

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W22 IEEE 841 NEMA Premium Efficiency Three-Phase		Product code : 11943559	
Frame	: 404/5TSC	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	: 0.0 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.5561 kgm ²		
Design	: B				
Output [HP]	100	75	75	75	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380/380	400/400	415/415	
Rated current [A]	112	99.6/99.6	94.6/94.6	92.2/92.2	
L. R. Amperes [A]	728	677/677	719/719	756/756	
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.6x(Code H)	8.2x(Code J)	
No load current [A]	26.0	25.7/25.7	27.5/27.5	29.1/29.1	
Rated speed [RPM]	3545	2955	2960	2965	
Slip [%]	1.53	1.50	1.33	1.17	
Rated torque [kgfm]	20.5	18.4	18.4	18.4	
Locked rotor torque [%]	240	250	280	300	
Breakdown torque [%]	260	280	310	330	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	
Noise level ²	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	
Efficiency (%)	25%	0.000			
	50%	93.0	93.0	93.5	
	75%	94.1	93.8	94.0	
	100%	94.1	94.3	94.3	
Power Factor	25%	0.00			
	50%	0.83	0.82	0.78	
	75%	0.88	0.88	0.85	
	100%	0.89	0.89	0.88	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	5.9	5.9	5.9	5.9
	P2 (0,5;1,0)	4.6	4.6	4.6	4.6
	P3 (0,25;1,0)	4.4	4.4	4.4	4.4
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.6	1.6	1.6	1.6
	P6 (0,5;0,25)	0.9	0.9	0.9	0.9
	P7 (0,25;0,25)	0.5	0.5	0.5	0.5
Bearing type	: Drive end : 6314 C3	Non drive end : 6314 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 596 kgf	
	Labyrinth	Labyrinth	Max. compression	: 596 kgf	
Lubrication interval	: 4000 h	4000 h			
Lubricant amount	: 27 g	27 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).			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 / 6	

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 / 6	

LOAD PERFORMANCE CURVE

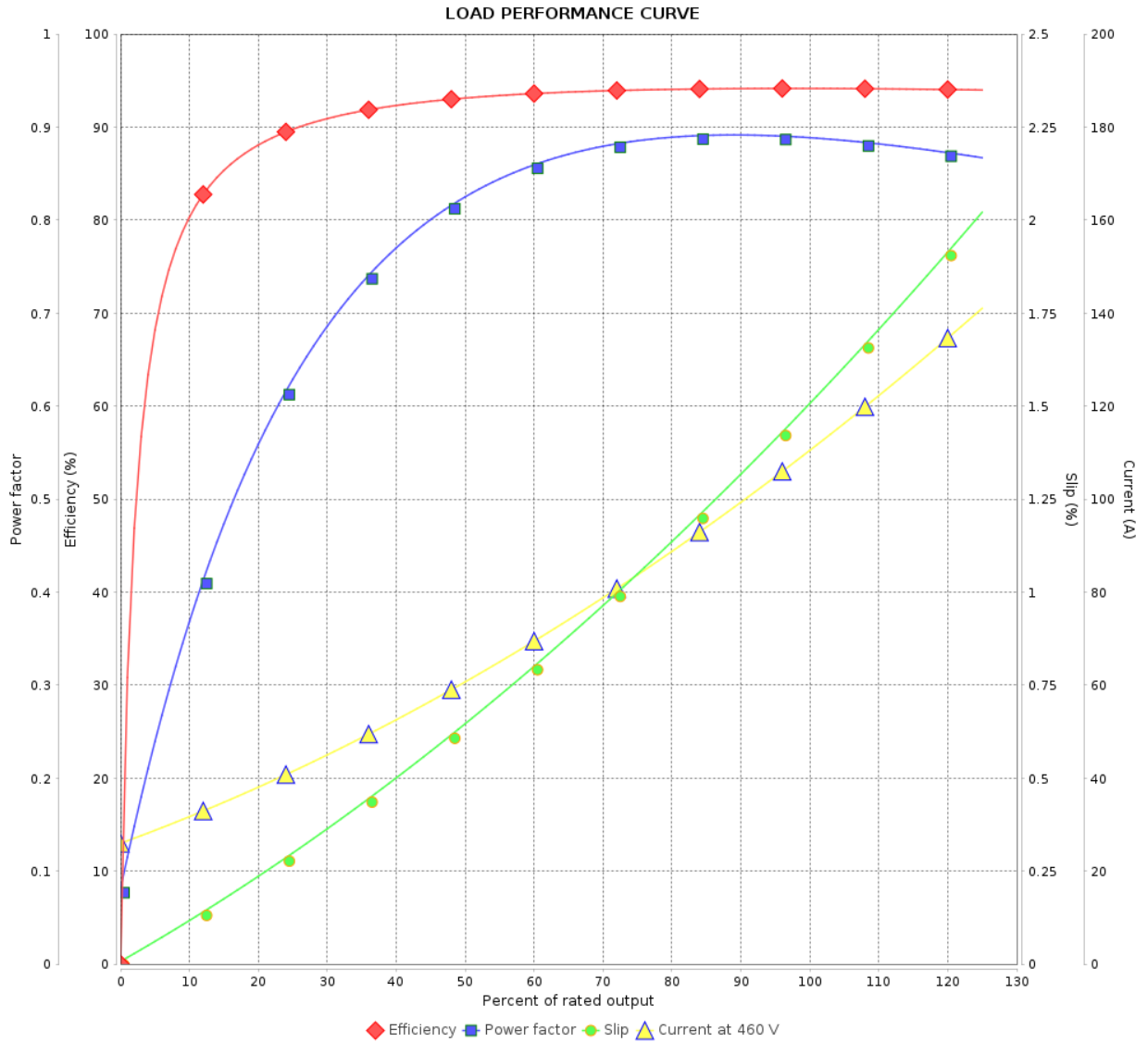
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11943559



Performance : 460 V 60 Hz 2P

Rated current : 112 A
 LRC : 6.5
 Rated torque : 20.5 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 3545 rpm

Moment of inertia (J) : 0.5561 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				

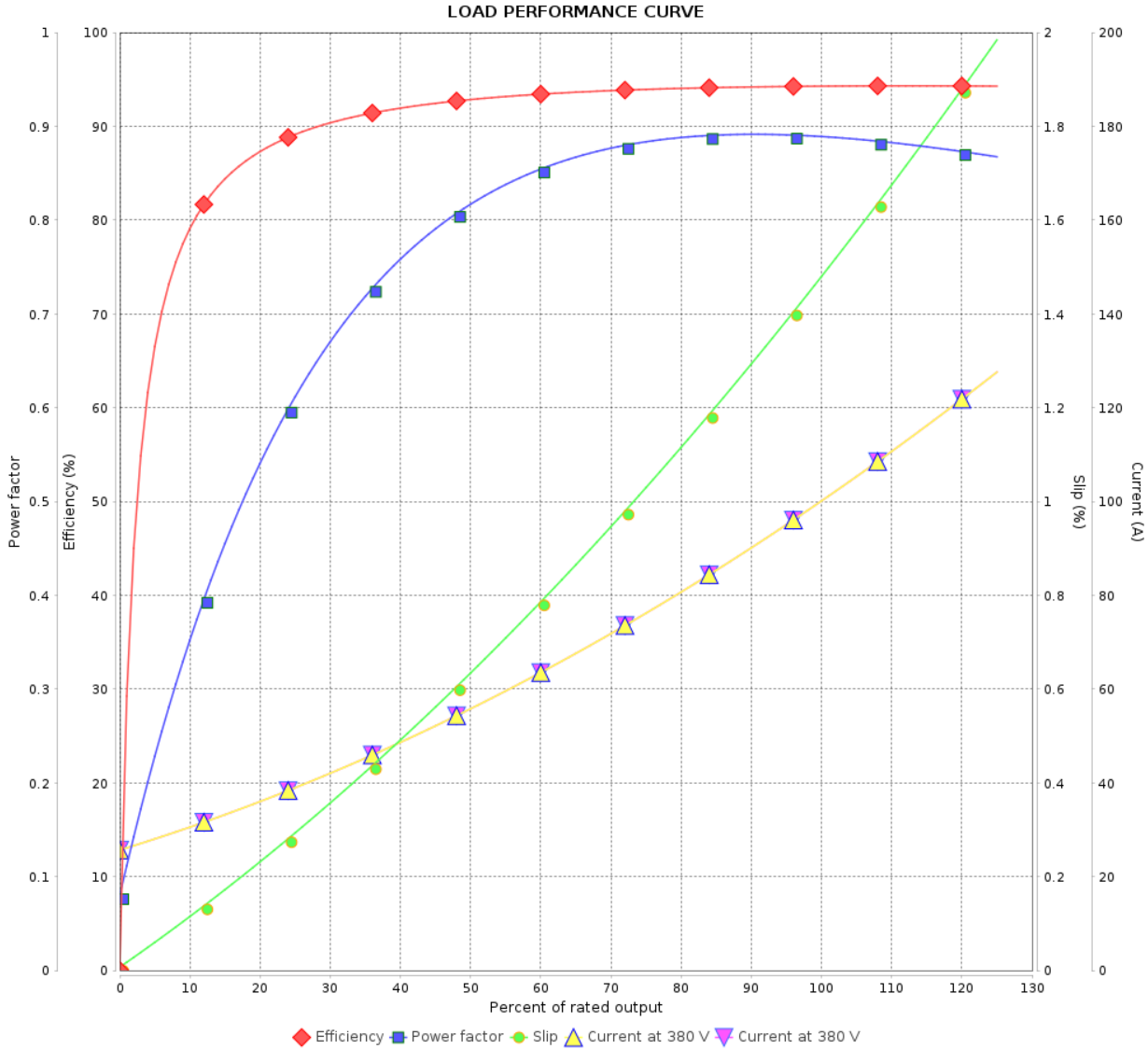
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943559



Performance : 380/380 V 50 Hz 2P IE3

Rated current	: 99.6/99.6 A	Moment of inertia (J)	: 0.5561 kgm ²
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.4 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 6	Revision
Checked by				
Date	13/01/2024			

LOAD PERFORMANCE CURVE

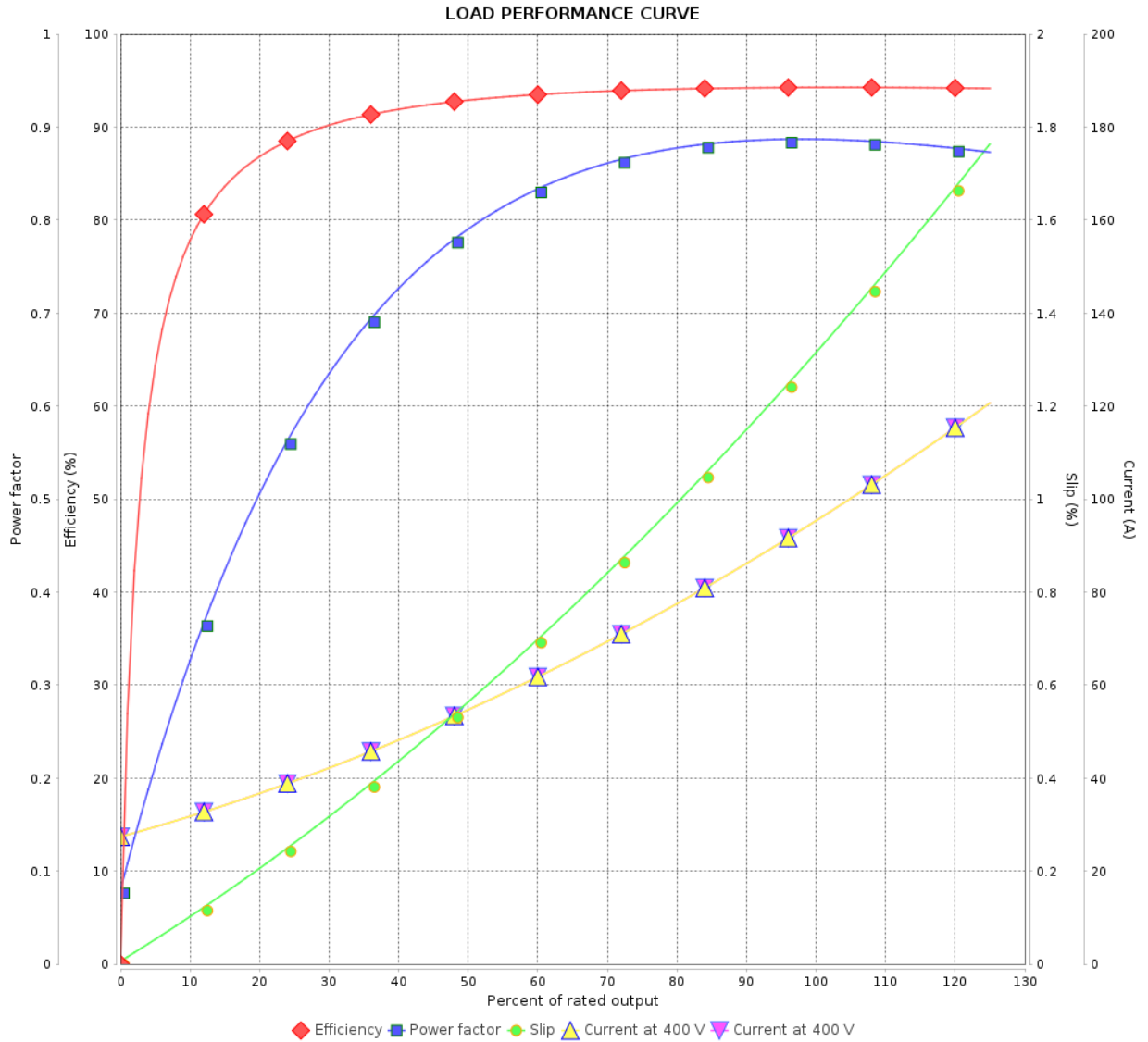
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943559



Performance : 400/400 V 50 Hz 2P IE3

Rated current : 94.6/94.6 A
 LRC : 7.6
 Rated torque : 18.4 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.5561 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				
Date				

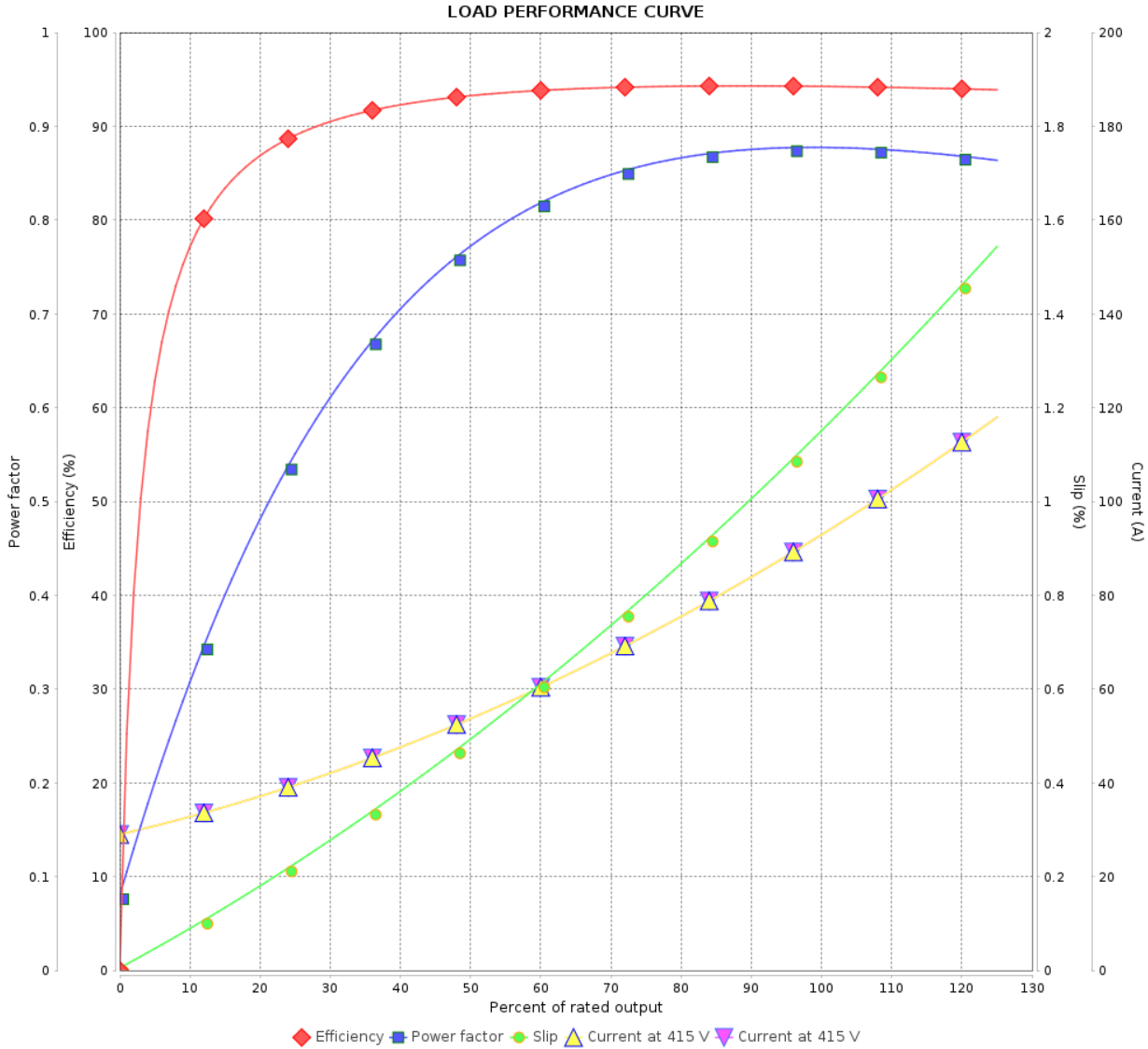
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943559



Performance : 415/415 V 50 Hz 2P IE3

Rated current : 92.2/92.2 A
 LRC : 8.2
 Rated torque : 18.4 kgfm
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 0.5561 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 6 / 6	Revision
Checked by				
Date	13/01/2024			