

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14217591

Frame	: 213/5TC	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	: 94.1 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0582 kgm ²
Design	: B		

Output [HP]	7.5	7.5	7.5	7.5
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	18.8/9.41	11.2	10.7	10.6
L. R. Amperes [A]	126/63.0	61.6	68.5	72.1
LRC [A]	6.7x(Code H)	5.5x(Code F)	6.4x(Code H)	6.8x(Code H)
No load current [A]	8.00/4.00	4.10	4.40	4.60
Rated speed [RPM]	1765	1460	1460	1465
Slip [%]	1.94	2.67	2.67	2.33
Rated torque [kgfm]	3.08	3.75	3.73	3.73
Locked rotor torque [%]	240	170	180	210
Breakdown torque [%]	280	200	280	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%			
	50%	90.2	88.5	88.5
	75%	91.0	89.5	89.5
	100%	91.7	89.5	90.2
Power Factor	25%			
	50%	0.60	0.66	0.63
	75%	0.73	0.77	0.75
	100%	0.80	0.83	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6308 2RS	6207 2RS	Max. traction	: 137 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 234 kgf
Lubrication interval	: -	-		
Lubricant amount	: -	-		
Lubricant type	: Mobil Polyrex EM			

Notes
USABLE @208V 20.8A SF 1.15 SFA 23.9A

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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Revision

Customer

:

Thermal protection

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

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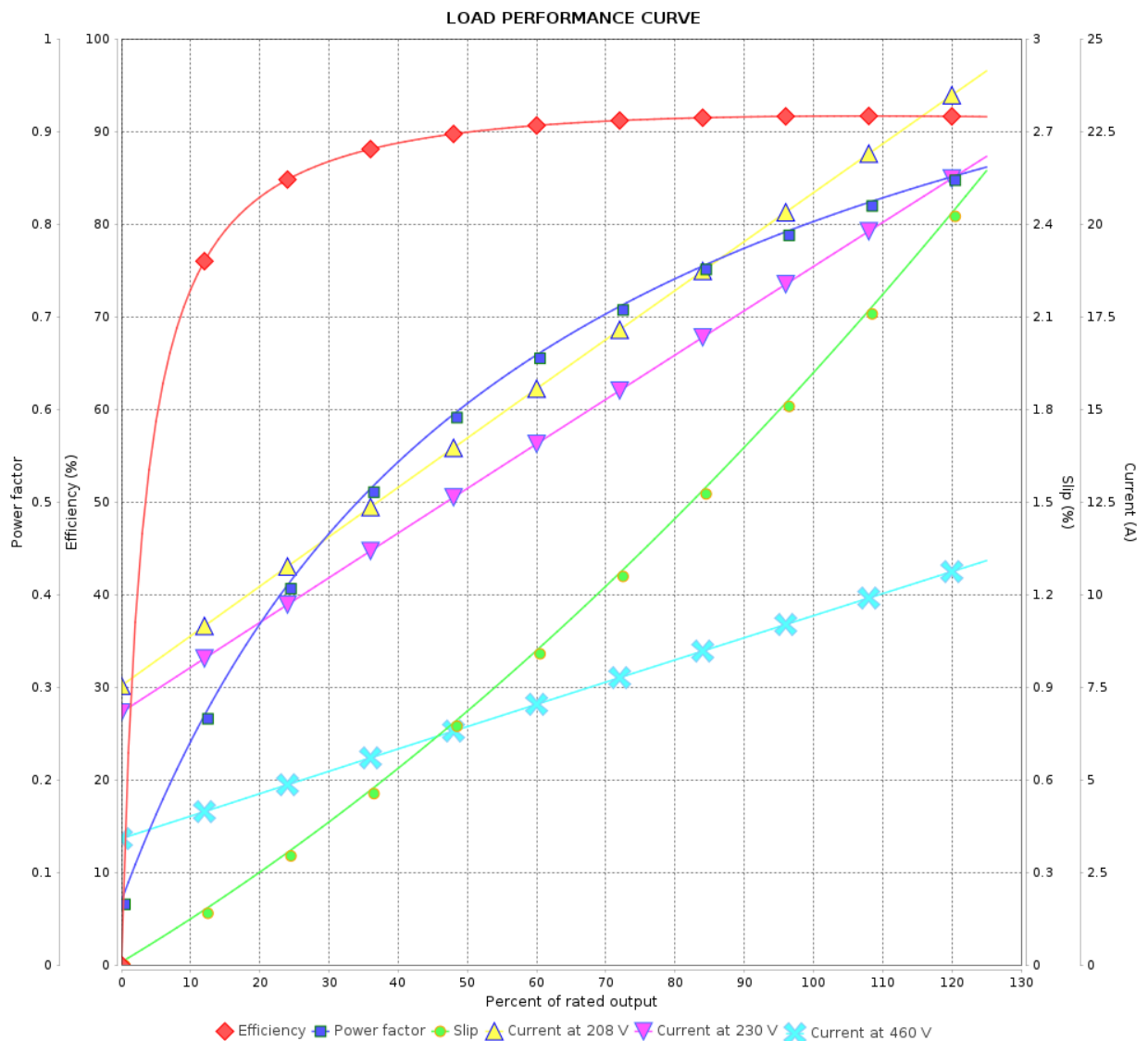
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Performance : 230/460 V 60 Hz 4P

Rated current : 18.8/9.41 A
LRC : 6.7
Rated torque : 3.08 kgfm
Locked rotor torque : 240 %
Breakdown torque : 280 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0582 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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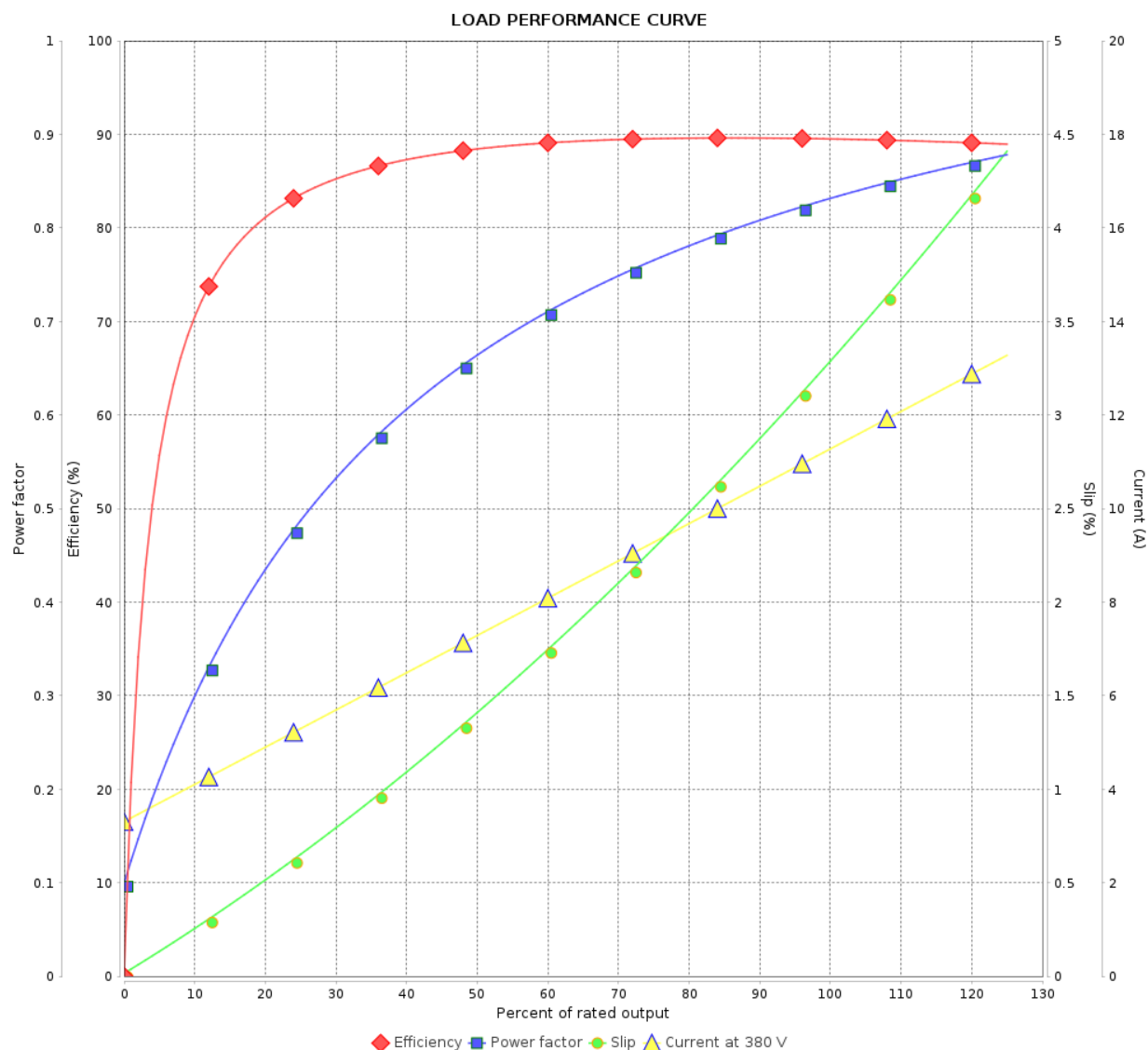
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Performance : 380 V 50 Hz 4P IE2

Rated current : 11.2 A
LRC : 5.5
Rated torque : 3.75 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0582 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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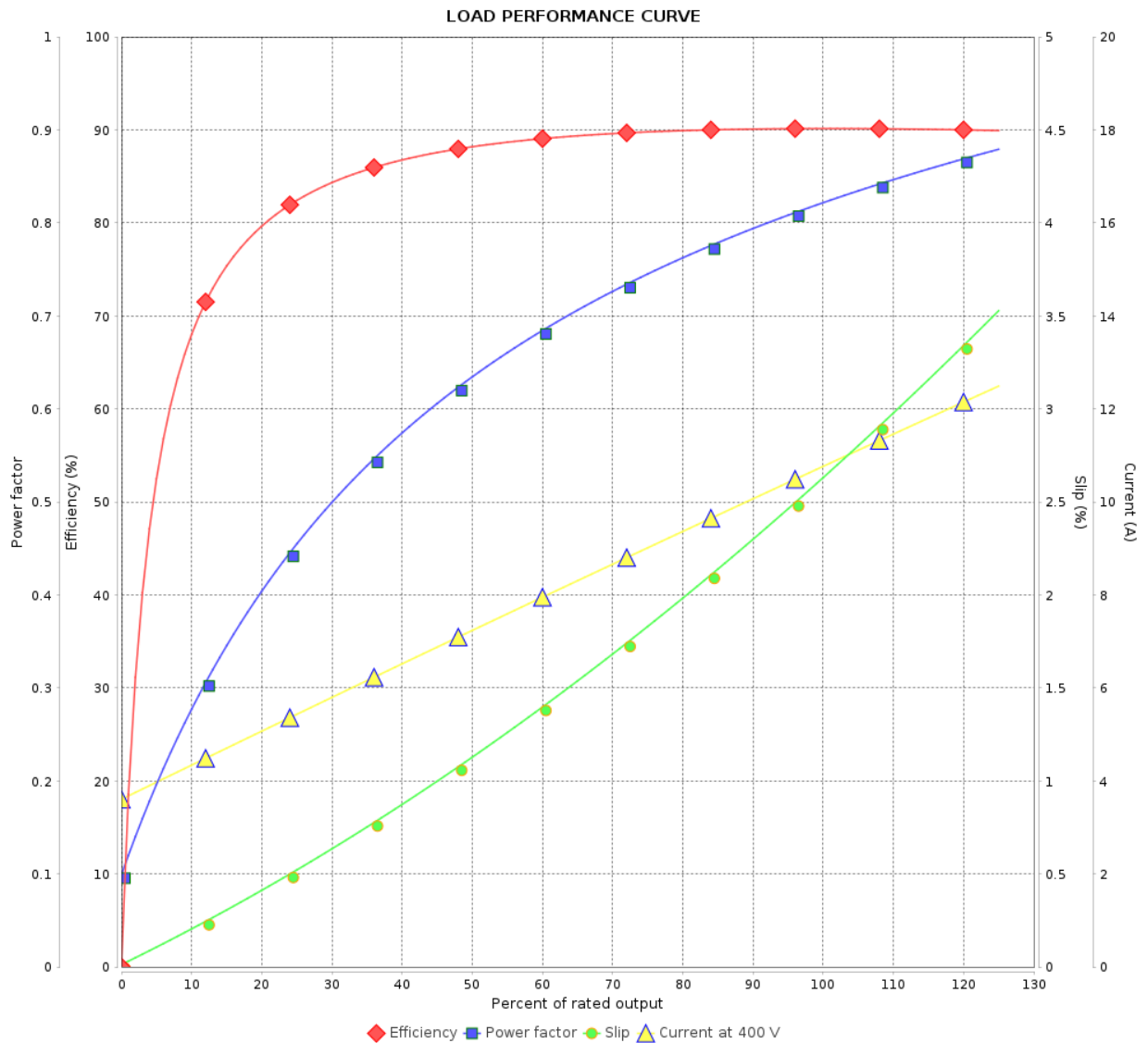
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Performance : 400 V 50 Hz 4P IE3

Rated current	: 10.7 A	Moment of inertia (J)	: 0.0582 kgm ²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 3.73 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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Three Phase Induction Motor - Squirrel Cage

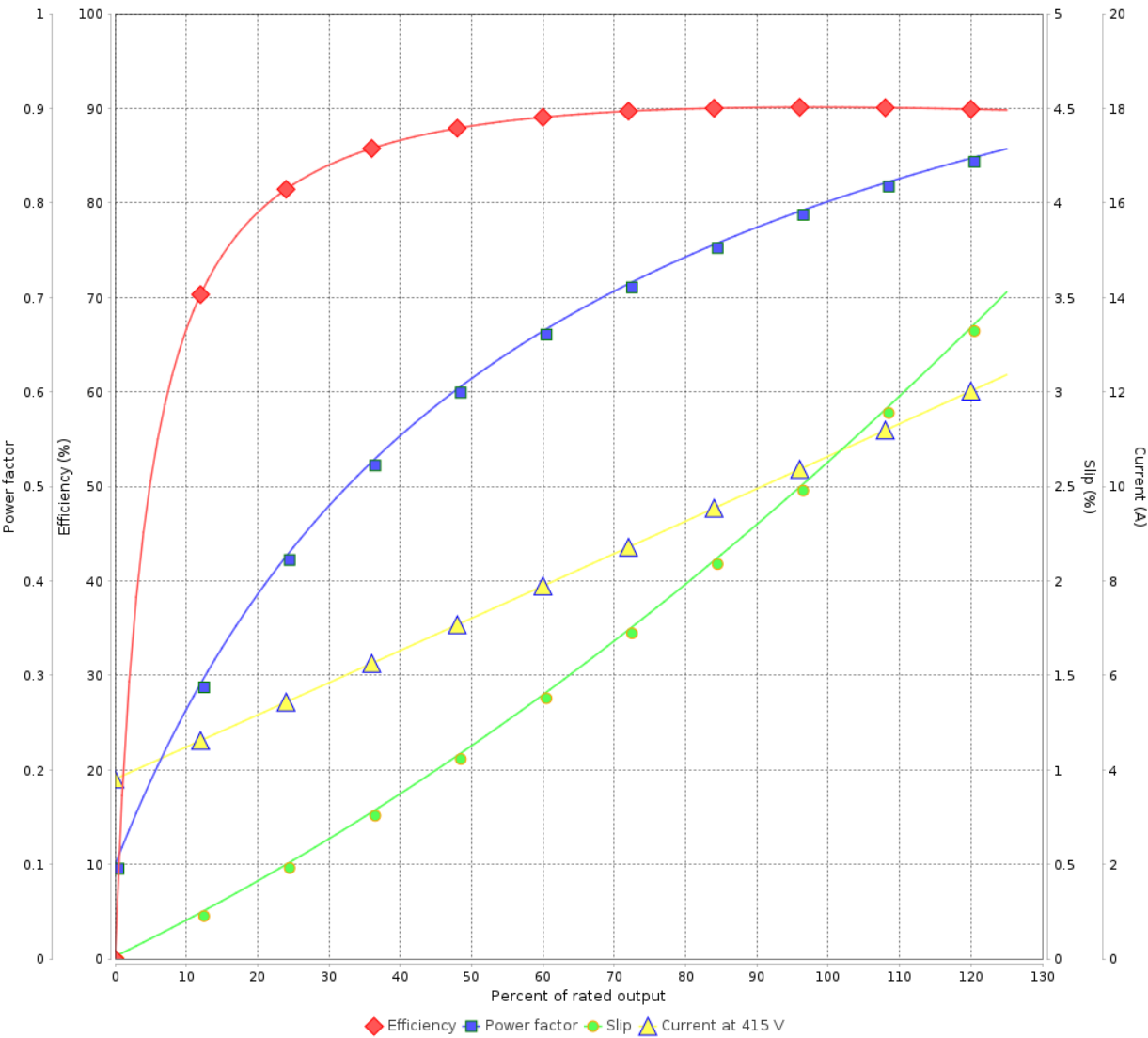


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Performance : 415 V 50 Hz 4P IE3

Rated current : 10.6 A
LRC : 6.8
Rated torque : 3.73 kgfm
Locked rotor torque : 210 %
Breakdown torque : 270 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0582 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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