

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844

Frame	: 182/4T	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	: 42.8 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.0080 kgm ²
Design	: B		

Output [HP]	3	2	2	2	3	3	3
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	3.63	3.09	3.00	2.96	4.34	4.17	4.07
L. R. Amperes [A]	31.2	29.7	32.1	32.9	29.5	31.7	33.0
LRC [A]	8.6x(Code K)	9.6x(Code L)	10.7x(Code M)	11.1x(Code N)	6.8x(Code H)	7.6x(Code J)	8.1x(Code J)
No load current [A]	1.30	1.25	1.35	1.40	1.25	1.35	1.40
Rated speed [RPM]	3510	2930	2935	2940	2880	2890	2900
Slip [%]	2.50	2.33	2.17	2.00	4.00	3.67	3.33
Rated torque [kgfm]	0.620	0.495	0.495	0.494	0.756	0.753	0.751
Locked rotor torque [%]	250	300	340	370	210	240	260
Breakdown torque [%]	380	430	480	520	290	320	350
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	73s (cold) 41s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)
Noise level ²	66.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%	82.0	79.5	79.1	77.8	84.4	84.4
	50%	82.5	81.0	80.6	79.7	84.0	84.0
	75%	86.5	84.5	84.5	84.1	86.5	86.5
	100%	86.5	85.8	85.8	85.9	85.5	85.5
Power Factor	25%	0.50	0.44	0.41	0.39	0.56	0.52
	50%	0.75	0.68	0.65	0.63	0.80	0.77
	75%	0.84	0.79	0.77	0.75	0.87	0.86
	100%	0.88	0.86	0.84	0.82	0.90	0.89

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

Losses (%)	P1 (0,9;1,0)	14.1	14.1	14.1	14.1	14.1	14.1
	P2 (0,5;1,0)	9.5	9.5	9.5	9.5	9.5	9.5
	P3 (0,25;1,0)	8.5	8.5	8.5	8.5	8.5	8.5
	P4 (0,9;0,5)	8.7	8.7	8.7	8.7	8.7	8.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.3	3.3	3.3	3.3	3.3	3.3
	P7 (0,25;0,25)	1.7	1.7	1.7	1.7	1.7	1.7

Bearing type	Drive end	6207 C3	Non drive end	6206 C3	Foundation loads Max. traction : 33 kgf Max. compression : 76 kgf
	Sealing	Inpro/Seal	Inpro/Seal		
	Lubrication interval	20000 h	20000 h		
	Lubricant amount	7 g	5 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	13/01/2024				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	13/01/2024		2 / 9	

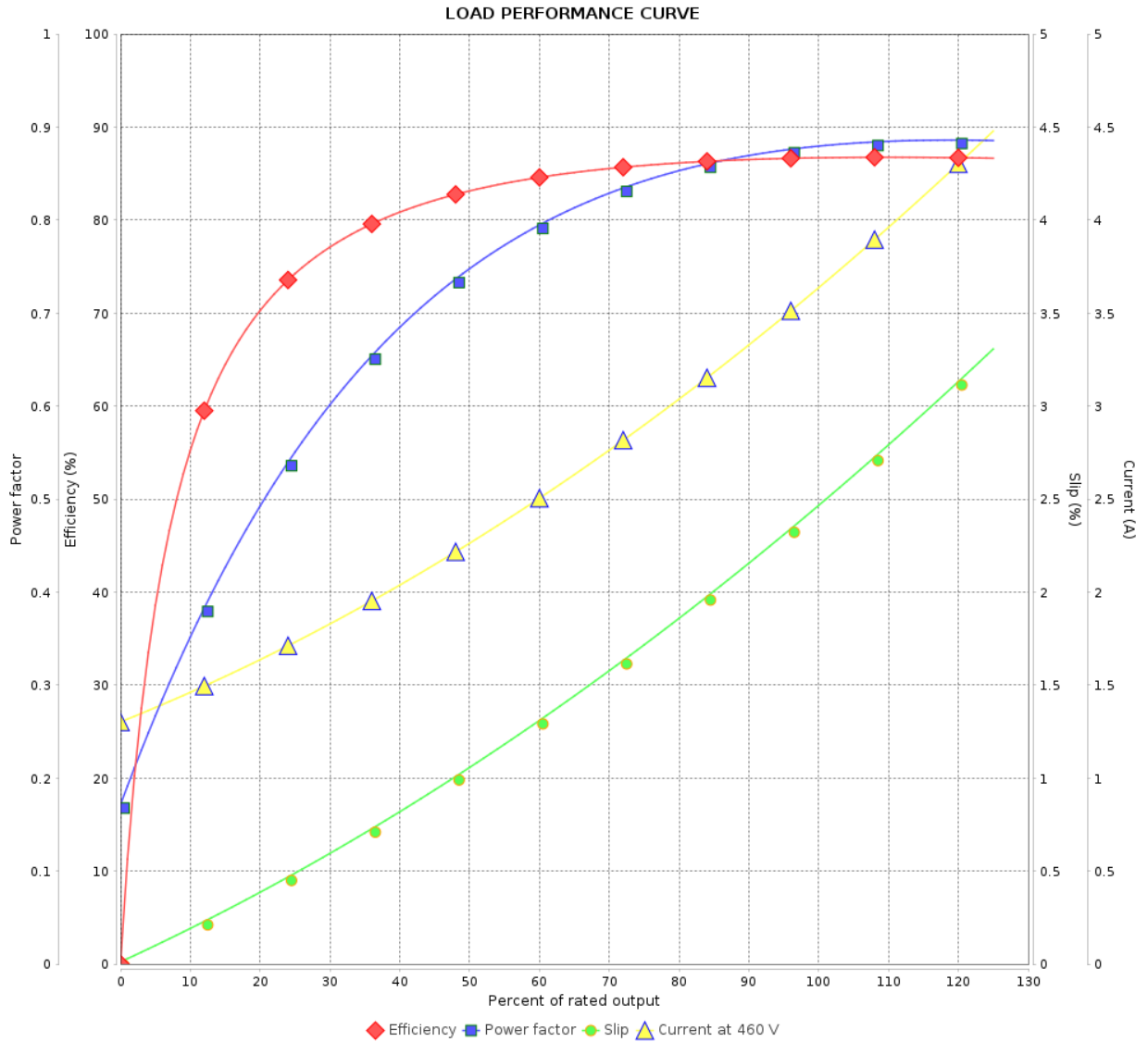
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844



Performance : 460 V 60 Hz 2P

Rated current	: 3.63 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 0.620 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 9	Revision
Checked by				
Date	13/01/2024			

LOAD PERFORMANCE CURVE

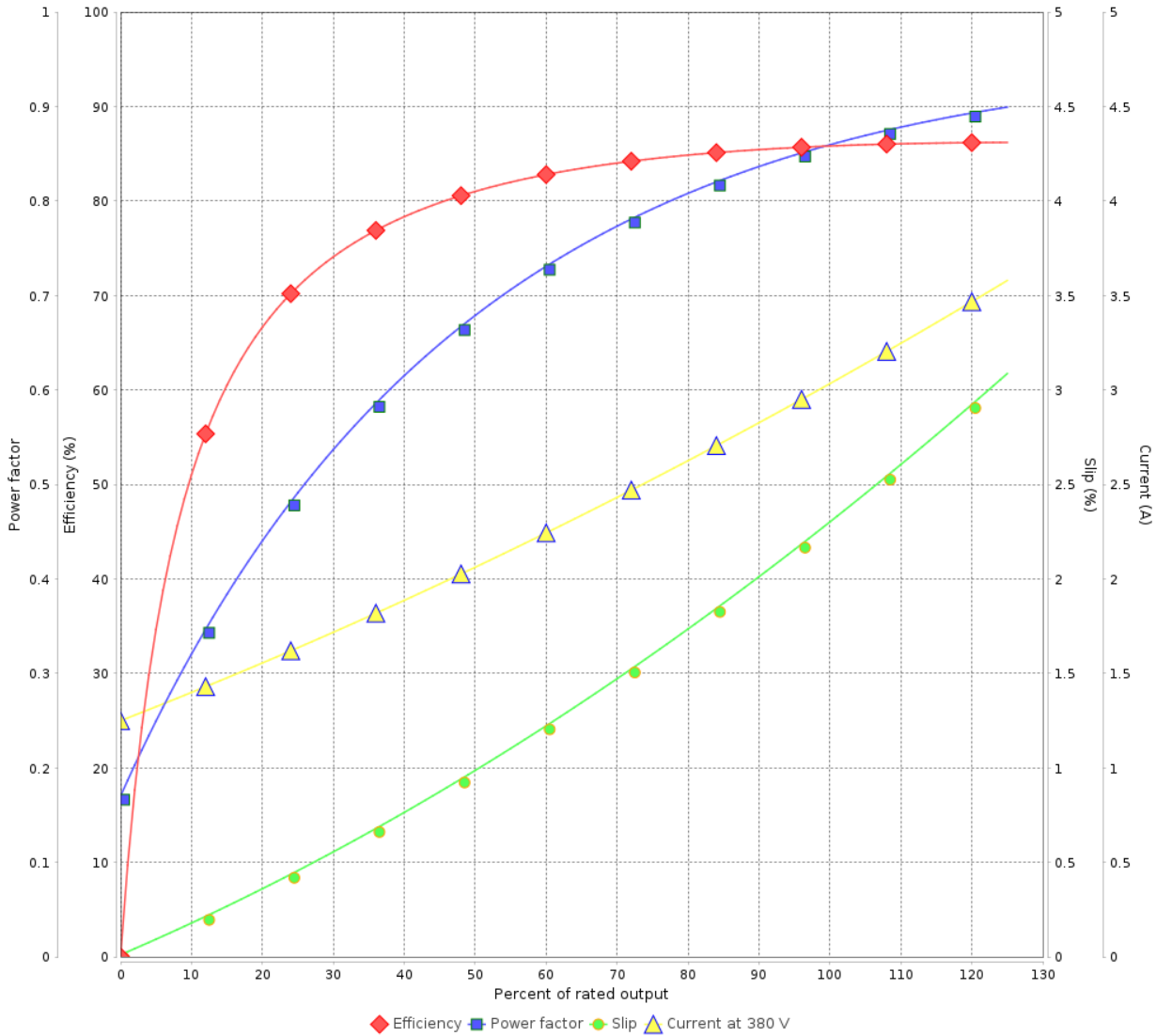
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE3

Rated current	: 3.09 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 9.6	Duty cycle	: Cont.(S1)
Rated torque	: 0.495 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 430 %	Temperature rise	: 80 K
Rated speed	: 2930 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 9		
Date	13/01/2024			

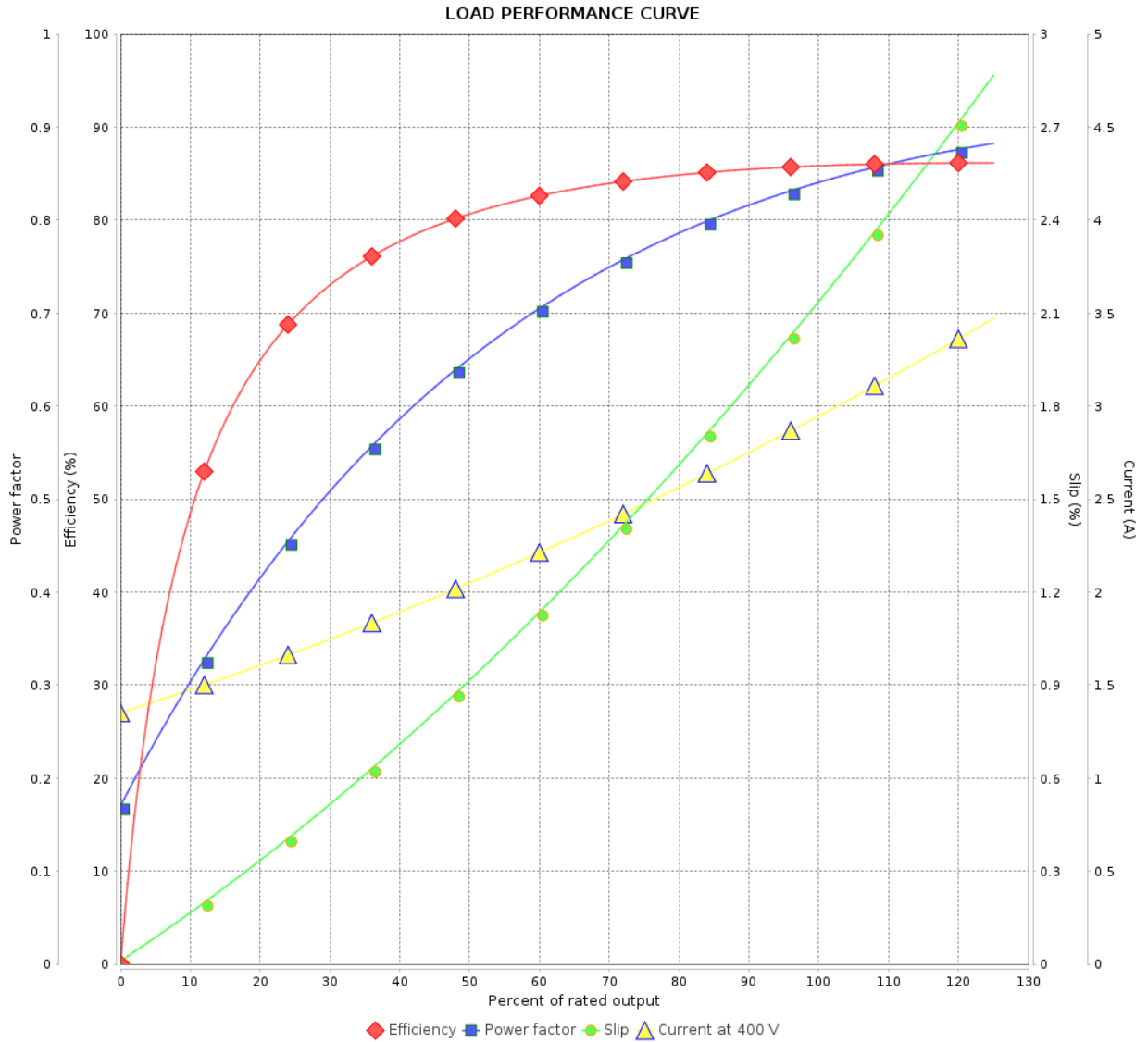
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844



Performance : 400 V 50 Hz 2P IE3

Rated current : 3.00 A
 LRC : 10.7
 Rated torque : 0.495 kgfm
 Locked rotor torque : 340 %
 Breakdown torque : 480 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.0080 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				

LOAD PERFORMANCE CURVE

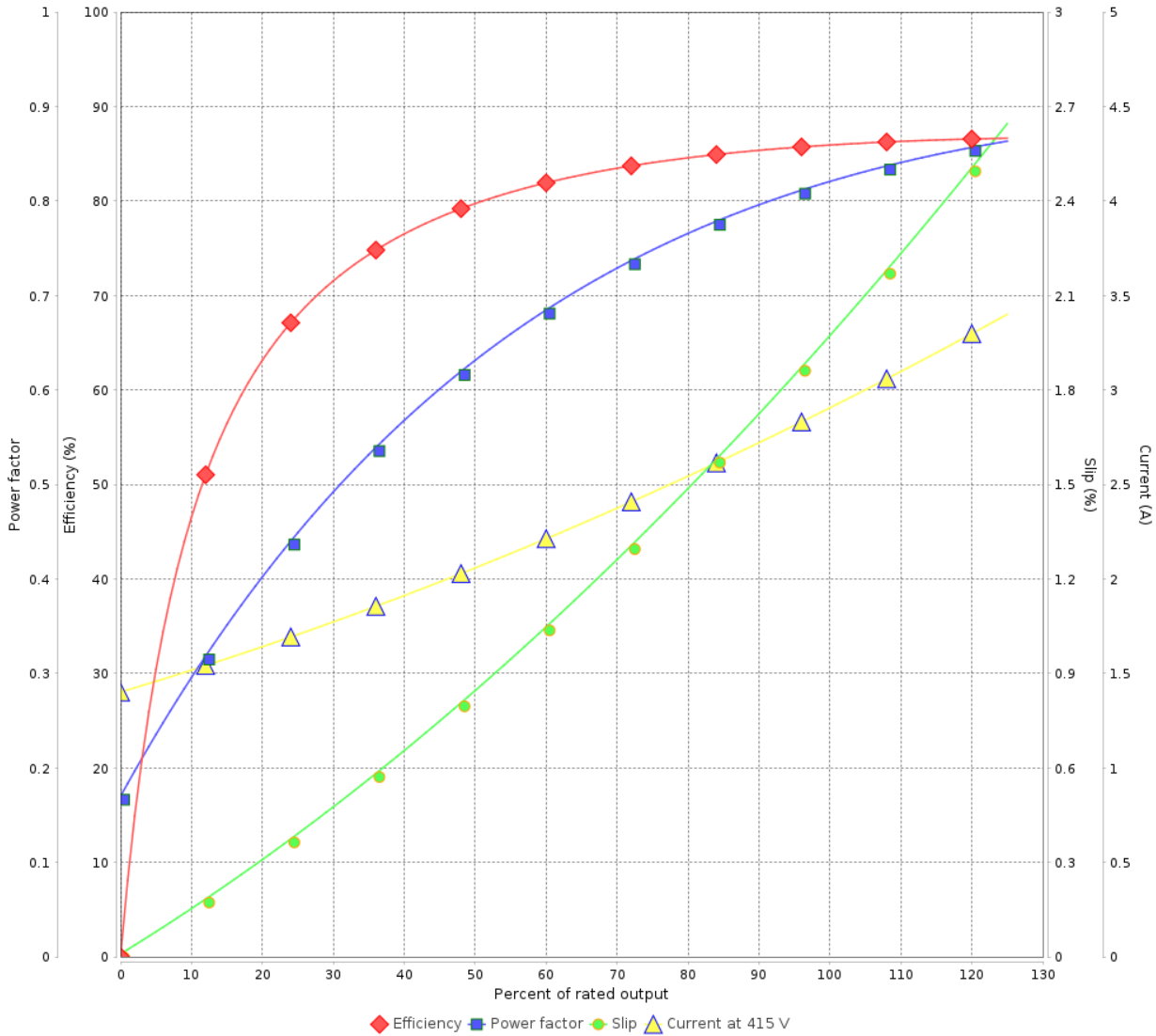
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current	: 2.96 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 11.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.494 kgfm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.25
Breakdown torque	: 520 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 9	Revision
Checked by				
Date	13/01/2024			

LOAD PERFORMANCE CURVE

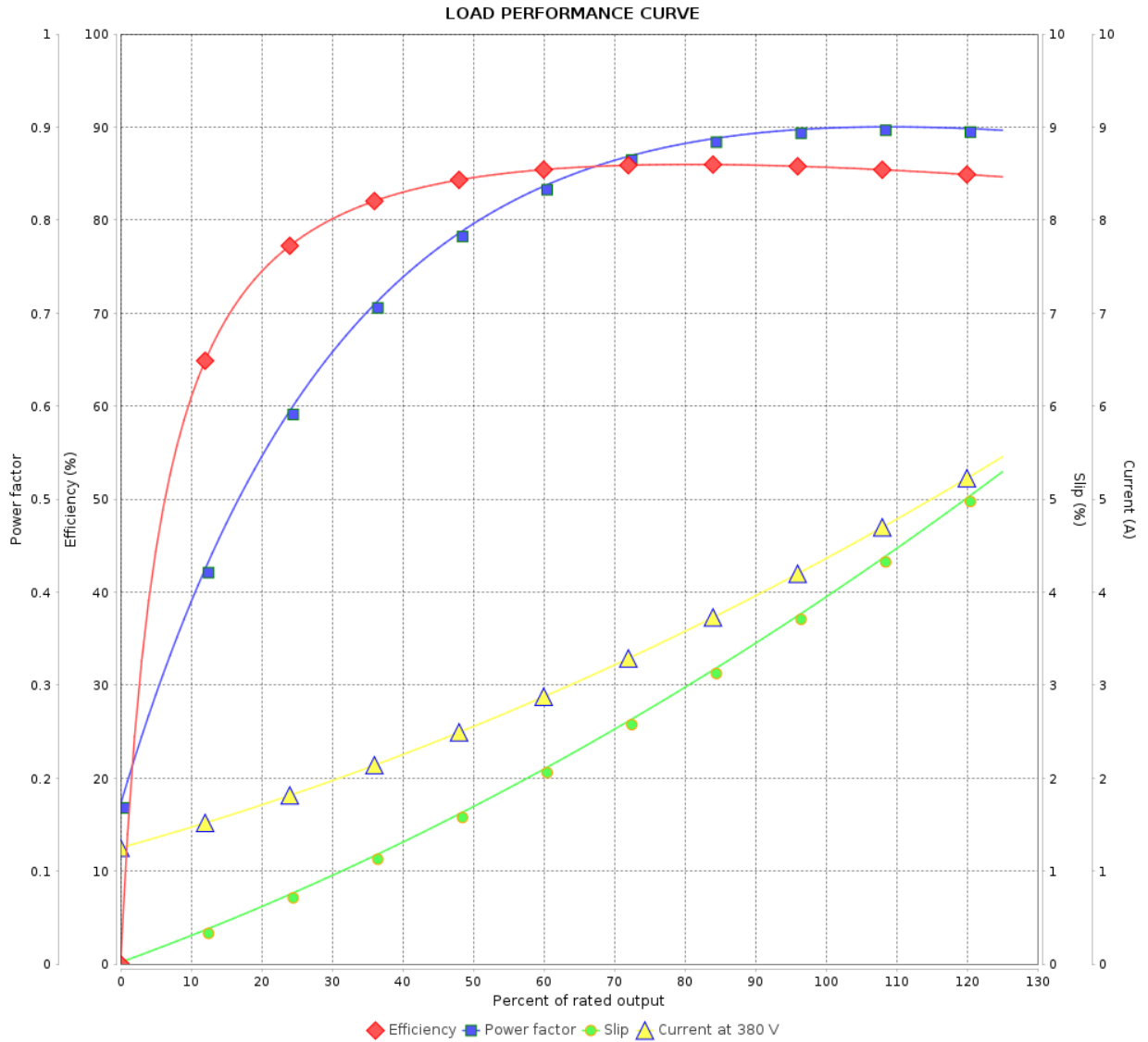
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12373844



Performance : 380 V 50 Hz 2P IE2

Rated current : 4.34 A
 LRC : 6.8
 Rated torque : 0.756 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 290 %
 Rated speed : 2880 rpm

Moment of inertia (J) : 0.0080 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				

LOAD PERFORMANCE CURVE

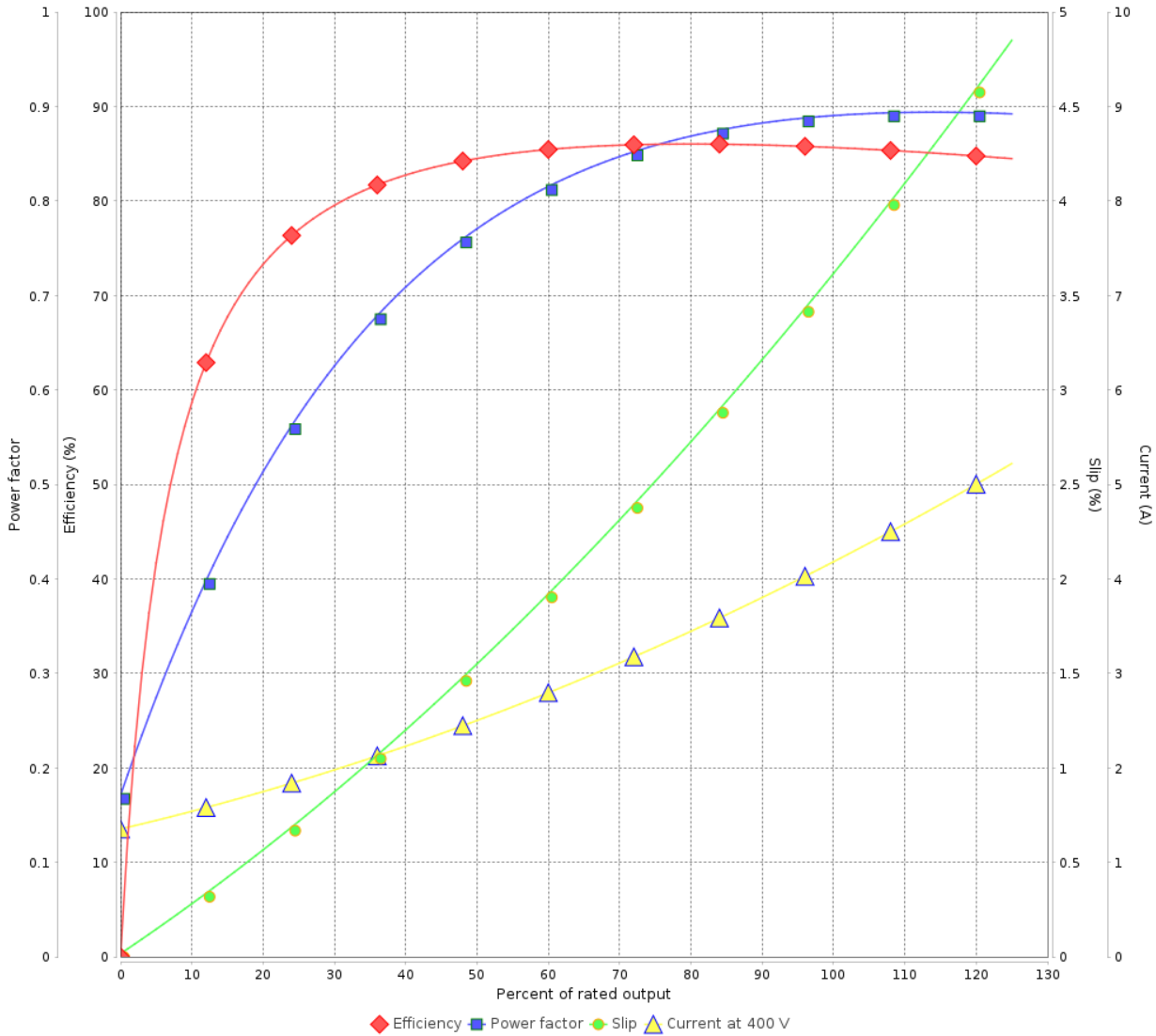
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE2

Rated current	: 4.17 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 0.753 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2890 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			8 / 9	
Date	13/01/2024			

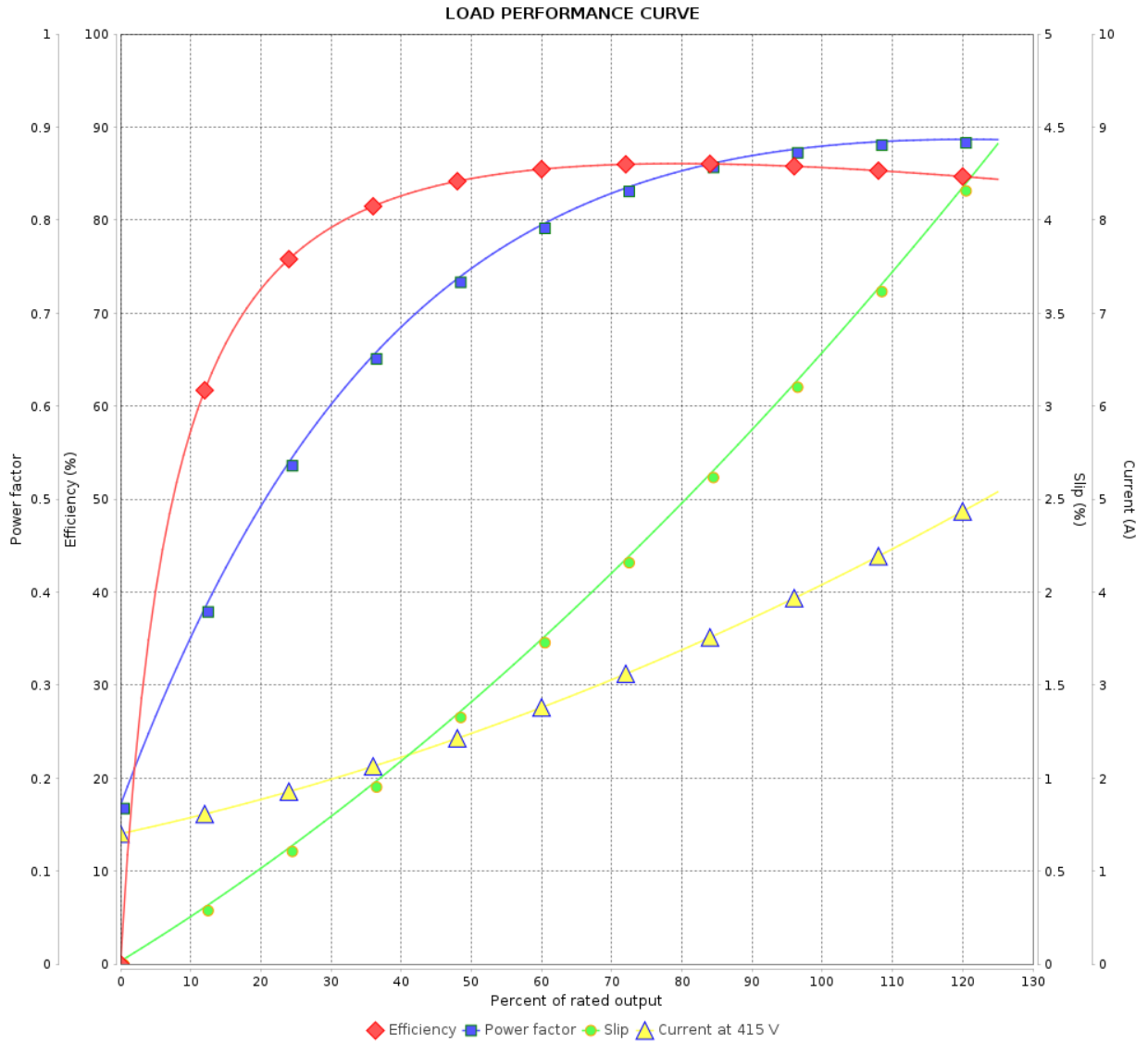
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12373844



Performance : 415 V 50 Hz 2P IE2

Rated current	: 4.07 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.751 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 9 / 9	Revision
Checked by				
Date	13/01/2024			