

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase
Product code : 11441355

Frame : 182/4TC	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 : 45.6 kg
Protection degree : IP55	Moment of inertia (J) : 0.0169 kgm ²
Design : B	

Output [HP]	5	4	4	4	5	5	5
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	13.0/6.49	6.42	6.21	6.23	7.74	7.44	7.35
L. R. Amperes [A]	97.4/48.7	44.9	47.8	51.1	44.9	47.6	50.7
LRC [A]	7.5x(Code J)	7.0x(Code J)	7.7x(Code K)	8.2x(Code L)	5.8x(Code G)	6.4x(Code H)	6.9x(Code J)
No load current [A]	5.80/2.90	2.80	3.10	3.30	2.80	3.10	3.30
Rated speed [RPM]	1750	1455	1455	1460	1430	1440	1445
Slip [%]	2.78	3.00	3.00	2.67	4.67	4.00	3.67
Rated torque [kgfm]	2.07	2.00	2.00	1.99	2.54	2.52	2.51
Locked rotor torque [%]	229	229	260	290	185	210	229
Breakdown torque [%]	290	300	320	350	225	250	270
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	0.000			0.000		
	50%	88.5	87.5	86.7	86.5	88.5	87.5
	75%	89.5	88.2	88.2	88.2	87.5	88.5
	100%	89.5	87.7	88.2	88.2	86.5	87.5
Power Factor	25%	0.00			0.00		
	50%	0.62	0.61	0.57	0.53	0.69	0.65
	75%	0.74	0.75	0.71	0.67	0.80	0.77
	100%	0.80	0.81	0.79	0.76	0.84	0.80

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

Losses (%)	P1 (0,9;1,0)	11.2	13.4	12.8	12.8	14.9	13.6	13.6
	P2 (0,5;1,0)	9.4	11.2	10.7	10.7	12.5	11.4	11.4
	P3 (0,25;1,0)	8.7	10.3	9.9	9.9	11.5	10.5	10.5
	P4 (0,9;0,5)	5.3	6.4	6.1	6.1	7.1	6.5	6.5
	P5 (0,5;0,5)	3.7	4.4	4.2	4.2	4.9	4.4	4.4
	P6 (0,5;0,25)	2.4	2.9	2.7	2.7	3.2	2.9	2.9
	P7 (0,25;0,25)	1.7	2.1	2.0	2.0	2.3	2.1	2.1

Bearing type	: Drive end 6207 ZZ	Non drive end 6206 ZZ	Foundation loads
Sealing	: V'Ring	V'Ring	Max. traction : 119 kgf
Lubrication interval	: -	-	Max. compression : 165 kgf
Lubricant amount	: -	-	
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			Page	Revision
Date	25/04/2024		1 / 9	

DATA SHEET

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Notes
USABLE @208V 14.3A SF 1.15 SFA 16.4A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	25/04/2024		2 / 9	

LOAD PERFORMANCE CURVE

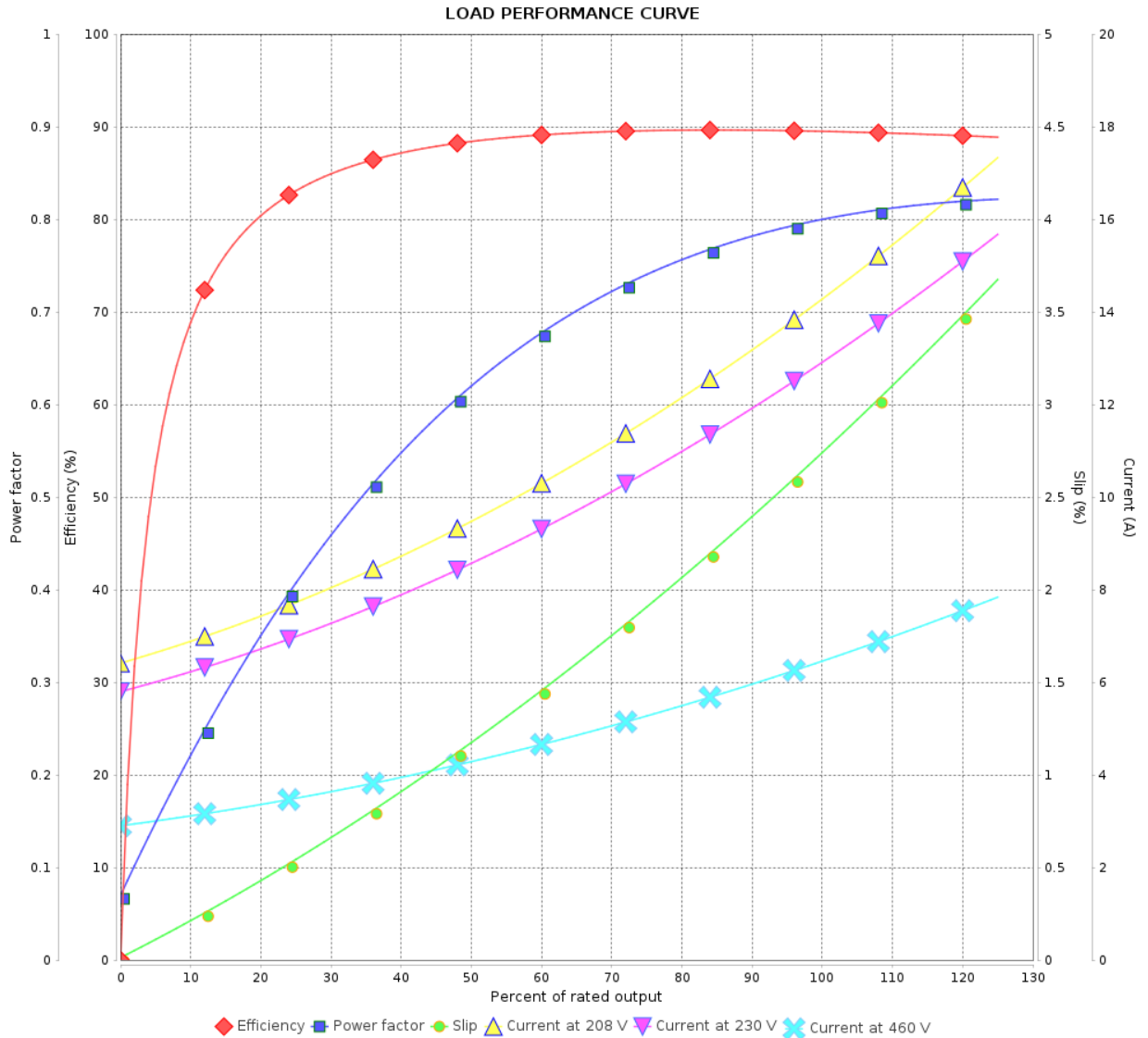
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A
 LRC : 7.5
 Rated torque : 2.07 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0169 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

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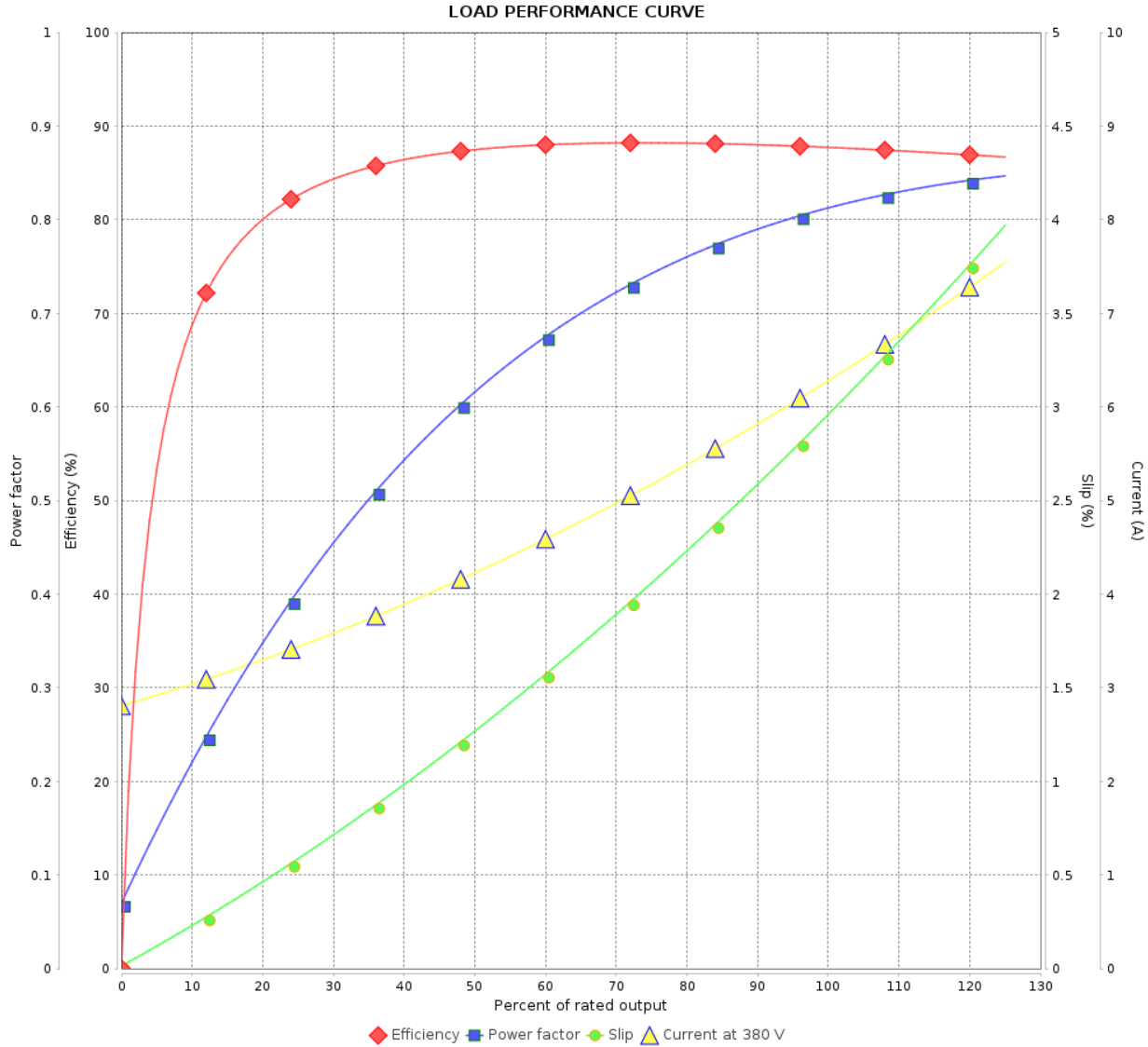
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 380 V 50 Hz 4P IE3

Rated current : 6.42 A
 LRC : 7.0
 Rated torque : 2.00 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 300 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0169 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	Revision
Checked by				
Date				

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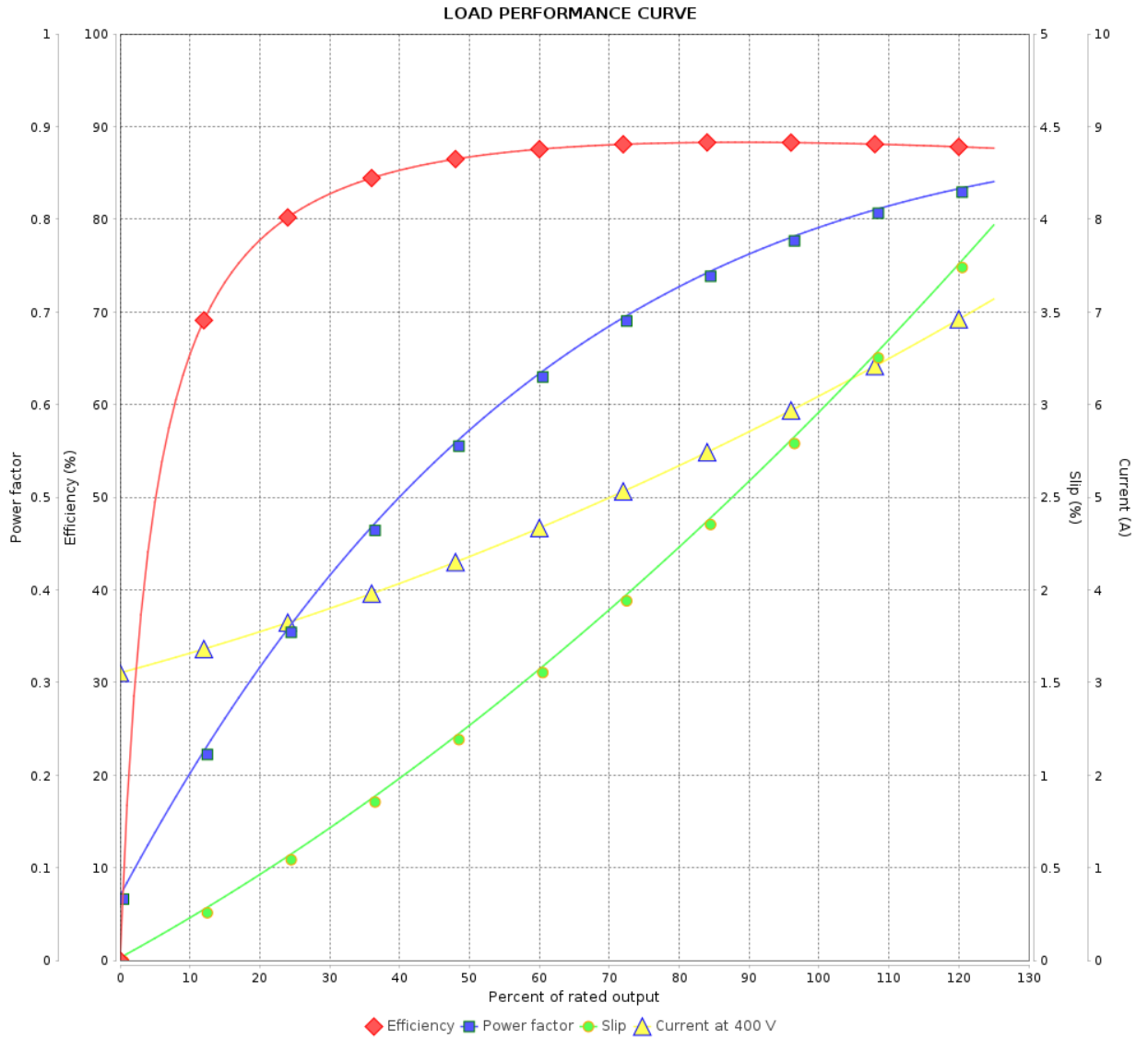
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 400 V 50 Hz 4P IE3

Rated current : 6.21 A
 LRC : 7.7
 Rated torque : 2.00 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 320 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0169 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	Revision
Checked by				
Date				

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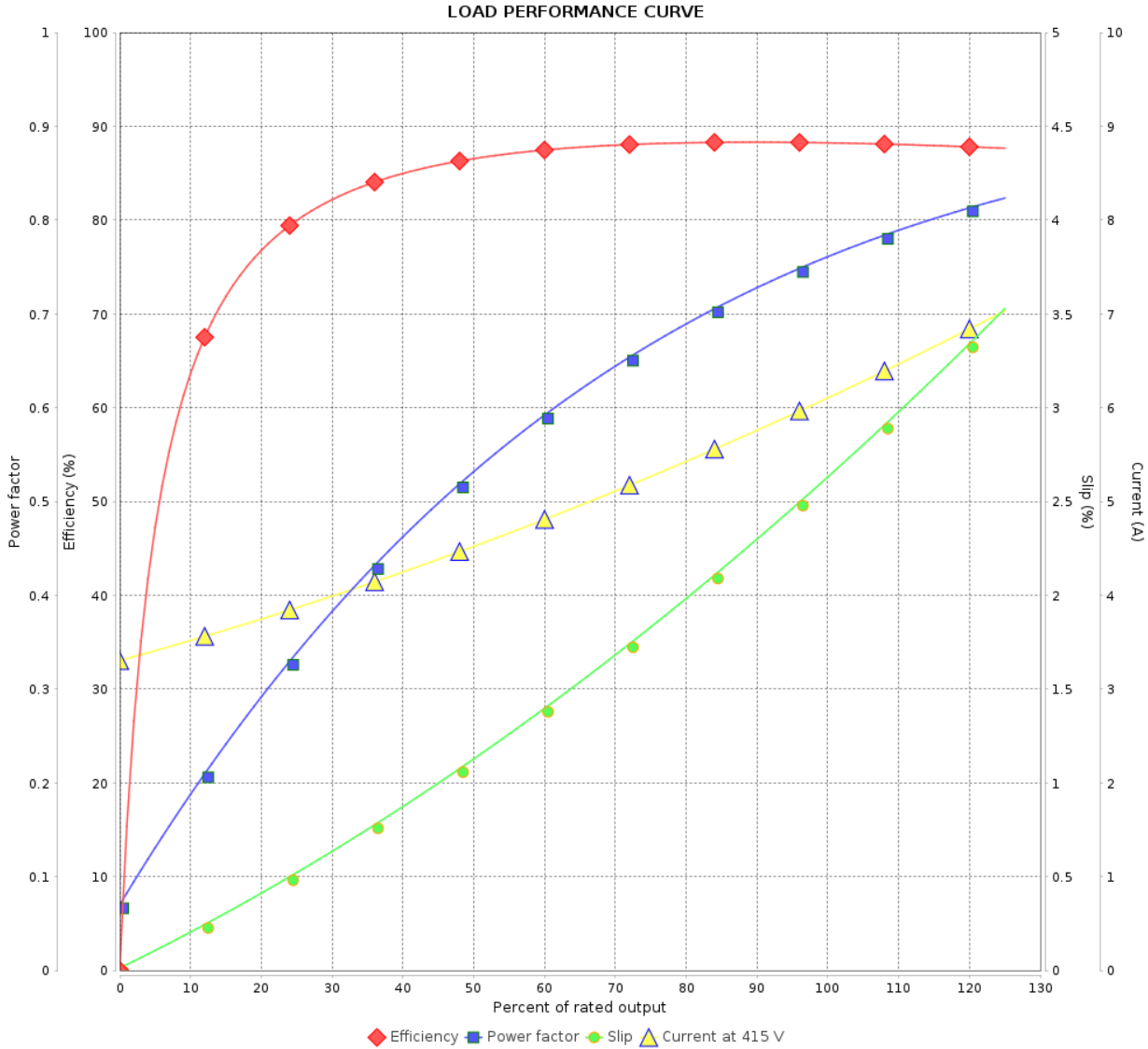
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 415 V 50 Hz 4P IE3

Rated current : 6.23 A
 LRC : 8.2
 Rated torque : 1.99 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0169 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 6 / 9	Revision
Checked by				
Date	25/04/2024			

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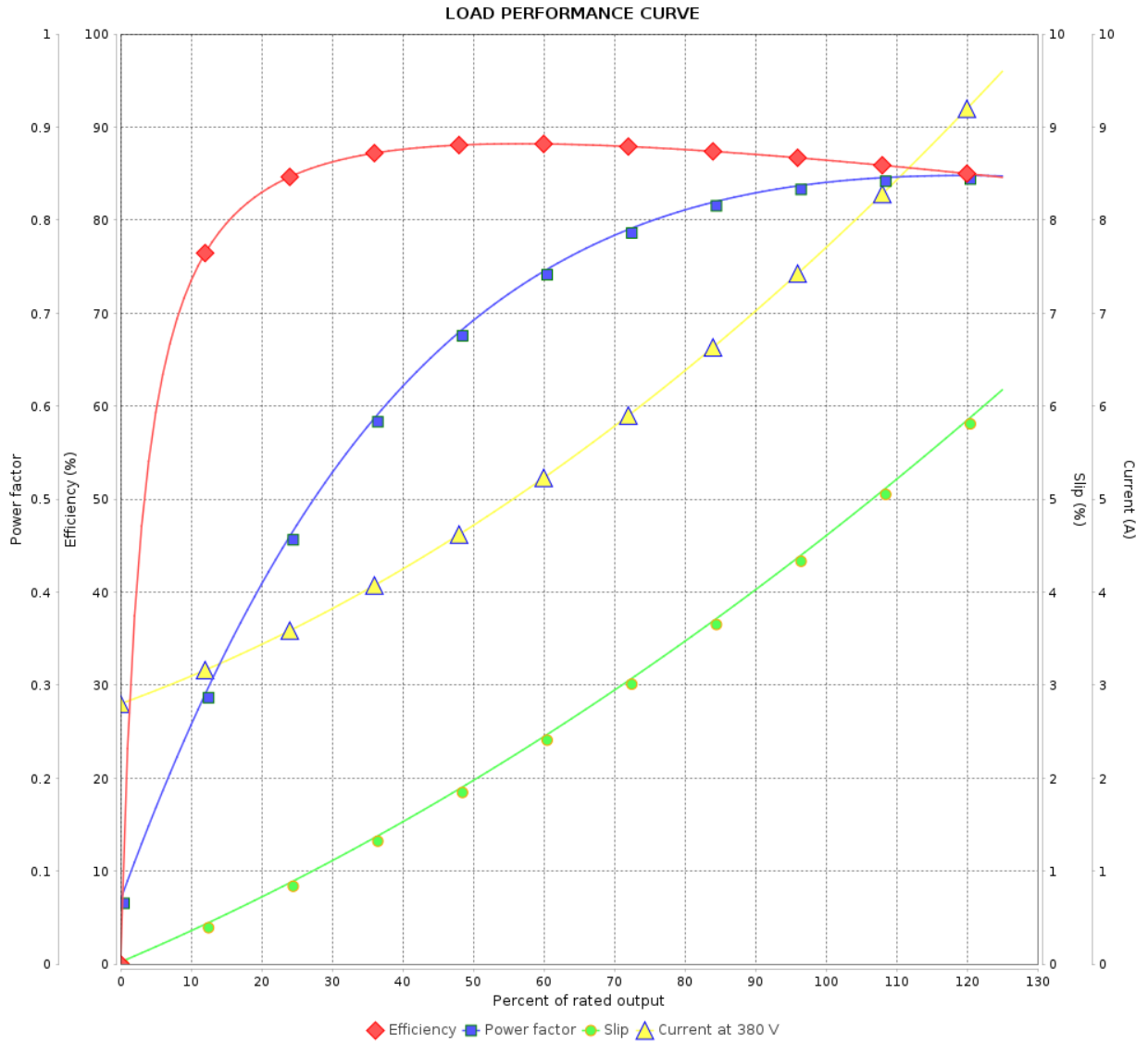
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 380 V 50 Hz 4P IE2

Rated current : 7.74 A
 LRC : 5.8
 Rated torque : 2.54 kgfm
 Locked rotor torque : 185 %
 Breakdown torque : 225 %
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0169 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	Revision
Checked by				
Date				

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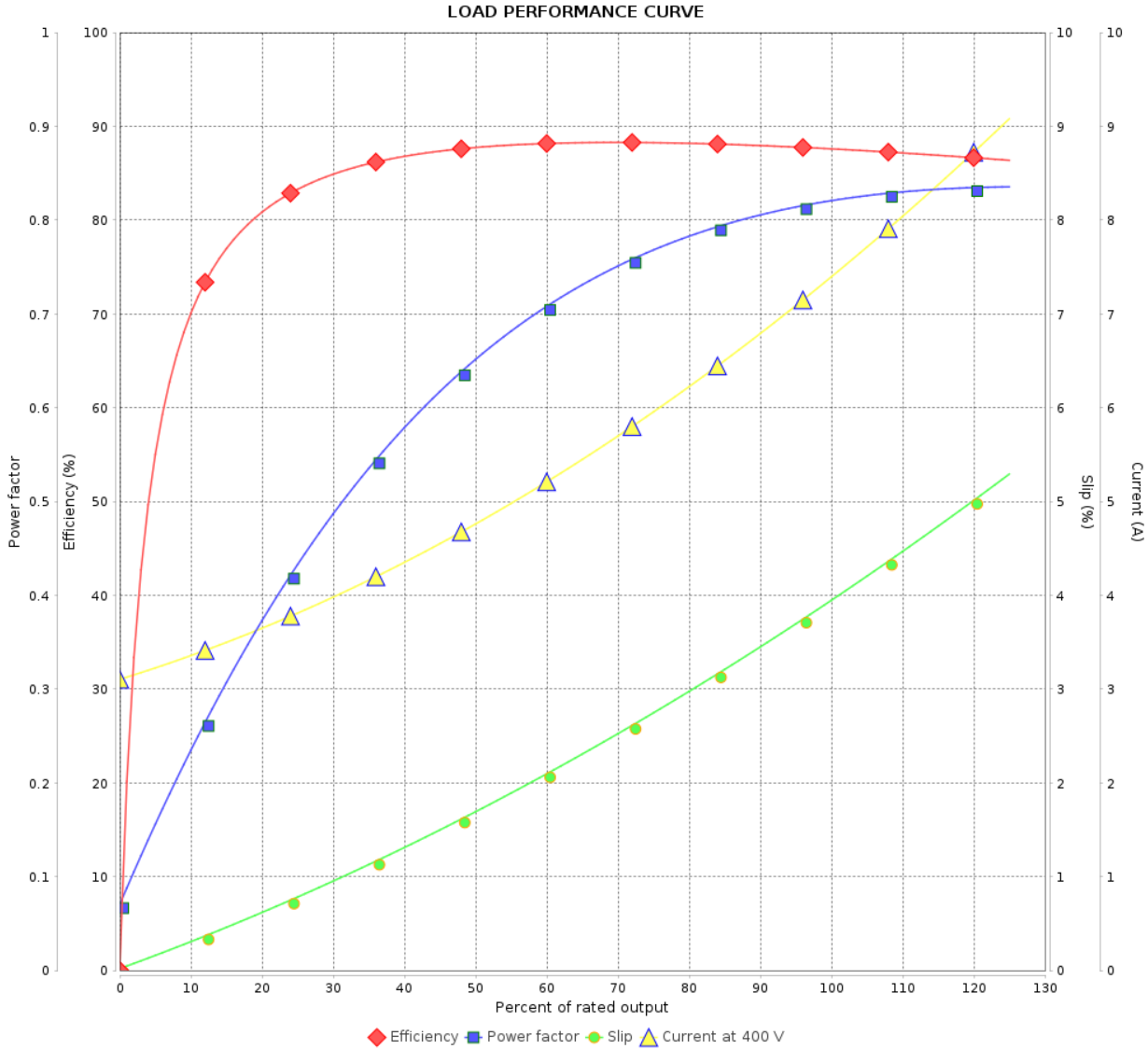
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 400 V 50 Hz 4P IE2

Rated current	: 7.44 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.52 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 9	Revision
Checked by				
Date	25/04/2024			

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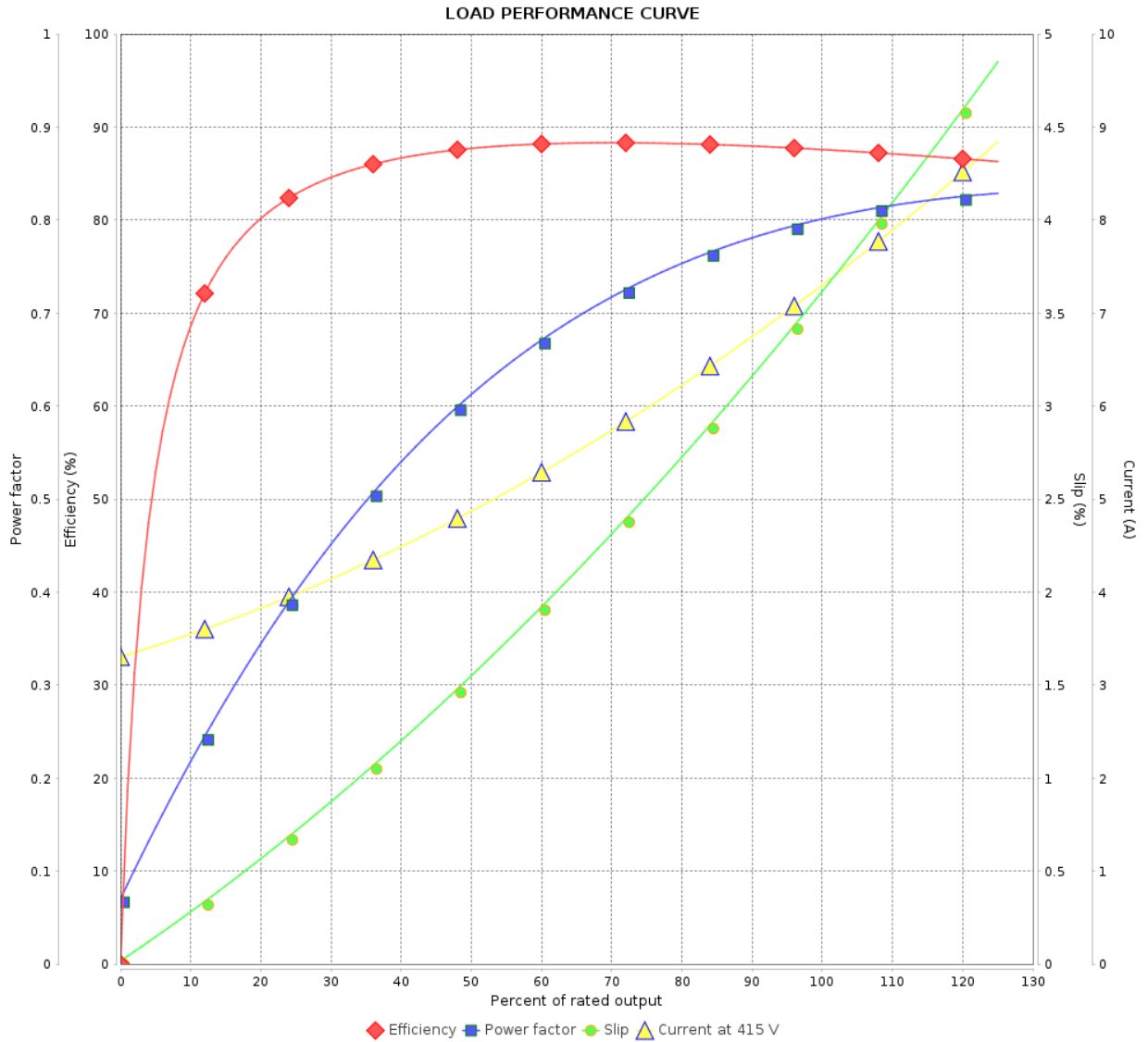
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441355



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.35 A
 LRC : 6.9
 Rated torque : 2.51 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 270 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0169 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	Revision
Checked by				
Date				