

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 14614718			
Frame	: 280S/M	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B35L(E)		
Duty cycle	: 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	: 786 kg		
Protection degree	: IP55	Moment of inertia (J)	: 2.25 kgm ²		
Design	: N				
Output [HP]	100	100	100		
Poles	4	4	4		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	139	128	232/116		
L. R. Amperes [A]	973	1075	2042/1021		
LRC [A]	7.0	8.4	8.8		
No load current [A]	39.0	44.5	78.0/39.0		
Rated speed [RPM]	1486	1488	1789		
Slip [%]	0.93	0.80	0.61		
Rated torque [kgfm]	48.8	48.8	40.6		
Locked rotor torque [%]	190	240	250		
Breakdown torque [%]	229	280	290		
Service factor	1.25	1.25	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	63s (cold) 35s (hot)	55s (cold) 31s (hot)	66s (cold) 37s (hot)		
Noise level ²	69.0 dB(A)	69.0 dB(A)	73.0 dB(A)		
Efficiency (%)	25%				
	50%	94.8	94.6	93.0	
	75%	95.2	95.2	94.5	
	100%	95.4	95.7	95.4	
Power Factor	25%				
	50%	0.78	0.73	0.72	
	75%	0.84	0.82	0.81	
	100%	0.86	0.85	0.85	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.4	4.1	4.4	
	P2 (0,5;1,0)	2.9	2.7	2.9	
	P3 (0,25;1,0)	2.3	2.2	2.3	
	P4 (0,9;0,5)	2.7	2.5	2.7	
	P5 (0,5;0,5)	1.4	1.3	1.4	
	P6 (0,5;0,25)	1.0	1.0	1.0	
	P7 (0,25;0,25)	0.6	0.5	0.6	
Bearing type	: Drive end 6316 C3	Non drive end 6316 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction : 636 kgf		
Lubrication interval	: 10000 h	10000 h	Max. compression : 1422 kgf		
Lubricant amount	: 34 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. (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					
Checked by				Page	Revision
Date	15/01/2024			1 / 5	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	15/01/2024		2 / 5	

LOAD PERFORMANCE CURVE

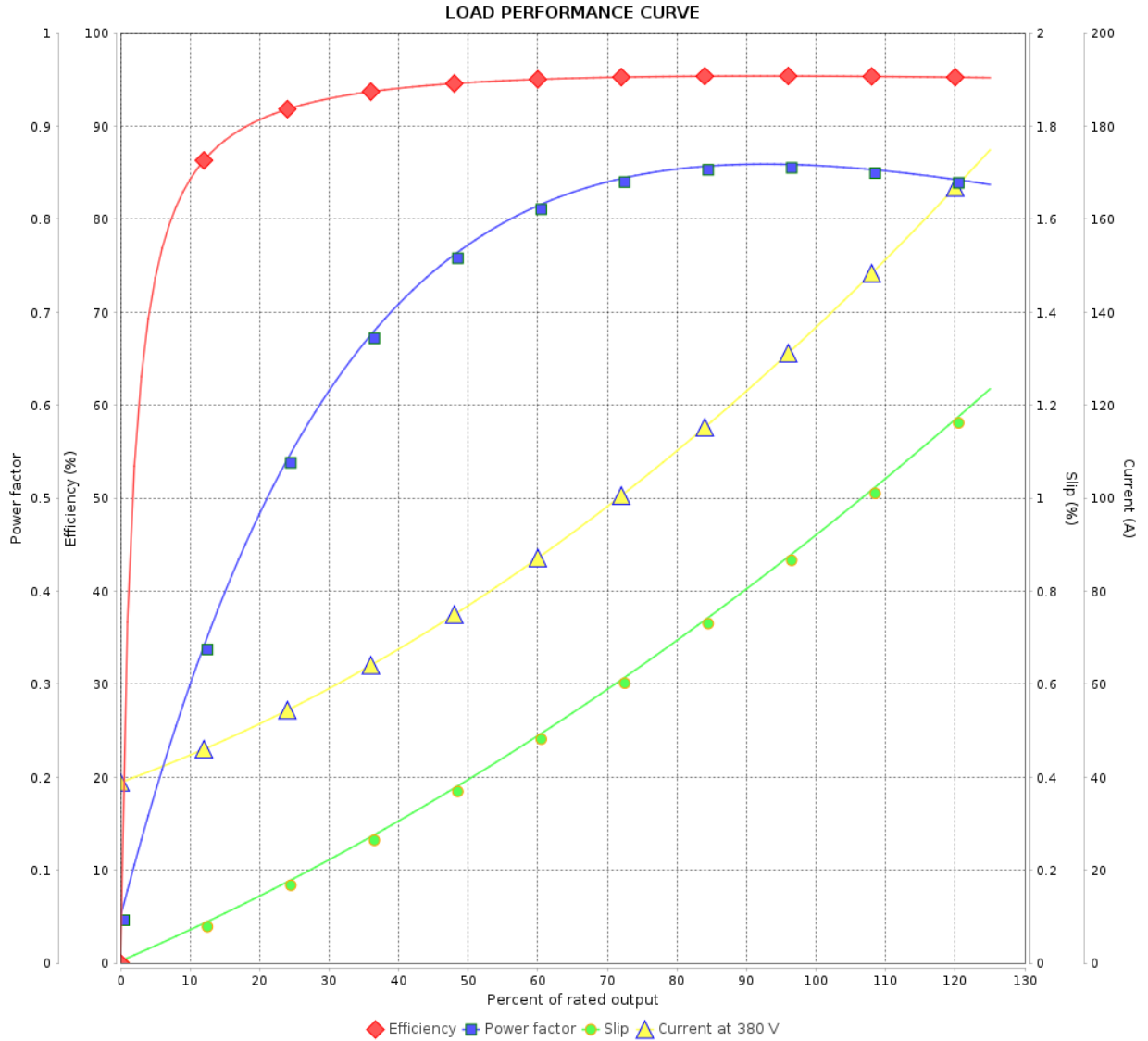
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14614718



Performance : 380 V 50 Hz 4P

Rated current : 139 A
 LRC : 7.0
 Rated torque : 48.8 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 229 %
 Rated speed : 1486 rpm

Moment of inertia (J) : 2.25 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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

LOAD PERFORMANCE CURVE

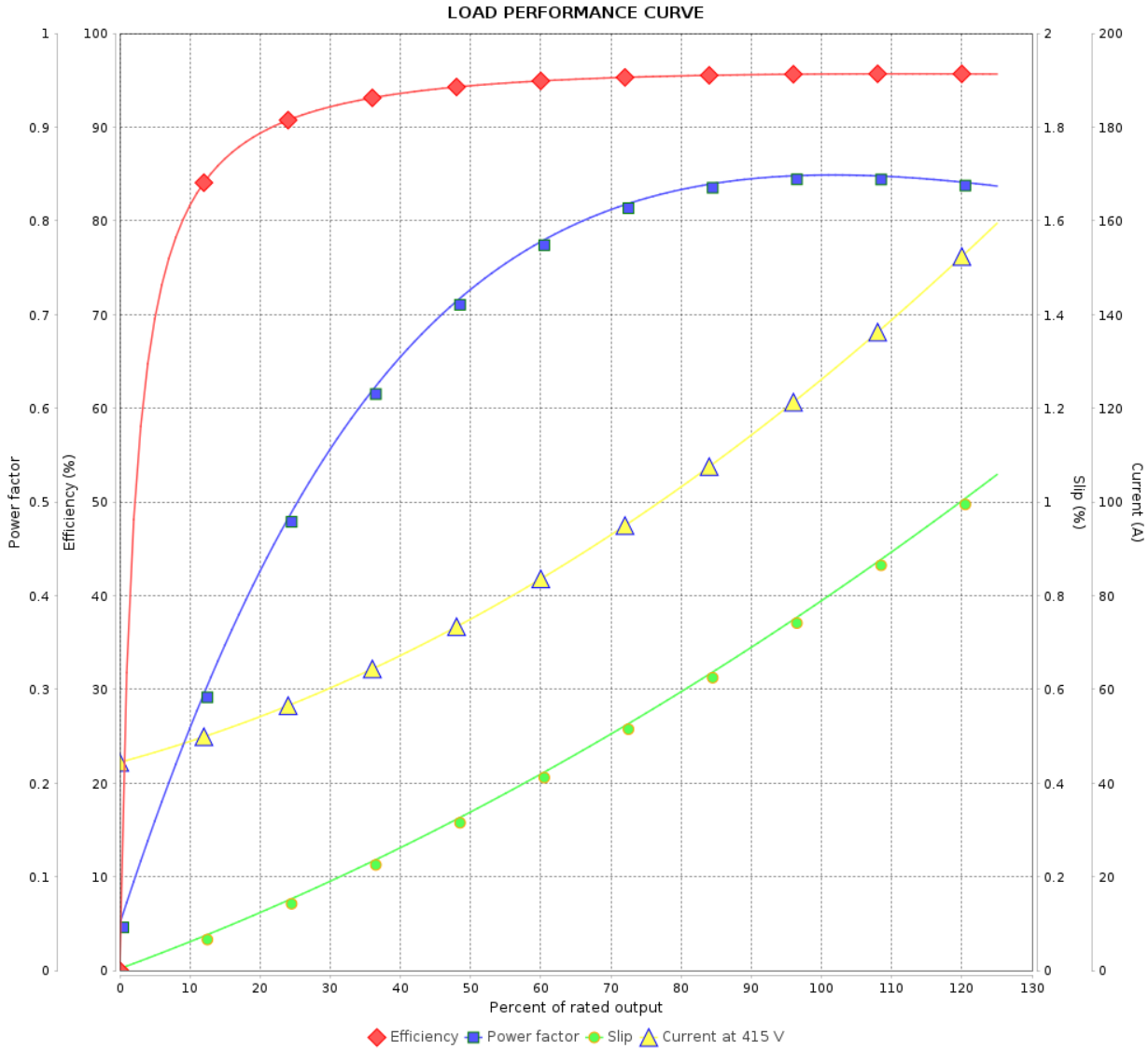
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14614718



Performance : 415 V 50 Hz 4P

Rated current	: 128 A	Moment of inertia (J)	: 2.25 kgm ²
LRC	: 8.4	Duty cycle	: S1
Rated torque	: 48.8 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1488 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 5	Revision
Checked by				
Date	15/01/2024			

LOAD PERFORMANCE CURVE

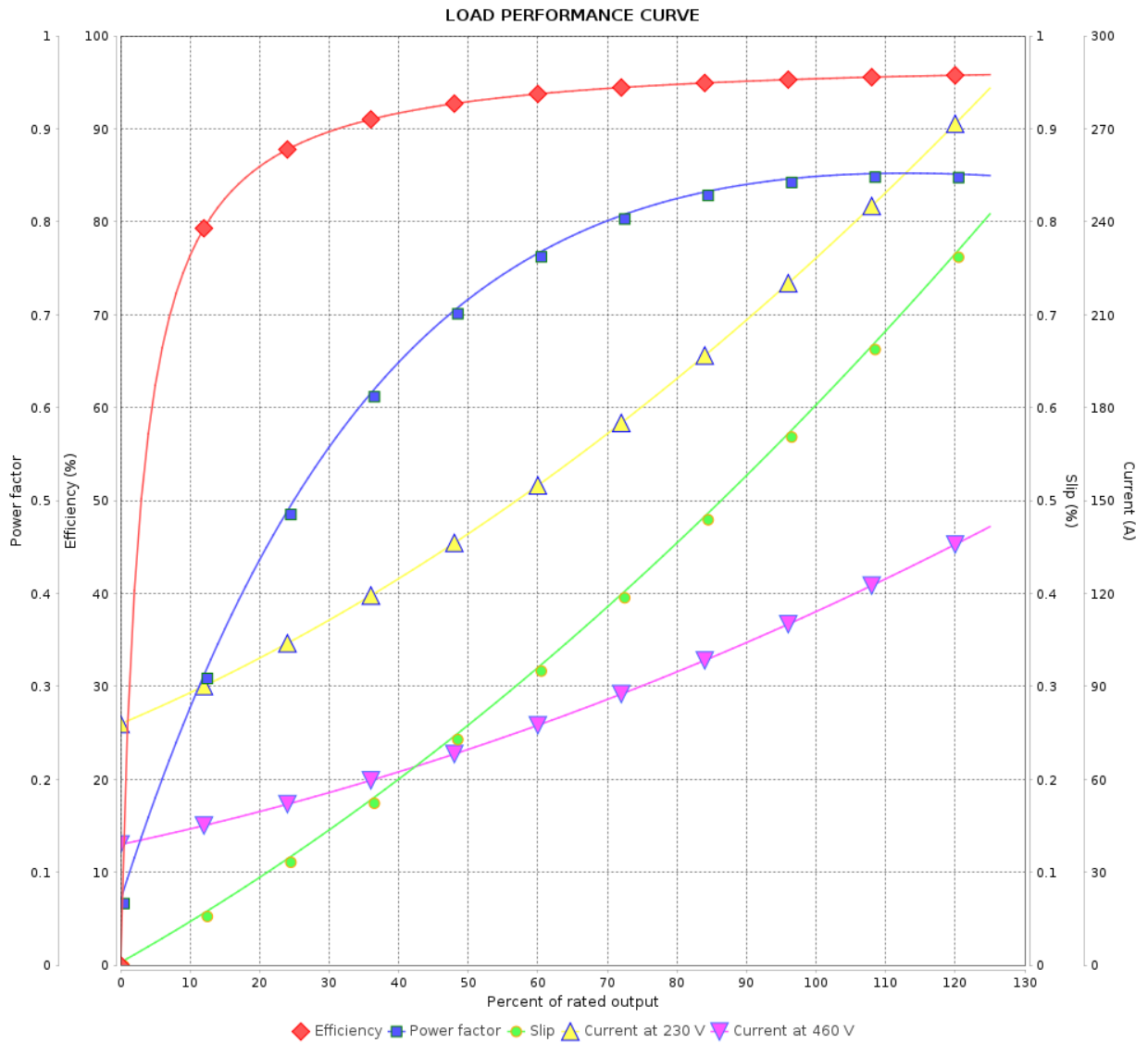
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14614718



Performance : 230/460 V 60 Hz 4P

Rated current : 232/116 A
 LRC : 8.8
 Rated torque : 40.6 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 1789 rpm

Moment of inertia (J) : 2.25 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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