

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439856

Frame	: 404/5TS	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	: 556 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.5561 kgm ²
Design	: B		

Output [HP]	100	75	75	75
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	220/110	98.3	94.4	91.0
L. R. Amperes [A]	1430/715	649	699	728
LRC [A]	6.5x(Code G)	6.6x(Code G)	7.4x(Code H)	8.0x(Code H)
No load current [A]	50.0/25.0	26.0	27.0	28.0
Rated speed [RPM]	3550	2955	2960	2965
Slip [%]	1.39	1.50	1.33	1.17
Rated torque [kgfm]	20.4	18.4	18.4	18.4
Locked rotor torque [%]	250	200	220	240
Breakdown torque [%]	280	280	310	330
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	85.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)
Efficiency (%)	25%	93.4	93.0	93.4
	50%	93.6	93.6	93.6
	75%	95.0	94.0	94.5
	100%	95.0	94.5	94.5
Power Factor	25%	0.62	0.59	0.57
	50%	0.85	0.84	0.82
	75%	0.89	0.88	0.87
	100%	0.90	0.90	0.89

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6314 C3	6314 C3	Max. traction : 318 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 874 kgf
Lubrication interval	: 3604 h	3604 h	
Lubricant amount	: 27 g	27 g	
Lubricant type	: Mobil Polyrex EM		

Notes
USABLE @208V 244A SF 1.00 SFA 244A

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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Thermal protection

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

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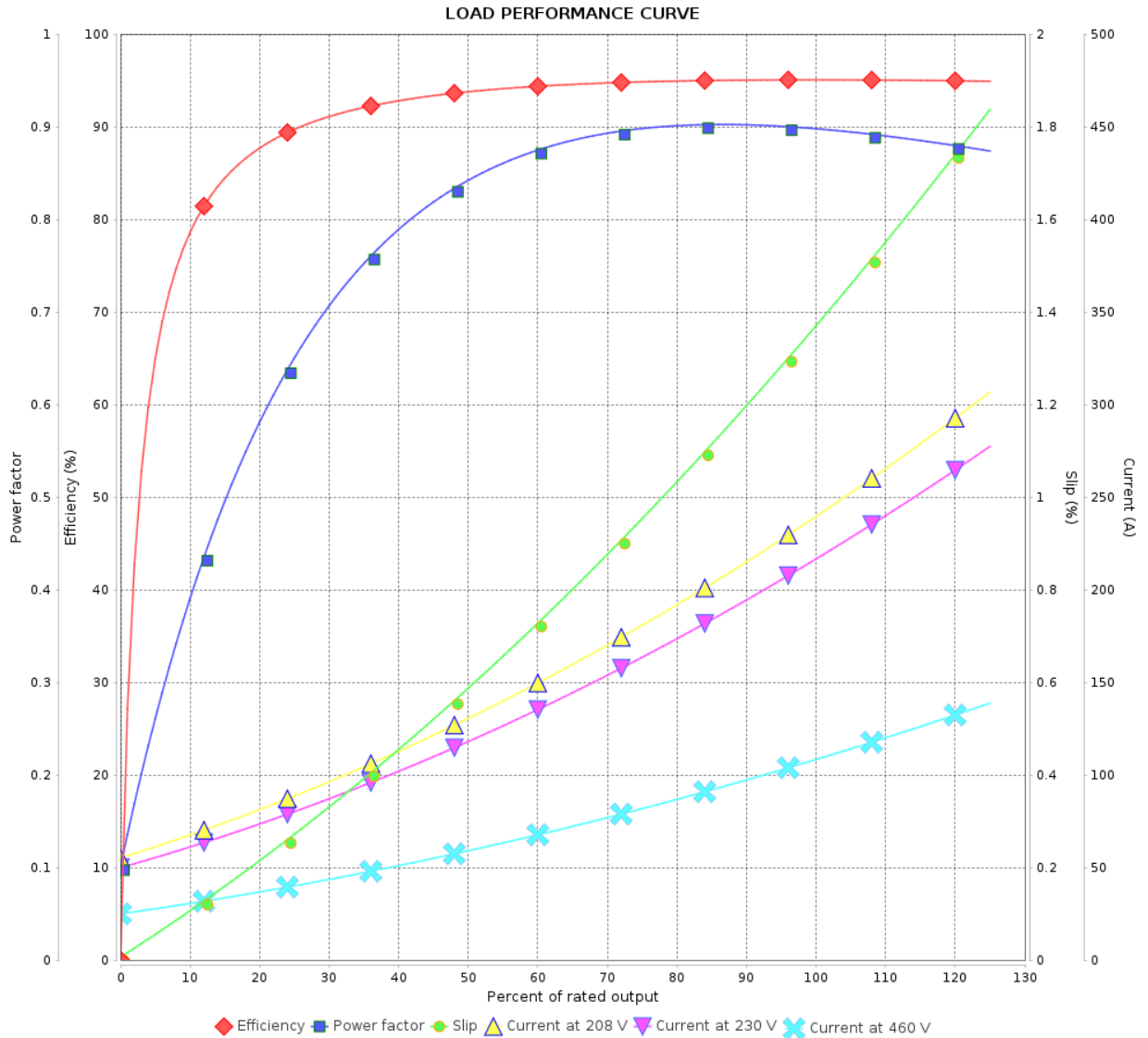
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Performance : 230/460 V 60 Hz 2P

Rated current : 220/110 A
 LRC : 6.5
 Rated torque : 20.4 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 0.5561 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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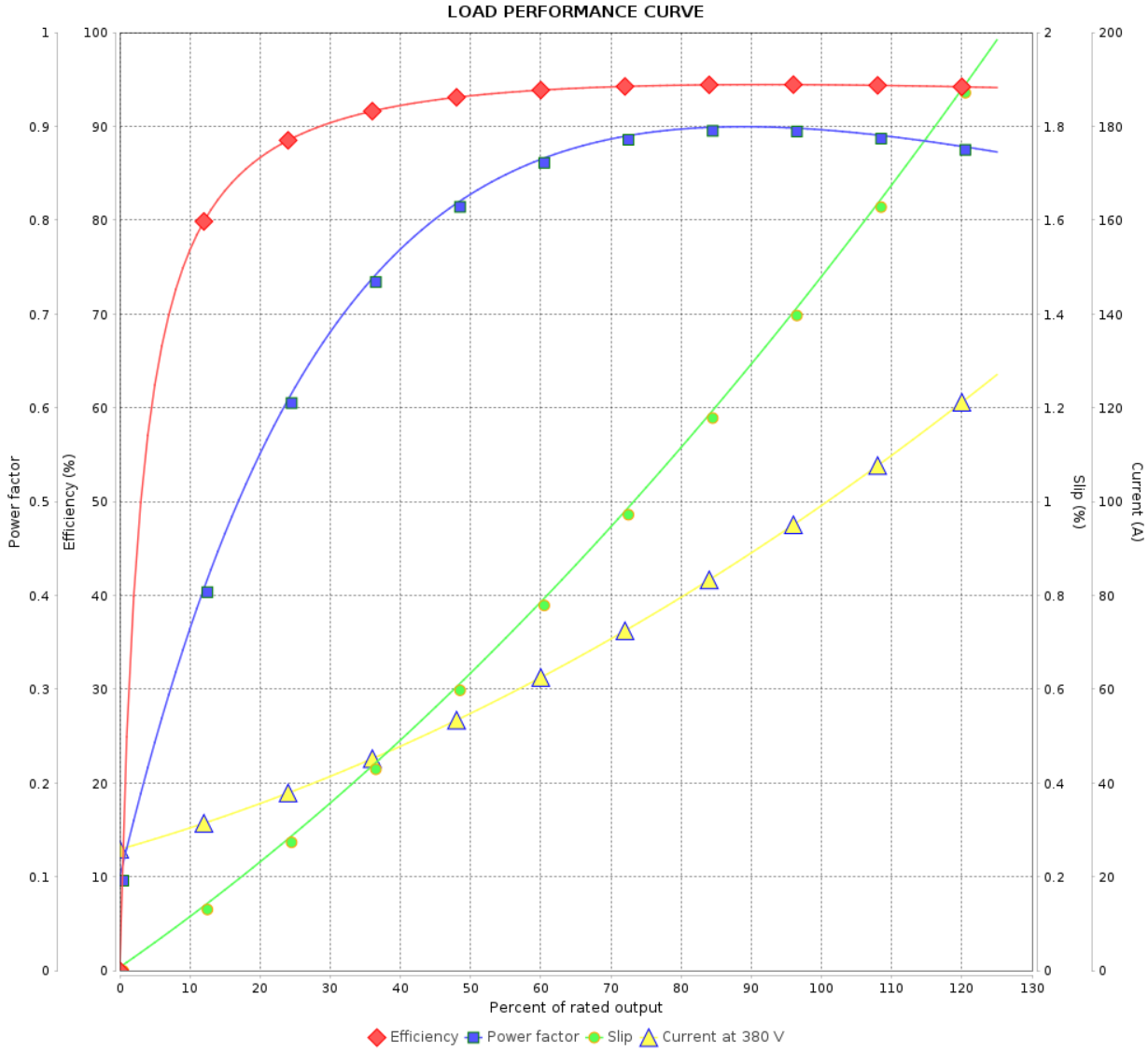
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE3

Rated current : 98.3 A
 LRC : 6.6
 Rated torque : 18.4 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 2955 rpm

Moment of inertia (J) : 0.5561 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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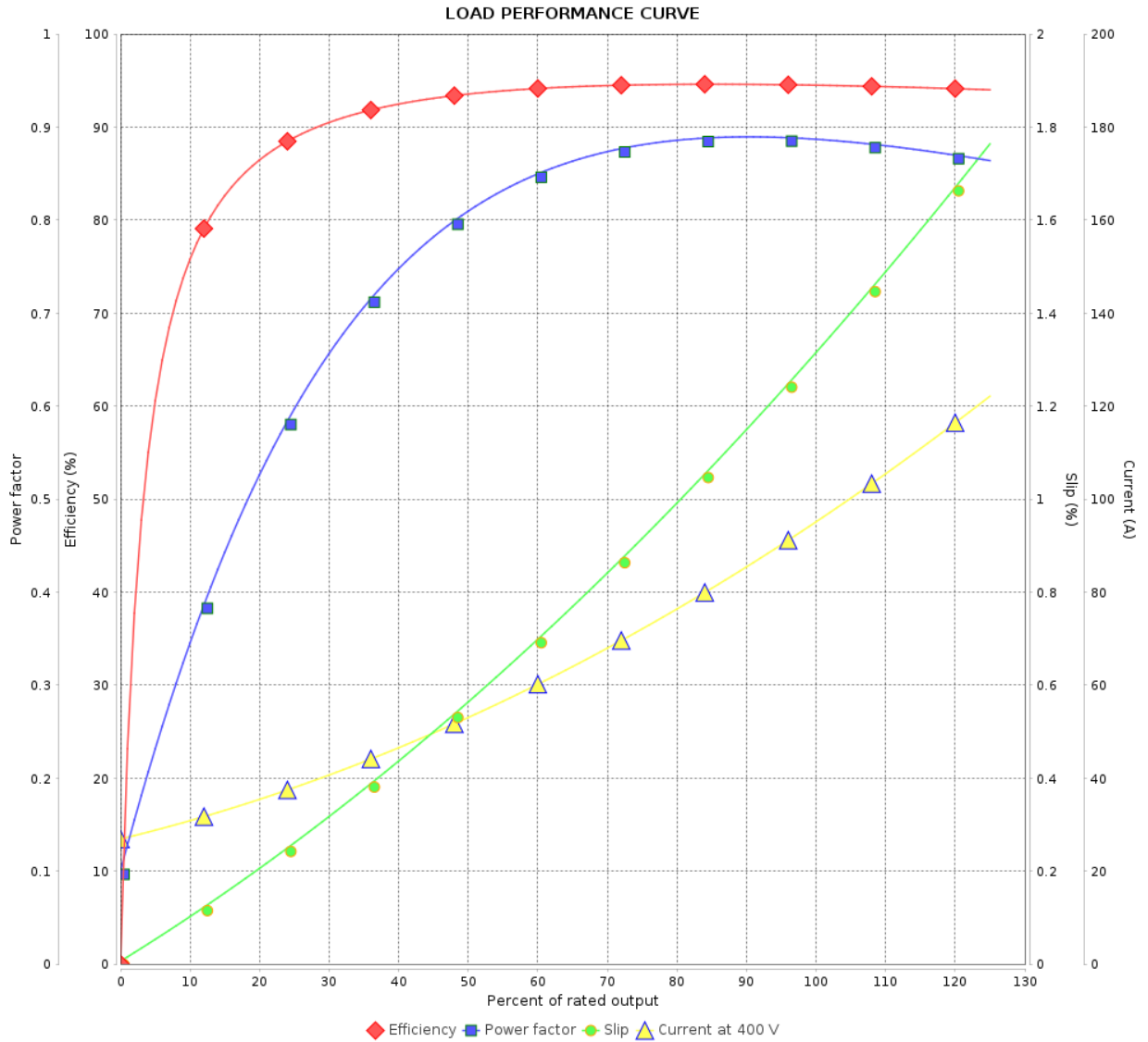
Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 2P IE3

Rated current : 94.4 A
 LRC : 7.4
 Rated torque : 18.4 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.5561 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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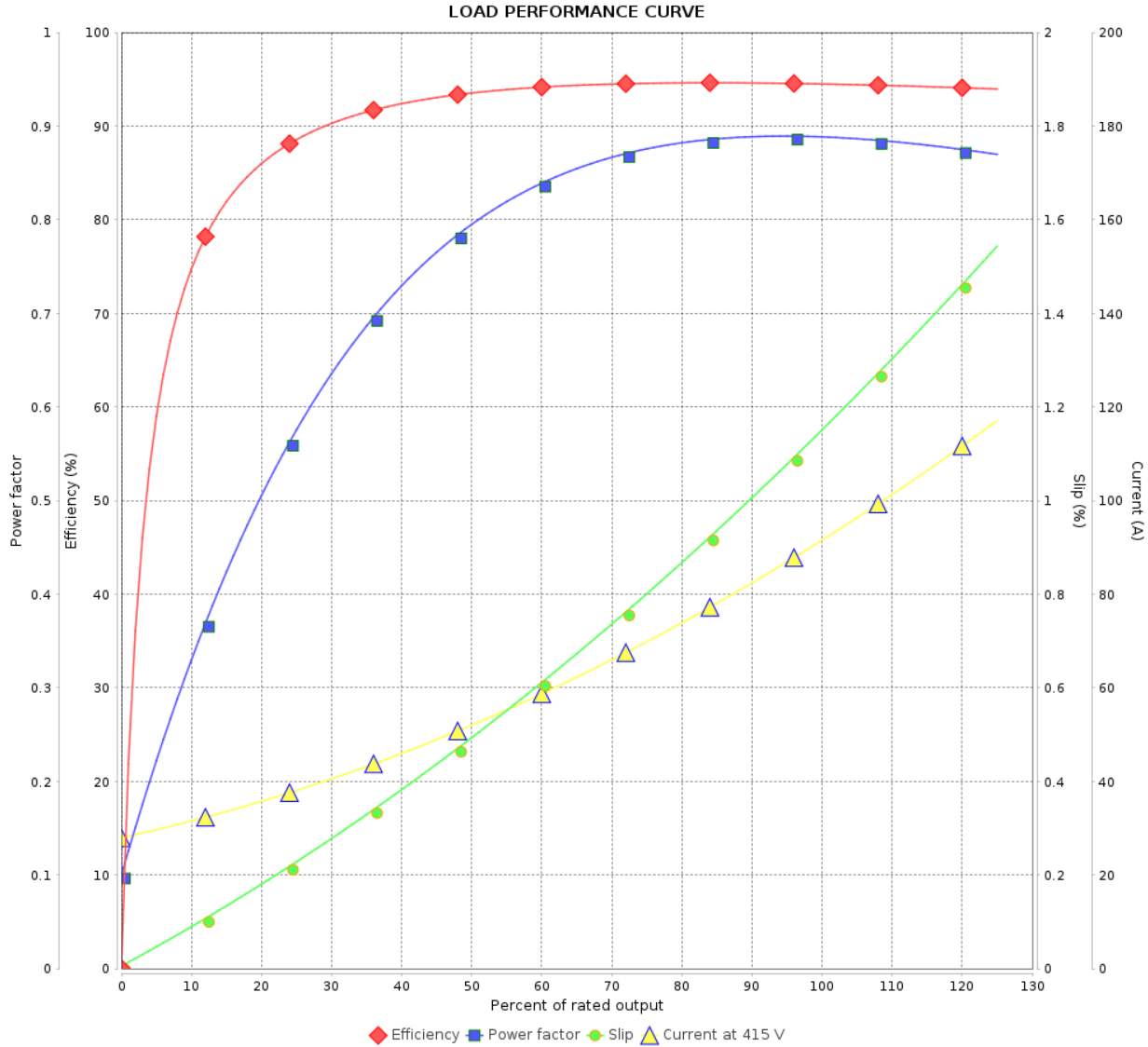
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Performance : 415 V 50 Hz 2P IE3

Rated current : 91.0 A
LRC : 8.0
Rated torque : 18.4 kgfm
Locked rotor torque : 240 %
Breakdown torque : 330 %
Rated speed : 2965 rpm

Moment of inertia (J) : 0.5561 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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