

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14480985

Frame	: 182/4TC	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	: 57.3 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0062 kgm ²
Design	: B		

Output [HP]	3	3	3	3
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	7.52/3.76	4.44	4.27	4.16
L. R. Amperes [A]	63.2/31.6	29.7	31.6	33.3
LRC [A]	8.4x(Code K)	6.7x(Code H)	7.4x(Code J)	8.0x(Code J)
No load current [A]	2.80/1.40	1.30	1.40	1.48
Rated speed [RPM]	3510	2880	2890	2900
Slip [%]	2.50	4.00	3.67	3.33
Rated torque [kgfm]	0.620	0.756	0.753	0.751
Locked rotor torque [%]	250	210	240	260
Breakdown torque [%]	400	300	340	370
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)
Noise level ²	69.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	82.5	82.5	82.5
	75%	85.5	85.5	85.5
	100%	86.5	86.5	86.5
Power Factor	25%			
	50%	0.73	0.78	0.72
	75%	0.81	0.85	0.81
	100%	0.85	0.88	0.85

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6307 2RS	6206 2RS	Max. traction	: 29 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 86 kgf
Lubrication interval	: -	-		
Lubricant amount	: -	-		
Lubricant type	: Mobil Polyrex EM			

Notes
USABLE @208V 8.32A SF 1.15 SFA 9.56A

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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Checked by				
Date	28/10/2024			

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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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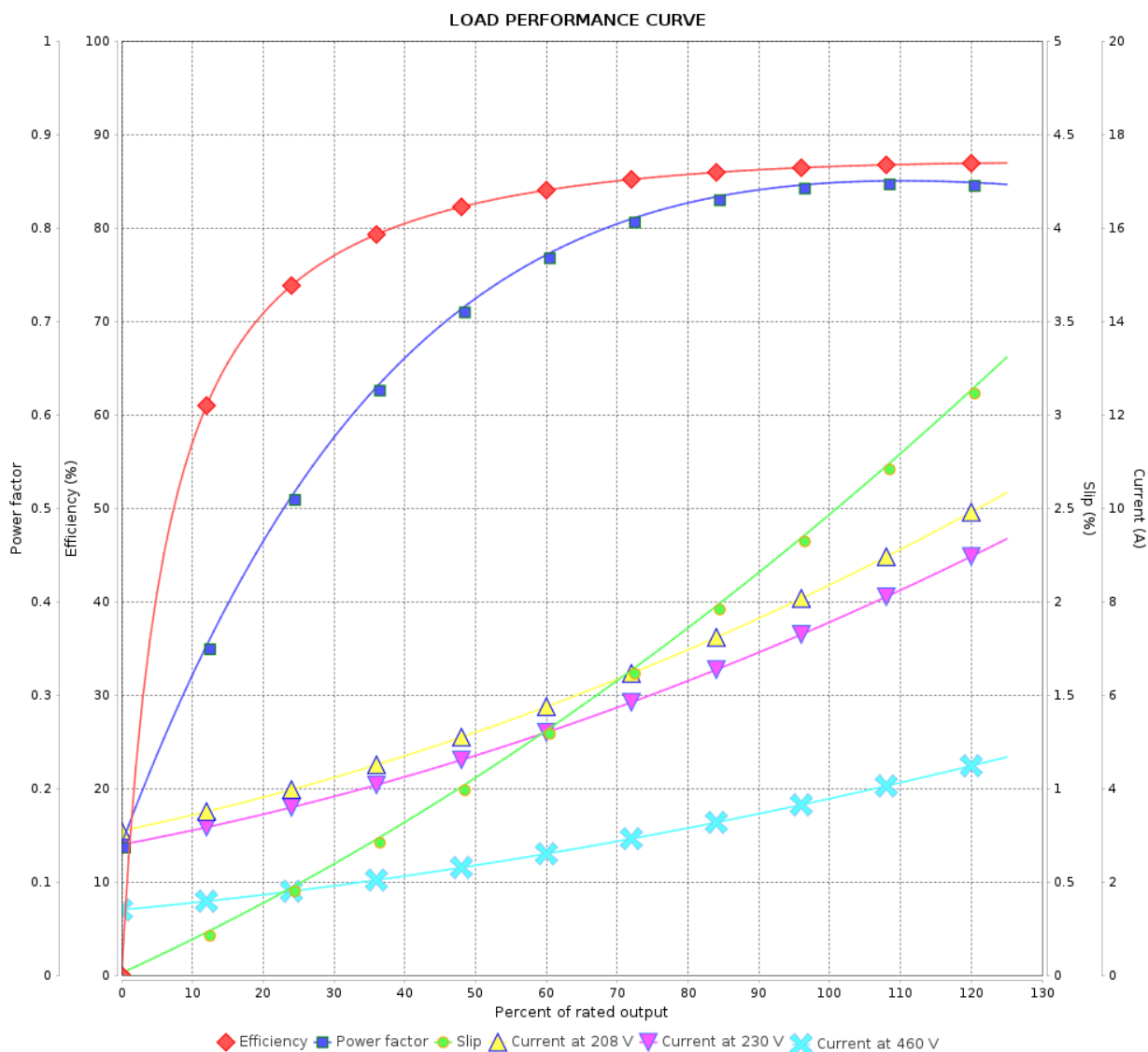
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Performance : 230/460 V 60 Hz 2P

Rated current : 7.52/3.76 A
LRC : 8.4
Rated torque : 0.620 kgfm
Locked rotor torque : 250 %
Breakdown torque : 400 %
Rated speed : 3510 rpm

Moment of inertia (J) : 0.0062 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

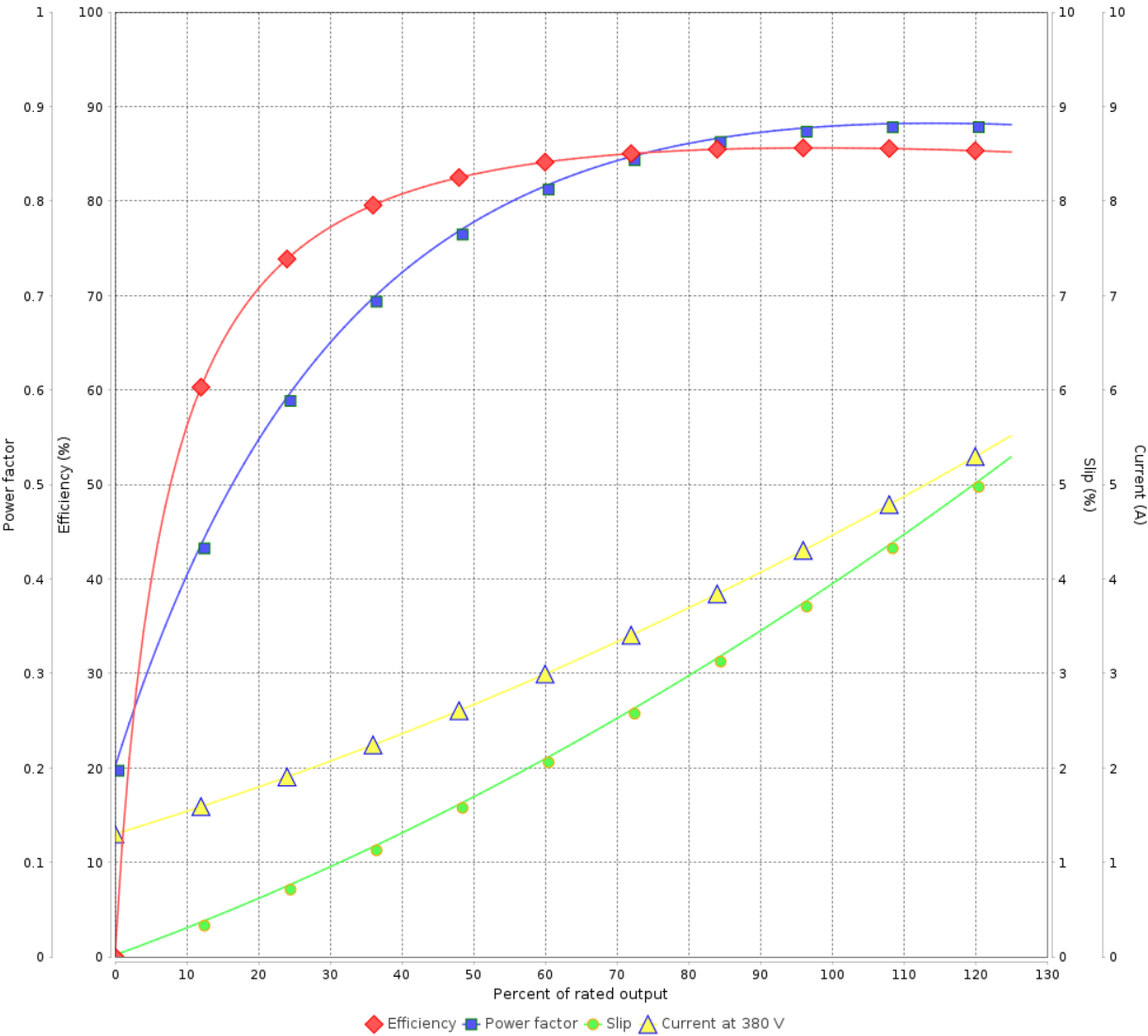


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Performance : 380 V 50 Hz 2P IE2

Rated current : 4.44 A
LRC : 6.7
Rated torque : 0.756 kgfm
Locked rotor torque : 210 %
Breakdown torque : 300 %
Rated speed : 2880 rpm

Moment of inertia (J) : 0.0062 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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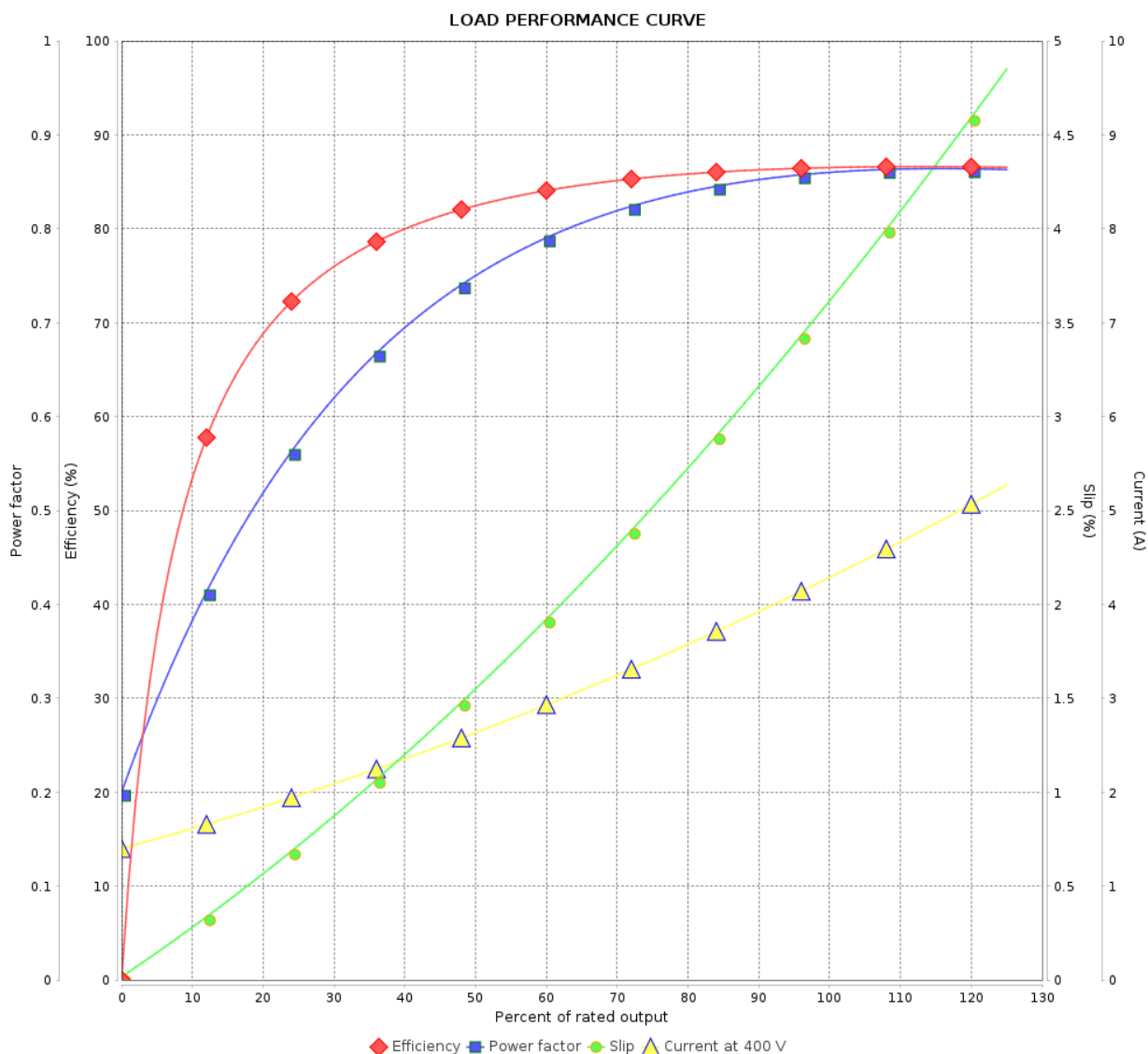
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Performance : 400 V 50 Hz 2P IE3

Rated current : 4.27 A
LRC : 7.4
Rated torque : 0.753 kgfm
Locked rotor torque : 240 %
Breakdown torque : 340 %
Rated speed : 2890 rpm

Moment of inertia (J) : 0.0062 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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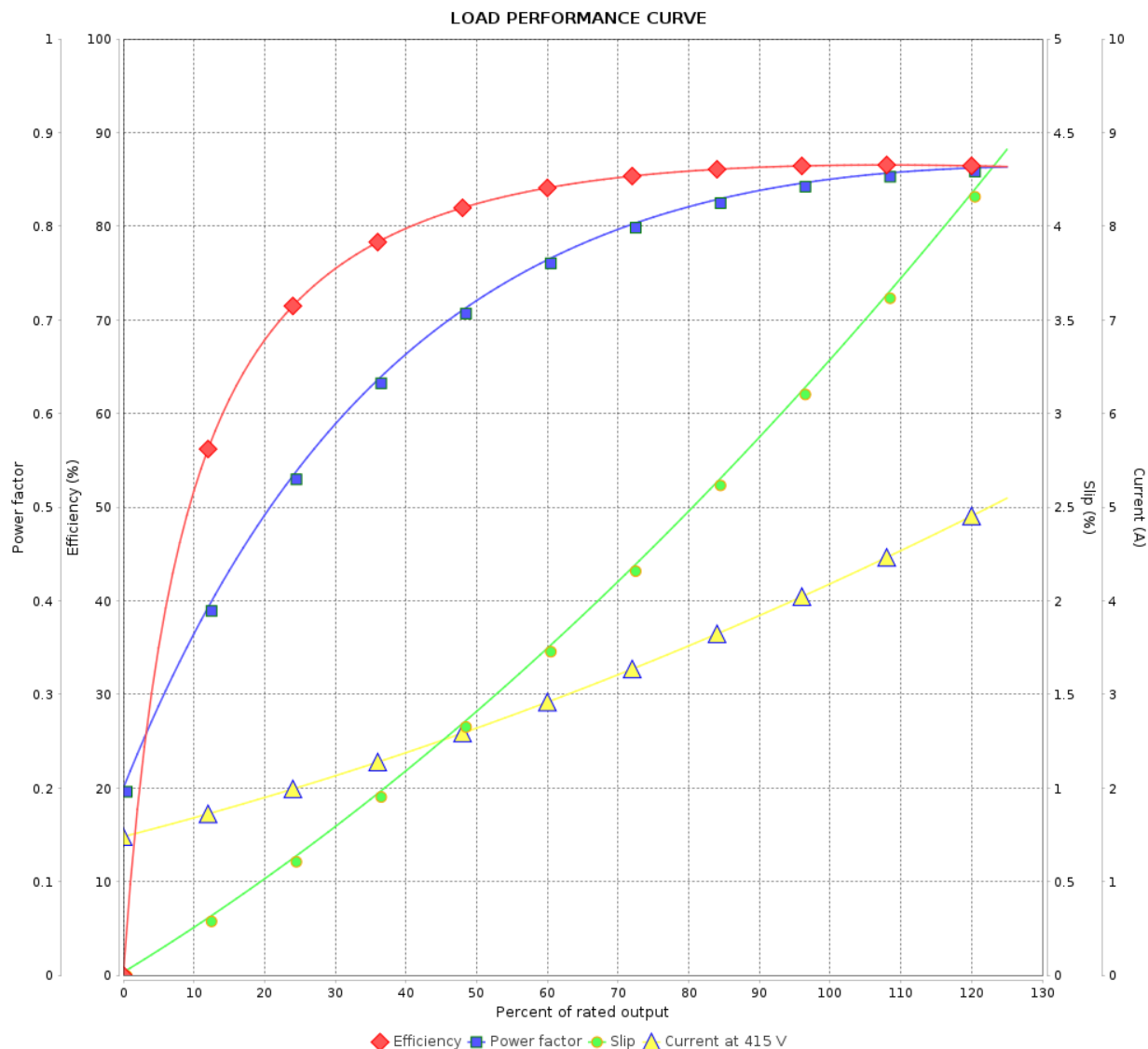
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Performance : 415 V 50 Hz 2P IE3

Rated current : 4.16 A
LRC : 8.0
Rated torque : 0.751 kgfm
Locked rotor torque : 260 %
Breakdown torque : 370 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0062 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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