

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14443172

Frame : 286TS	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 : 230 kg
Protection degree : IP55	Moment of inertia (J) : 0.1297 kgm ²
Design : B	

Output [HP]	30	30	30	30
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	67.4/33.7	41.3	38.9	37.9
L. R. Amperes [A]	452/226	211	222	250
LRC [A]	6.7x(Code G)	5.1x(Code E)	5.7x(Code F)	6.6x(Code G)
No load current [A]	15.0/7.50	7.00	8.00	8.40
Rated speed [RPM]	3545	2910	2930	2940
Slip [%]	1.53	3.00	2.33	2.00
Rated torque [kgfm]	6.14	7.48	7.43	7.41
Locked rotor torque [%]	250	190	200	220
Breakdown torque [%]	240	190	200	260
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	77s (cold) 43s (hot)	57s (cold) 32s (hot)	27s (cold) 15s (hot)	57s (cold) 32s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	92.2	92.9	92.9
	50%	92.4	92.4	92.4
	75%	93.0	91.7	92.4
	100%	93.0	91.0	91.7
Power Factor	25%	0.58	0.65	0.58
	50%	0.78	0.82	0.78
	75%	0.86	0.88	0.86
	100%	0.88	0.89	0.88

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 C3	6211 C3	Max. traction : 160 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 390 kgf
Lubrication interval :	11517 h	14226 h	
Lubricant amount :	18 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 74.5A SF 1.00 SFA 74.5A

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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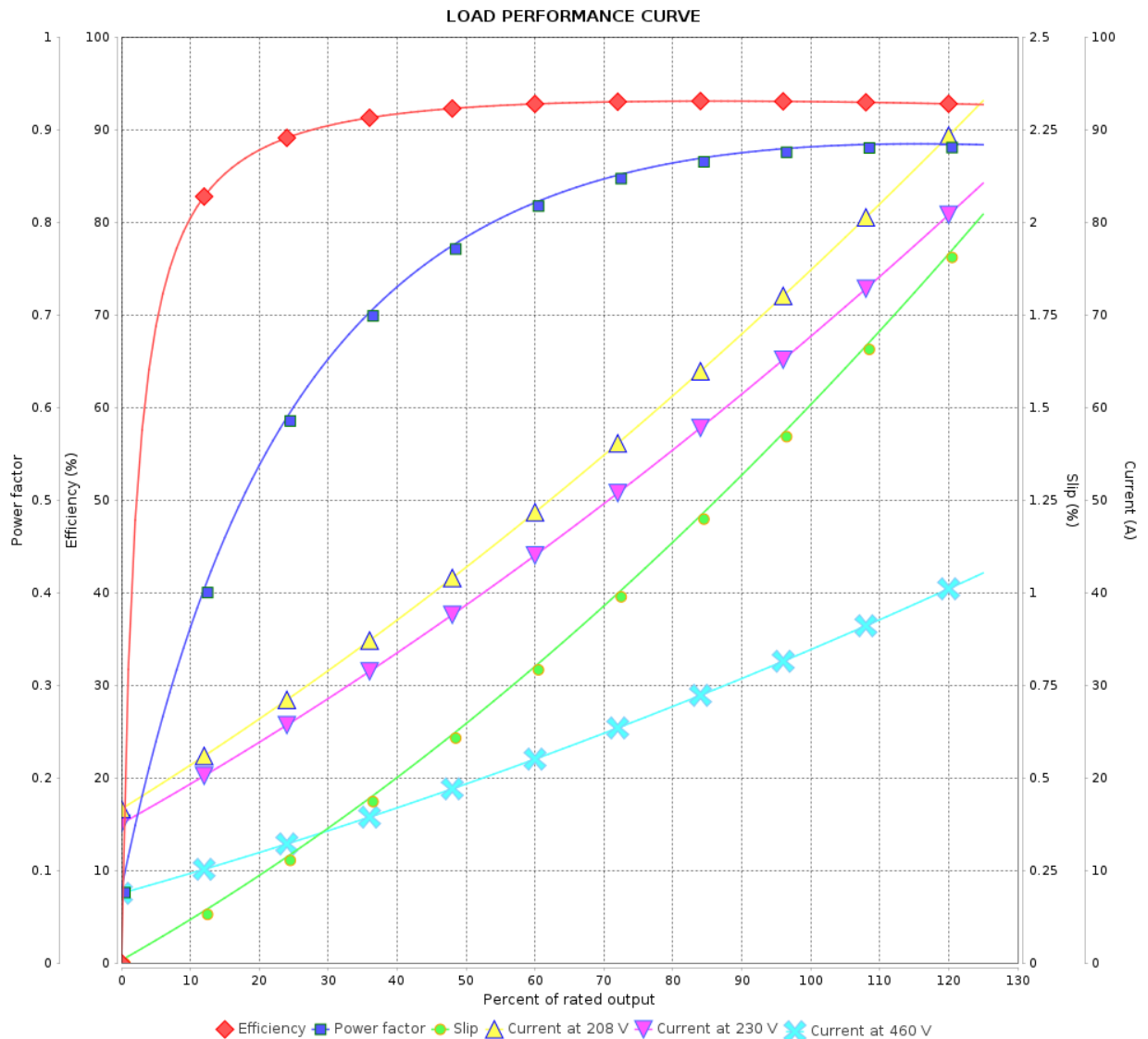
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Performance : 230/460 V 60 Hz 2P

Rated current : 67.4/33.7 A
LRC : 6.7
Rated torque : 6.14 kgfm
Locked rotor torque : 250 %
Breakdown torque : 240 %
Rated speed : 3545 rpm

Moment of inertia (J) : 0.1297 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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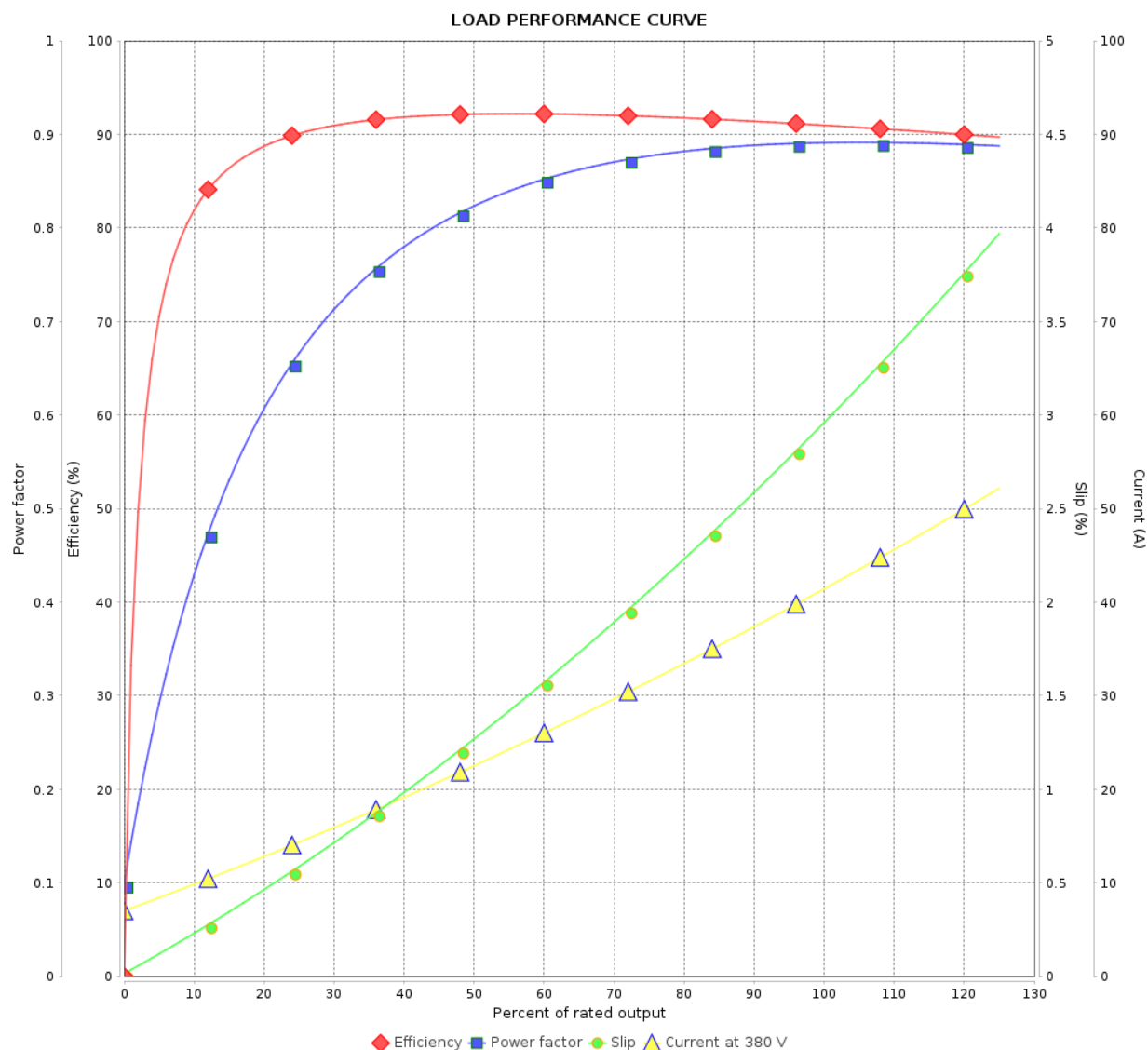
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Performance : 380 V 50 Hz 2P IE1

Rated current : 41.3 A
LRC : 5.1
Rated torque : 7.48 kgfm
Locked rotor torque : 190 %
Breakdown torque : 190 %
Rated speed : 2910 rpm

Moment of inertia (J) : 0.1297 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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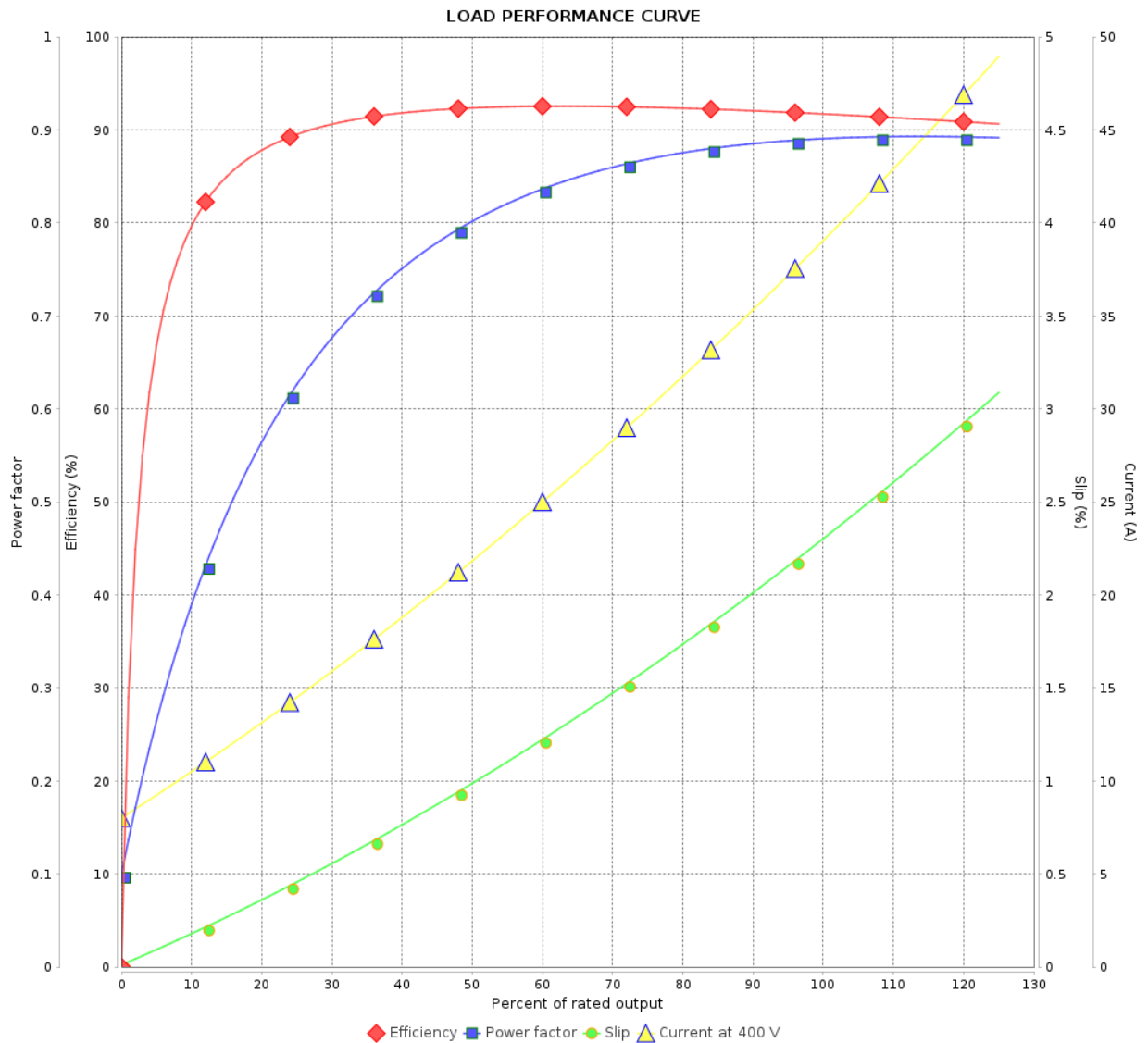
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Performance : 400 V 50 Hz 2P IE2

Rated current	: 38.9 A	Moment of inertia (J)	: 0.1297 kgm ²
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 7.43 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 2930 rpm	Design	: B

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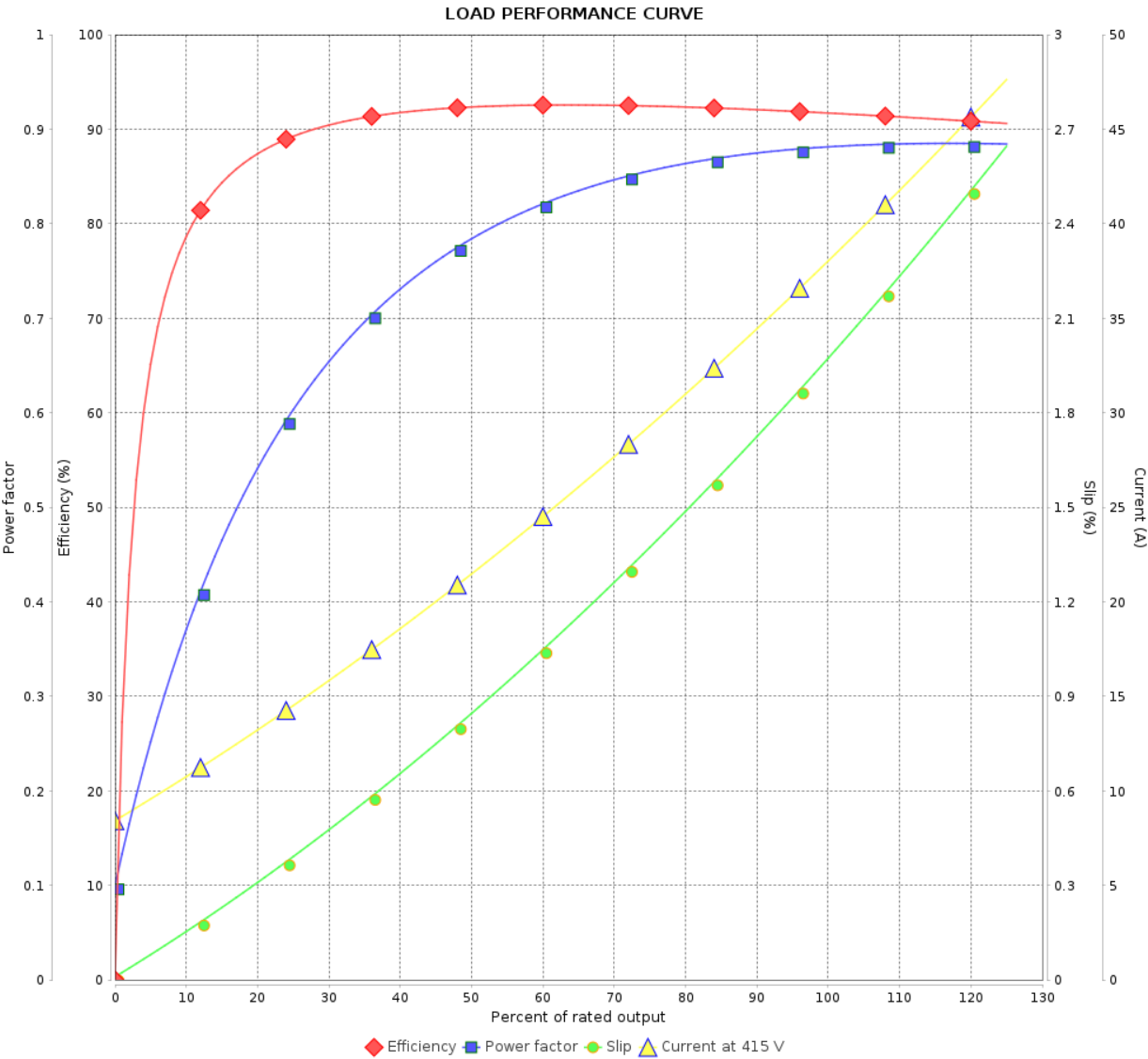
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Performance : 415 V 50 Hz 2P IE2

Rated current : 37.9 A
LRC : 6.6
Rated torque : 7.41 kgfm
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 2940 rpm

Moment of inertia (J) : 0.1297 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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