

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :								
Product line	: W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase							
Product code :	12082015							
Frame	: 213/5JM							
Insulation class	: F							
Duty cycle	: Cont.(S1)							
Ambient temperature	: -20°C to +40°C							
Altitude	: 1000 m.a.s.l.							
Protection degree	: IP55							
Design	: B							
Cooling method	: IC411 - TEFC							
Mounting	: F-1							
Rotation <sup>1</sup>	: Both (CW and CCW)							
Starting method	: Direct On Line							
Approx. weight <sup>3</sup>	: 82.3 kg							
Moment of inertia (J)	: 0.0636 kgm <sup>2</sup>							
Output [HP]	10	7.5	7.5	7.5	10	10	10	
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]	25.3/12.7	11.5	11.4	11.3	15.2	14.4	14.1	
L. R. Amperes [A]	162/81.1	86.2	91.5	96.1	90.9	93.6	98.8	
LRC [A]	6.4x(Code H)	7.5x(Code J)	8.0x(Code K)	8.5x(Code L)	6.0x(Code G)	6.5x(Code H)	7.0x(Code H)	
No load current [A]	11.3/5.65	5.60	6.00	6.35	5.60	6.00	6.35	
Rated speed [RPM]	1765	1465	1470	1470	1450	1455	1460	
Slip [%]	1.94	2.33	2.00	2.00	3.33	3.00	2.67	
Rated torque [kgfm]	4.11	3.72	3.70	3.70	5.01	4.99	4.97	
Locked rotor torque [%]	200	200	240	260	150	180	190	
Breakdown torque [%]	295	300	340	360	220	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	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level <sup>2</sup>	58.0 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%							
	50%	91.0	90.0	89.2	88.7	90.3	90.3	
	75%	91.7	90.0	89.9	89.8	90.2	90.2	
	100%	91.7	89.8	90.1	90.3	88.5	89.5	
Power Factor	25%							
	50%	0.65	0.61	0.57	0.53	0.72	0.68	
	75%	0.76	0.74	0.70	0.67	0.81	0.79	
	100%	0.81	0.81	0.77	0.75	0.85	0.84	
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	8.8	11.0	10.7	10.4	12.6	11.4	10.6
	P2 (0,5;1,0)	7.3	9.2	8.9	8.7	10.5	9.5	8.8
	P3 (0,25;1,0)	7.0	8.8	8.5	8.3	10.1	9.1	8.4
	P4 (0,9;0,5)	4.6	5.8	5.6	5.5	6.6	6.0	5.6
	P5 (0,5;0,5)	3.2	4.0	3.9	3.8	4.6	4.1	3.8
	P6 (0,5;0,25)	2.3	2.8	2.7	2.7	3.2	2.9	2.7
	P7 (0,25;0,25)	1.6	2.0	1.9	1.9	2.2	2.0	1.9
Bearing type	: Drive end : 6309 Z C3 Non drive end : 6207 ZZ	Foundation loads						
Sealing	: V'Ring V'Ring	Max. traction : 207 kgf						
Lubrication interval	: 20000 h 40000 h	Max. compression : 289 kgf						
Lubricant amount	: 13 g 0 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	14/01/2024				1 / 9			

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 27.4A SF 1.15 SFA 31.5A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/01/2024		2 / 9	

# LOAD PERFORMANCE CURVE

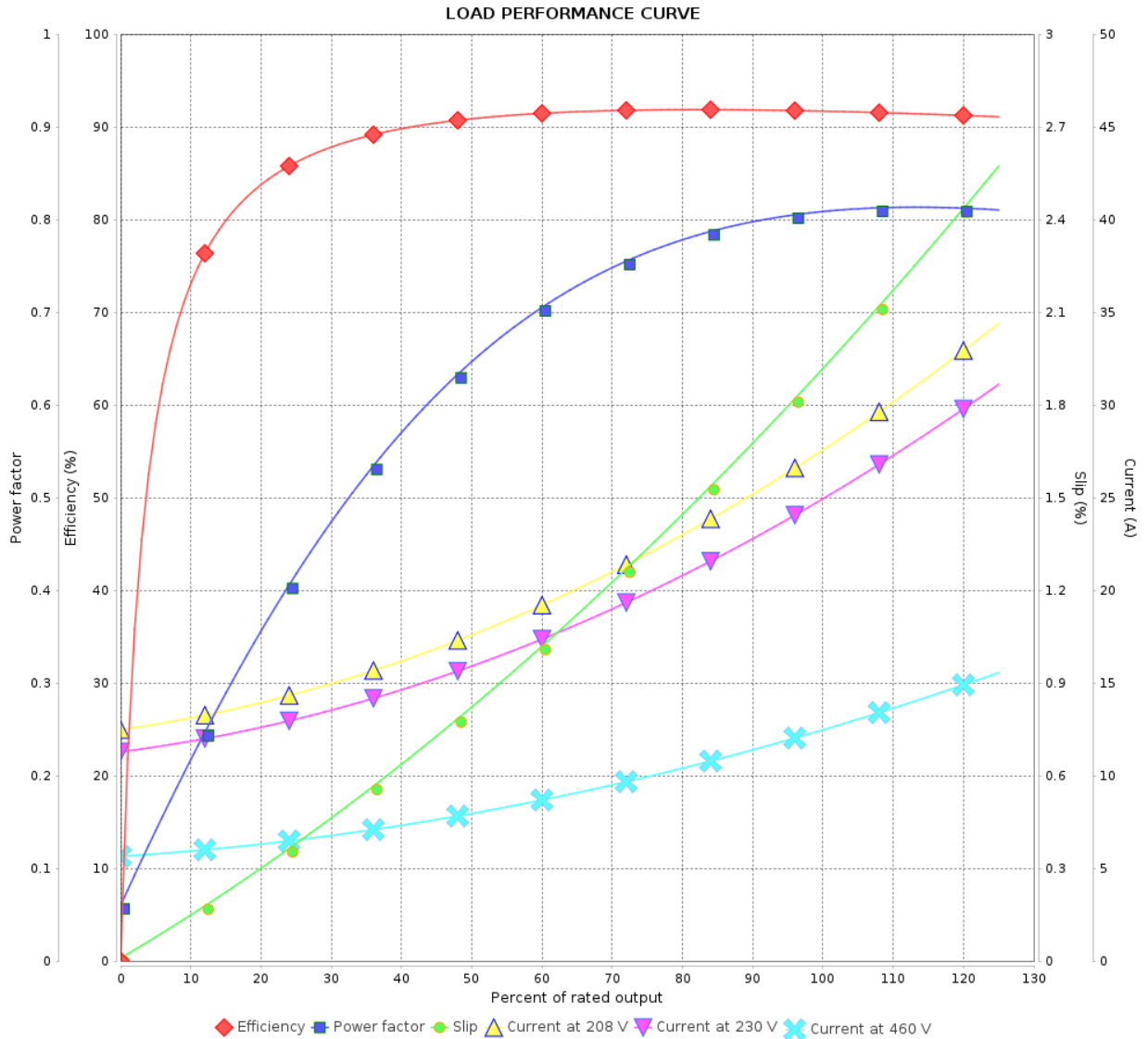
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12082015



Performance : 230/460 V 60 Hz 4P

Rated current : 25.3/12.7 A  
LRC : 6.4  
Rated torque : 4.11 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 295 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0636 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

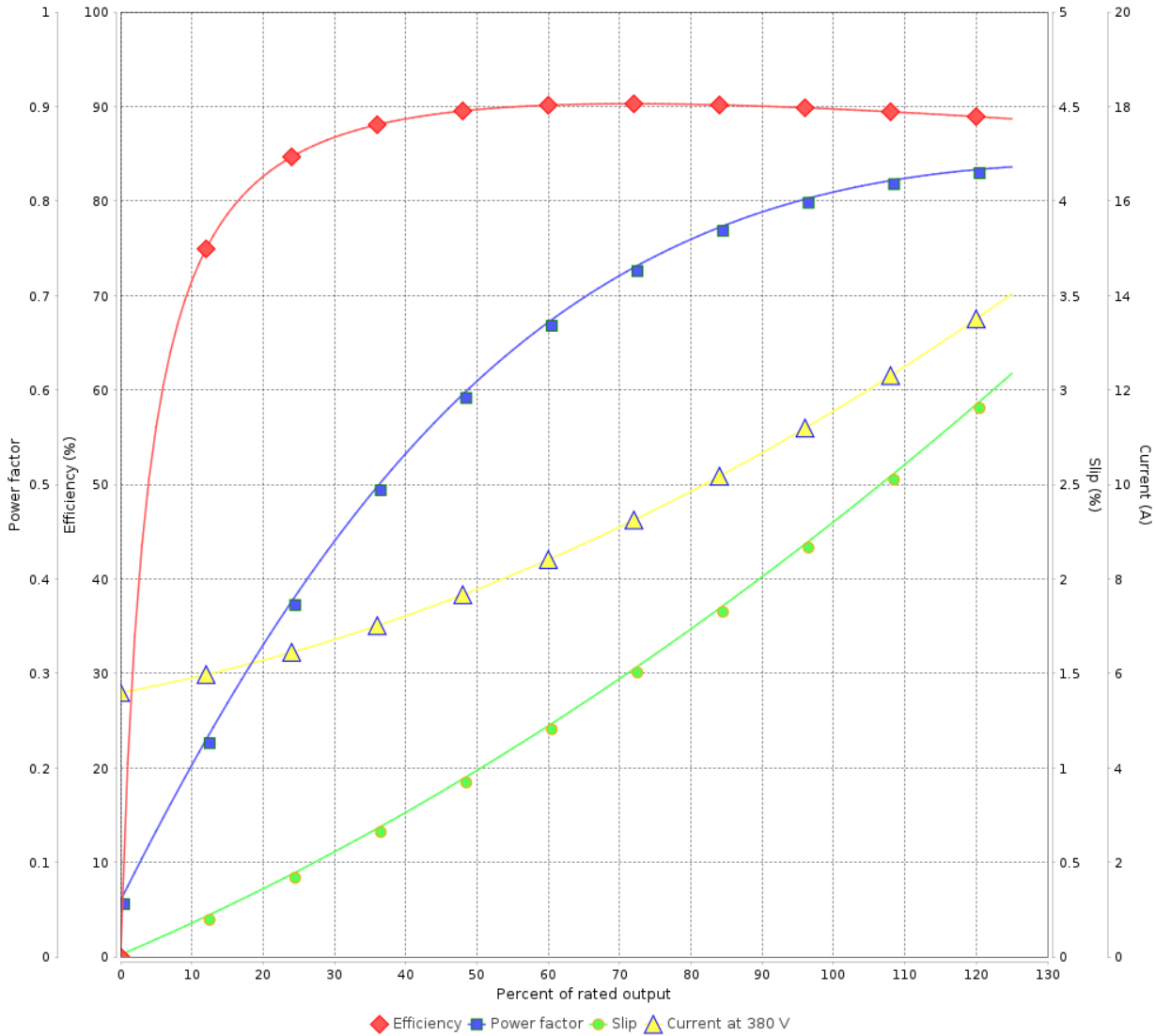


Customer :

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12082015

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current : 11.5 A  
LRC : 7.5  
Rated torque : 3.72 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 300 %  
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
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 4 / 9	Revision
Checked by				
Date	14/01/2024			

# LOAD PERFORMANCE CURVE

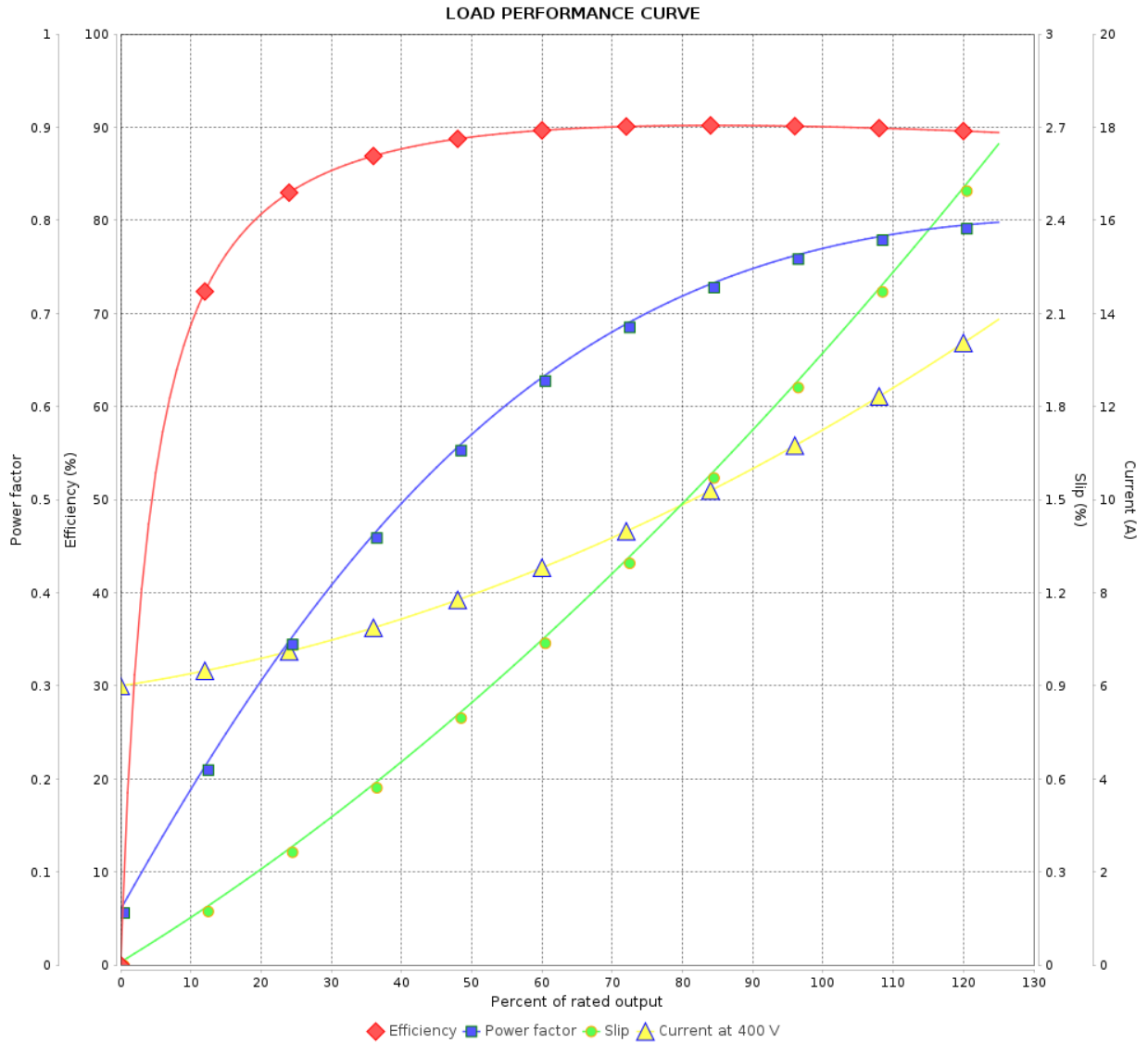
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12082015



Performance : 400 V 50 Hz 4P IE3

Rated current : 11.4 A  
 LRC : 8.0  
 Rated torque : 3.70 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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		5 / 9		
Date		14/01/2024		

# LOAD PERFORMANCE CURVE

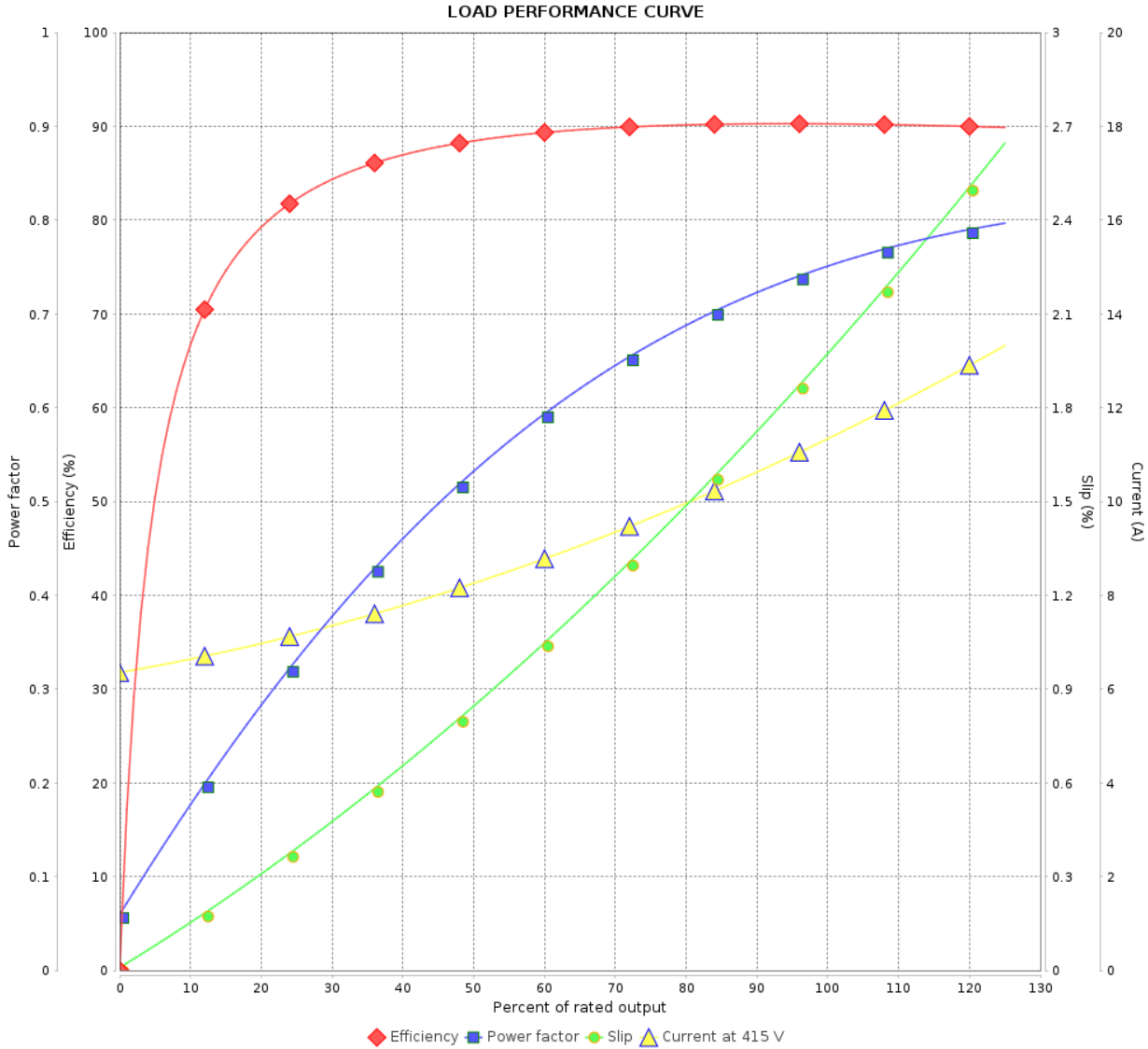
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase

Product code : 12082015



Performance : 415 V 50 Hz 4P IE3

Rated current : 11.3 A  
 LRC : 8.5  
 Rated torque : 3.70 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 360 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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	14/01/2024			

# LOAD PERFORMANCE CURVE

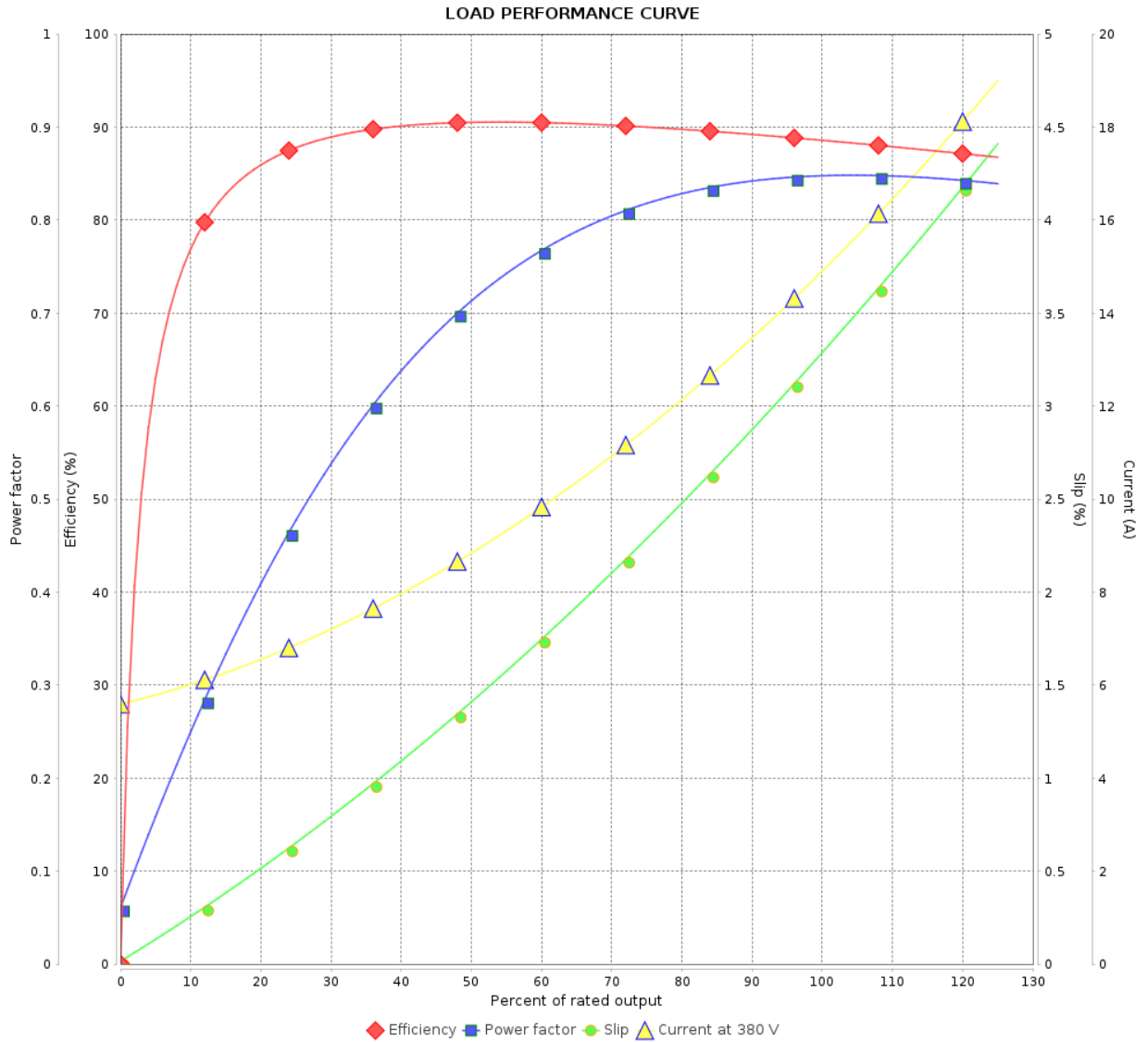
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12082015



Performance : 380 V 50 Hz 4P IE1

Rated current : 15.2 A  
 LRC : 6.0  
 Rated torque : 5.01 kgfm  
 Locked rotor torque : 150 %  
 Breakdown torque : 220 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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				
Checked by				
Date				
			Page	Revision
			7 / 9	

# LOAD PERFORMANCE CURVE

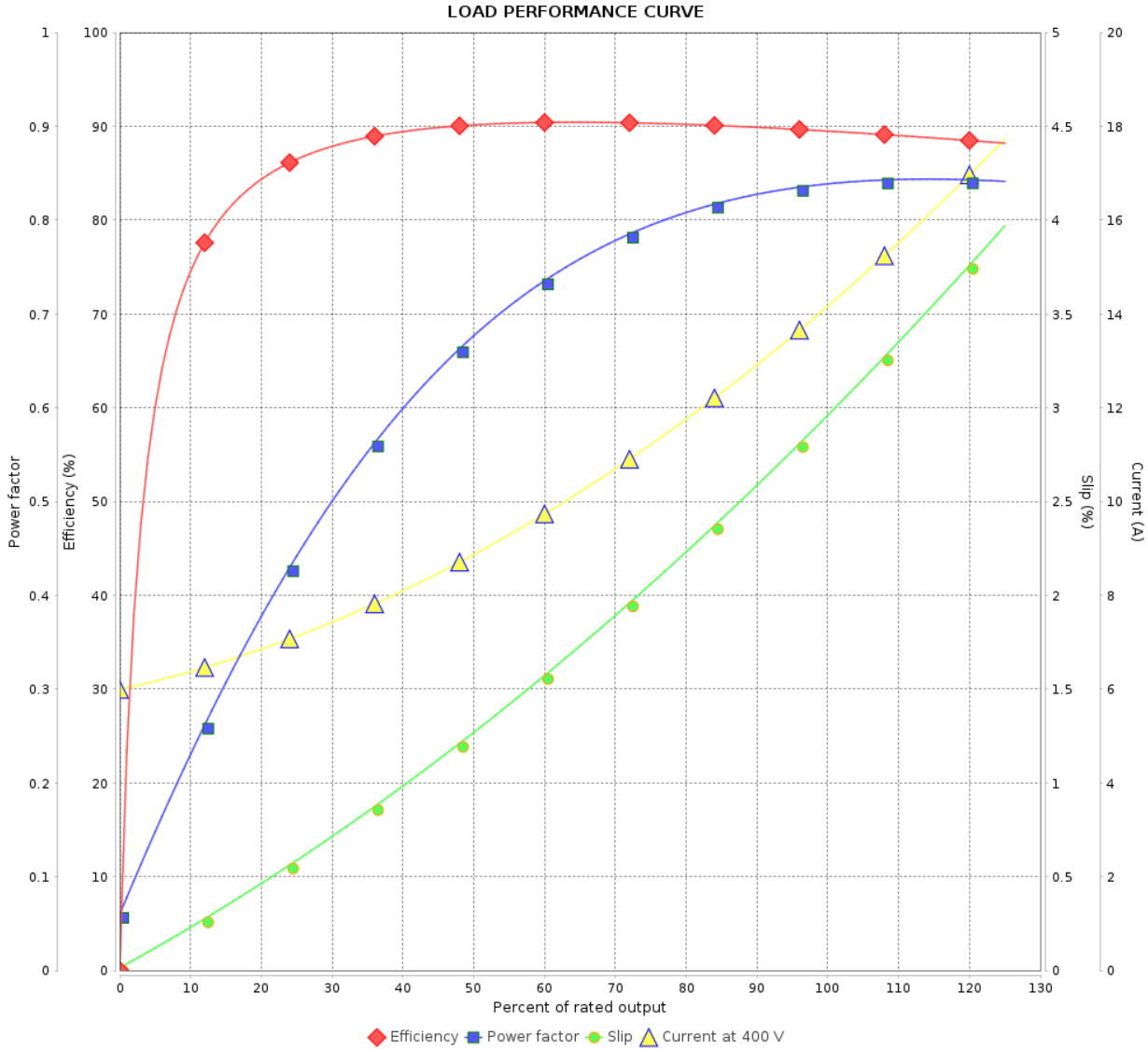
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12082015



Performance : 400 V 50 Hz 4P IE2

Rated current : 14.4 A  
LRC : 6.5  
Rated torque : 4.99 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 250 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
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 8 / 9	Revision
Checked by				
Date	14/01/2024			



