

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14406980

Frame : 254T	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 ³ : 147 kg
Protection degree : IP55	Moment of inertia (J) : 0.1401 kgm ²
Design : B	

Output [HP]	7.5	7.5	7.5	7.5
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	19.5/9.73	11.5	11.0	10.8
L. R. Amperes [A]	136/68.1	64.4	68.2	71.3
LRC [A]	7.0x(Code J)	5.6x(Code G)	6.2x(Code H)	6.6x(Code H)
No load current [A]	10.4/5.20	5.20	5.50	5.80
Rated speed [RPM]	1175	960	965	965
Slip [%]	2.08	4.00	3.50	3.50
Rated torque [kgfm]	4.63	5.67	5.64	5.64
Locked rotor torque [%]	270	175	200	220
Breakdown torque [%]	320	229	260	280
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	45s (cold) 25s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level ²	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%	87.5	90.1	89.8
	50%	88.5	89.5	89.5
	75%	90.2	89.5	90.2
	100%	91.0	88.5	89.5
Power Factor	25%	0.34	0.40	0.37
	50%	0.58	0.65	0.62
	75%	0.71	0.77	0.74
	100%	0.78	0.82	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 175 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 322 kgf
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 21.5A SF 1.15 SFA 24.7A

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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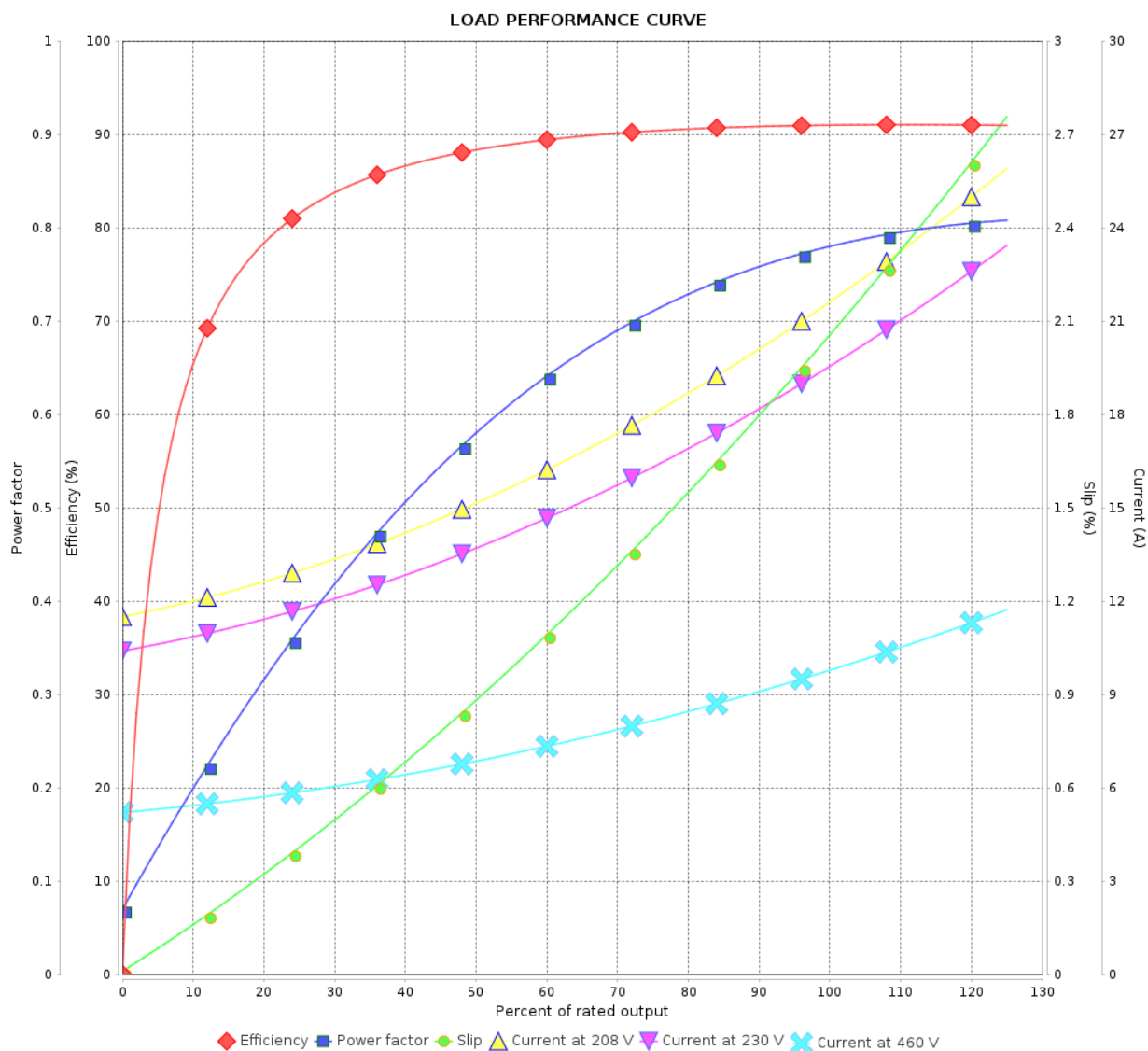
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14406980



Performance : 230/460 V 60 Hz 6P

Rated current : 19.5/9.73 A
LRC : 7.0
Rated torque : 4.63 kgfm
Locked rotor torque : 270 %
Breakdown torque : 320 %
Rated speed : 1175 rpm

Moment of inertia (J) : 0.1401 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

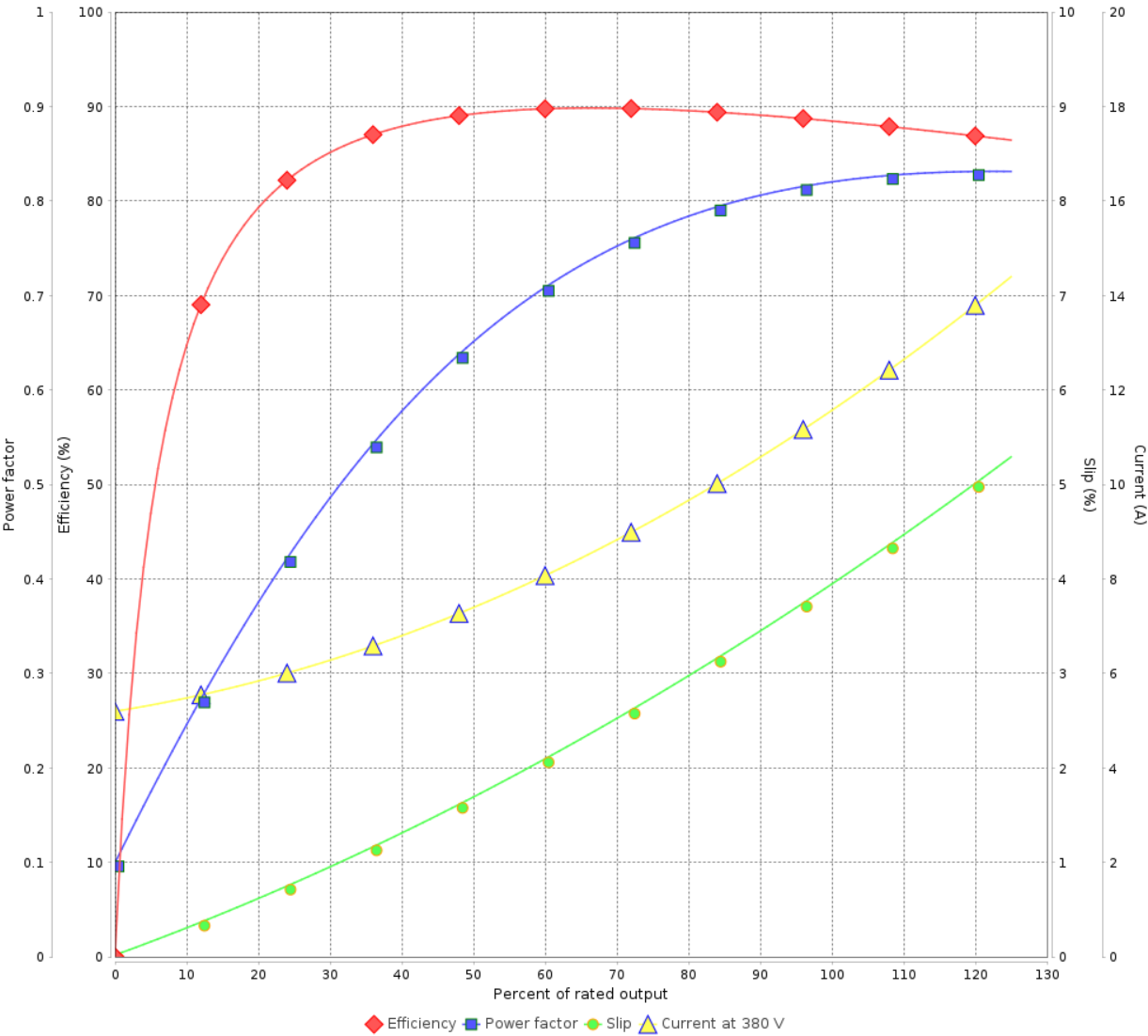


Customer :

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

Product code : 14406980

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Performance : 380 V 50 Hz 6P IE3

Rated current : 11.5 A
LRC : 5.6
Rated torque : 5.67 kgfm
Locked rotor torque : 175 %
Breakdown torque : 229 %
Rated speed : 960 rpm

Moment of inertia (J) : 0.1401 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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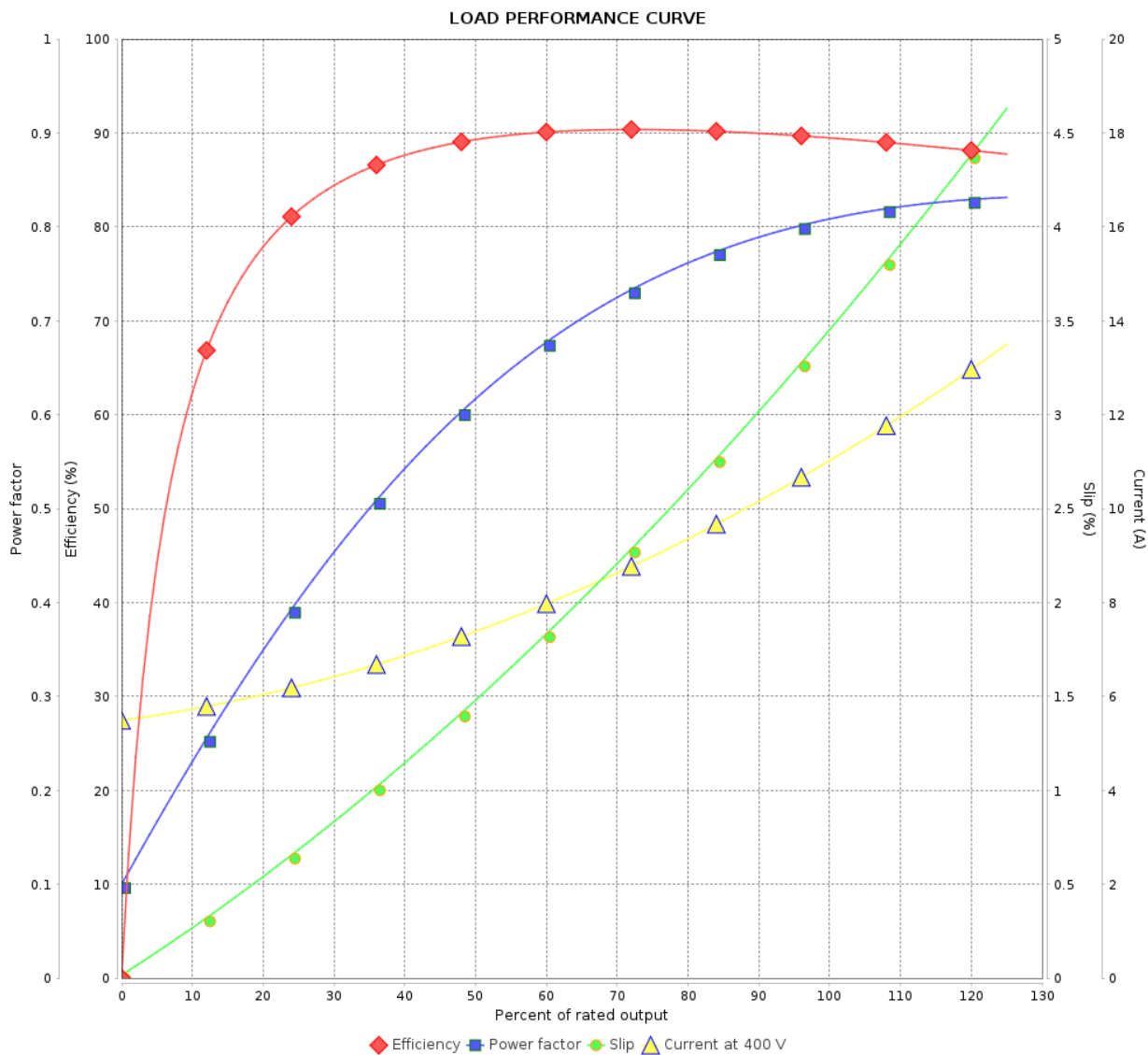
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14406980



Performance : 400 V 50 Hz 6P IE3

Rated current : 11.0 A
LRC : 6.2
Rated torque : 5.64 kgfm
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.1401 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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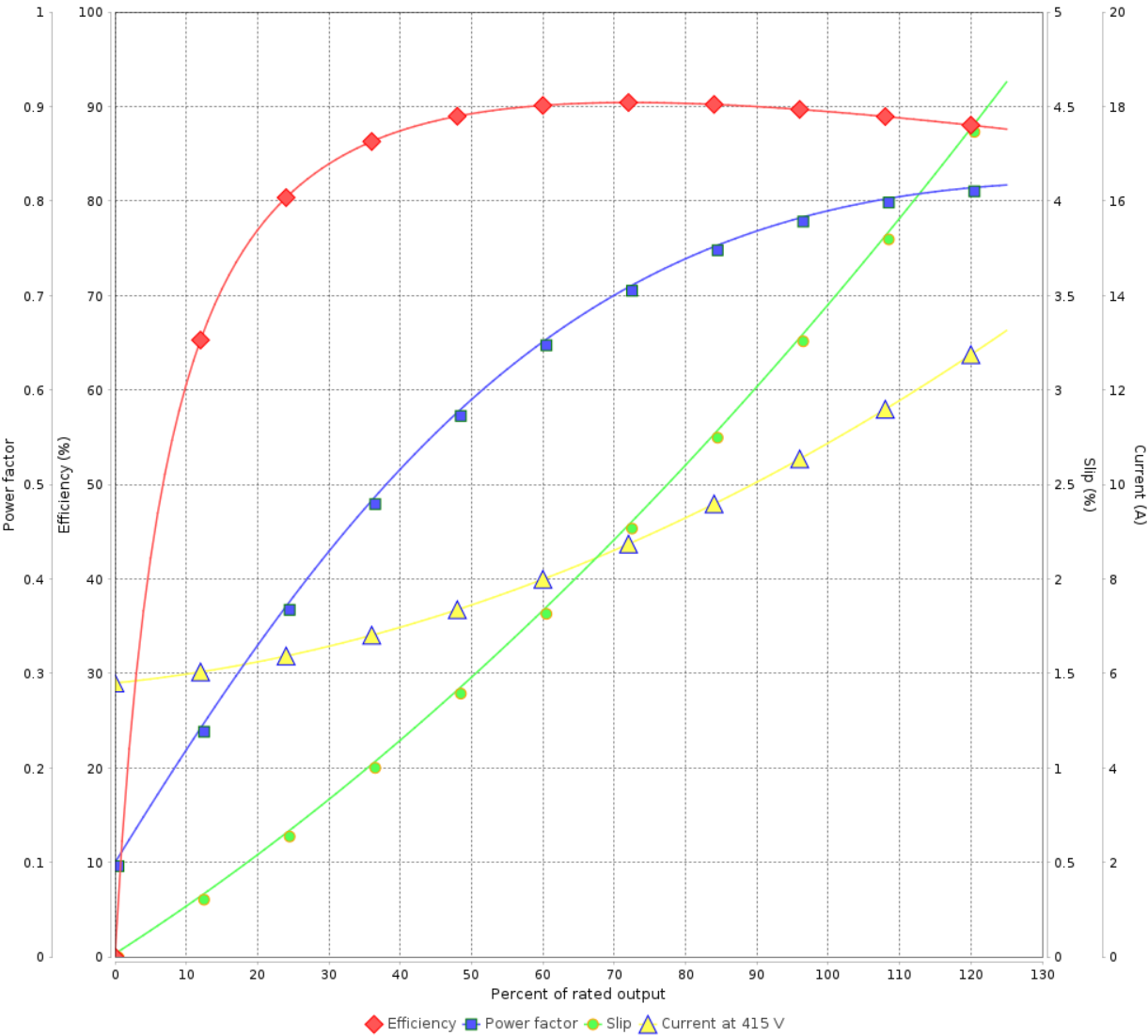
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 6P IE3			
Rated current	: 10.8 A	Moment of inertia (J)	: 0.1401 kgm²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 5.64 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

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