

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11355771

Frame	: 444/5T	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	: 817 kg
Protection degree	: IP55	Moment of inertia (J)	: 4.37 kgm ²
Design	: B		

Output [HP]	125	100	100	100	125	125	125
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	290/145	147	141	138	174	169	162
L. R. Amperes [A]	1856/928	940	1003	1004	887	965	1006
LRC [A]	6.4x(Code G)	6.4x(Code G)	7.1x(Code H)	7.3x(Code J)	5.1x(Code E)	5.7x(Code F)	6.2x(Code G)
No load current [A]	116/58.0	57.0	62.0	65.0	58.0	62.0	65.0
Rated speed [RPM]	1188	988	990	990	984	986	987
Slip [%]	1.00	1.20	1.00	1.00	1.60	1.40	1.30
Rated torque [kgfm]	76.4	73.5	73.3	73.3	92.2	92.0	91.9
Locked rotor torque [%]	210	200	229	250	160	180	200
Breakdown torque [%]	240	240	260	290	190	210	229
Service factor	1.15	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	34s (cold) 19s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level ²	69.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%						
	50%	95.0	94.8	94.7	94.7	95.0	95.0
	75%	95.4	94.9	94.9	95.1	94.5	95.0
	100%	95.0	94.6	94.6	94.8	93.6	94.1
Power Factor	25%						
	50%	0.70	0.68	0.65	0.62	0.73	0.69
	75%	0.79	0.78	0.76	0.74	0.81	0.78
	100%	0.82	0.82	0.81	0.80	0.84	0.82

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	5.2	5.6	5.6	5.4	6.7	6.7	6.1
	P2 (0,5;1,0)	4.1	4.5	4.5	4.3	5.4	5.4	4.9
	P3 (0,25;1,0)	3.8	4.1	4.1	4.0	5.0	5.0	4.5
	P4 (0,9;0,5)	2.7	2.9	2.9	2.8	3.4	3.4	3.2
	P5 (0,5;0,5)	1.8	1.9	1.9	1.8	2.3	2.3	2.1
	P6 (0,5;0,25)	1.2	1.3	1.3	1.3	1.6	1.6	1.5
	P7 (0,25;0,25)	0.8	0.9	0.9	0.9	1.1	1.1	1.0

Bearing type	: 6319 C3	Non drive end	6316 C3	Foundation loads	
Sealing	: WSeal	WSeal		Max. traction	: 1441 kgf
Lubrication interval	: 13000 h	16000 h		Max. compression	: 2257 kgf
Lubricant amount	: 45 g	34 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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	21/10/2024			

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Notes
USABLE @208V 316A SF 1.00 SFA 316A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	21/10/2024				

LOAD PERFORMANCE CURVE

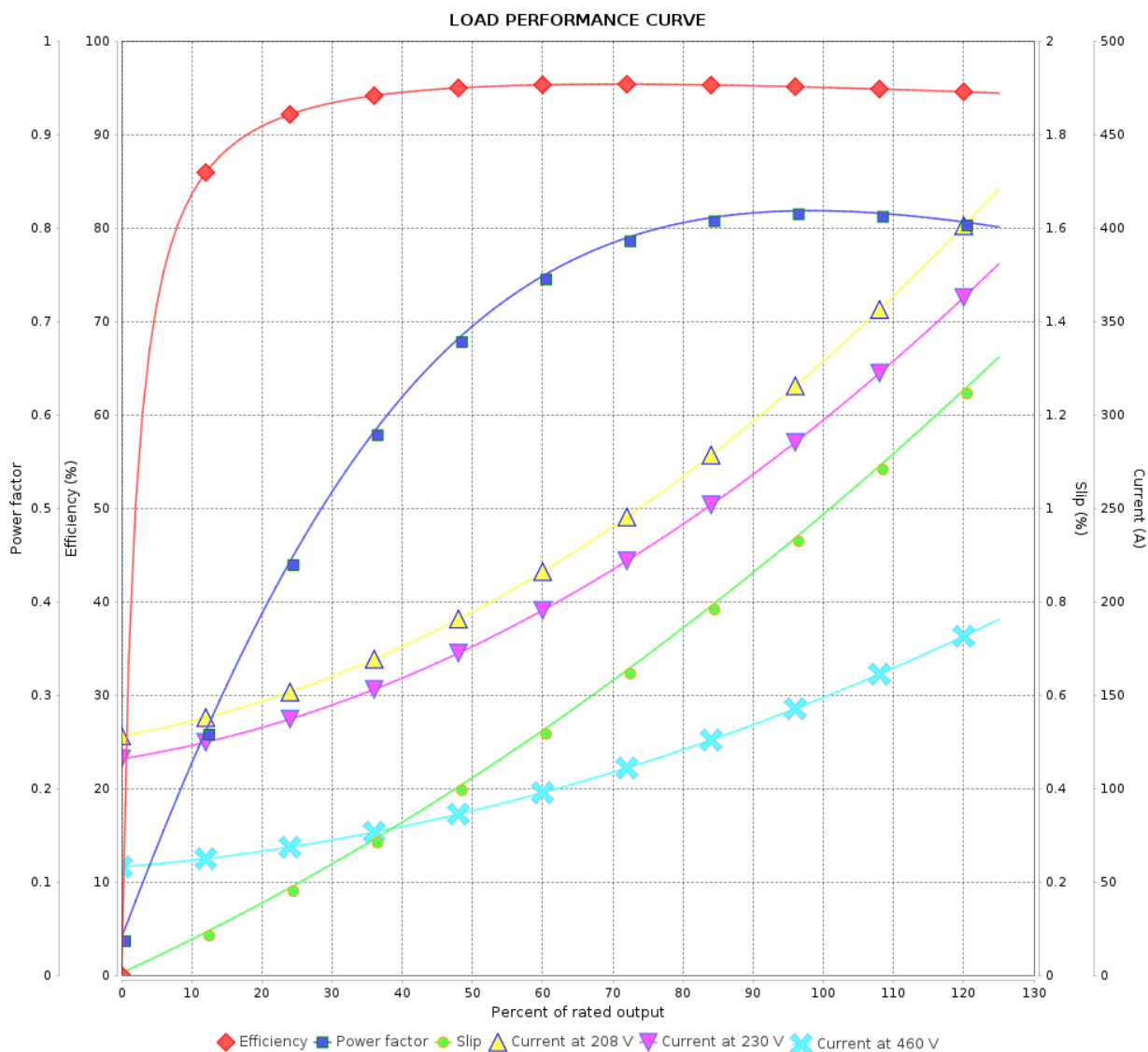
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 230/460 V 60 Hz 6P

Rated current : 290/145 A
LRC : 6.4
Rated torque : 76.4 kgfm
Locked rotor torque : 210 %
Breakdown torque : 240 %
Rated speed : 1188 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 3 / 9Revision			
Checked by					
Date	21/10/2024				

LOAD PERFORMANCE CURVE

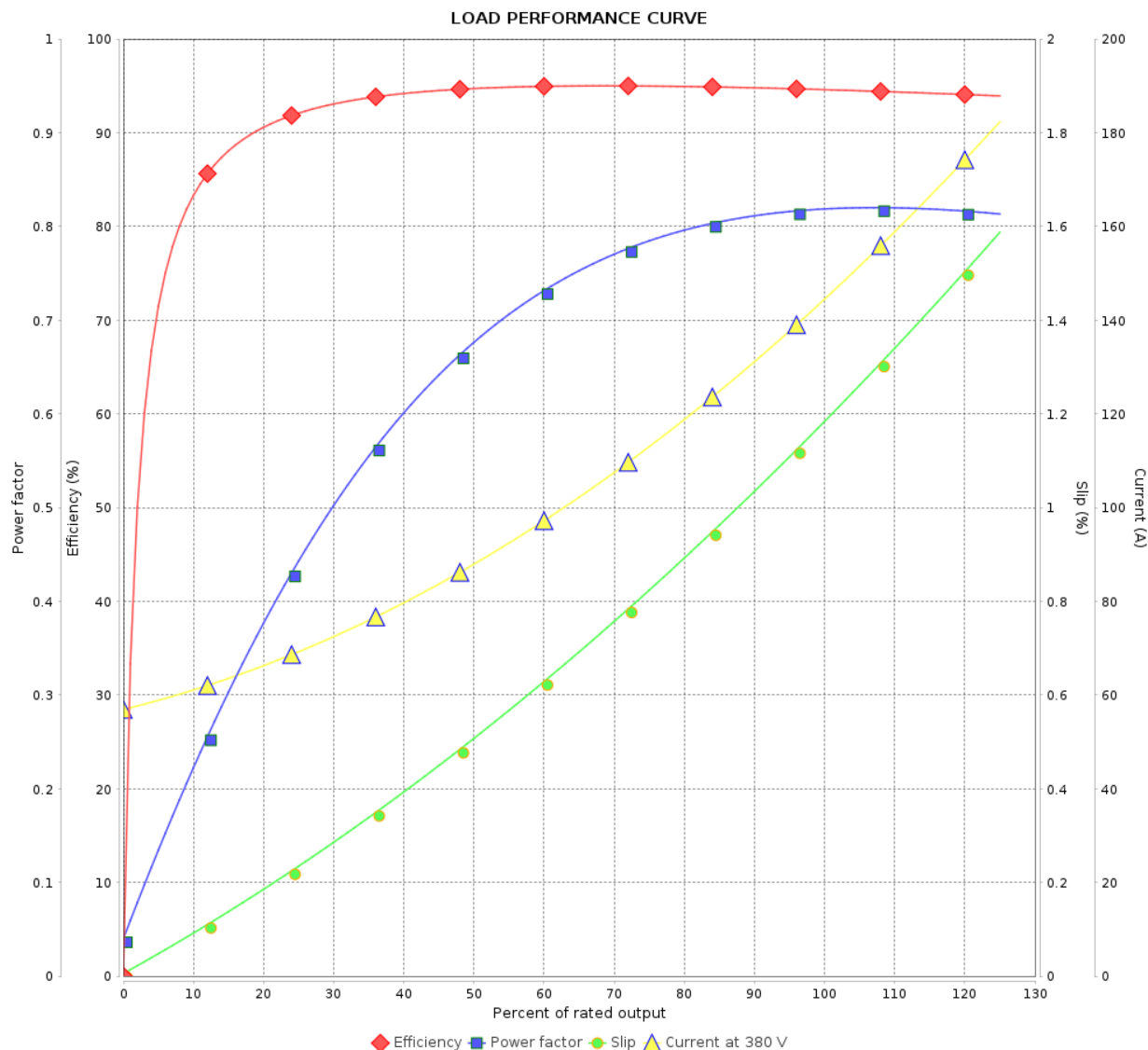
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 380 V 50 Hz 6P IE3

Rated current : 147 A
LRC : 6.4
Rated torque : 73.5 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 988 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 9	
Date					

LOAD PERFORMANCE CURVE

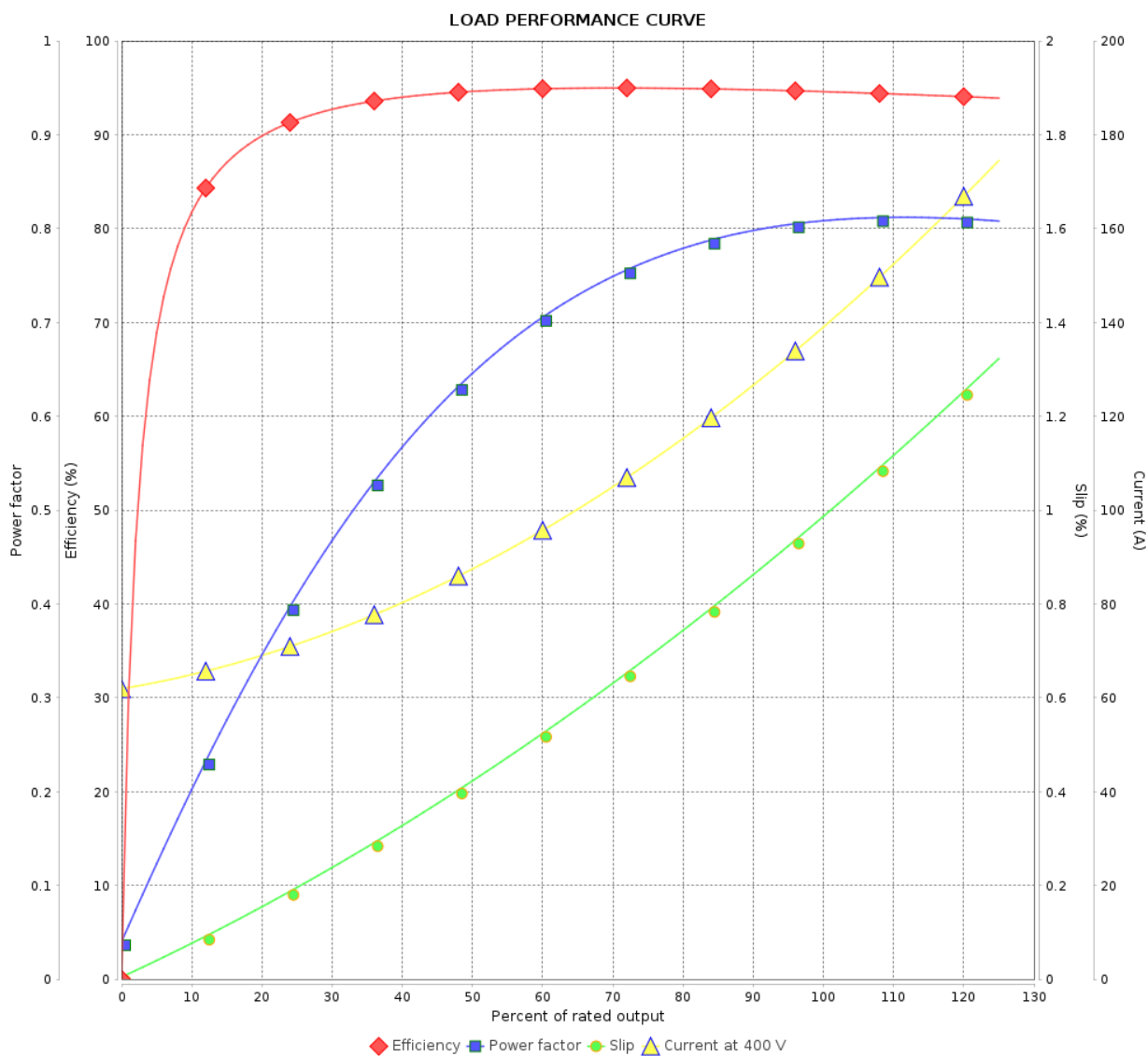
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 400 V 50 Hz 6P IE3

Rated current : 141 A
LRC : 7.1
Rated torque : 73.3 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 990 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9Revision		
Checked by				
Date	21/10/2024			

LOAD PERFORMANCE CURVE

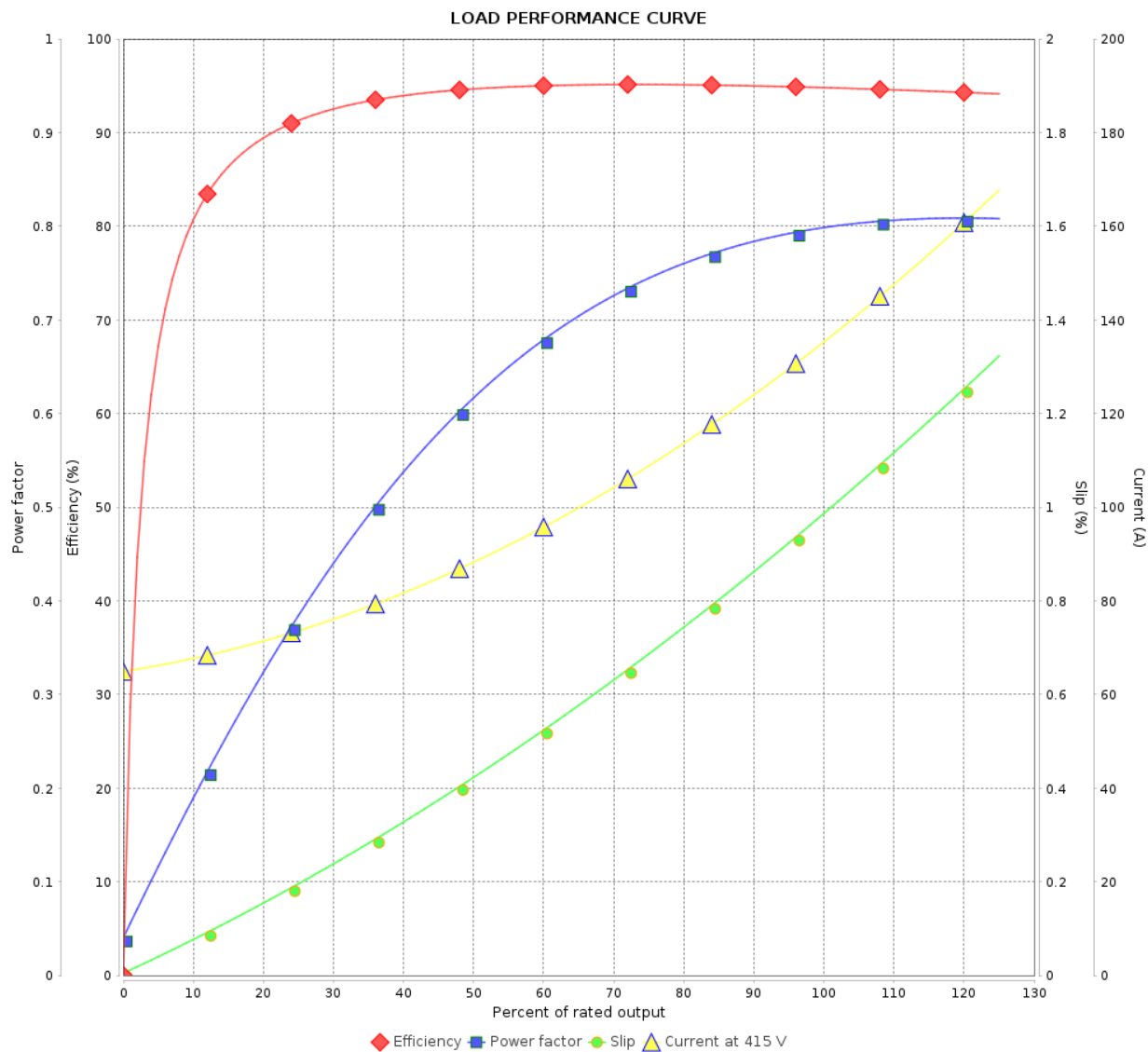
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 415 V 50 Hz 6P IE3

Rated current : 138 A
LRC : 7.3
Rated torque : 73.3 kgfm
Locked rotor torque : 250 %
Breakdown torque : 290 %
Rated speed : 990 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 9	
Date					

LOAD PERFORMANCE CURVE

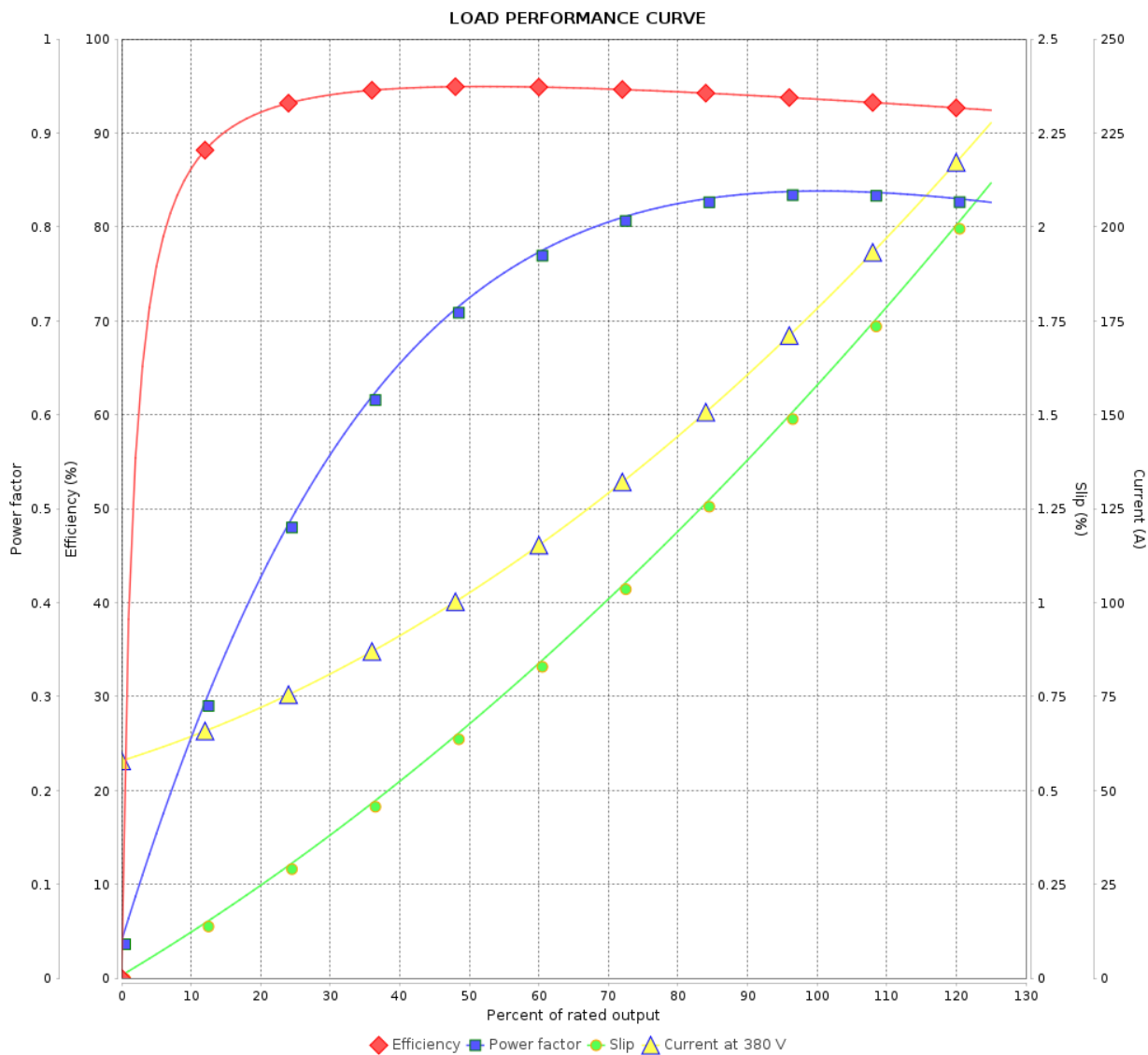
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 380 V 50 Hz 6P IE1

Rated current : 174 A
LRC : 5.1
Rated torque : 92.2 kgfm
Locked rotor torque : 160 %
Breakdown torque : 190 %
Rated speed : 984 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 9Revision		
Checked by				
Date	21/10/2024			

LOAD PERFORMANCE CURVE

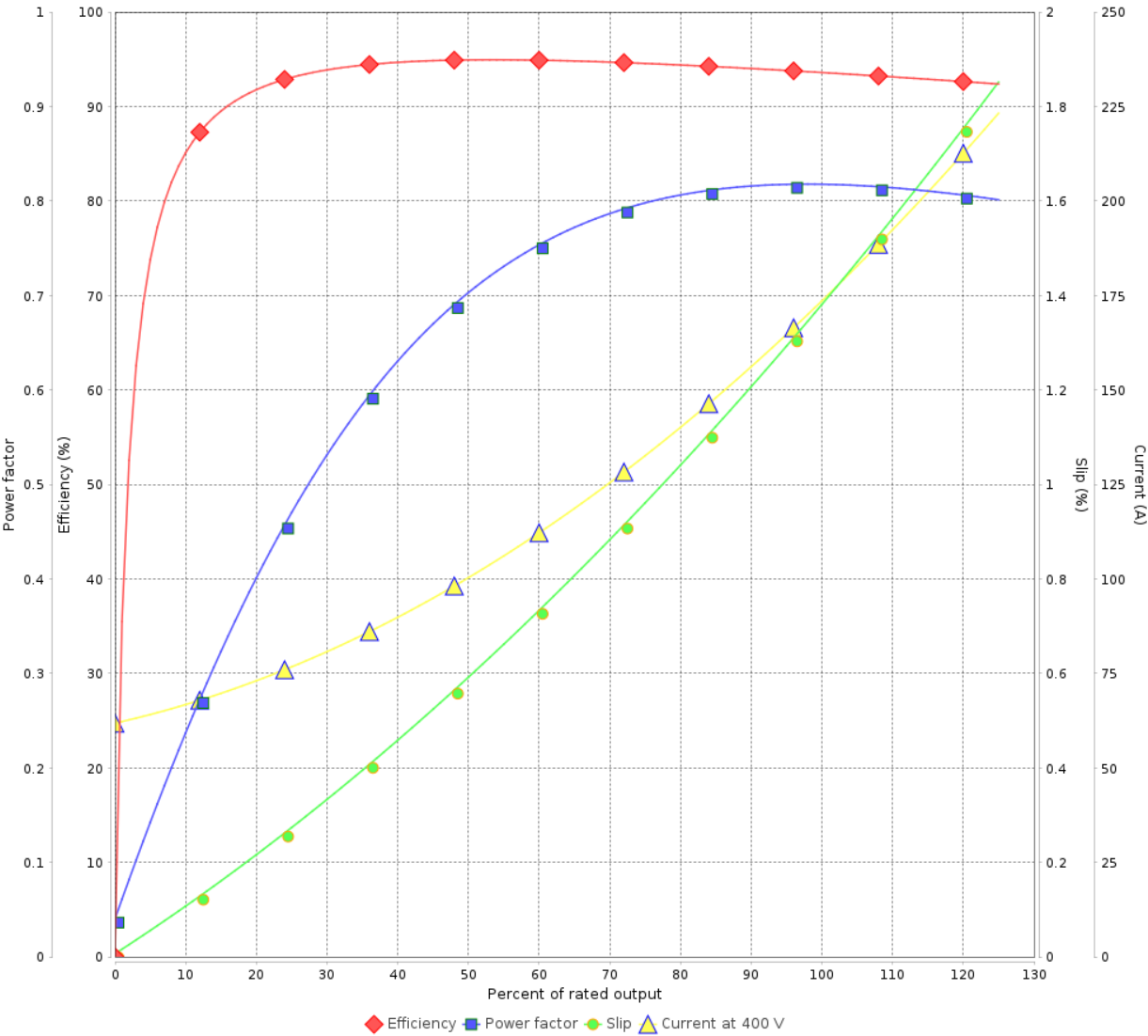
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11355771

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE1			
Rated current	: 169 A	Moment of inertia (J)	: 4.37 kgm ²
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 92.0 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 986 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 8 / 9	Revision
Checked by					
Date	21/10/2024				

LOAD PERFORMANCE CURVE

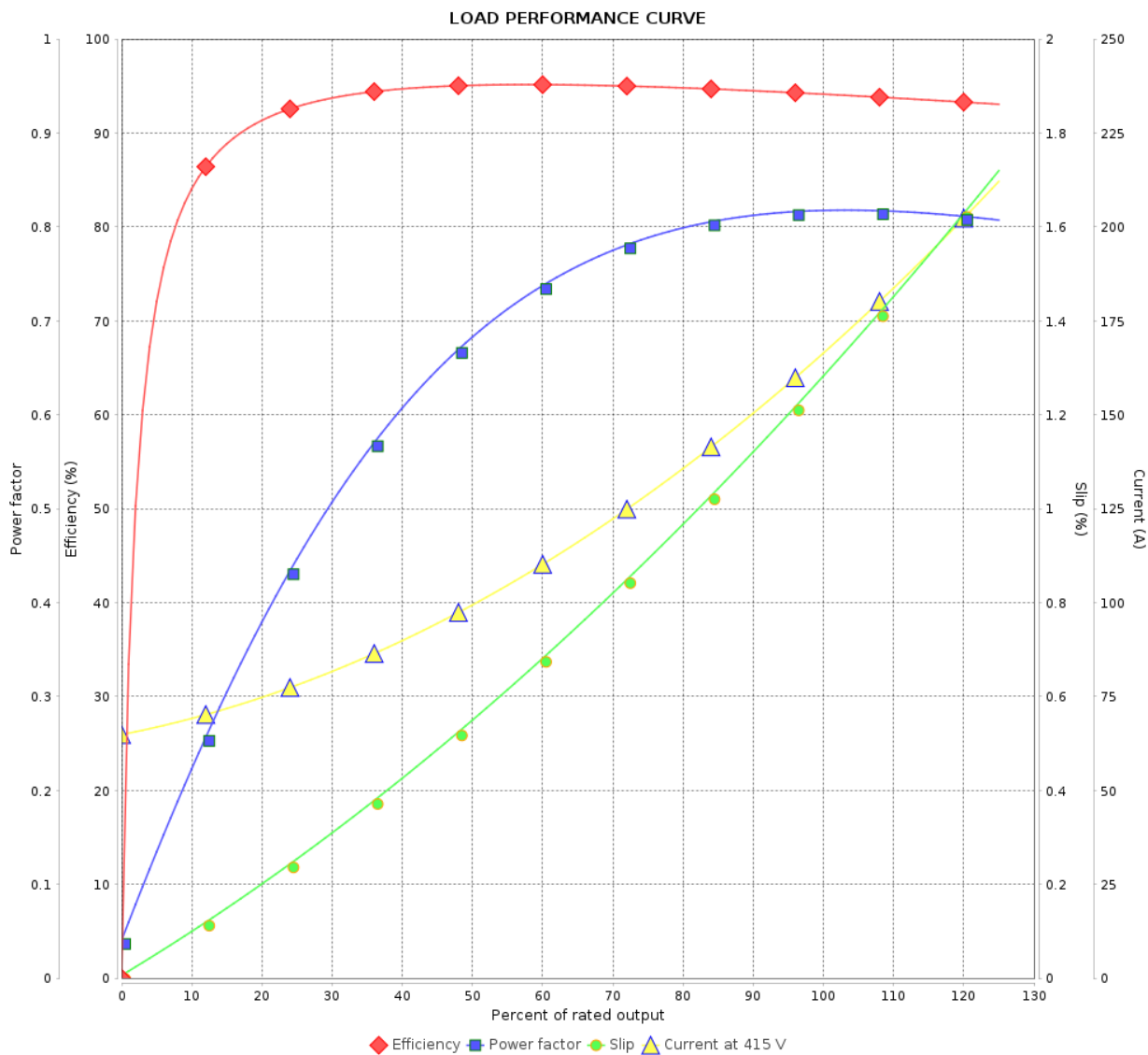
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355771



Performance : 415 V 50 Hz 6P IE2

Rated current : 162 A
LRC : 6.2
Rated torque : 91.9 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 987 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9Revision		
Checked by				
Date	21/10/2024			