

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :								
Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase			Product code :			11431430		
Frame : 444/5T Insulation class : F Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP56 Design : B				Cooling method : IC411 - TEFC Mounting : F-1 Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ³ : 806 kg Moment of inertia (J) : 2.81 kgm ²				
Output [HP]	150	125	125	125	150	150	150	150
Poles	4	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415	415
Rated current [A]	170	167	160	156	205	194	189	189
L. R. Amperes [A]	1122	1169	1104	1170	1189	1125	1191	1191
LRC [A]	6.6x(Code G)	7.0x(Code G)	6.9x(Code G)	7.5x(Code H)	5.8x(Code F)	5.8x(Code F)	6.3x(Code G)	6.3x(Code G)
No load current [A]	56.0	56.0	58.0	62.0	56.0	58.0	62.0	62.0
Rated speed [RPM]	1784	1484	1485	1487	1475	1480	1480	1480
Slip [%]	0.89	1.07	1.00	0.87	1.67	1.33	1.33	1.33
Rated torque [kgfm]	61.0	61.1	61.1	61.0	73.8	73.6	73.6	73.6
Locked rotor torque [%]	200	190	220	229	160	180	190	190
Breakdown torque [%]	240	240	260	290	200	220	240	240
Service factor	1.15	1.00	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	105 K
Locked rotor time	39s (cold) 22s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	73.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)
Efficiency (%)	25%	95.3	95.2	95.2	94.7	95.6	95.7	95.3
	50%	95.4	95.1	95.1	94.8	95.4	95.4	95.4
	75%	95.8	95.5	95.5	95.5	95.4	95.4	95.4
	100%	95.8	95.3	95.3	95.5	95.0	95.0	95.4
Power Factor	25%	0.49	0.49	0.46	0.43	0.56	0.52	0.49
	50%	0.74	0.73	0.70	0.68	0.79	0.76	0.74
	75%	0.82	0.83	0.81	0.79	0.85	0.83	0.82
	100%	0.85	0.86	0.85	0.84	0.86	0.86	0.85
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	P2 (0,5;1,0)	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	P3 (0,25;1,0)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	P4 (0,9;0,5)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	P5 (0,5;0,5)	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	P6 (0,5;0,25)	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Bearing type		Drive end : 6319 C3	Non drive end : 6316 C3	Foundation loads				
Sealing		Inpro/Seal	Inpro/Seal	Max. traction : 1141 kgf				
Lubrication interval		8000 h	10000 h	Max. compression : 1947 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						Page	Revision	
Date	22/10/2023					1 / 9		

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	22/10/2023		2 / 9	

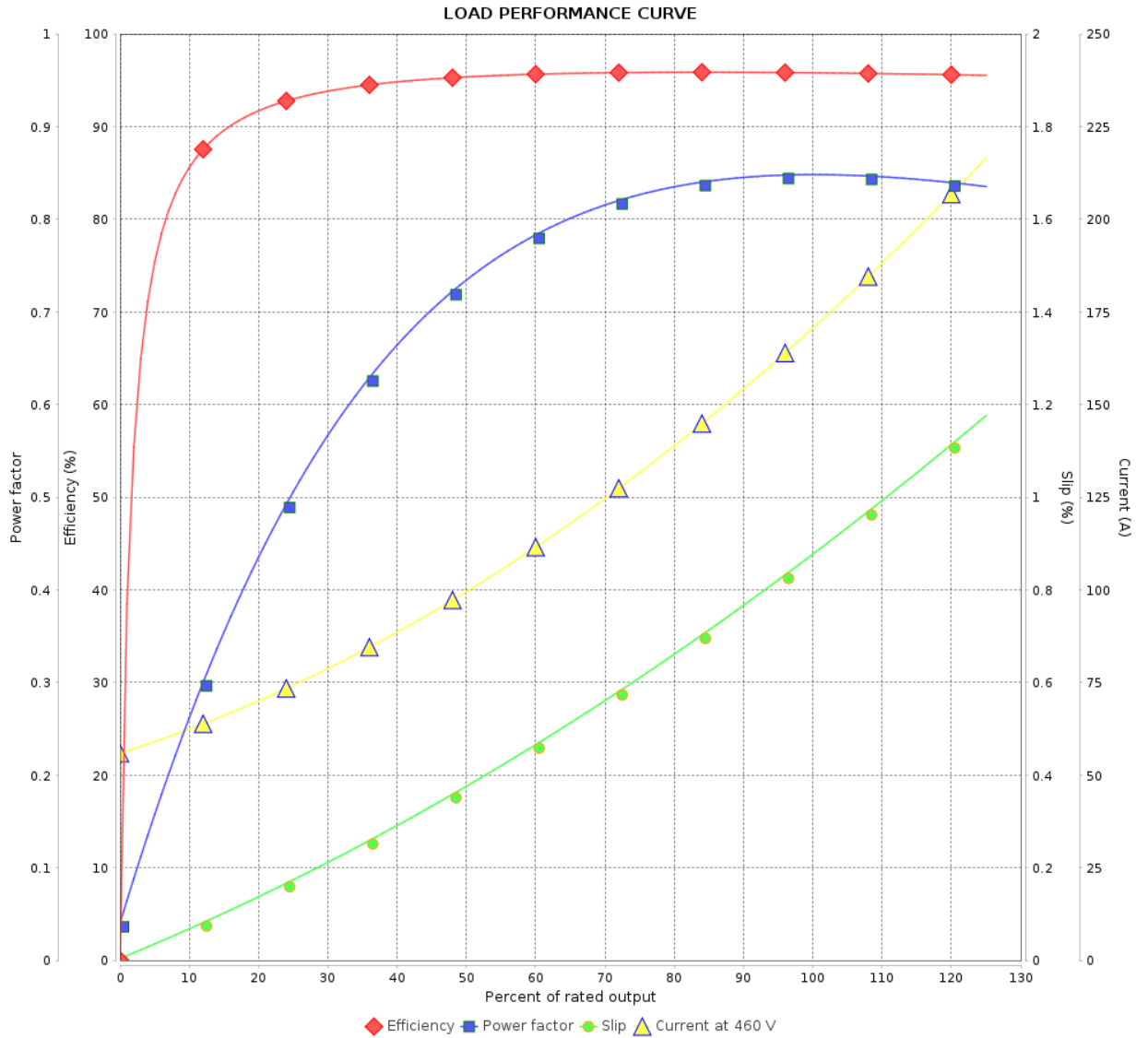
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 460 V 60 Hz 4P

Rated current : 170 A
 LRC : 6.6
 Rated torque : 61.0 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1784 rpm

Moment of inertia (J) : 2.81 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				

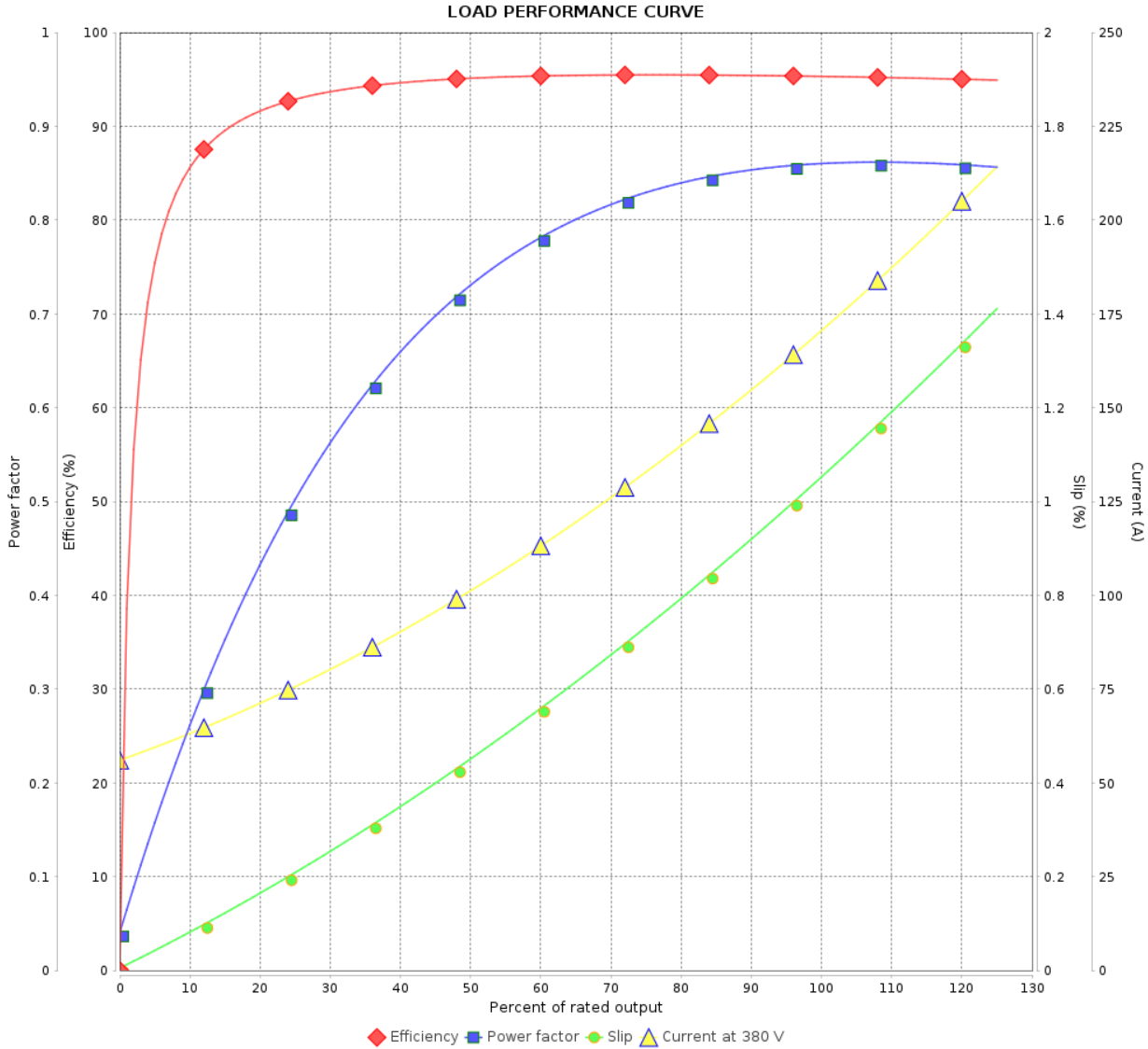
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 380 V 50 Hz 4P IE3

Rated current	: 167 A	Moment of inertia (J)	: 2.81 kgm ²
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 61.1 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 9	Revision
Checked by				
Date	22/10/2023			

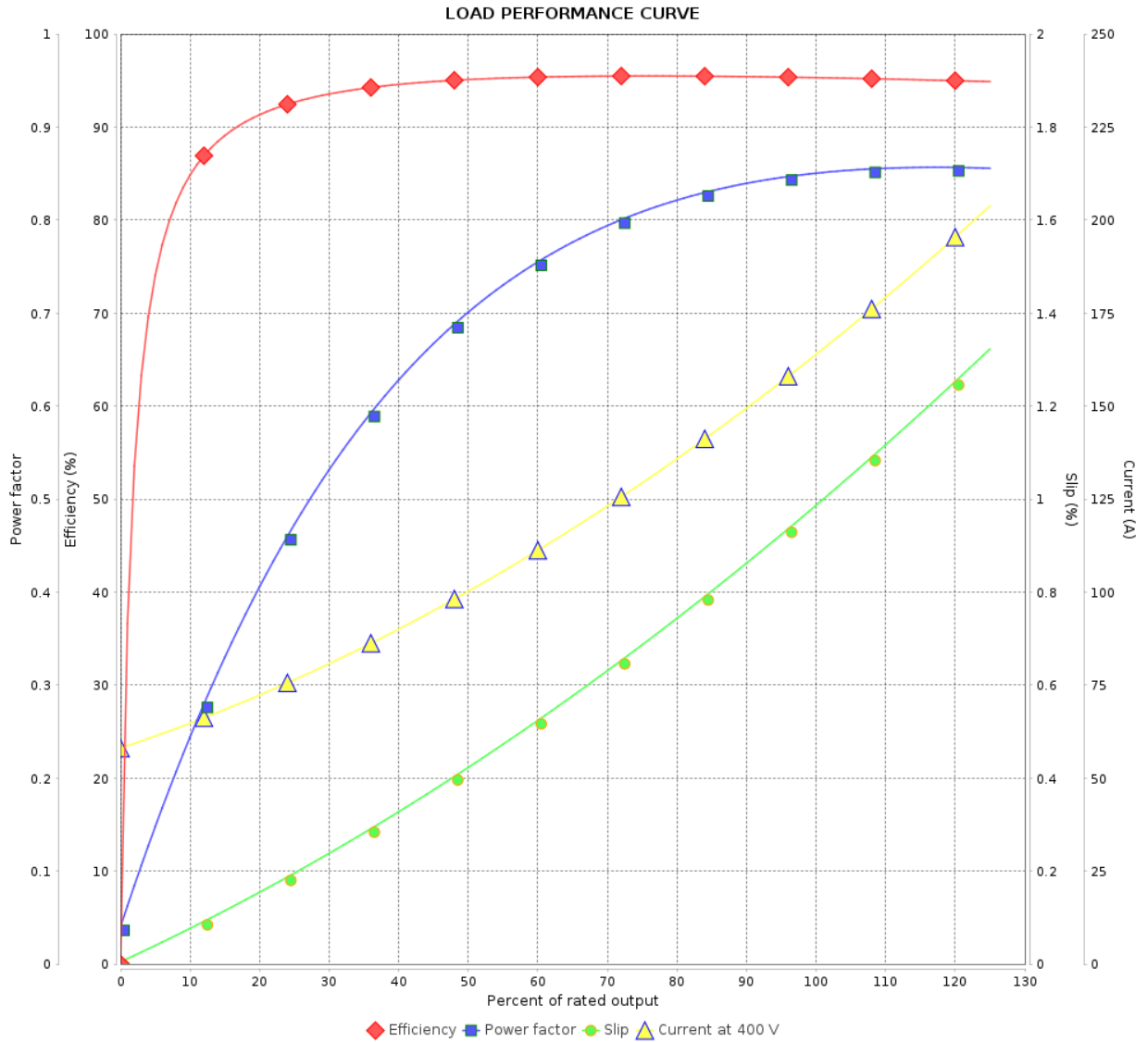
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 400 V 50 Hz 4P IE3

Rated current : 160 A	Moment of inertia (J) : 2.81 kgm ²
LRC : 6.9	Duty cycle : Cont.(S1)
Rated torque : 61.1 kgfm	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 1485 rpm	Design : B

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

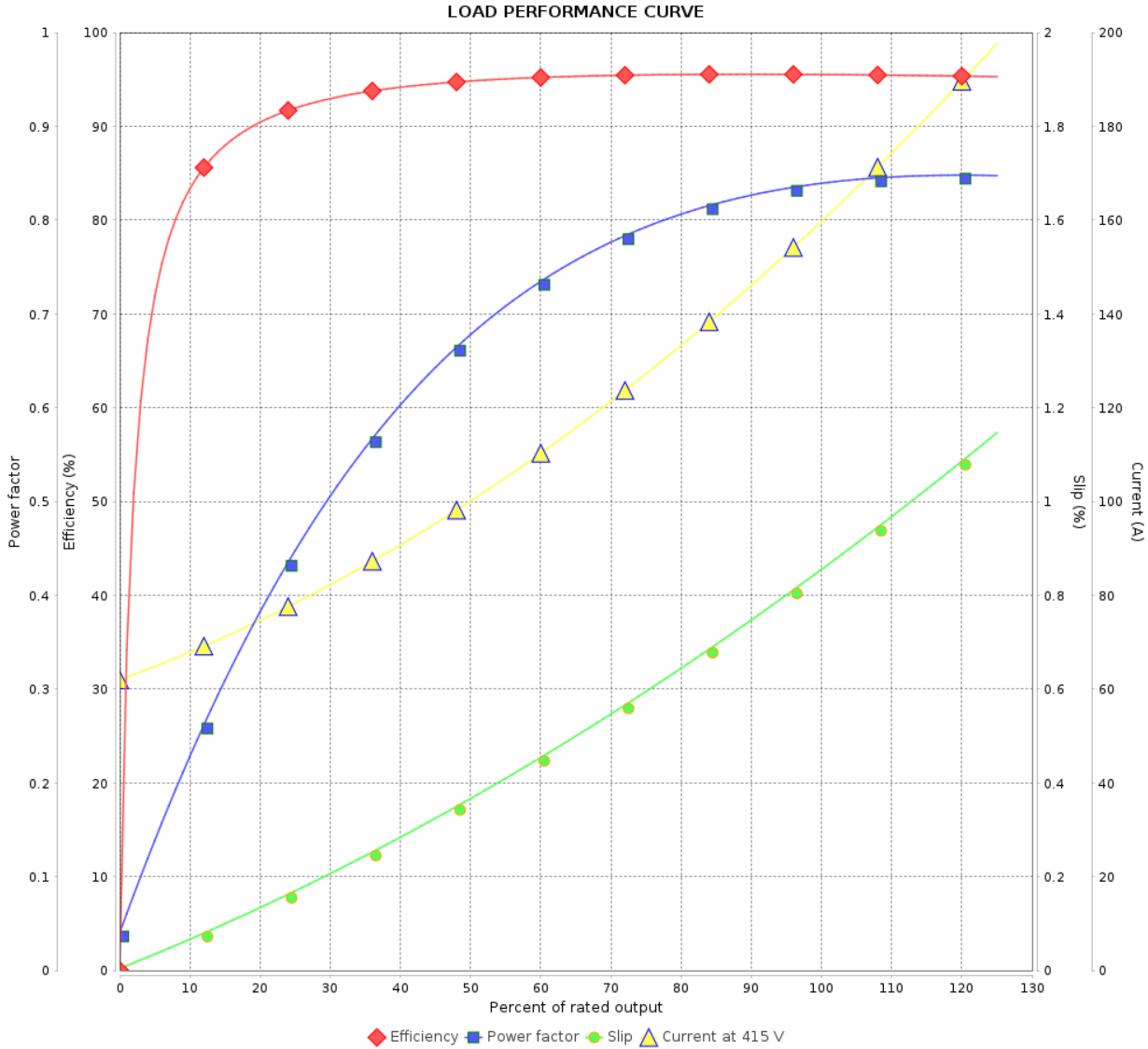
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 415 V 50 Hz 4P IE3

Rated current	: 156 A	Moment of inertia (J)	: 2.81 kgm ²
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 61.0 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 9	Revision
Checked by				
Date	22/10/2023			

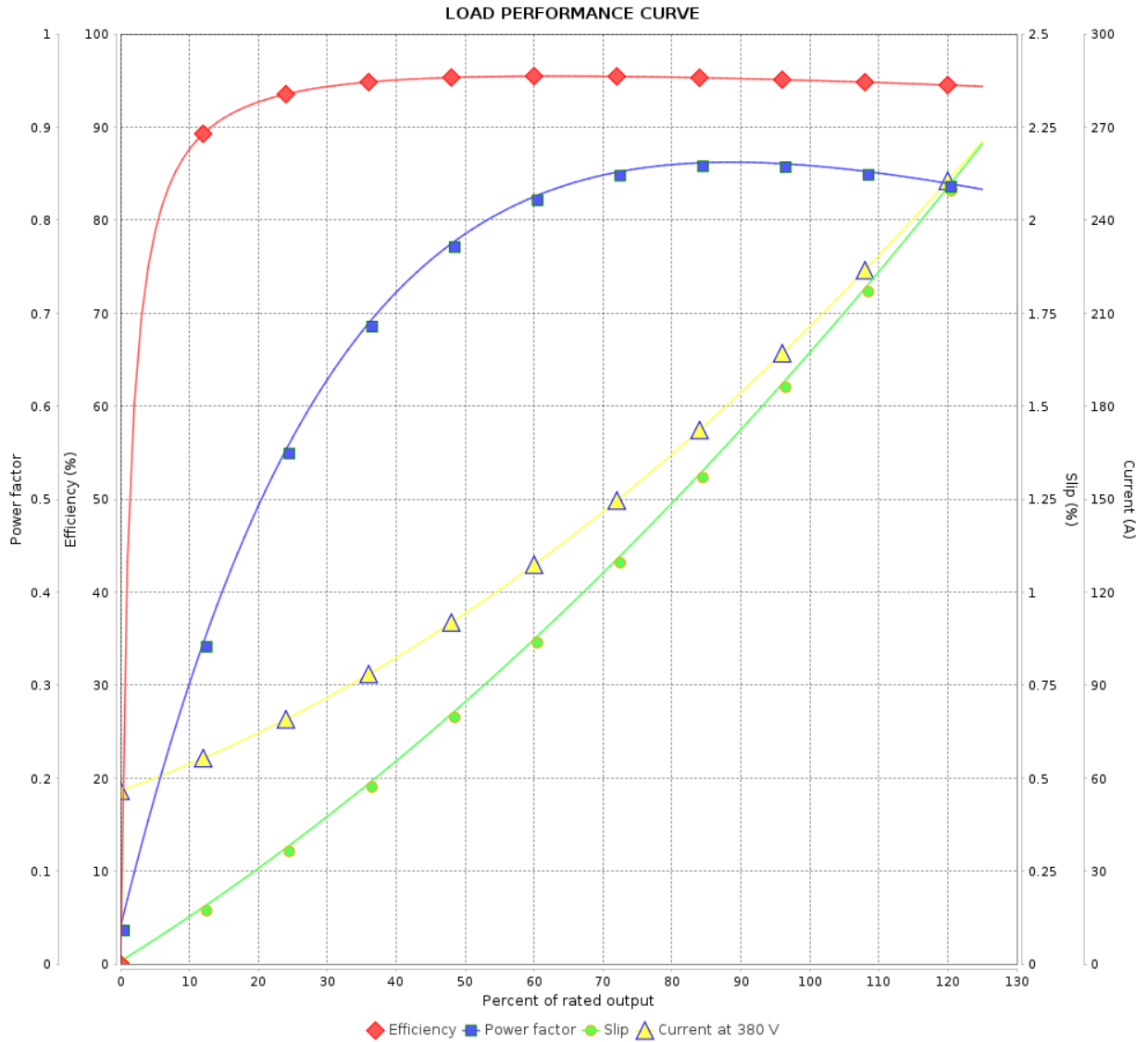
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 380 V 50 Hz 4P IE2

Rated current	: 205 A	Moment of inertia (J)	: 2.81 kgm ²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 73.8 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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

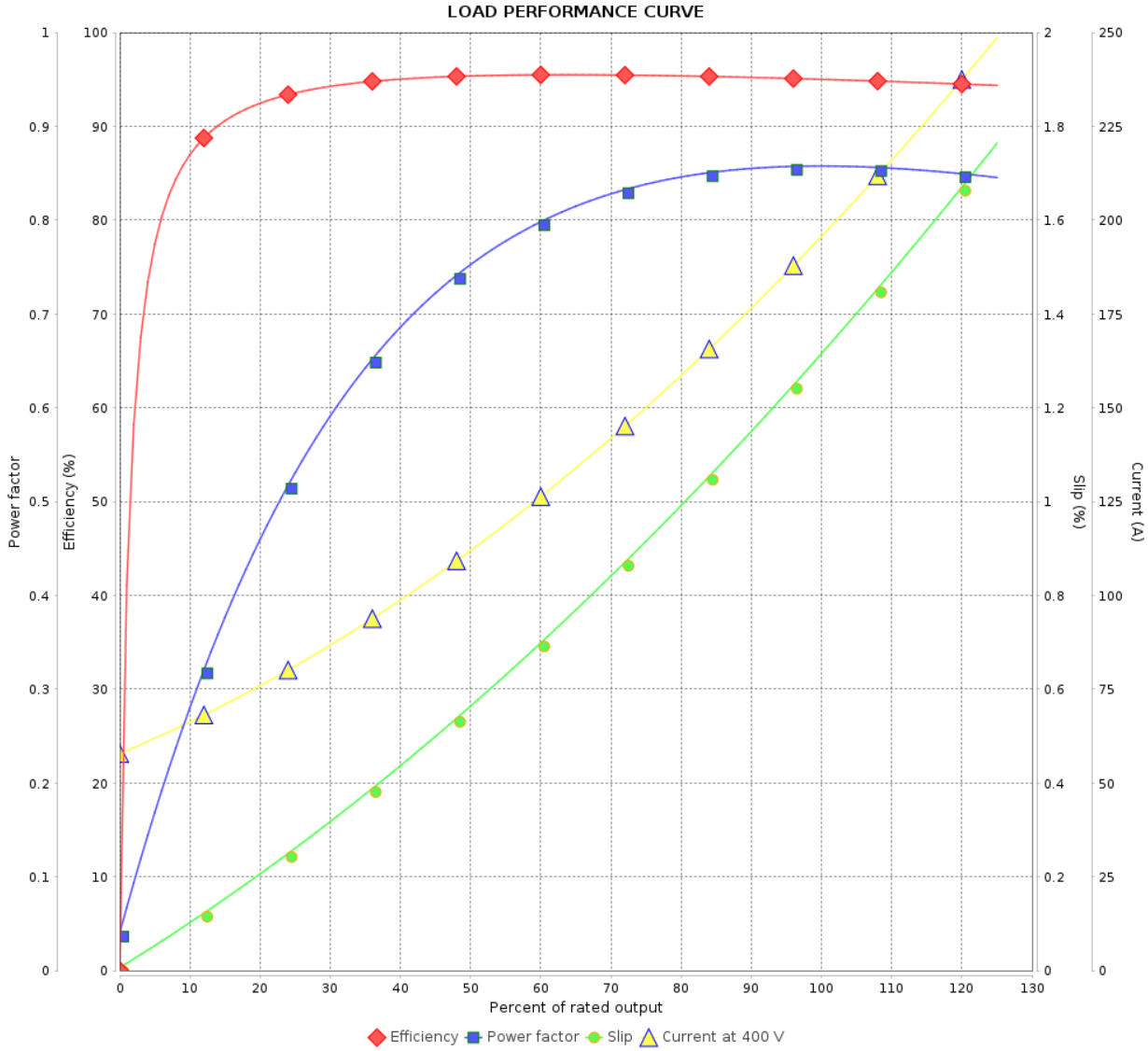
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 400 V 50 Hz 4P IE2

Rated current	: 194 A	Moment of inertia (J)	: 2.81 kgm ²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 73.6 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1480 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 9	Revision
Checked by				
Date	22/10/2023			

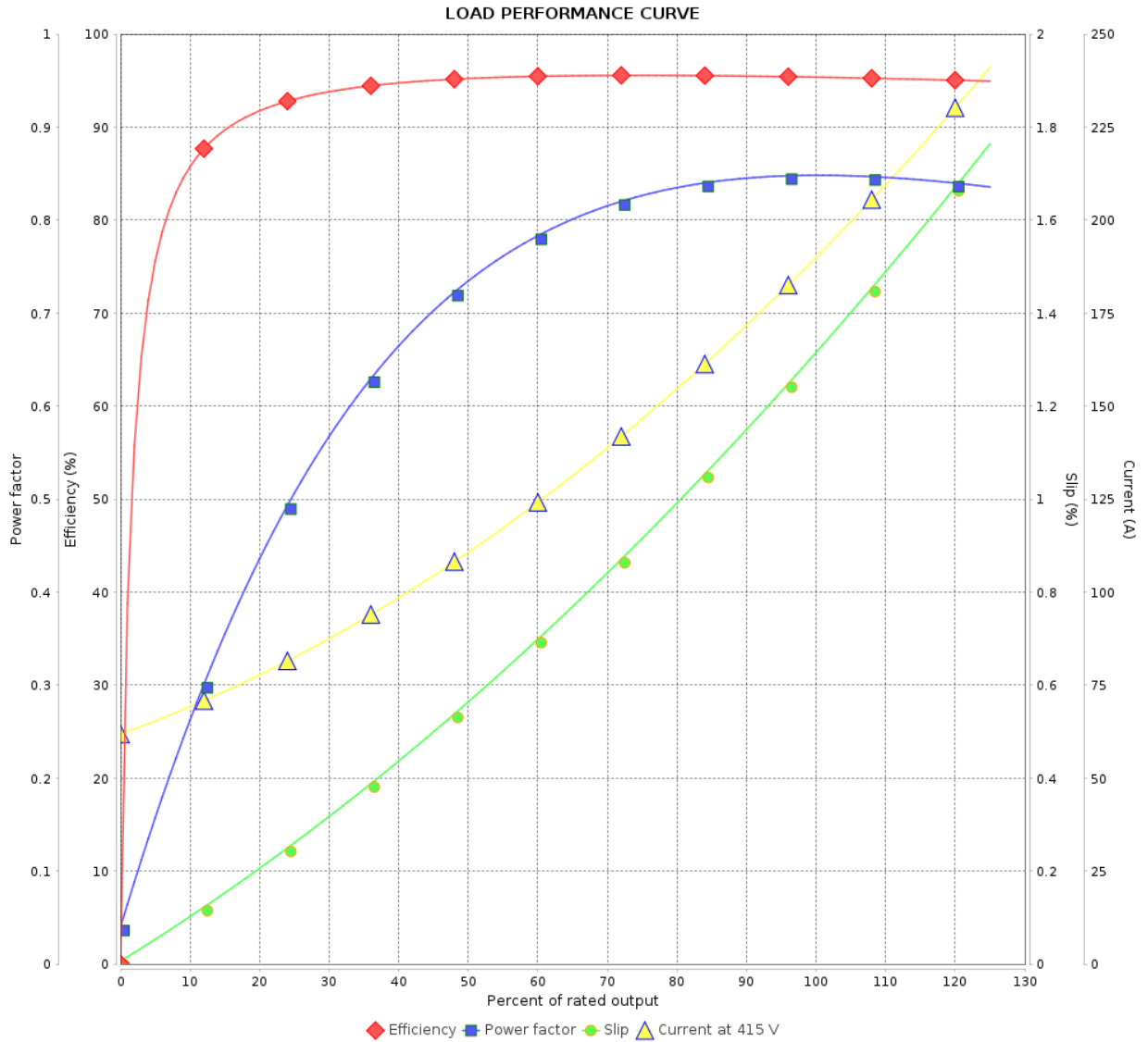
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431430



Performance : 415 V 50 Hz 4P IE3

Rated current	: 189 A	Moment of inertia (J)	: 2.81 kgm ²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 73.6 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 1480 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 9 / 9	Revision
Checked by				
Date	22/10/2023			