DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345

Frame	: 160M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3L(E)
Duty cycle	: S1	Rotation¹	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight³	: 139 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1004 kgm²
Design	: N		

Output [HP]		15	15	15
Poles		4	4	4
Frequency [Hz]		50	50	60
Rated voltage [V]		380	415	230/460
Rated current [A]		21.5	20.7	36.4/18.2
L. R. Amperes [A]		161	176	309/155
LRC [A]		7.5	8.5	8.5
No load current [A]		9.00	10.2	18.2/9.08
Rated speed [RPM]		1470	1476	1780
Slip [%]		2.00	1.60	1.11
Rated torque [kgfm]		7.41	7.38	6.12
Locked rotor torque [%]		220	270	300
Breakdown torque [%]		250	310	330
Service factor		1.00	1.00	1.25
Temperature rise		80 K	80 K	80 K
Locked rotor time		25s (cold) 14s (hot)	19s (cold) 11s (hot)	28s (cold) 16s (hot)
Noise level²		61.0 dB(A)	61.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	91.0	90.4	89.5
	75%	91.4	91.4	91.7
	100%	91.4	91.4	92.4
Power Factor	25%			
	50%	0.69	0.62	0.63
	75%	0.79	0.74	0.75
	100%	0.85	0.81	0.82

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

Losses (%)	P1 (0,9;1,0)	9.0	9.0	7.9
	P2 (0,5;1,0)	7.3	7.3	6.4
	P3 (0,25;1,0)	6.9	6.9	6.0
	P4 (0,9;0,5)	5.2	5.2	4.6
	P5 (0,5;0,5)	3.5	3.5	3.1
	P6 (0,5;0,25)	2.6	2.6	2.3
	P7 (0,25;0,25)	1.9	1.9	1.6

		Drive end	Non drive end
Bearing type	:	6309 C3	6209 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	13 g	9 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 248 kgf

Max. compression : 387 kgf

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	25/10/2024		1 / 5	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Notes

Rev.	Changes Summary	Performed	Checked	Date

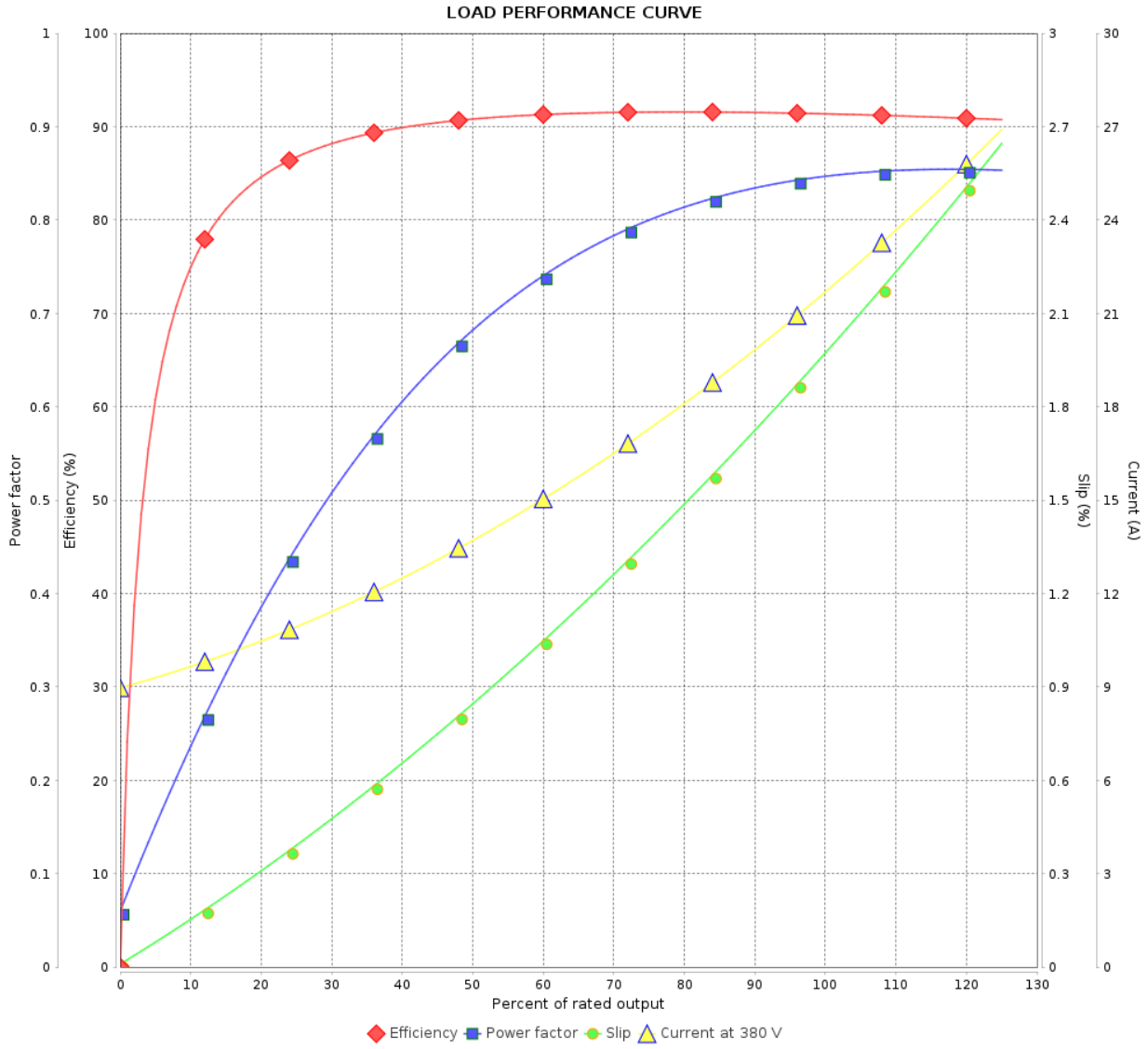
Performed by				
Checked by			Page	Revision
Date	25/10/2024		2 / 5	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345



Performance	: 380 V 50 Hz 4P		
Rated current	: 21.5 A	Moment of inertia (J)	: 0.1004 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 7.41 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

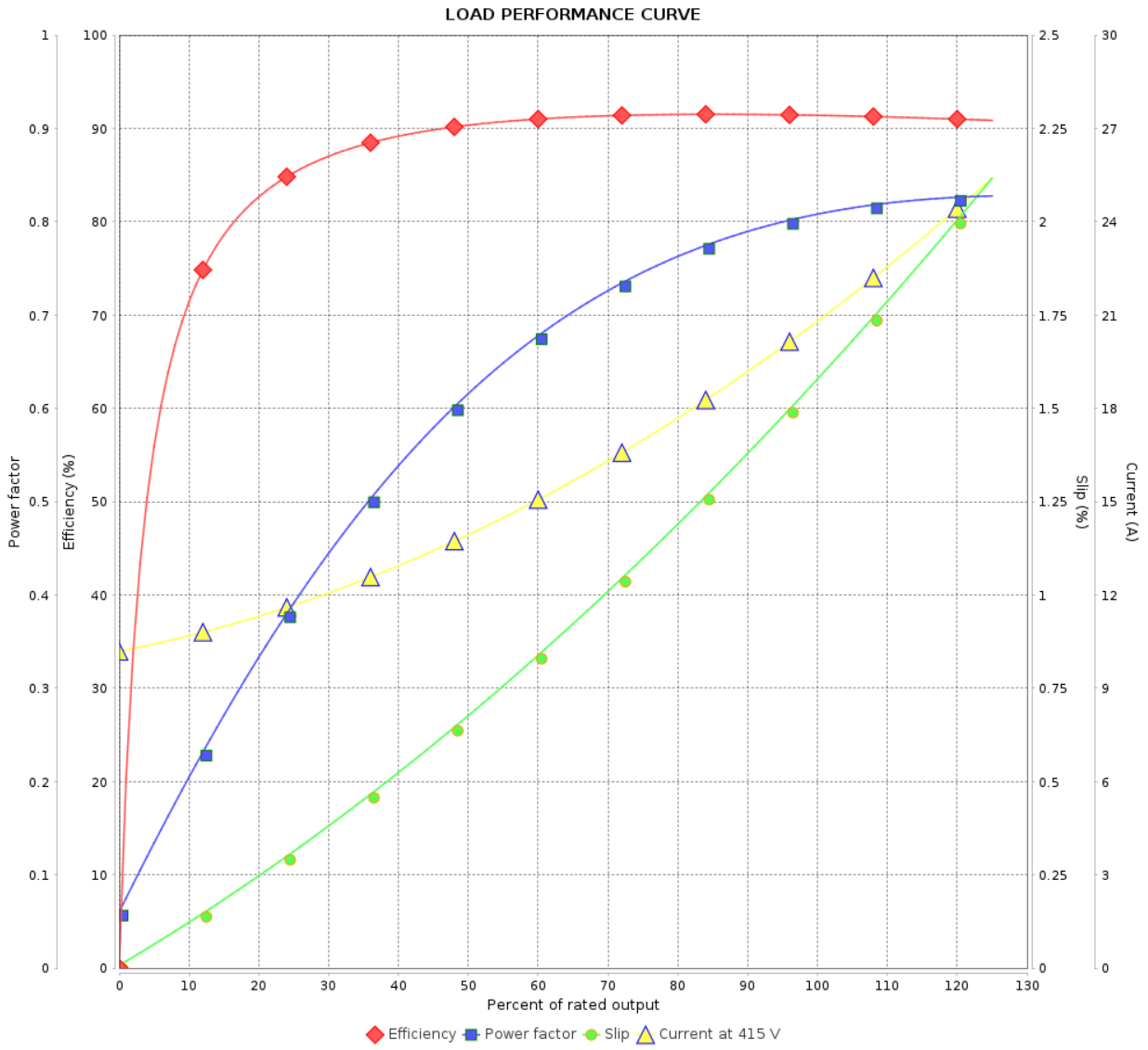
Performed by				
Checked by			Page	Revision
Date	25/10/2024		3 / 5	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: W22 Tru-Metric IE3 Three-Phase	Product code :	12645345



Performance	: 415 V 50 Hz 4P

Rated current	: 20.7 A	Moment of inertia (J)	: 0.1004 kgm²
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 7.38 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1476 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

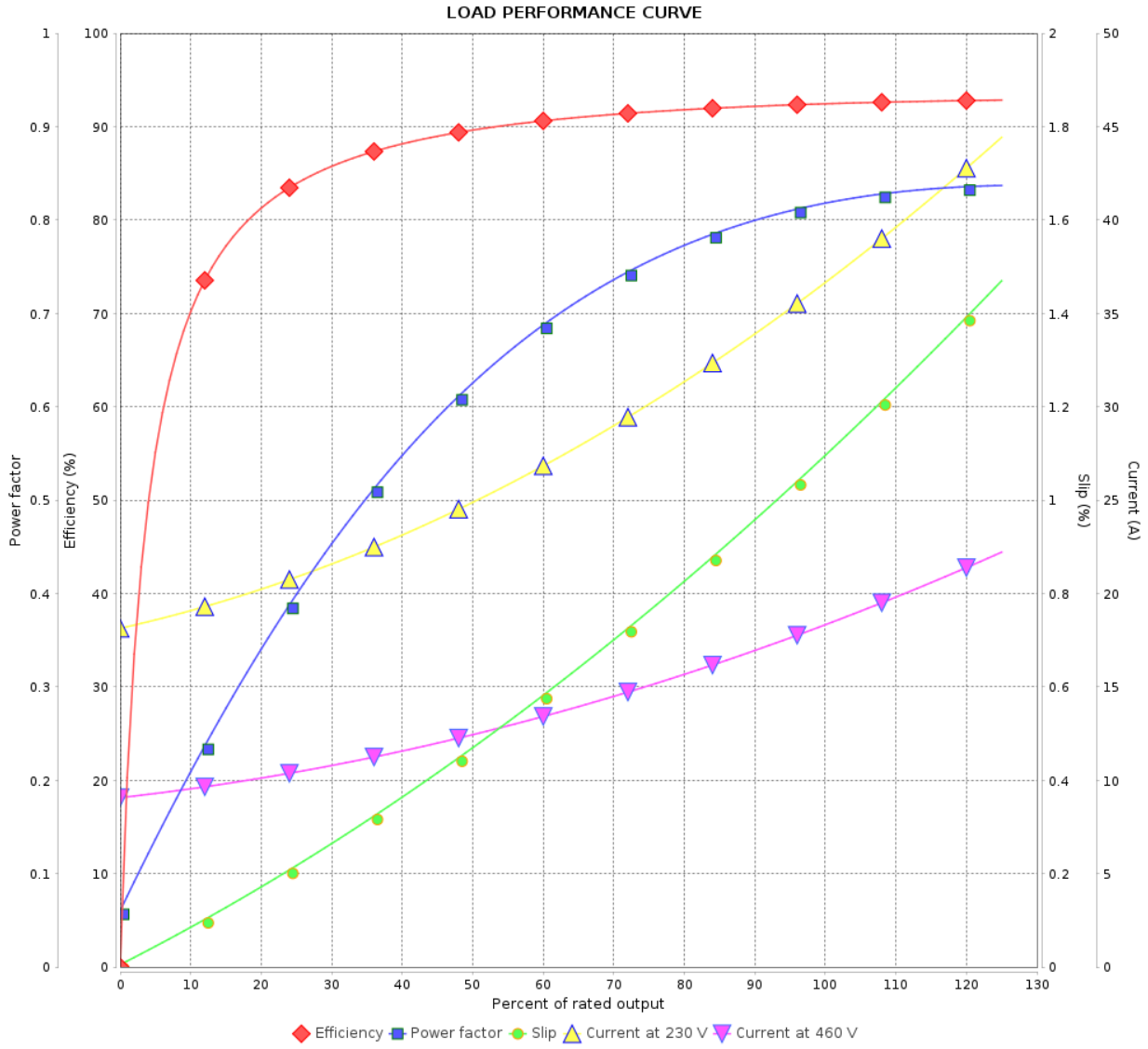
Performed by				
Checked by			Page	Revision
Date	25/10/2024		4 / 5	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345



Performance	: 230/460 V 60 Hz 4P		
Rated current	: 36.4/18.2 A	Moment of inertia (J)	: 0.1004 kgm²
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 6.12 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	25/10/2024		5 / 5	