

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 14337969

Frame : 182/4TC
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
Rotation¹ : Both (CW and CCW)
Starting method : Direct On Line
Approx. weight² : 55.7 kg
Moment of inertia (J) : 0.0117 kgm²

Output [HP]	3	3	3	3
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	8.02/4.01	4.72	4.59	4.49
L. R. Amperes [A]	64.2/32.1	30.7	32.1	34.1
LRC [A]	8.0x(Code K)	6.5x(Code H)	7.0x(Code J)	7.6x(Code K)
No load current [A]	4.20/2.10	2.20	2.50	2.70
Rated speed [RPM]	1760	1450	1455	1460
Slip [%]	2.22	3.33	3.00	2.67
Rated torque [kgfm]	1.24	1.50	1.50	1.49
Locked rotor torque [%]	250	215	229	260
Breakdown torque [%]	320	250	260	290
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	86.2	89.2	88.1
	50%	87.3	88.5	87.5
	75%	88.5	88.5	88.5
	100%	89.5	87.5	87.5
Power Factor	25%	0.35	0.38	0.34
	50%	0.59	0.63	0.59
	75%	0.71	0.75	0.71
	100%	0.77	0.81	0.79

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

Losses (%)	P1 (0,9;1,0)	11.0	13.4	13.4	12.2
	P2 (0,5;1,0)	8.7	10.6	10.6	9.6
	P3 (0,25;1,0)	8.3	10.1	10.1	9.2
	P4 (0,9;0,5)	6.4	7.8	7.8	7.1
	P5 (0,5;0,5)	4.2	5.1	5.1	4.7
	P6 (0,5;0,25)	3.2	3.9	3.9	3.6
	P7 (0,25;0,25)	2.3	2.8	2.8	2.6

Drive end Non drive end
Bearing type : 6307 2RS 6206 2RS
Sealing : Oil Seal Lip Seal
Lubrication interval : - -
Lubricant amount : - -
Lubricant type : Mobil Polyrex EM

Foundation loads
Max. traction : 62 kgf
Max. compression : 118 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.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 8.65A SF 1.15 SFA 9.94A

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Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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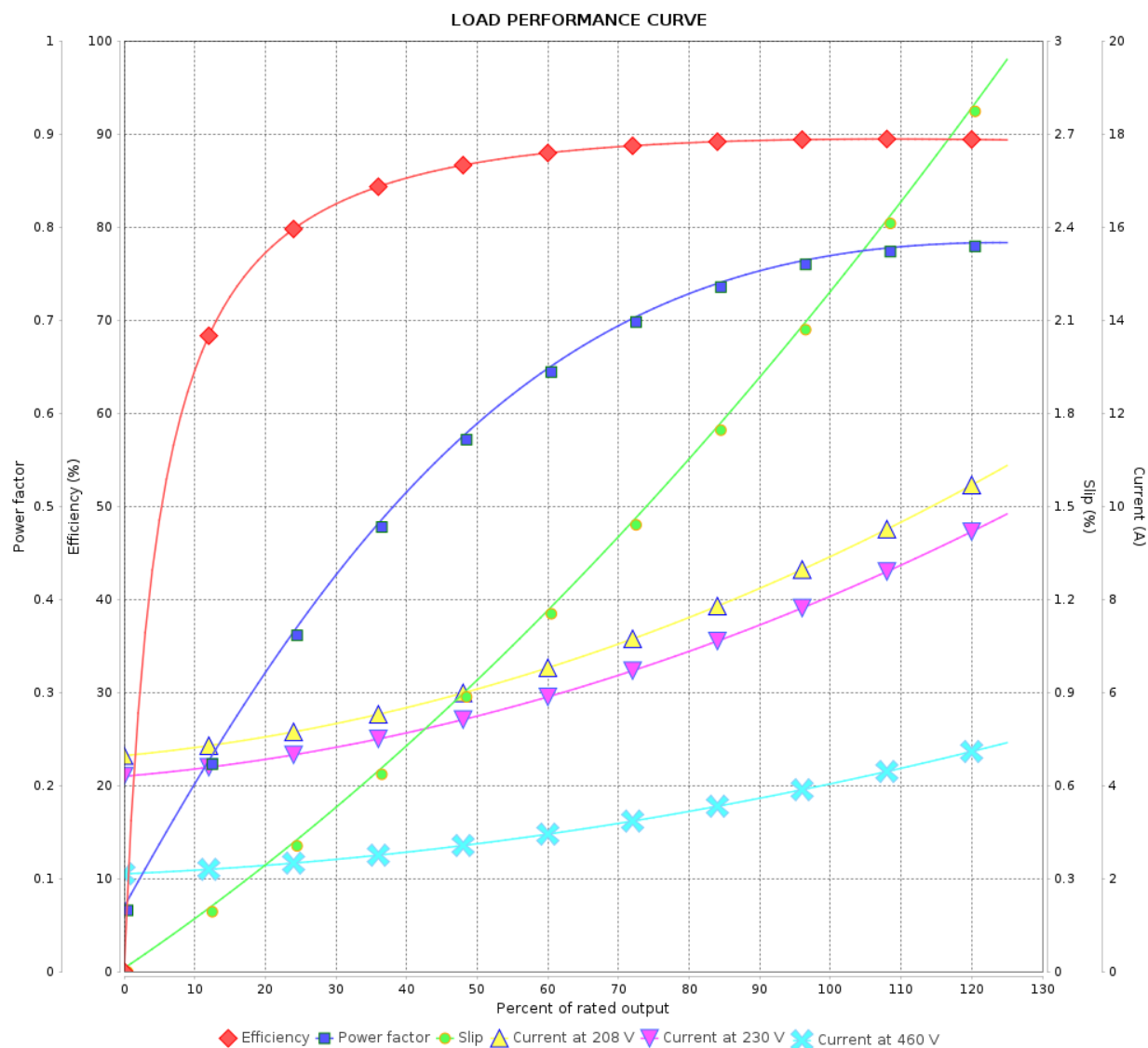
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
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Performance : 230/460 V 60 Hz 4P

Rated current : 8.02/4.01 A
LRC : 8.0
Rated torque : 1.24 kgfm
Locked rotor torque : 250 %
Breakdown torque : 320 %
Rated speed : 1760 rpm

Moment of inertia (J) : 0.0117 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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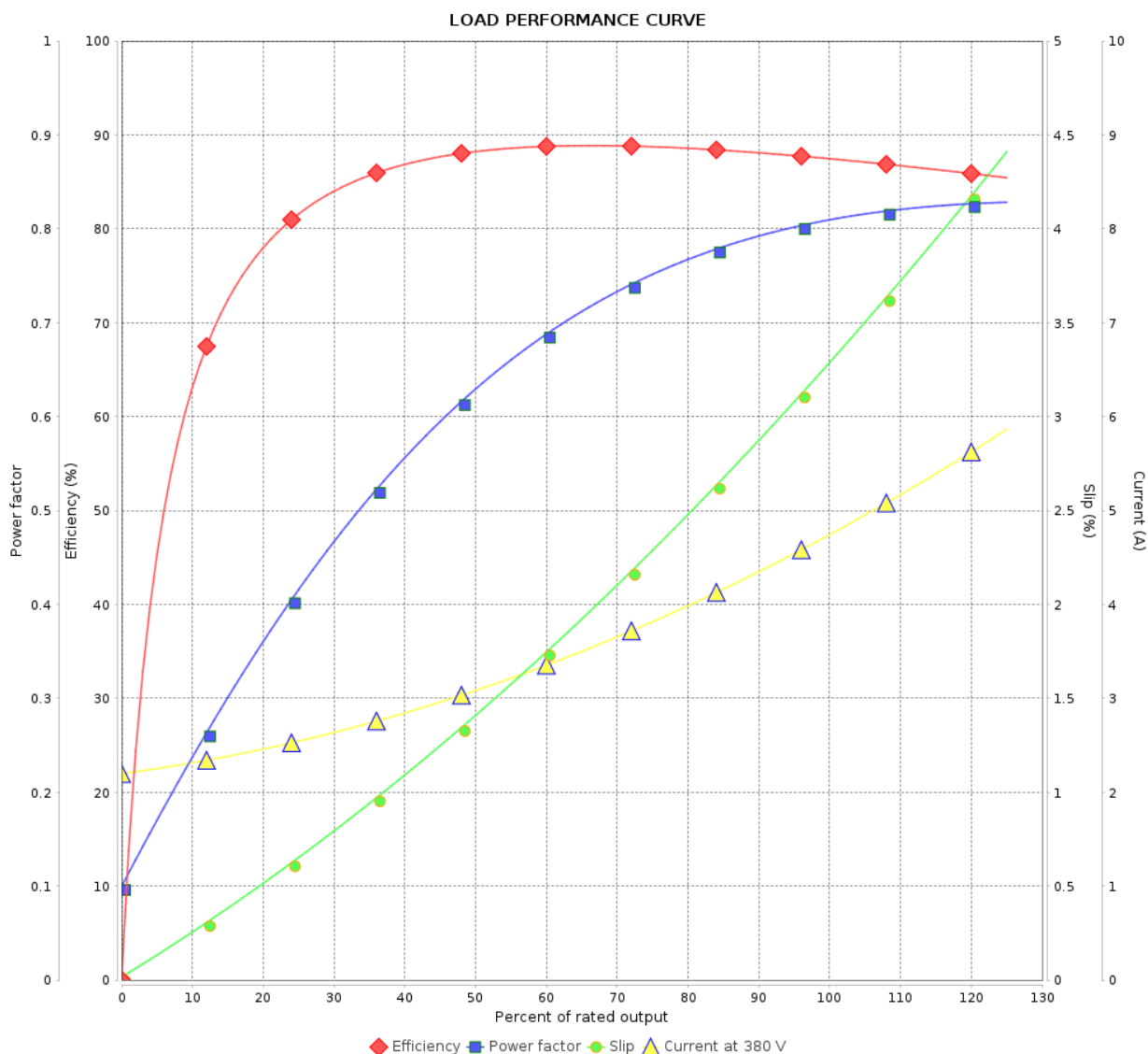
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
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Performance : 380 V 50 Hz 4P IE3

Rated current : 4.72 A
LRC : 6.5
Rated torque : 1.50 kgfm
Locked rotor torque : 215 %
Breakdown torque : 250 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0117 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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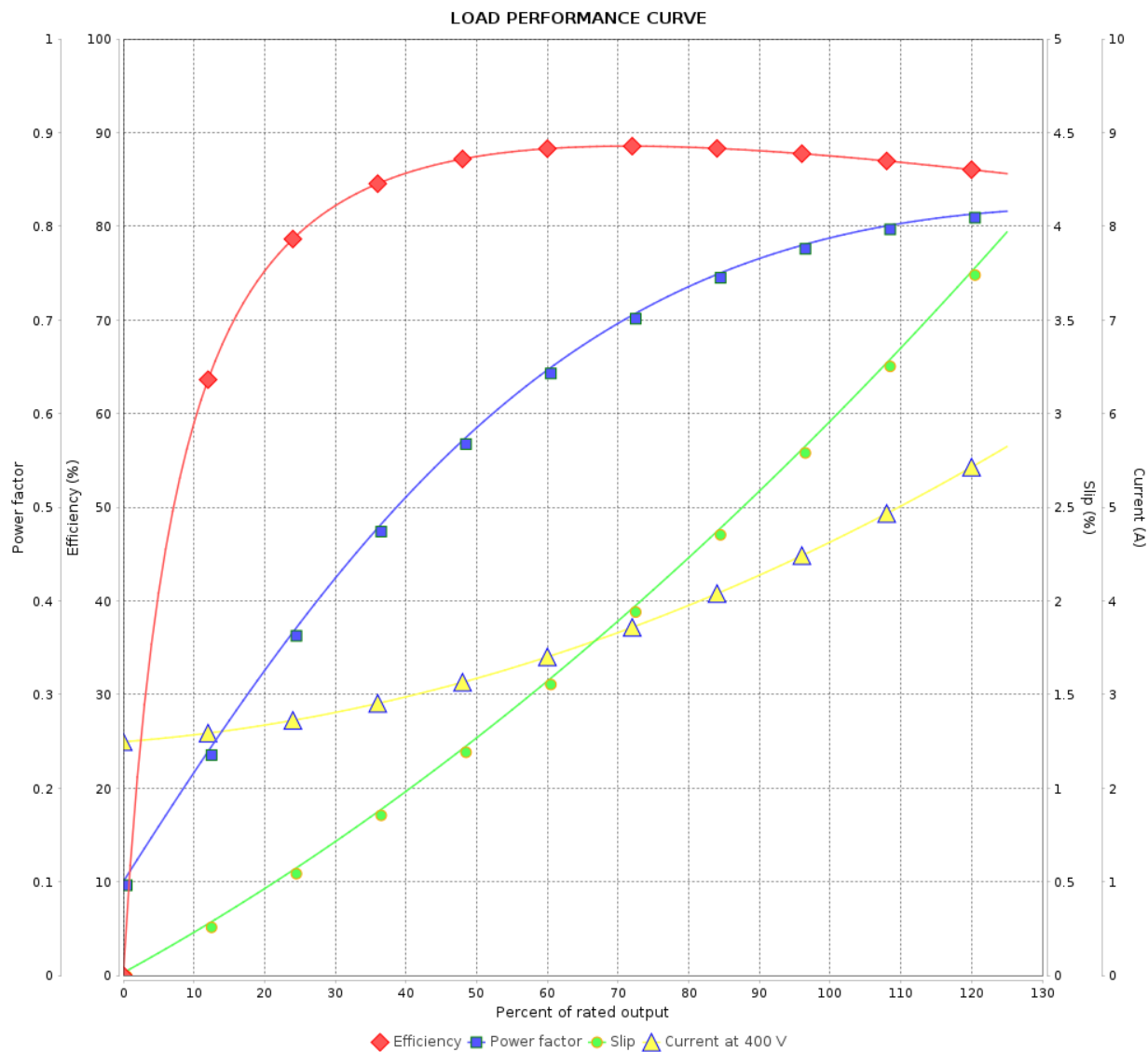
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
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Performance : 400 V 50 Hz 4P IE3

Rated current : 4.59 A
LRC : 7.0
Rated torque : 1.50 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0117 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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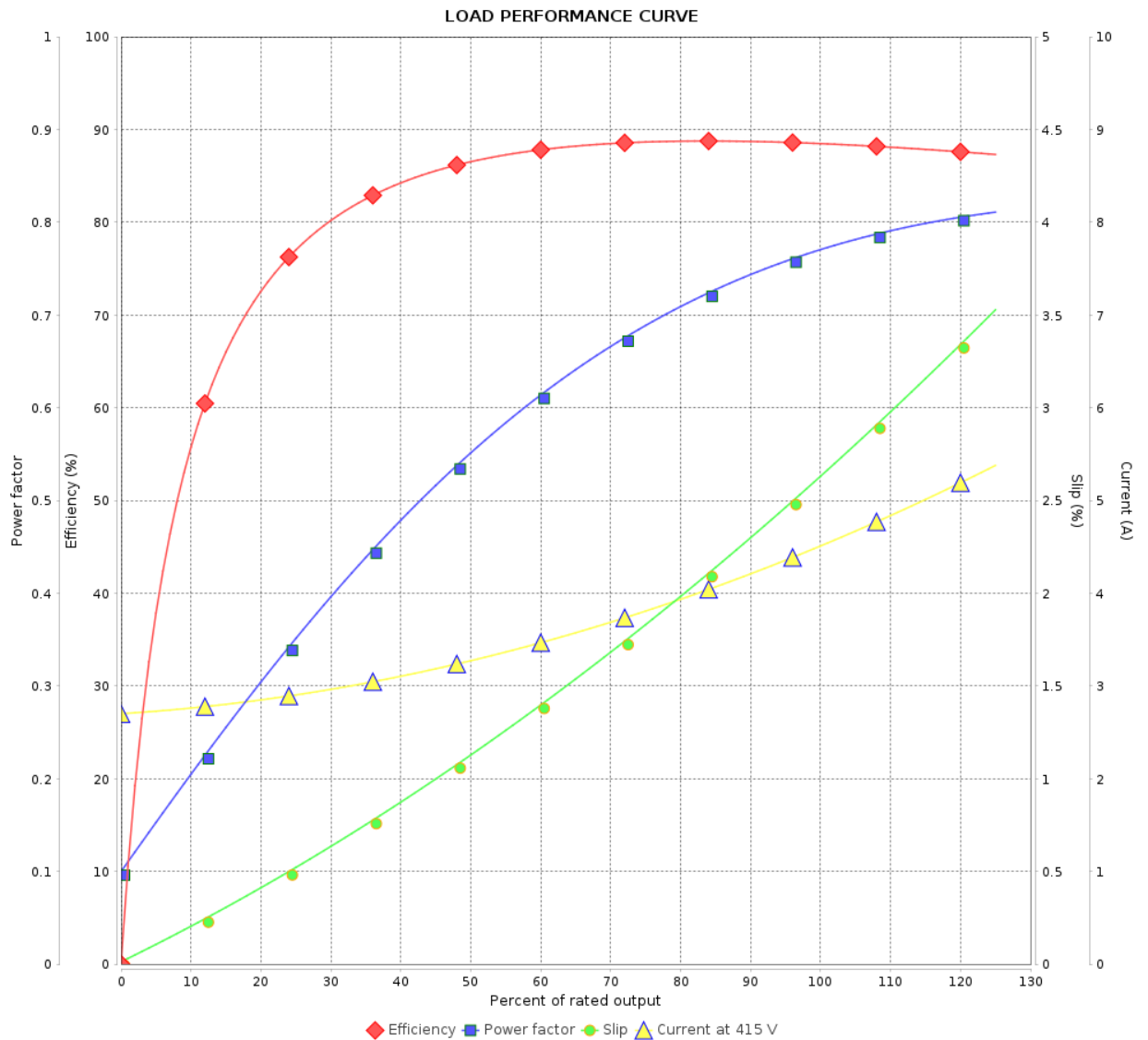
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Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.49 A	Moment of inertia (J)	: 0.0117 kgm ²
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 1.49 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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