

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13645596		
Frame	: L447/9T	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 ²	: 1589 kg		
Protection degree	: IP55	Moment of inertia (J)	: 6.40 kgm ²		
Design	: A				
Output [HP]	450	400	400	400	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	513	564	549	542	
L. R. Amperes [A]	4566	4456	4721	4986	
LRC [A]	8.9x(Code K)	7.9x(Code J)	8.6x(Code K)	9.2x(Code K)	
No load current [A]	215	215	232	255	
Rated speed [RPM]	1791	1489	1490	1490	
Slip [%]	0.50	0.73	0.67	0.67	
Rated torque [kgfm]	182	195	195	195	
Locked rotor torque [%]	320	270	300	370	
Breakdown torque [%]	330	280	320	350	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	39s (cold) 22s (hot)	37s (cold) 21s (hot)	36s (cold) 20s (hot)	32s (cold) 18s (hot)	
Noise level ²	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	
Efficiency (%)	25%				
	50%	95.4	95.8	95.4	
	75%	96.2	96.2	95.8	
	100%	96.2	96.2	96.2	
Power Factor	25%				
	50%	0.66	0.70	0.65	
	75%	0.78	0.80	0.77	
	100%	0.84	0.84	0.82	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.5	4.5	4.5	4.5
	P2 (0,5;1,0)	3.3	3.3	3.3	3.3
	P3 (0,25;1,0)	2.7	2.7	2.7	2.7
	P4 (0,9;0,5)	2.5	2.5	2.5	2.5
	P5 (0,5;0,5)	1.5	1.5	1.5	1.5
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6
Bearing type	: Drive end : NU-322 C3	Non drive end : 6319 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction	: 5171 kgf	
Lubrication interval	: 4000 h	8000 h	Max. compression	: 6760 kgf	
Lubricant amount	: 60 g	45 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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Customer : _____

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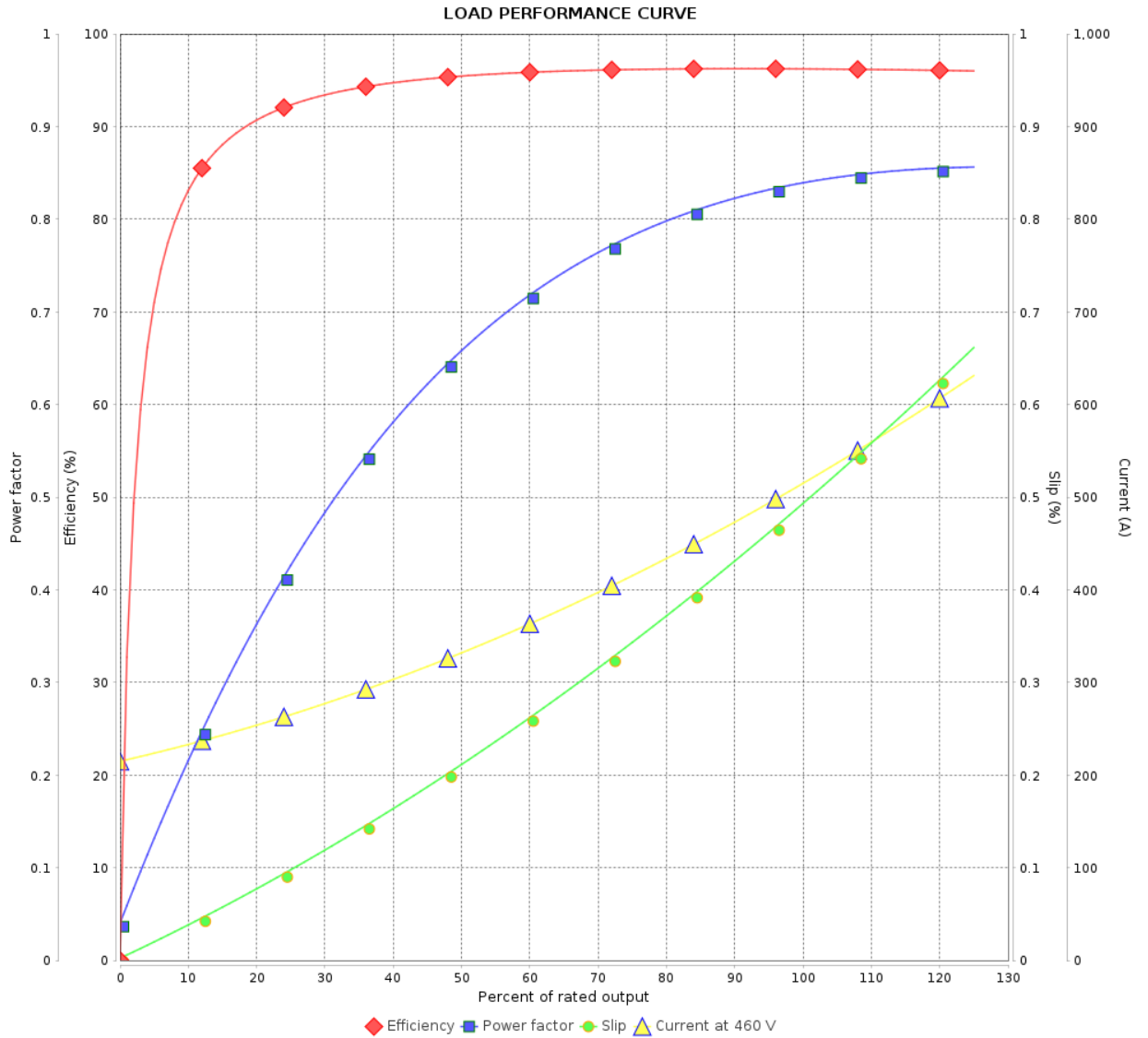
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13645596



Performance : 460 V 60 Hz 4P

Rated current : 513 A
 LRC : 8.9
 Rated torque : 182 kgfm
 Locked rotor torque : 320 %
 Breakdown torque : 330 %
 Rated speed : 1791 rpm

Moment of inertia (J) : 6.40 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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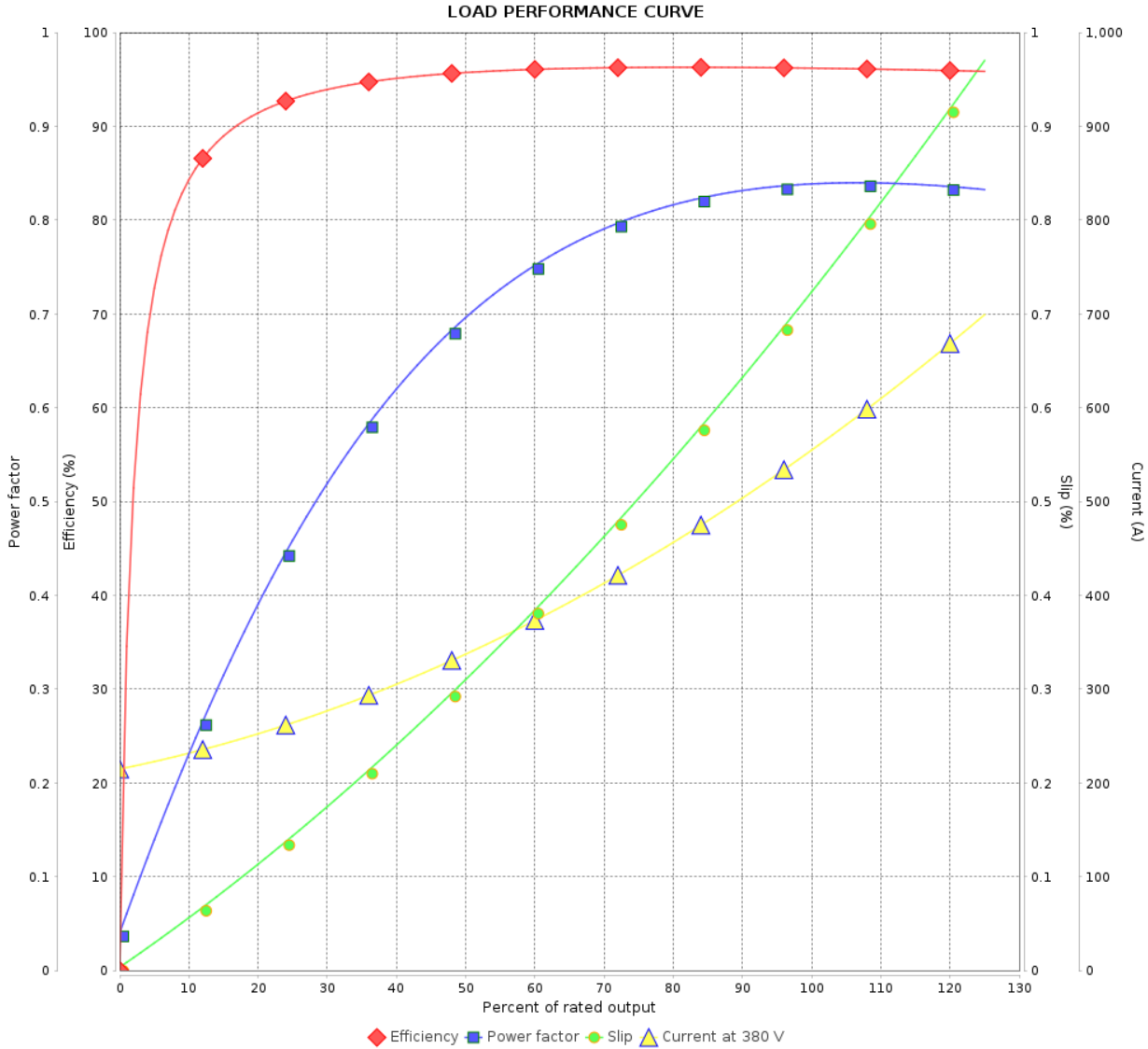
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13645596



Performance : 380 V 50 Hz 4P IE3

Rated current : 564 A
 LRC : 7.9
 Rated torque : 195 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 280 %
 Rated speed : 1489 rpm

Moment of inertia (J) : 6.40 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

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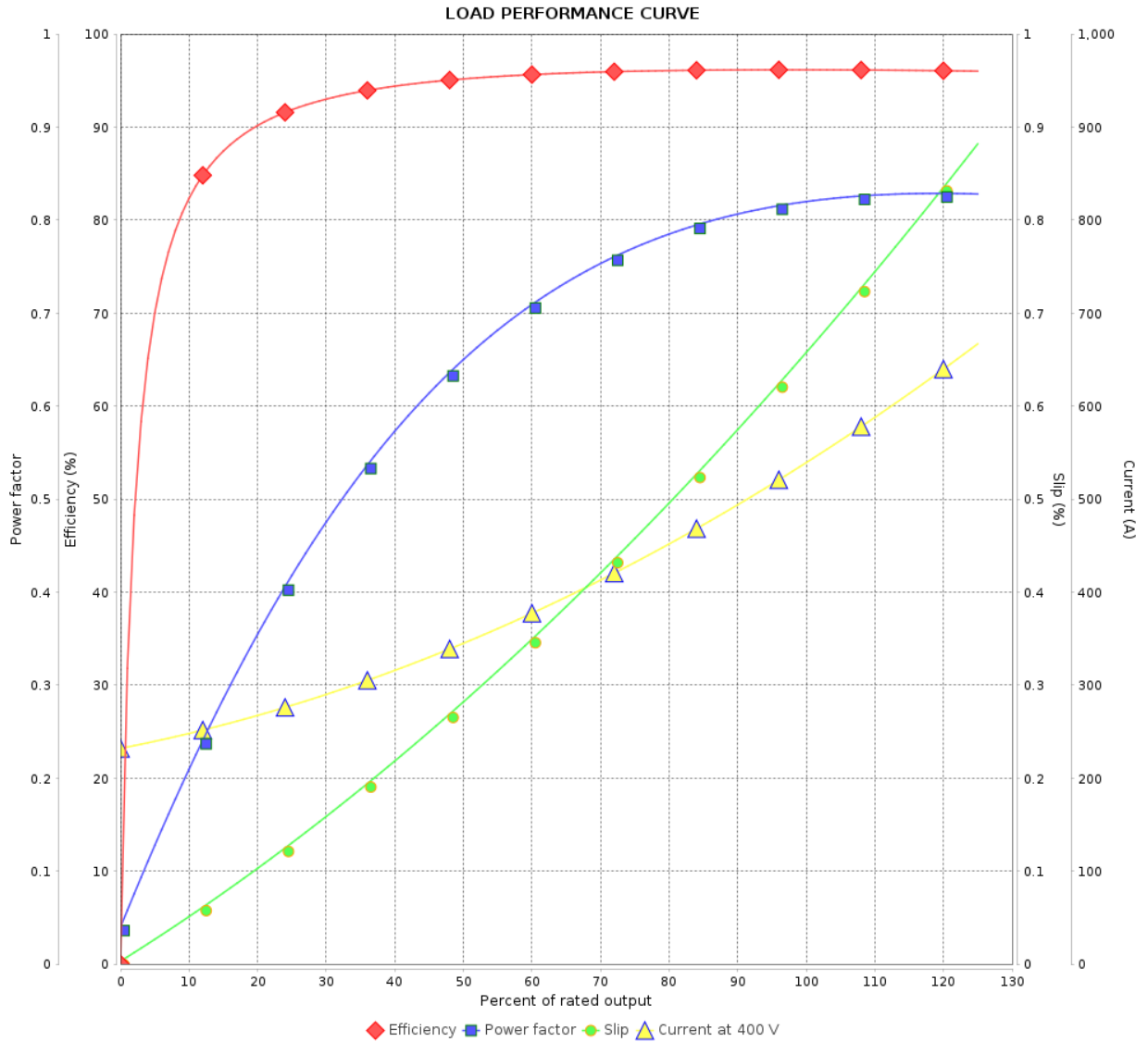
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13645596



Performance : 400 V 50 Hz 4P IE3

Rated current : 549 A
 LRC : 8.6
 Rated torque : 195 kgfm
 Locked rotor torque : 300 %
 Breakdown torque : 320 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 6.40 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

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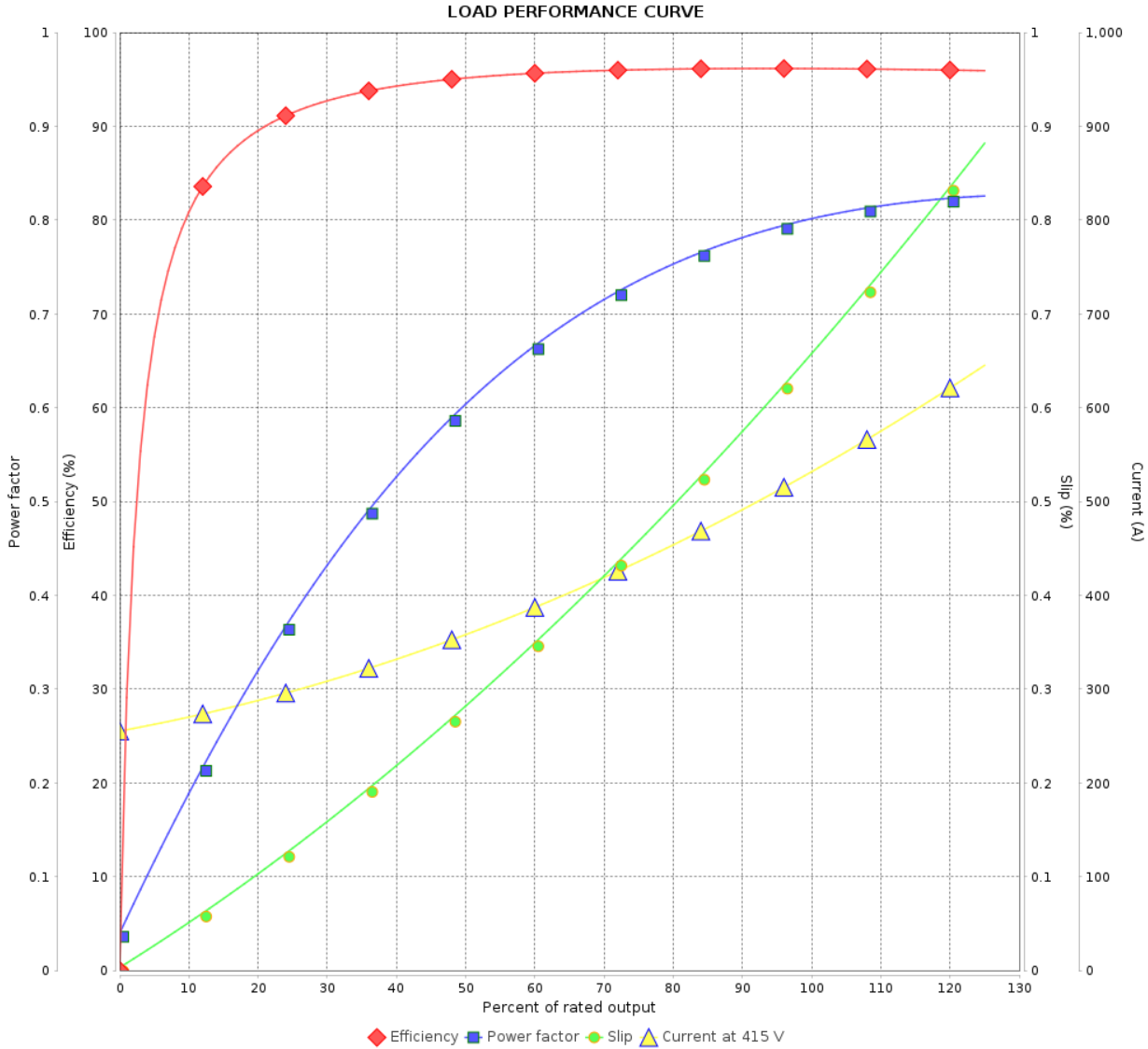
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13645596



Performance : 415 V 50 Hz 4P IE3

Rated current	: 542 A	Moment of inertia (J)	: 6.40 kgm ²
LRC	: 9.2	Duty cycle	: Cont.(S1)
Rated torque	: 195 kgfm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 105 K
Rated speed	: 1490 rpm	Design	: A

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