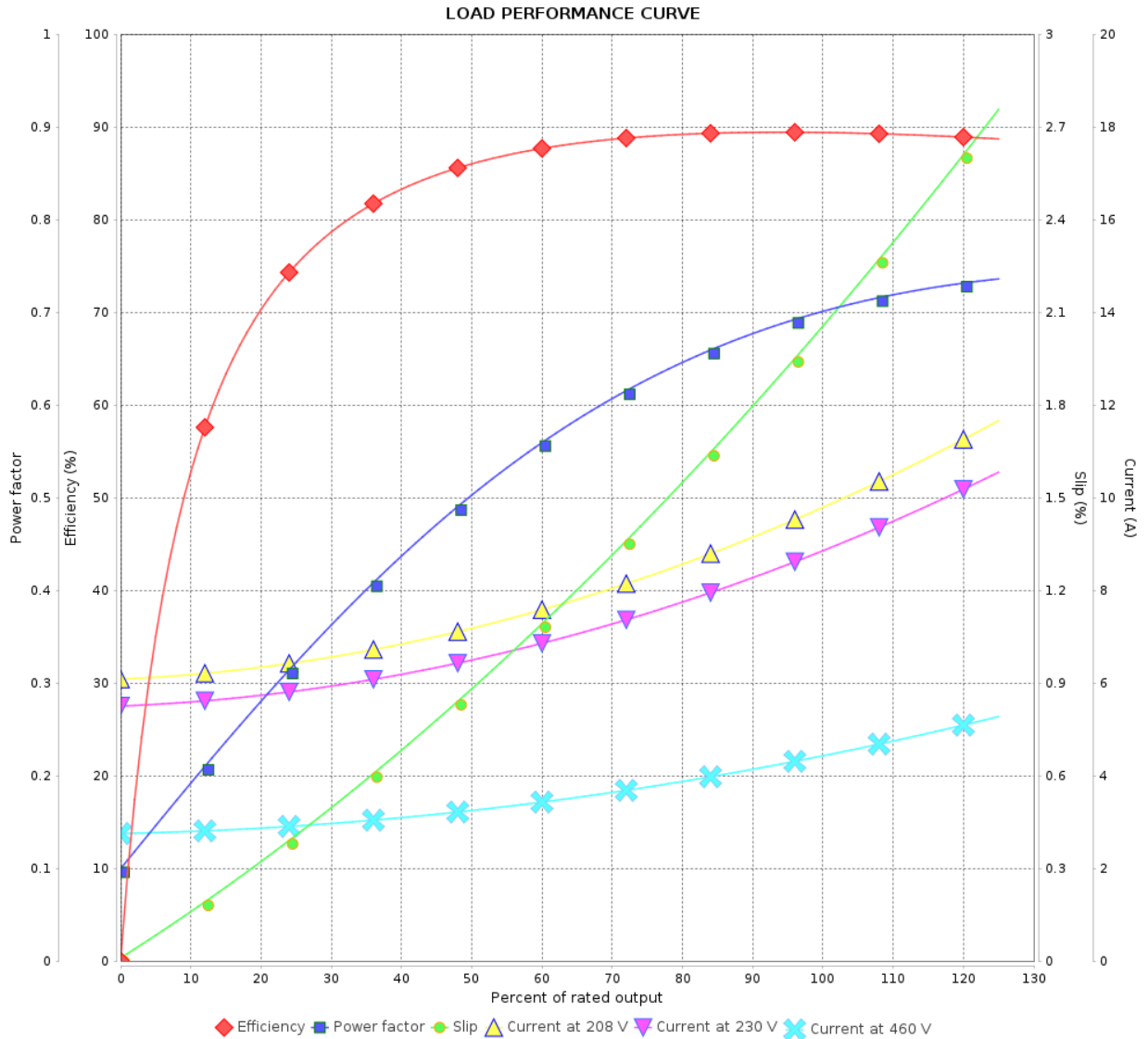
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Performance : 230/460 V 60 Hz 6P

Rated current : 8.83/4.41 A
LRC : 7.0
Rated torque : 1.85 kgfm
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 1175 rpm

Moment of inertia (J) : 0.0504 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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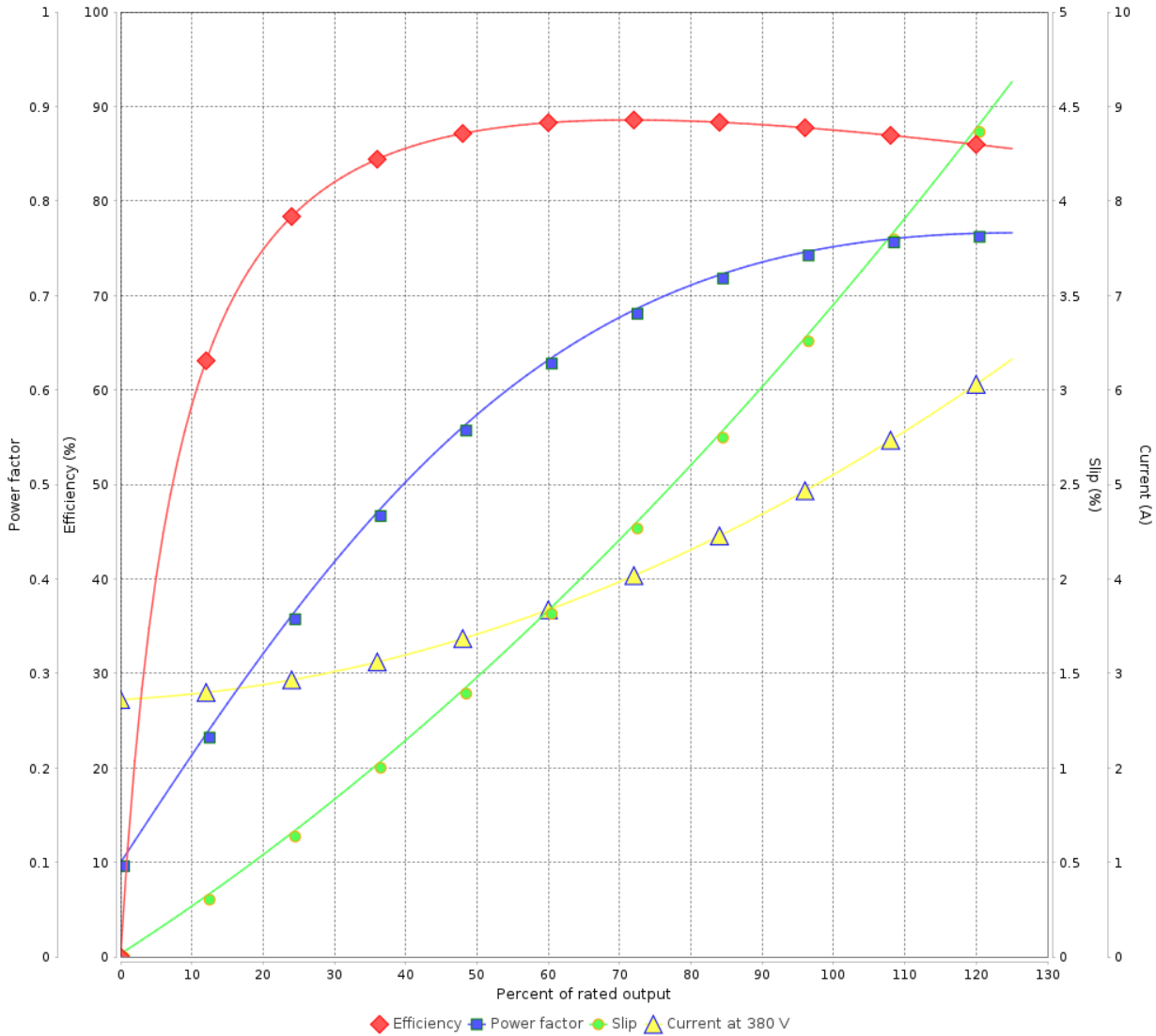


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Performance : 380 V 50 Hz 6P IE4

Rated current : 5.09 A
LRC : 5.8
Rated torque : 2.26 kgfm
Locked rotor torque : 170 %
Breakdown torque : 210 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.0504 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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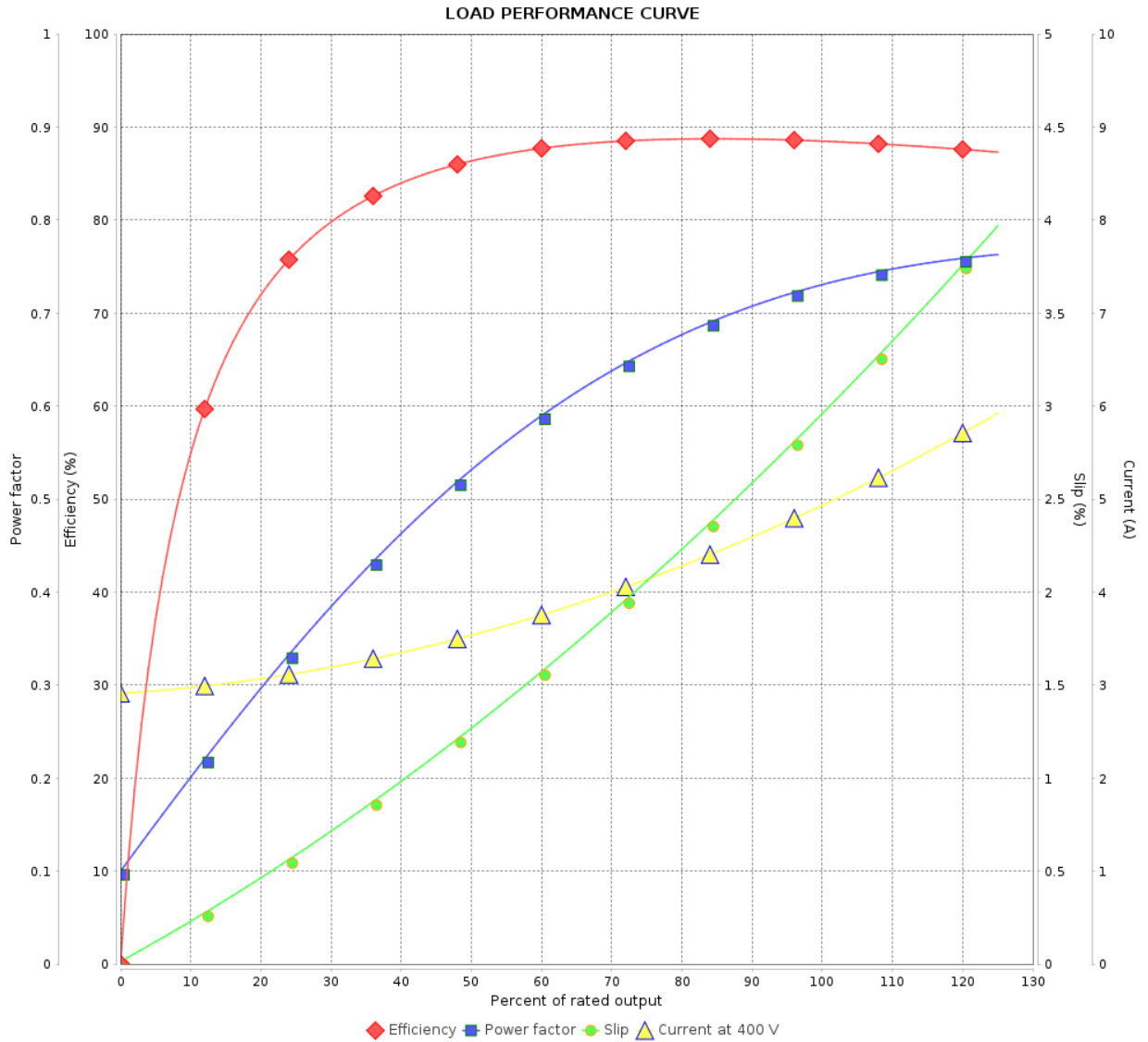
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 6P IE4

Rated current : 4.92 A
LRC : 6.4
Rated torque : 2.24 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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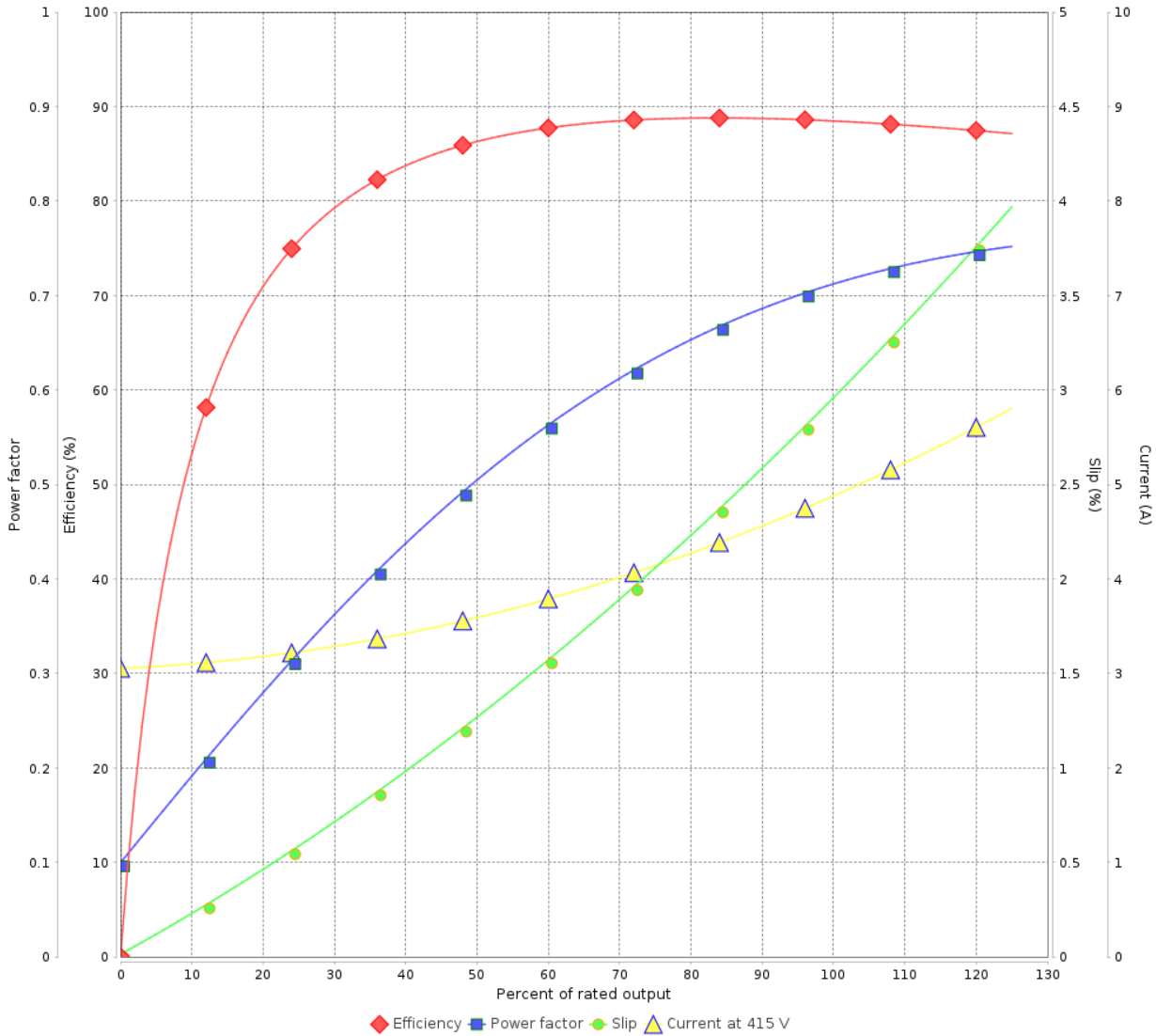


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Performance : 415 V 50 Hz 6P IE4

Rated current : 4.87 A
LRC : 6.8
Rated torque : 2.24 kgfm
Locked rotor torque : 220 %
Breakdown torque : 270 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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