

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11456825

Frame : 143/5TC	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 25.3 kg
Protection degree : IP55	Moment of inertia (J) : 0.0067 kgm <sup>2</sup>
Design : B	

Output [HP]	1	0.75	0.75	0.75	1	1	1
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]	3.46/1.73	1.60	1.62	1.66	1.96	1.94	1.95
L. R. Amperes [A]	21.5/10.7	9.28	9.88	10.5	9.41	10.1	10.7
LRC [A]	6.2x(Code K)	5.8x(Code K)	6.1x(Code L)	6.3x(Code M)	4.8x(Code G)	5.2x(Code H)	5.5x(Code J)
No load current [A]	2.20/1.10	1.05	1.15	1.25	1.05	1.15	1.25
Rated speed [RPM]	1160	960	970	970	940	950	950
Slip [%]	3.33	4.00	3.00	3.00	6.00	5.00	5.00
Rated torque [kgfm]	0.626	0.567	0.561	0.561	0.772	0.764	0.764
Locked rotor torque [%]	260	280	300	320	200	229	250
Breakdown torque [%]	300	310	330	340	220	260	280
Service factor	1.25	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	50.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)
Efficiency (%)	25%						
	50%	77.0	74.8	73.2	70.7	77.0	74.0
	75%	82.0	78.4	77.5	75.8	80.0	78.5
	100%	82.5	79.3	78.9	77.9	78.5	78.5
Power Factor	25%						
	50%	0.45	0.44	0.41	0.38	0.53	0.46
	75%	0.57	0.57	0.53	0.50	0.66	0.59
	100%	0.66	0.66	0.62	0.59	0.74	0.68

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

Losses (%)	P1 (0,9;1,0)	20.0	20.0	20.0	20.0	20.0	20.0
	P2 (0,5;1,0)	16.7	16.7	16.7	16.7	16.7	16.7
	P3 (0,25;1,0)	16.9	16.9	16.9	16.9	16.9	16.9
	P4 (0,9;0,5)	12.6	12.6	12.6	12.6	12.6	12.6
	P5 (0,5;0,5)	9.2	9.2	9.2	9.2	9.2	9.2
	P6 (0,5;0,25)	7.6	7.6	7.6	7.6	7.6	7.6
	P7 (0,25;0,25)	5.8	5.8	5.8	5.8	5.8	5.8

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 ZZ	6204 ZZ	Max. traction : 48 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 73 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	26/07/2024		1 / 9	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

### Notes

USABLE @208V 3.82A SF 1.15 SFA 4.39A

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).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

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			Page	Revision
Checked by				
Date				
			2 / 9	

# LOAD PERFORMANCE CURVE

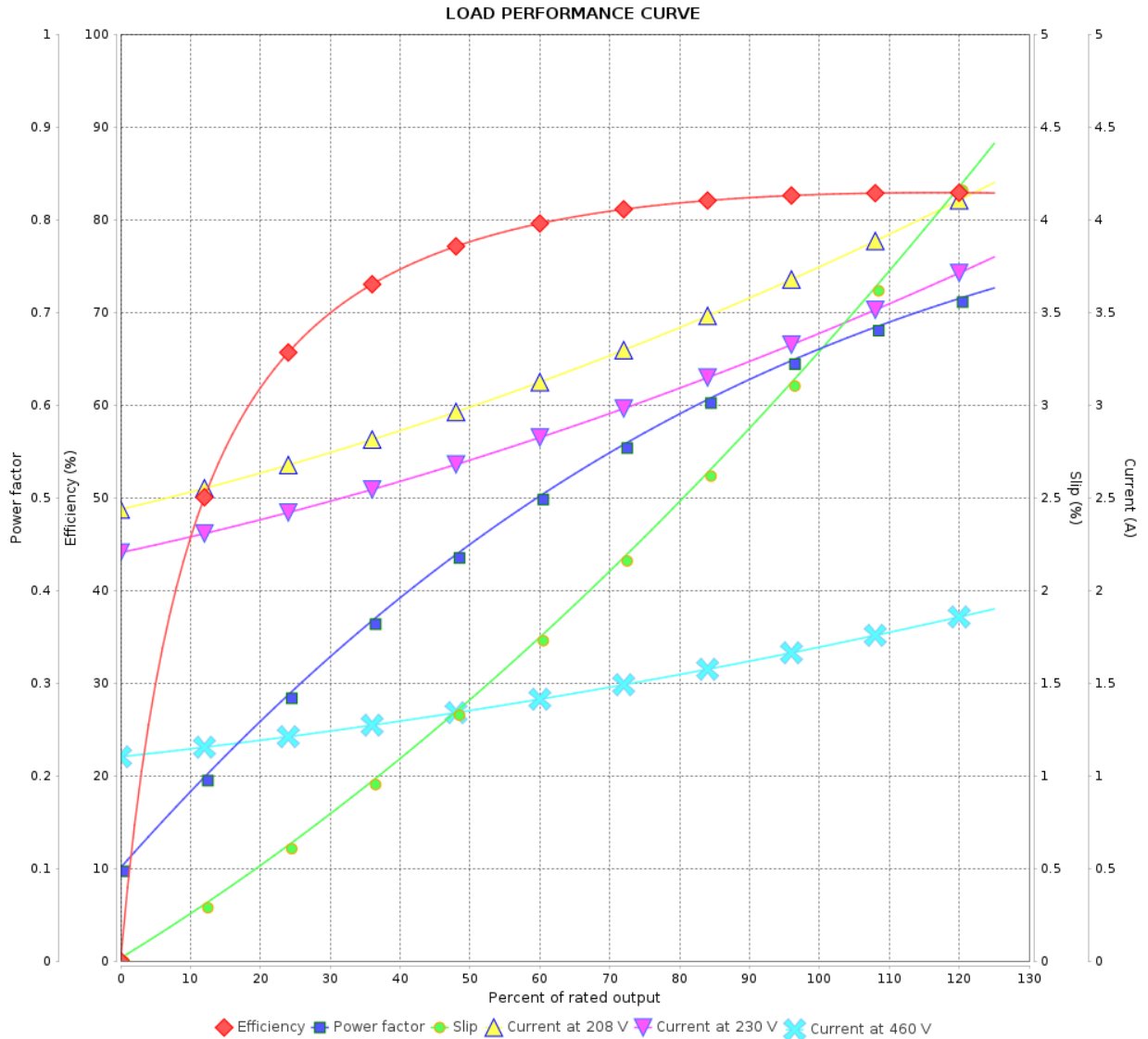
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456825



Performance : 230/460 V 60 Hz 6P

Rated current : 3.46/1.73 A  
 LRC : 6.2  
 Rated torque : 0.626 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 1160 rpm

Moment of inertia (J) : 0.0067 kgm<sup>2</sup>  
 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

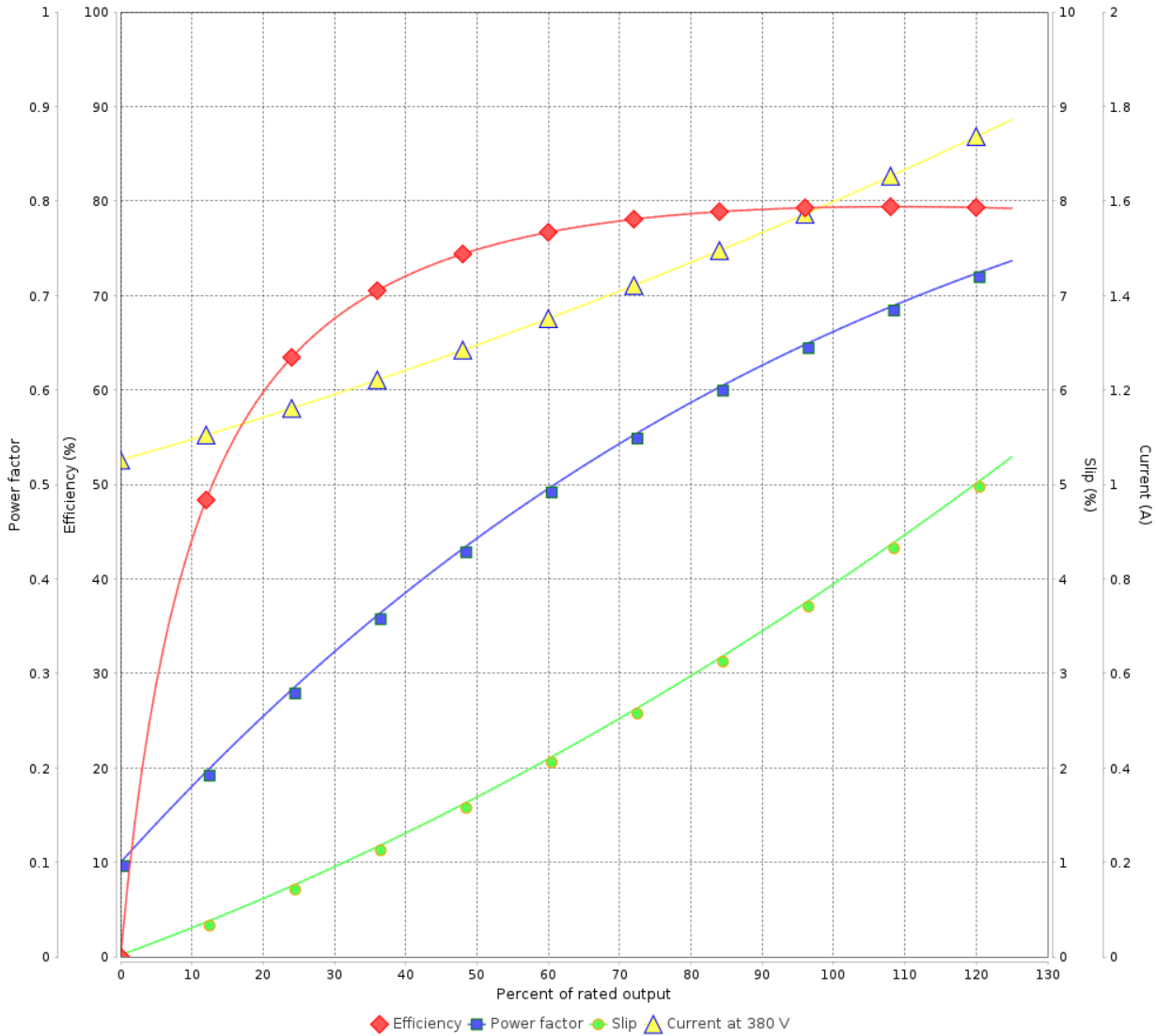
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11456825

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 6P IE3

Rated current : 1.60 A	Moment of inertia (J) : 0.0067 kgm <sup>2</sup>
LRC : 5.8	Duty cycle : Cont.(S1)
Rated torque : 0.567 kgfm	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 960 rpm	Design : B

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

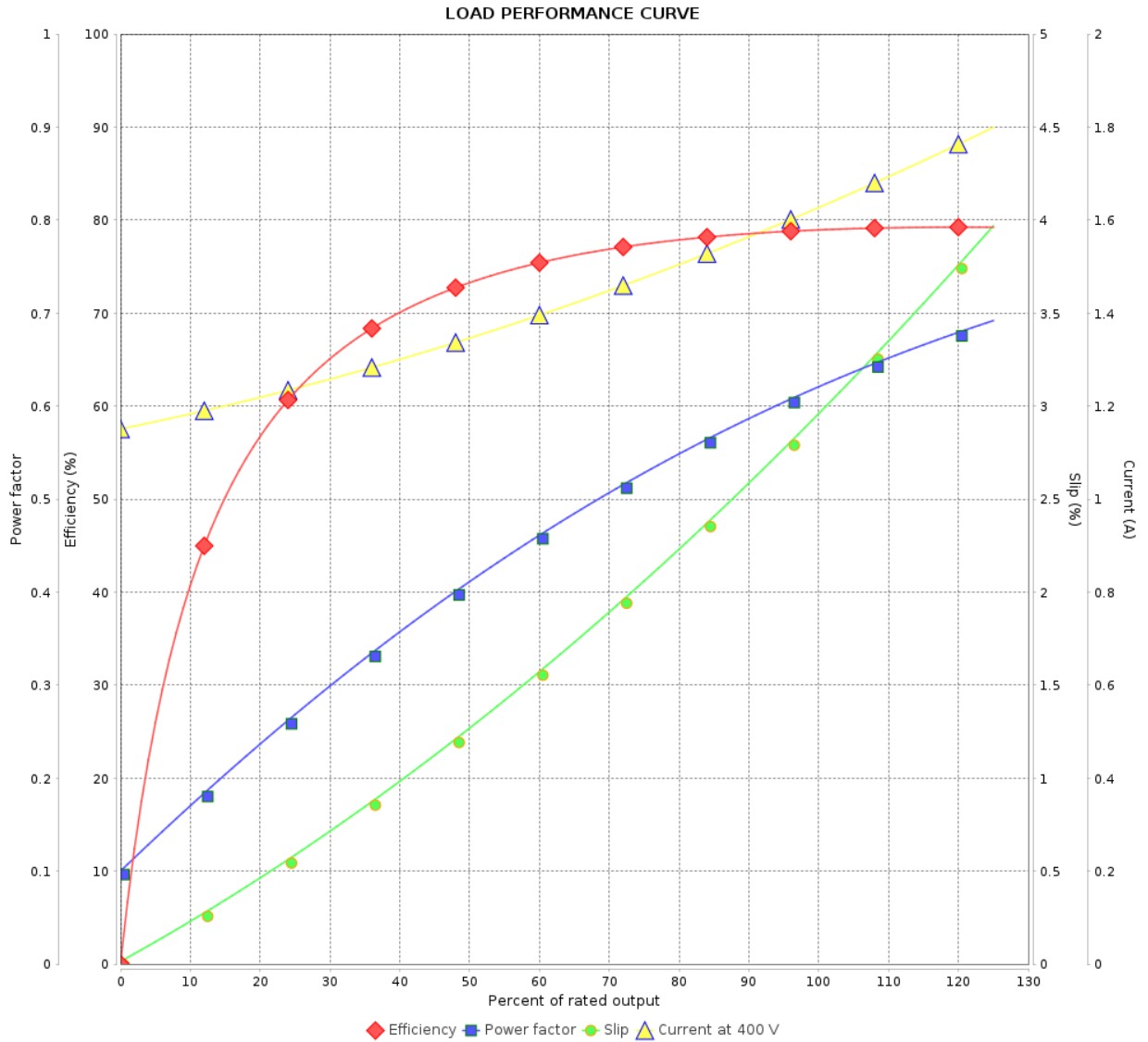
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11456825



Performance : 400 V 50 Hz 6P IE3

Rated current : 1.62 A  
 LRC : 6.1  
 Rated torque : 0.561 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0067 kgm<sup>2</sup>  
 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

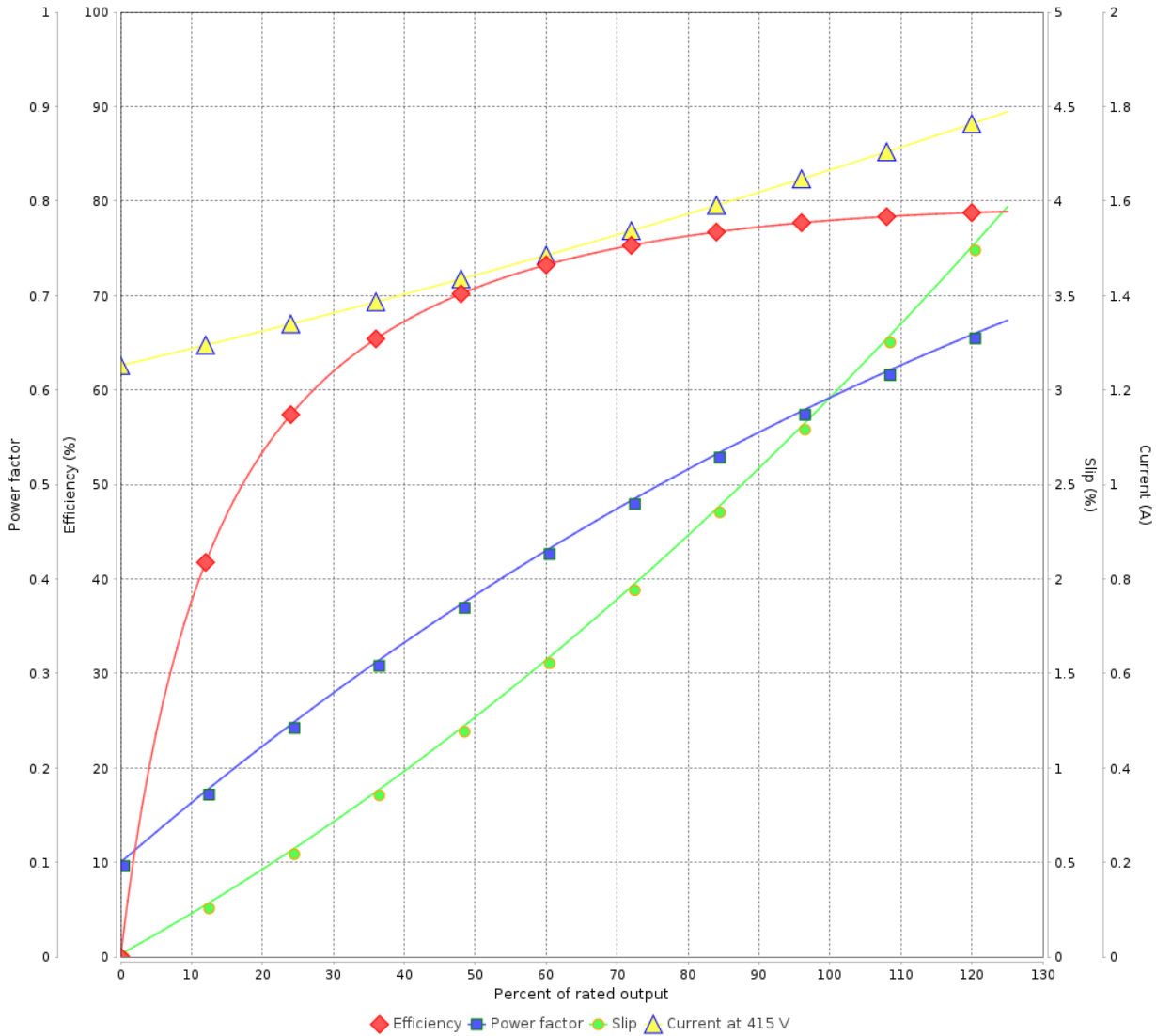
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11456825

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 6P IE3

Rated current	: 1.66 A	Moment of inertia (J)	: 0.0067 kgm <sup>2</sup>
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 0.561 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		6 / 9		
Date	26/07/2024			

# LOAD PERFORMANCE CURVE

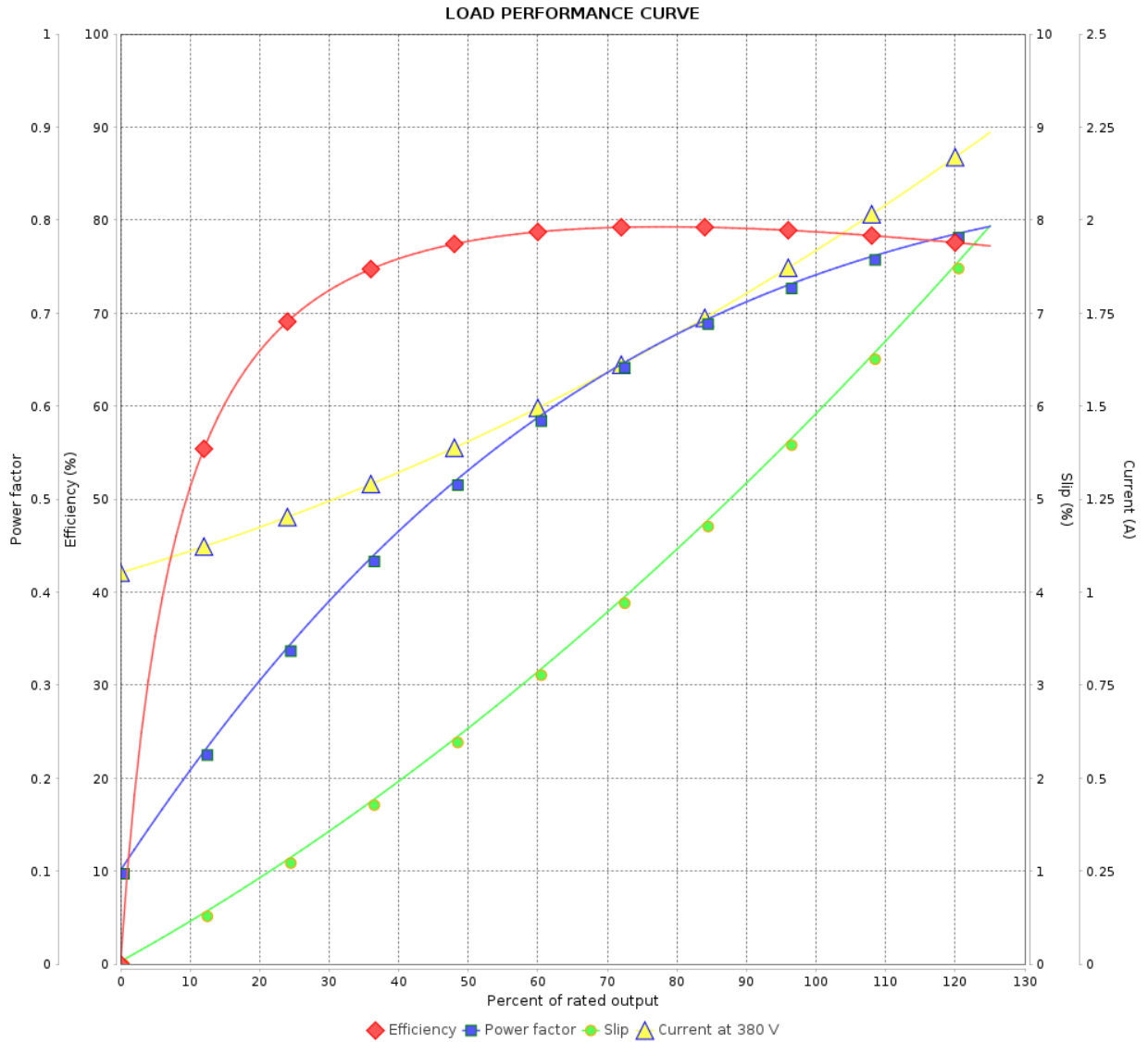
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11456825



Performance : 380 V 50 Hz 6P IE2

Rated current : 1.96 A  
 LRC : 4.8  
 Rated torque : 0.772 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 220 %  
 Rated speed : 940 rpm

Moment of inertia (J) : 0.0067 kgm<sup>2</sup>  
 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		7 / 9		
Date		26/07/2024		

# LOAD PERFORMANCE CURVE

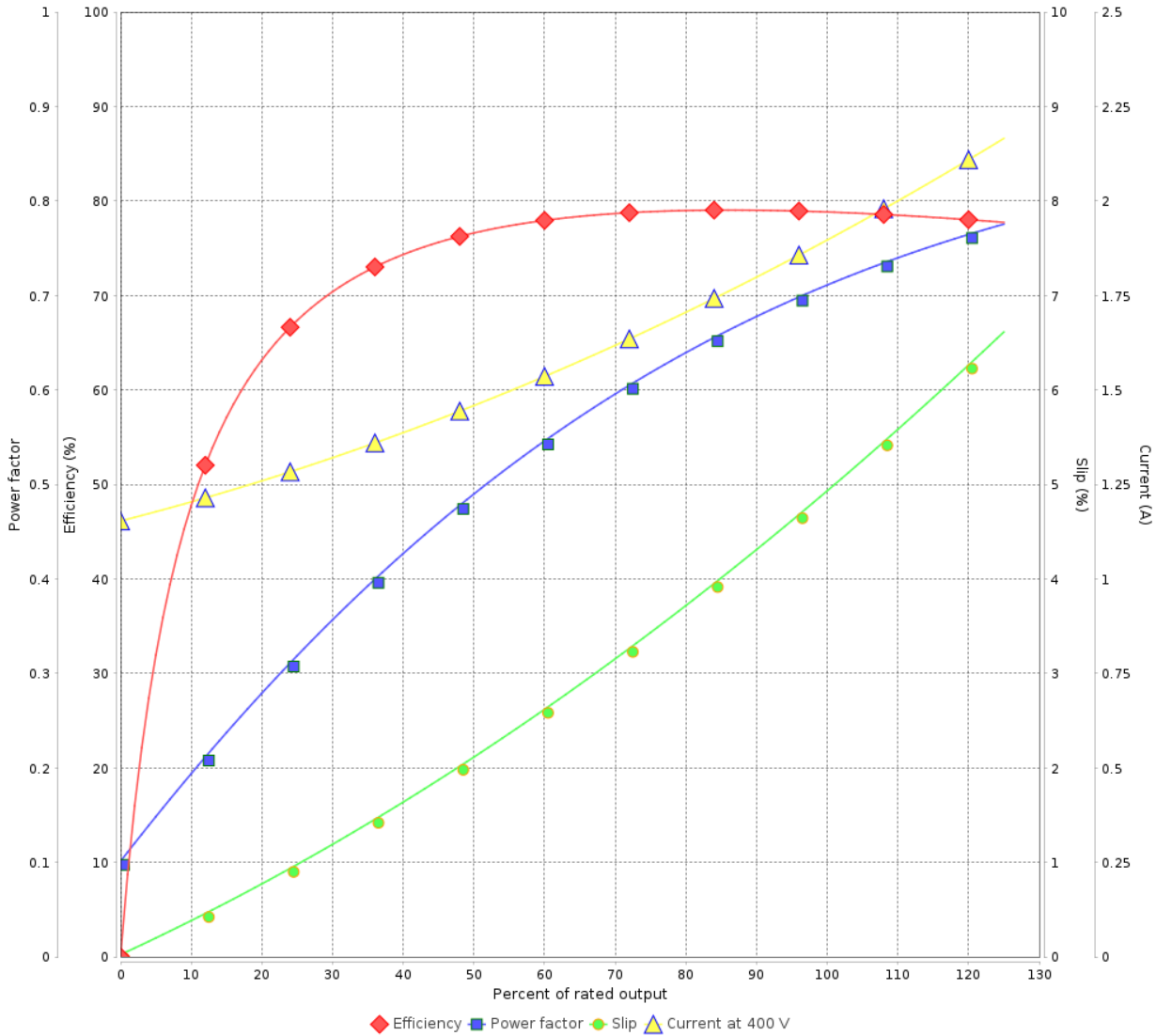
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11456825

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE2

Rated current	: 1.94 A	Moment of inertia (J)	: 0.0067 kgm <sup>2</sup>
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.764 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 9	Revision
Checked by				
Date	26/07/2024			



# LOAD PERFORMANCE CURVE

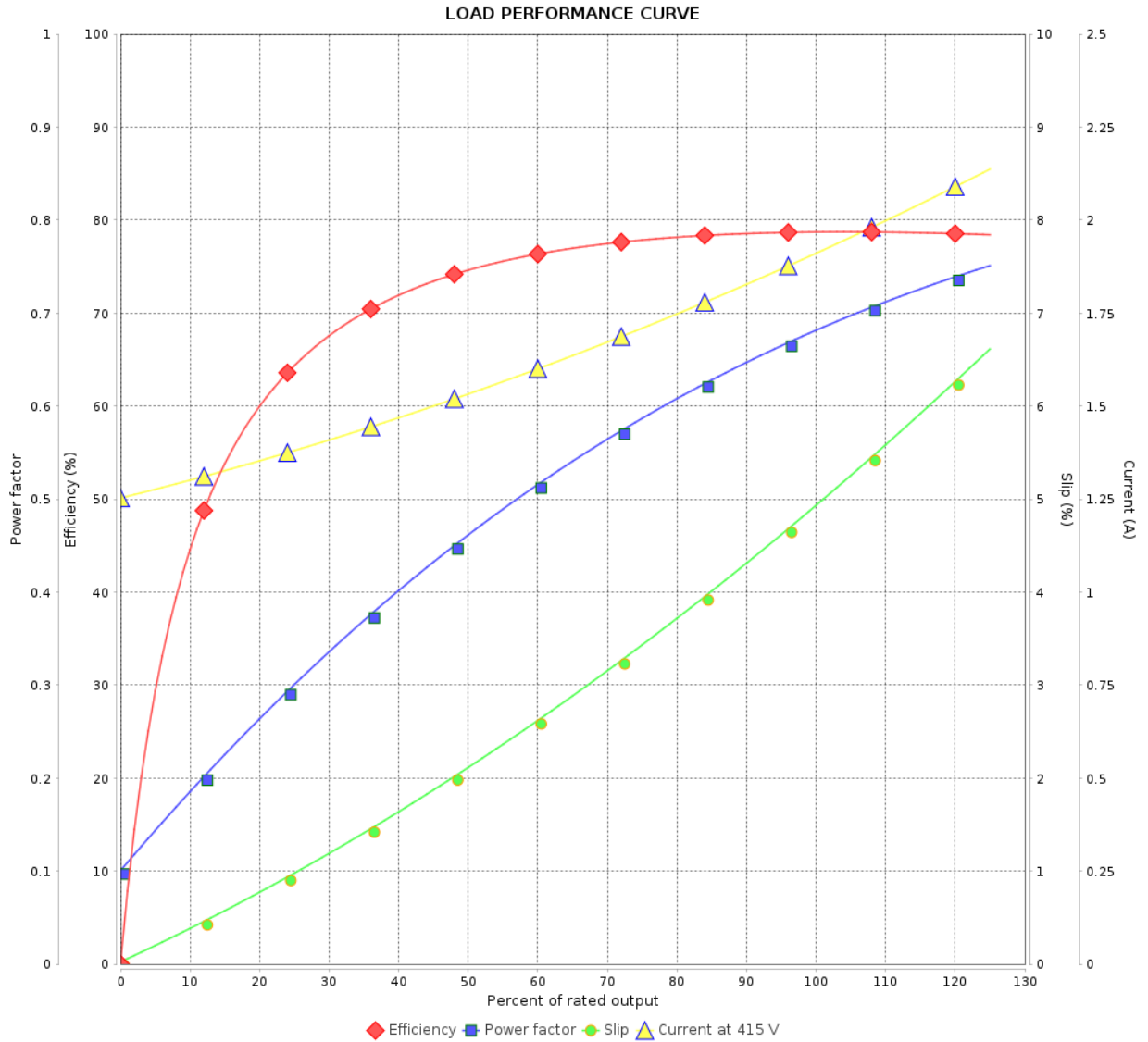
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456825



Performance : 415 V 50 Hz 6P IE2

Rated current : 1.95 A  
 LRC : 5.5  
 Rated torque : 0.764 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 950 rpm

Moment of inertia (J) : 0.0067 kgm<sup>2</sup>  
 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 9 / 9	Revision
Checked by				
Date	26/07/2024			