

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14406885

Frame	: 286T	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(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 ²	: 225 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2175 kgm ²
Design	: B		

Output [HP]	30	30	30	30
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	70.2/35.1	43.4	41.1	39.7
L. R. Amperes [A]	428/214	230	247	238
LRC [A]	6.1x(Code G)	5.3x(Code F)	6.0x(Code G)	6.0x(Code G)
No load current [A]	24.6/12.3	12.2	13.1	13.8
Rated speed [RPM]	1770	1455	1460	1465
Slip [%]	1.67	3.00	2.67	2.33
Rated torque [kgfm]	12.3	15.0	14.9	14.9
Locked rotor torque [%]	240	170	190	220
Breakdown torque [%]	240	200	220	240
Service factor	1.15	1.00	1.00	1.00
Temperature rise	105 K	105 K	105 K	105 K
Locked rotor time	30s (cold) 17s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)
Noise level ²	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%	92.3	89.8	90.3
	50%	93.0	90.0	90.5
	75%	93.0	90.2	91.0
	100%	93.6	90.2	91.0
Power Factor	25%	0.46	0.53	0.50
	50%	0.70	0.76	0.73
	75%	0.80	0.83	0.82
	100%	0.84	0.86	0.85

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6311 C3	6211 C3	Max. traction	: 398 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 622 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 18 g	11 g		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 79.6A SF 1.00 SFA 79.6A

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.

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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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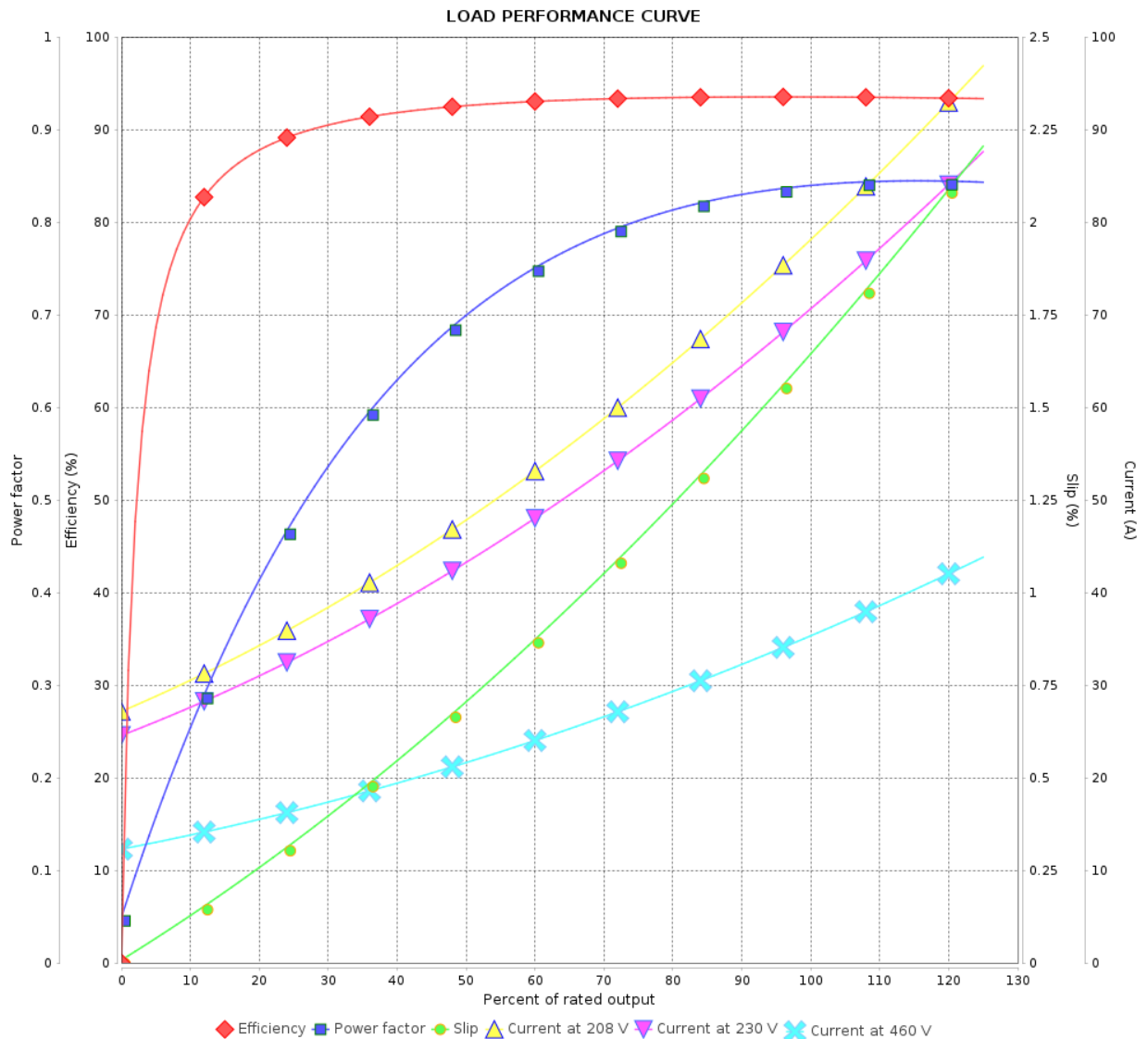
Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

Product code : 14406885



Performance : 230/460 V 60 Hz 4P

Rated current : 70.2/35.1 A
LRC : 6.1
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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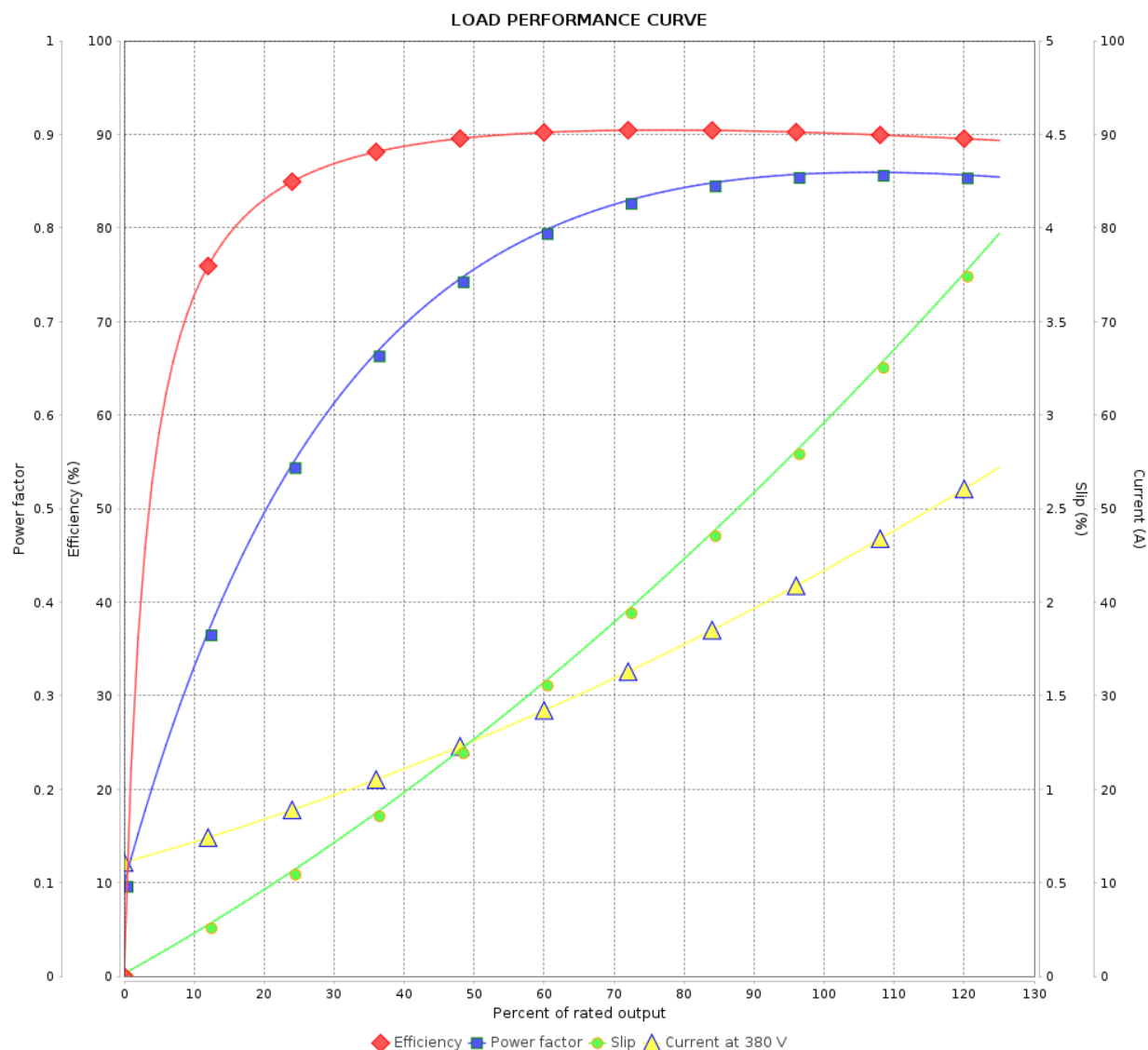
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE1

Rated current : 43.4 A
LRC : 5.3
Rated torque : 15.0 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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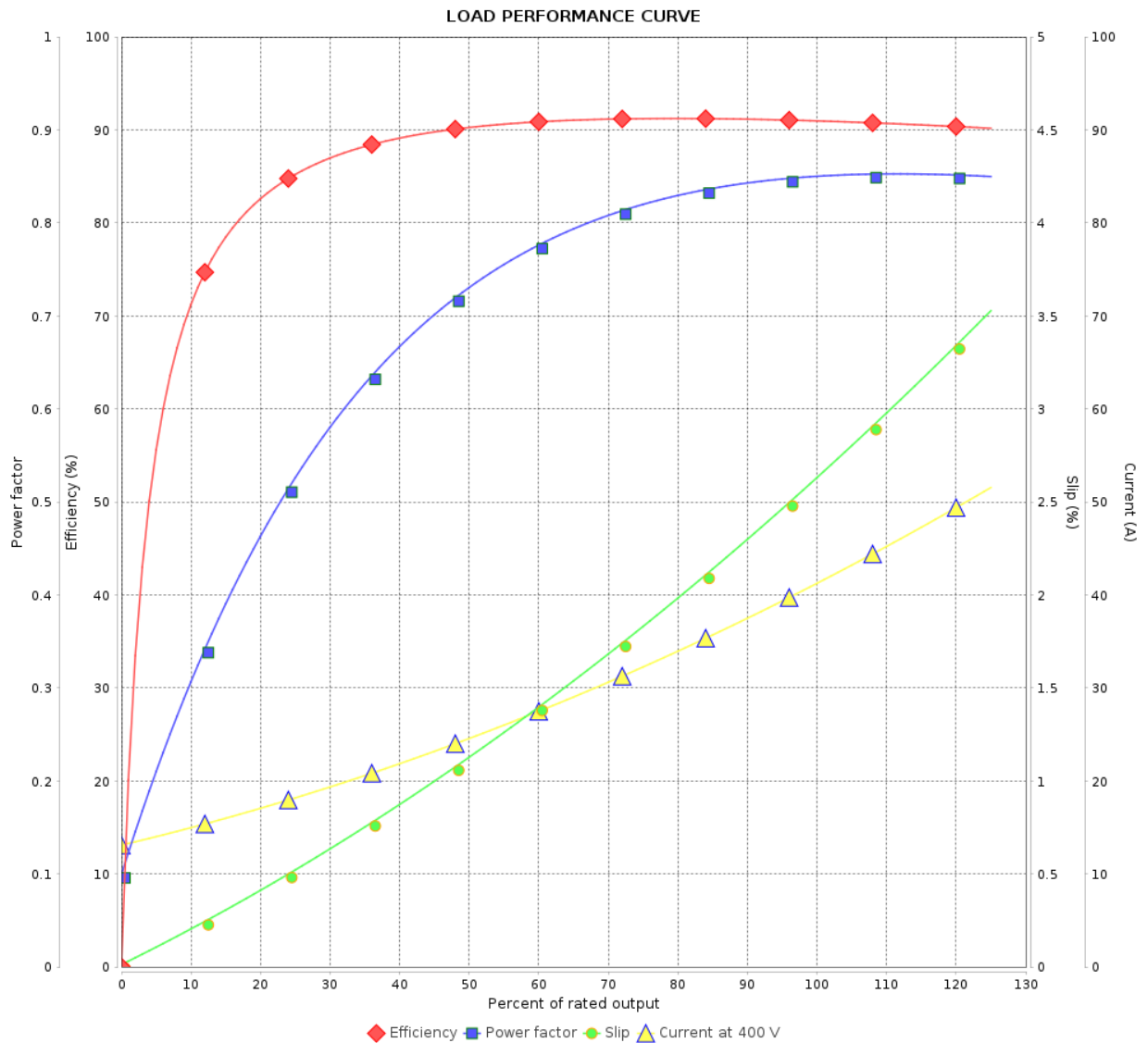
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 4P IE1

Rated current	: 41.1 A	Moment of inertia (J)	: 0.2175 kgm ²
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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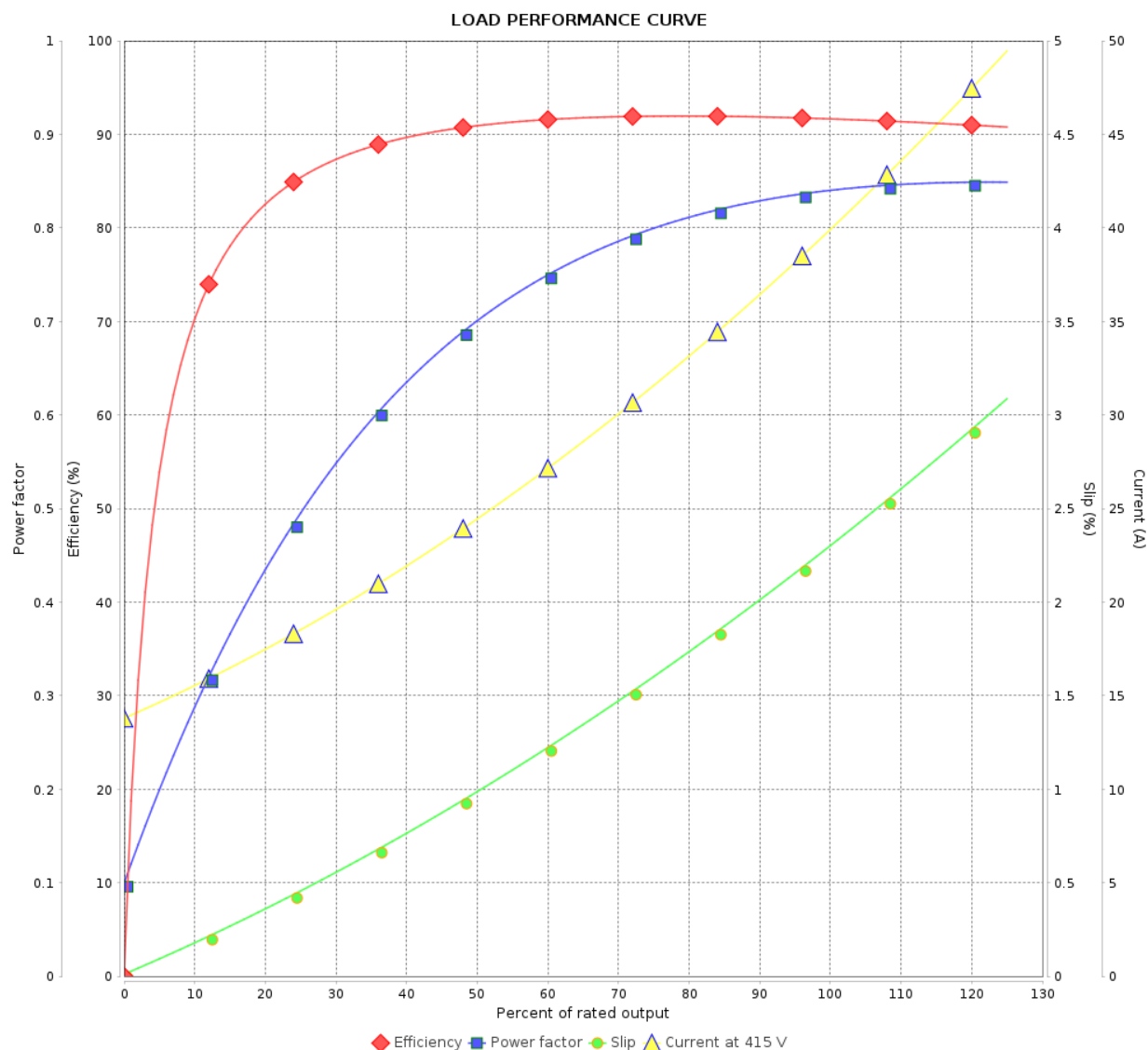
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 4P IE2

Rated current : 39.7 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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