

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :								
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11438180					
Frame	: 324/6TS	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	: 246 kg					
Protection degree	: IP55	Moment of inertia (J)	: 0.2422 kgm ²					
Design	: B							
Output [HP]	50	40	40	40	50	50	50	
Poles	2	2	2	2	2	2	2	
Frequency [Hz]	60	50	50	50	50	50	50	
Rated voltage [V]	230/460	380	400	415	380	400	415	
Rated current [A]	112/56.1	55.1	52.7	51.4	69.4	65.4	62.6	
L. R. Amperes [A]	707/353	363	374	396	361	366	394	
LRC [A]	6.3x(Code G)	6.6x(Code G)	7.1x(Code H)	7.7x(Code J)	5.2x(Code E)	5.6x(Code F)	6.3x(Code G)	
No load current [A]	28.0/14.0	13.0	14.1	15.5	13.0	14.1	15.5	
Rated speed [RPM]	3560	2960	2965	2967	2935	2947	2954	
Slip [%]	1.11	1.33	1.17	1.10	2.17	1.77	1.53	
Rated torque [kgfm]	10.2	9.81	9.79	9.78	12.4	12.3	12.3	
Locked rotor torque [%]	240	240	260	280	190	210	229	
Breakdown torque [%]	240	229	250	280	190	200	220	
Service factor	1.25	1.00	1.00	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K	
Locked rotor time	36s (cold) 20s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)	21s (cold) 12s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	
Noise level ²	76.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	
Efficiency (%)	25%	0.000						
	50%	93.0	92.8	92.2	92.2	93.0	93.0	
	75%	93.0	92.9	92.8	93.1	92.4	93.0	
	100%	93.0	93.0	93.3	93.3	91.0	92.4	
Power Factor	25%	0.00						
	50%	0.81	0.80	0.77	0.76	0.85	0.83	
	75%	0.87	0.87	0.86	0.84	0.88	0.87	
	100%	0.89	0.89	0.88	0.87	0.89	0.89	
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	6.8	6.8	6.5	6.5	9.0	8.2	7.5
	P2 (0,5;1,0)	4.4	4.4	4.2	4.2	5.7	5.3	4.8
	P3 (0,25;1,0)	3.5	3.5	3.3	3.3	4.6	4.2	3.8
	P4 (0,9;0,5)	4.1	4.1	3.9	3.9	5.4	5.0	4.5
	P5 (0,5;0,5)	2.0	2.0	1.9	1.9	2.7	2.5	2.2
	P6 (0,5;0,25)	1.5	1.5	1.4	1.4	2.0	1.8	1.6
	P7 (0,25;0,25)	0.7	0.7	0.7	0.7	1.0	0.9	0.8
Bearing type	: Drive end 6312 C3	Non drive end 6212 C3	Foundation loads					
Sealing	: V'Ring	V'Ring	Max. traction : 217 kgf					
Lubrication interval	: 12000 h	15000 h	Max. compression : 463 kgf					
Lubricant amount	: 21 g	13 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.				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 124A SF 1.10 SFA 136A

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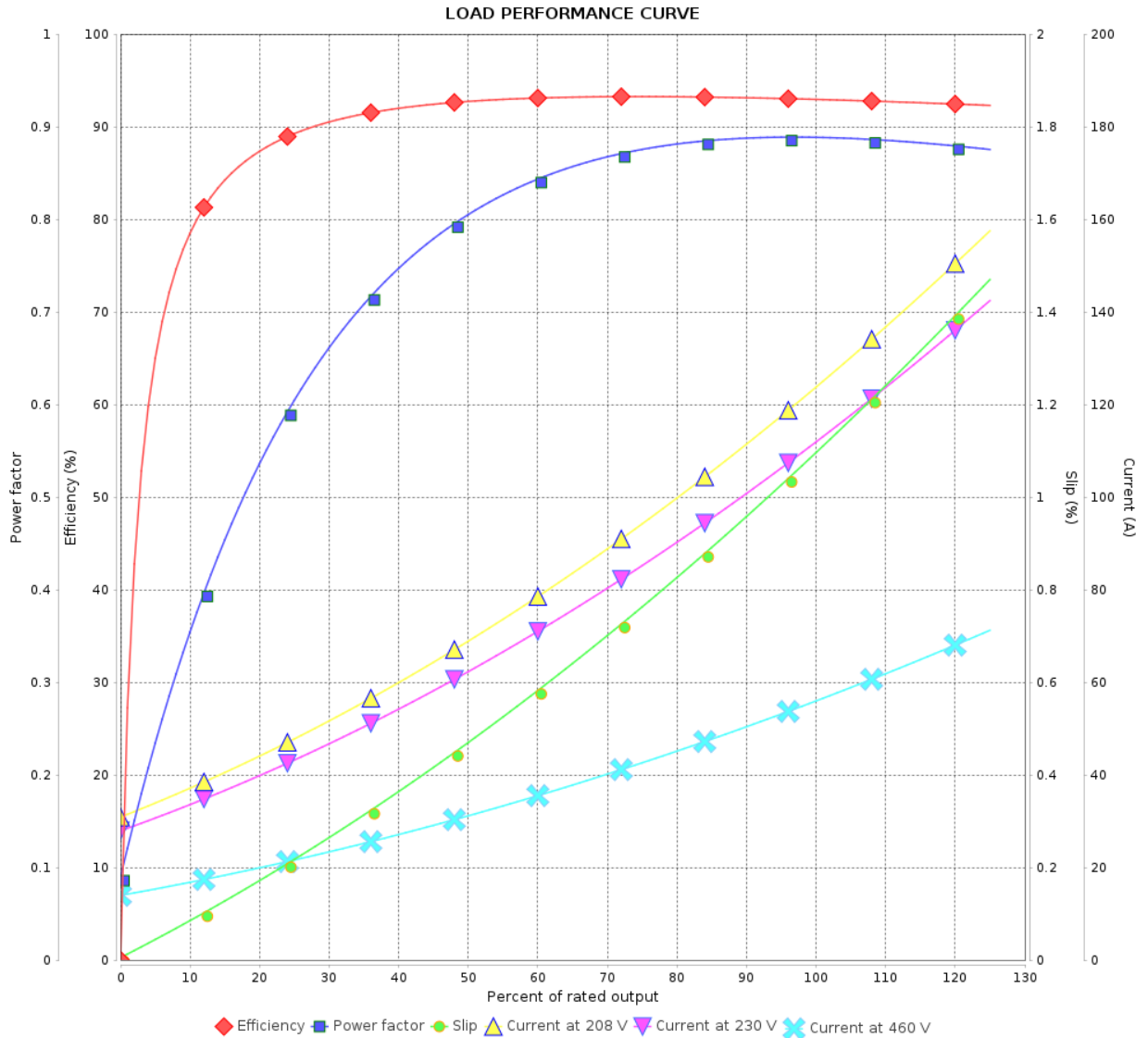
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11438180



Performance : 230/460 V 60 Hz 2P

Rated current : 112/56.1 A
 LRC : 6.3
 Rated torque : 10.2 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 240 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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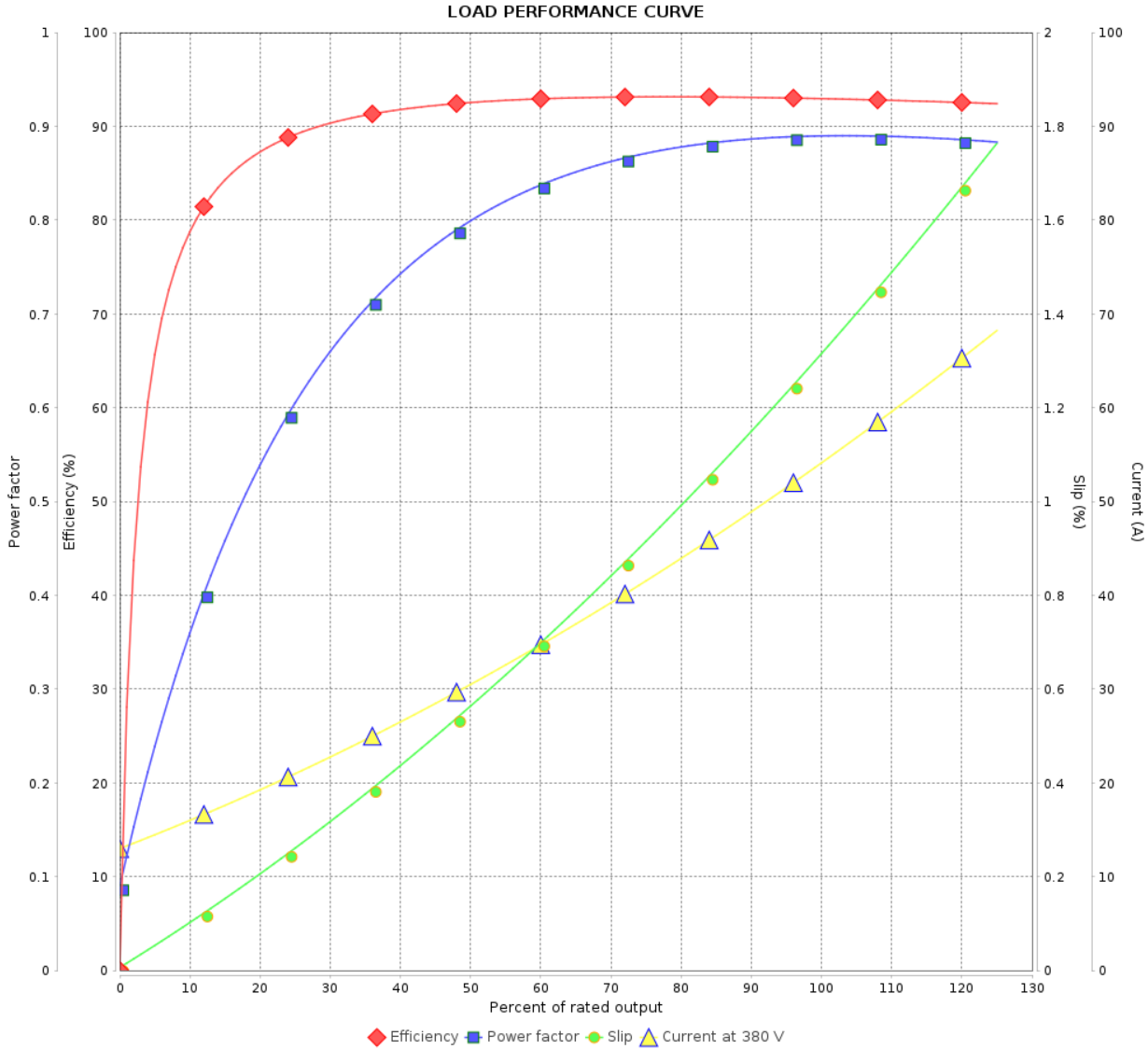
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11438180



Performance : 380 V 50 Hz 2P IE2

Rated current : 55.1 A
 LRC : 6.6
 Rated torque : 9.81 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 229 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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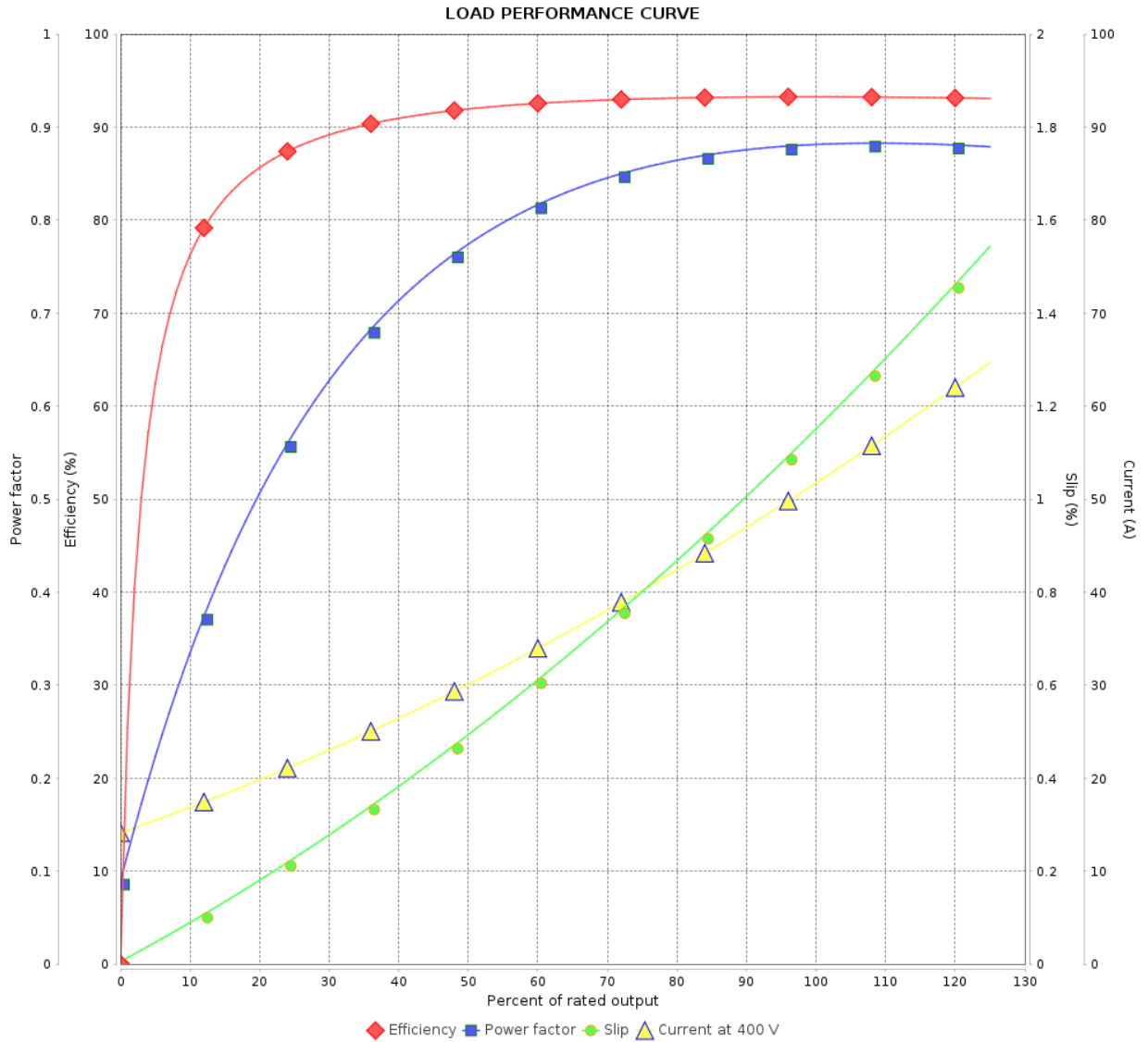
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11438180



Performance : 400 V 50 Hz 2P IE3

Rated current : 52.7 A
 LRC : 7.1
 Rated torque : 9.79 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 250 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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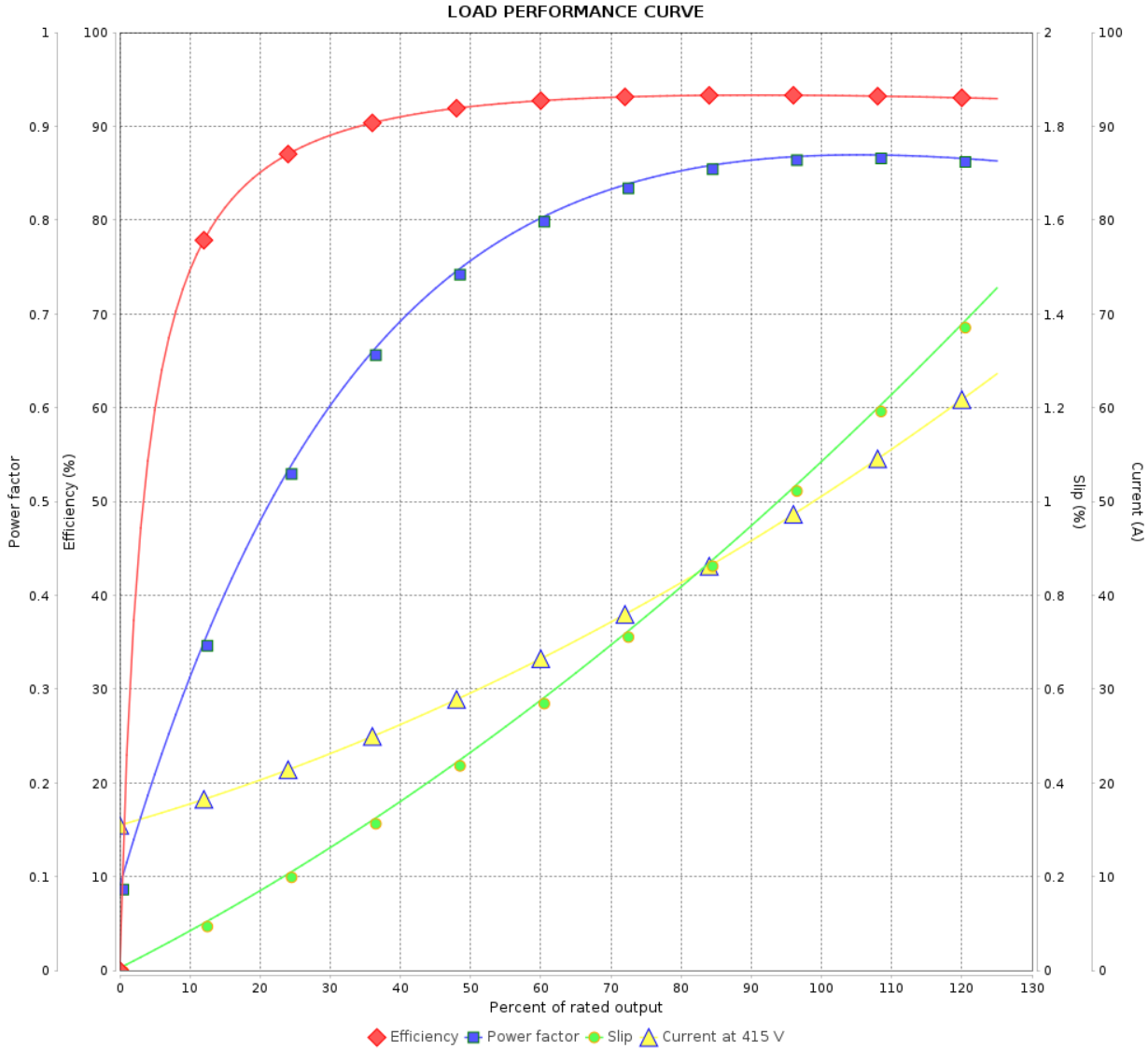
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11438180



Performance : 415 V 50 Hz 2P IE3

Rated current : 51.4 A
 LRC : 7.7
 Rated torque : 9.78 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 280 %
 Rated speed : 2967 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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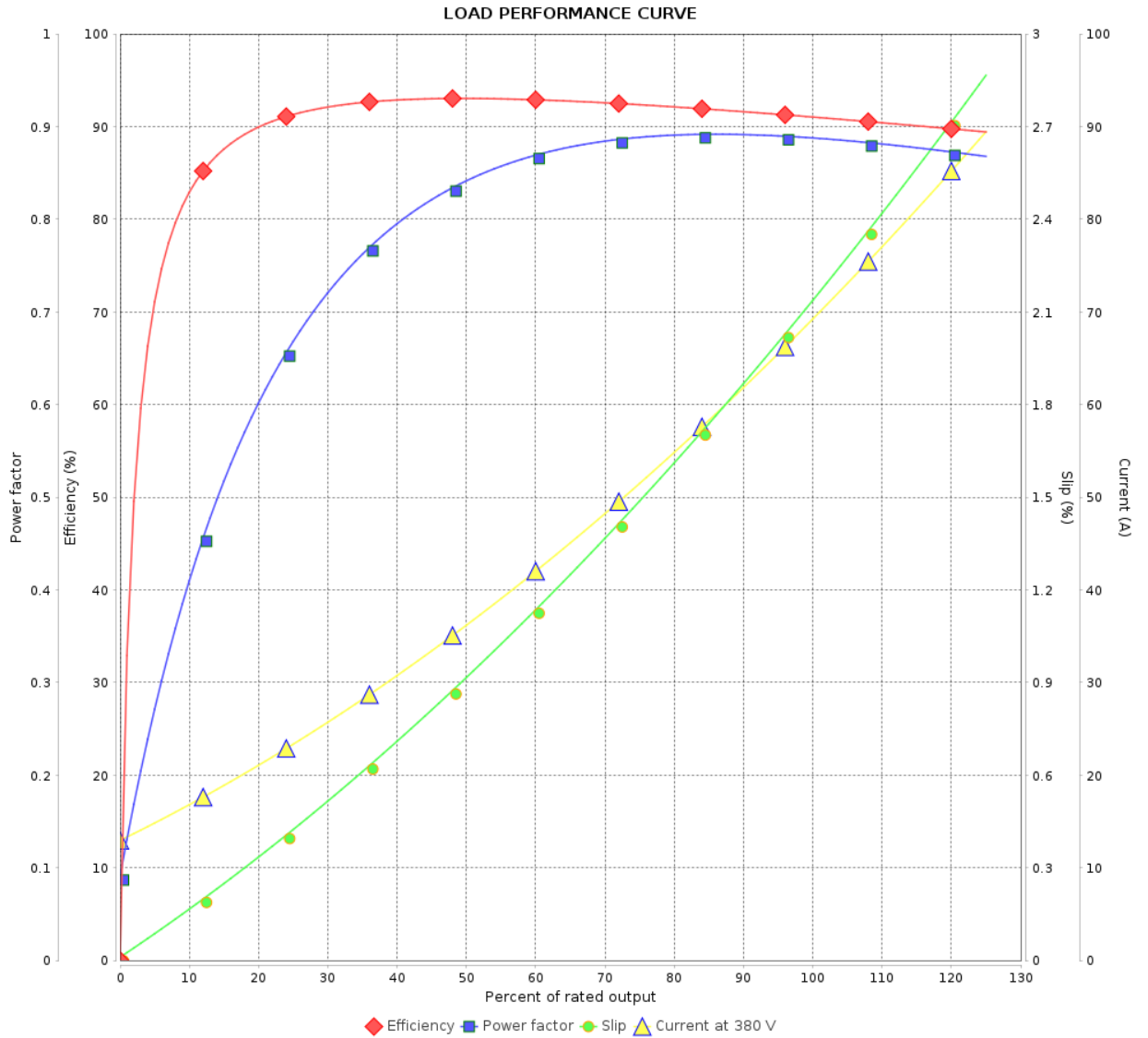
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Product code : 11438180



Performance : 380 V 50 Hz 2P

Rated current : 69.4 A
 LRC : 5.2
 Rated torque : 12.4 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 190 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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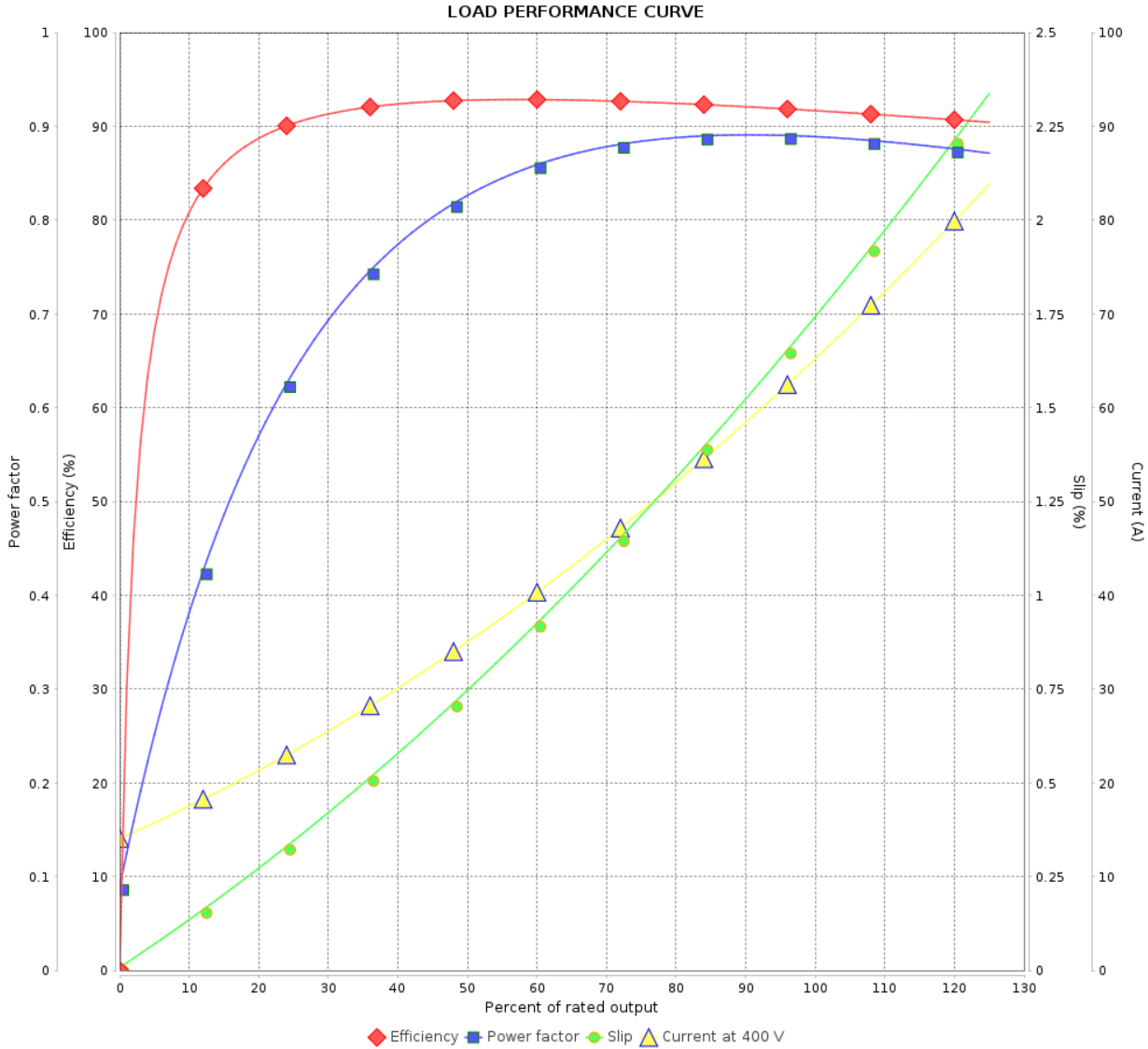
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Product code : 11438180



Performance : 400 V 50 Hz 2P IE1

Rated current : 65.4 A
 LRC : 5.6
 Rated torque : 12.3 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 200 %
 Rated speed : 2947 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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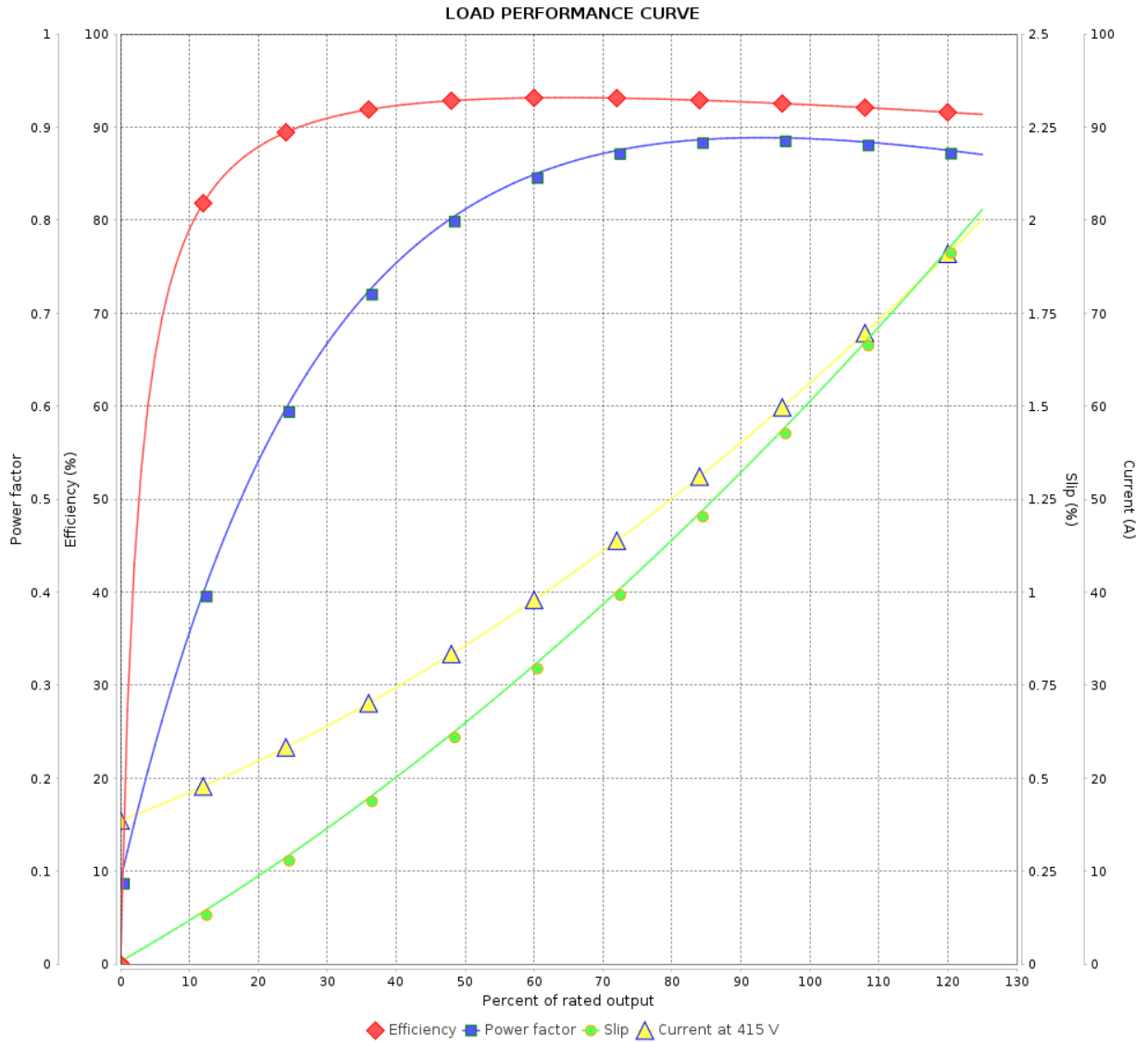
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11438180



Performance : 415 V 50 Hz 2P IE1

Rated current : 62.6 A
 LRC : 6.3
 Rated torque : 12.3 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 220 %
 Rated speed : 2954 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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