

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code :	14408651
Frame	: 324TC	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	: 299 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.3441 kgm ²		
Design	: B				
Output [HP]	40	40	40	40	40
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	96.4/48.2	58.7	56.1	54.1	54.1
L. R. Amperes [A]	742/371	364	387	400	400
LRC [A]	7.7x(Code J)	6.2x(Code G)	6.9x(Code H)	7.4x(Code J)	7.4x(Code J)
No load current [A]	46.0/23.0	22.8	24.1	25.3	25.3
Rated speed [RPM]	1780	1470	1475	1475	1475
Slip [%]	1.11	2.00	1.67	1.67	1.67
Rated torque [kgfm]	16.3	19.7	19.7	19.7	19.7
Locked rotor torque [%]	270	200	229	250	250
Breakdown torque [%]	300	210	240	260	260
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	34s (cold) 19s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	71.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)
Efficiency (%)	25%				
	50%	93.0	93.0	93.0	92.4
	75%	94.1	93.0	93.0	93.6
	100%	94.1	92.4	93.0	93.0
Power Factor	25%				
	50%	0.66	0.72	0.68	0.66
	75%	0.77	0.81	0.79	0.77
	100%	0.83	0.84	0.83	0.83
Bearing type	: <u>Drive end</u> 6312 C3 <u>Non drive end</u> 6212 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 495 kgf			
Lubrication interval	: 20000 h 20000 h	Max. compression : 794 kgf			
Lubricant amount	: 21 g 13 g				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 107A SF 1.00 SFA 107A					
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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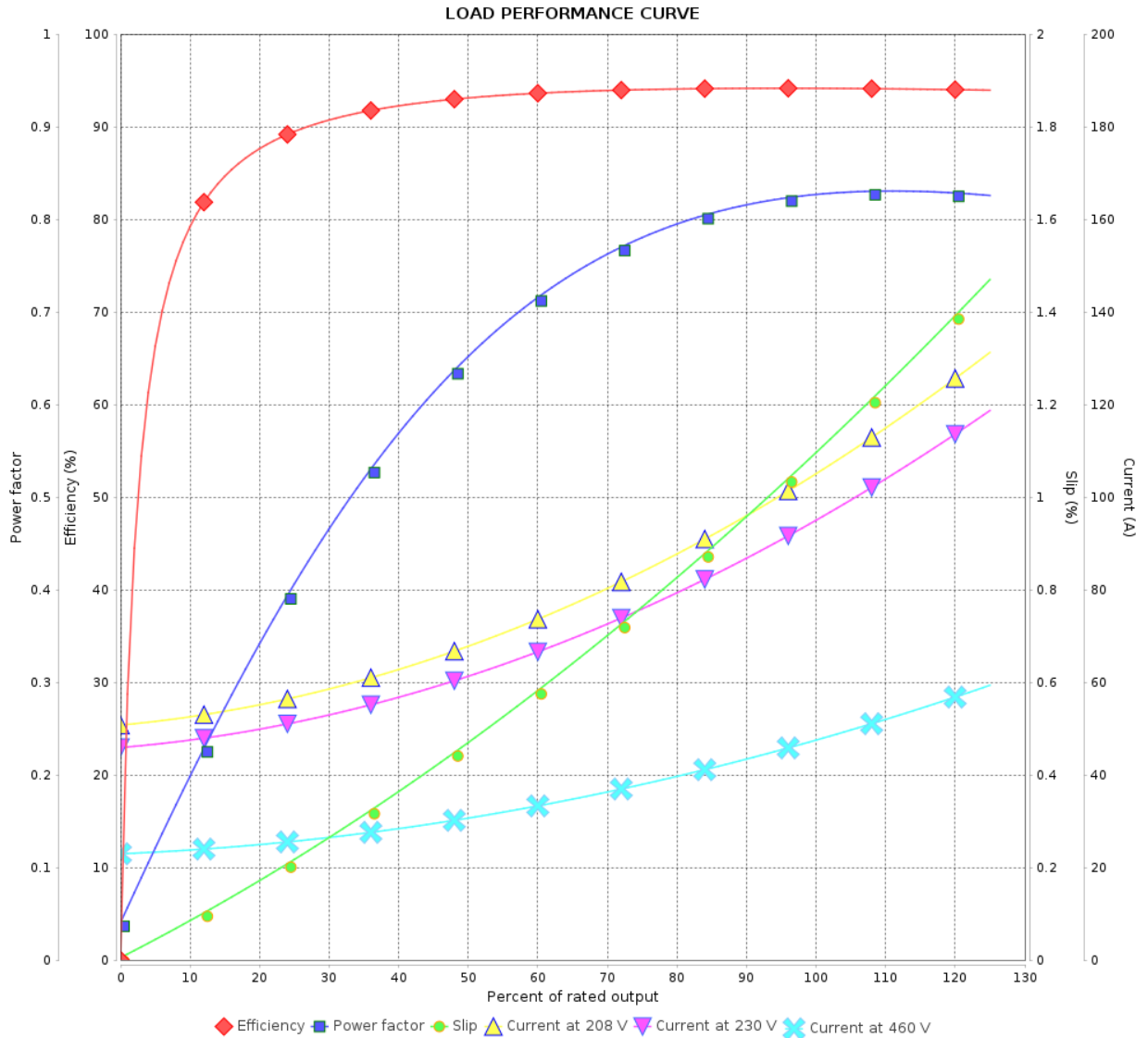
Three Phase Induction Motor - Squirrel Cage



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Performance : 230/460 V 60 Hz 4P

Rated current : 96.4/48.2 A
 LRC : 7.7
 Rated torque : 16.3 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.3441 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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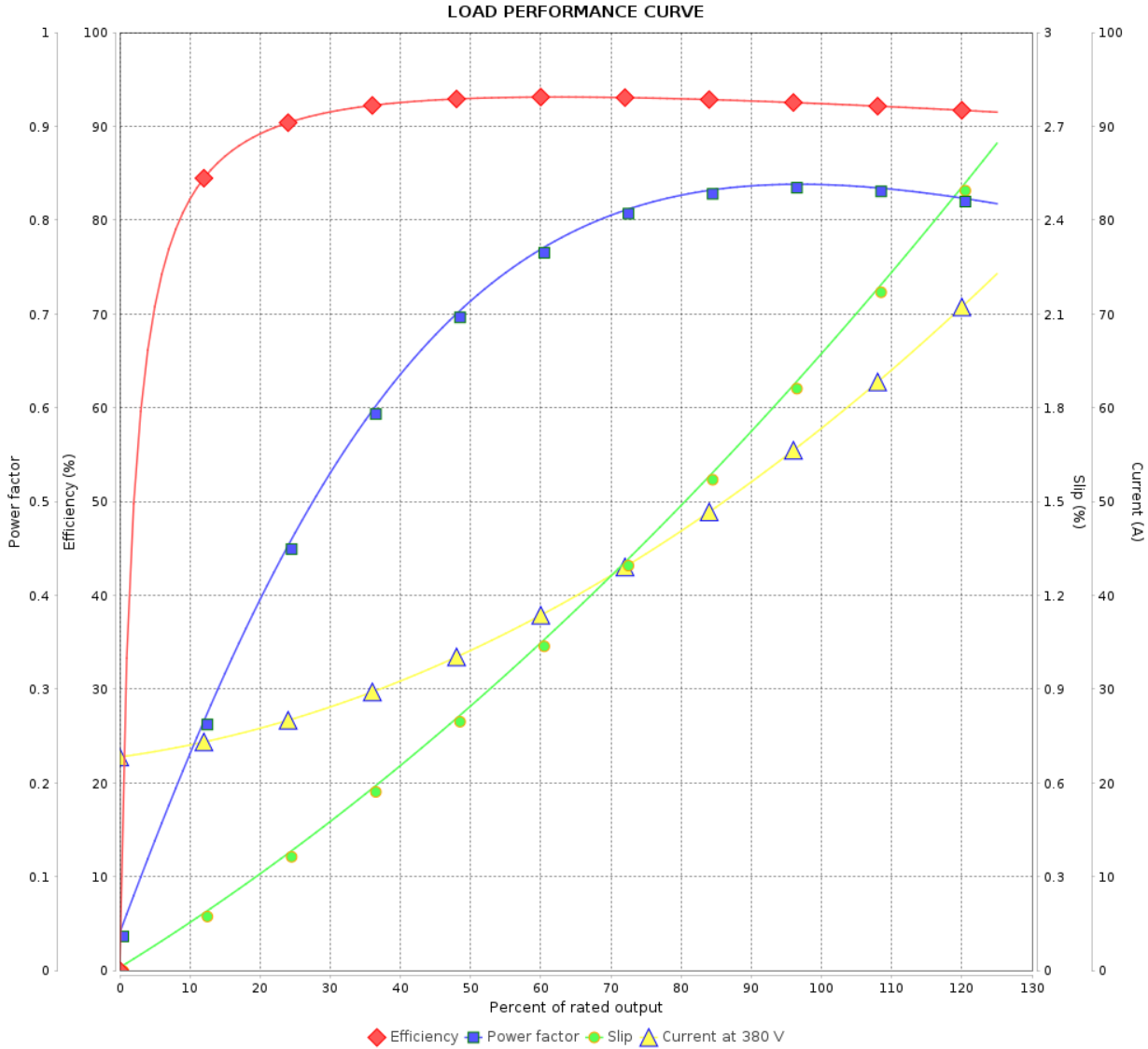
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Performance : 380 V 50 Hz 4P IE2

Rated current : 58.7 A
 LRC : 6.2
 Rated torque : 19.7 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 210 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.3441 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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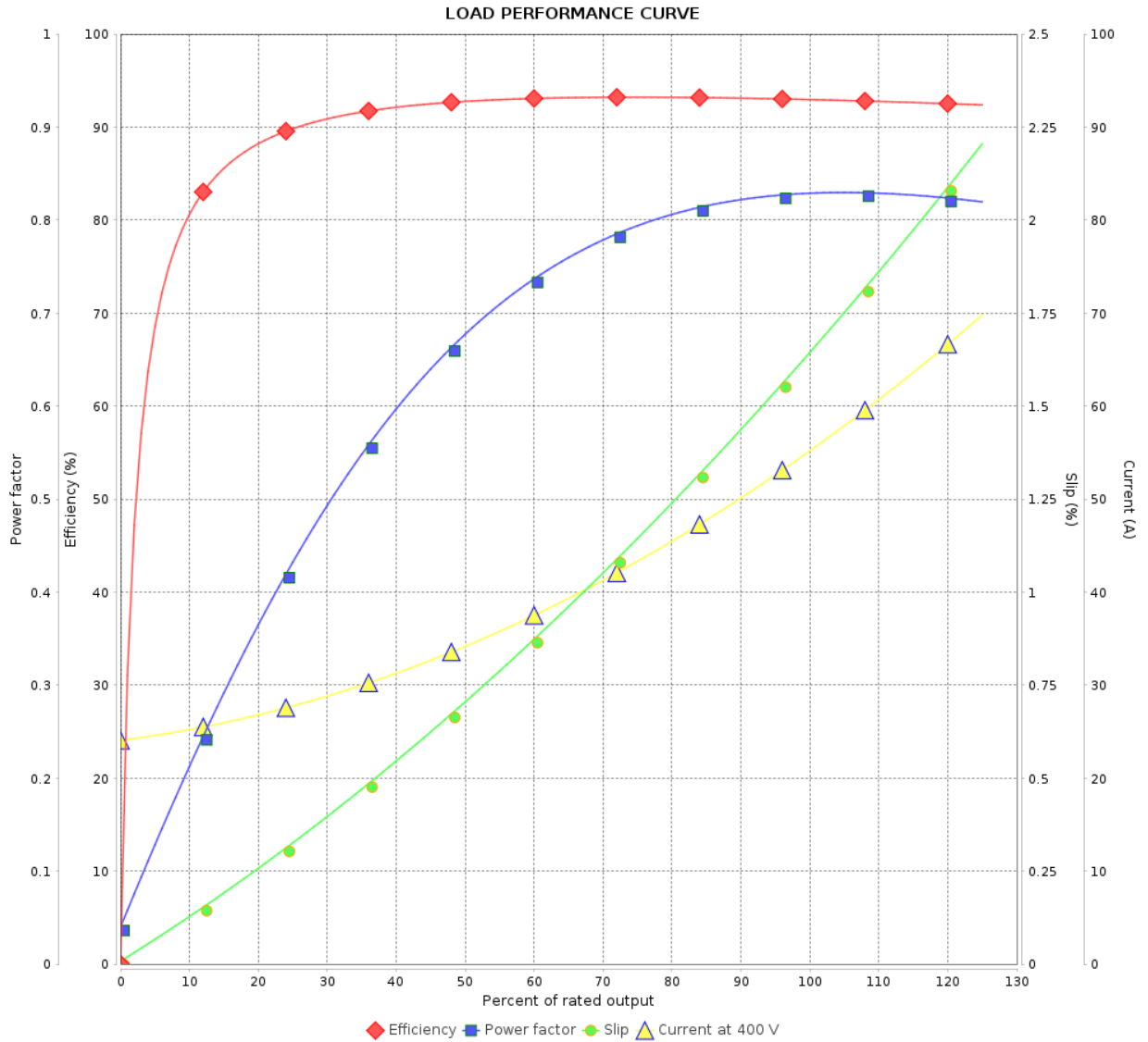
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Performance : 400 V 50 Hz 4P IE2

Rated current : 56.1 A
 LRC : 6.9
 Rated torque : 19.7 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.3441 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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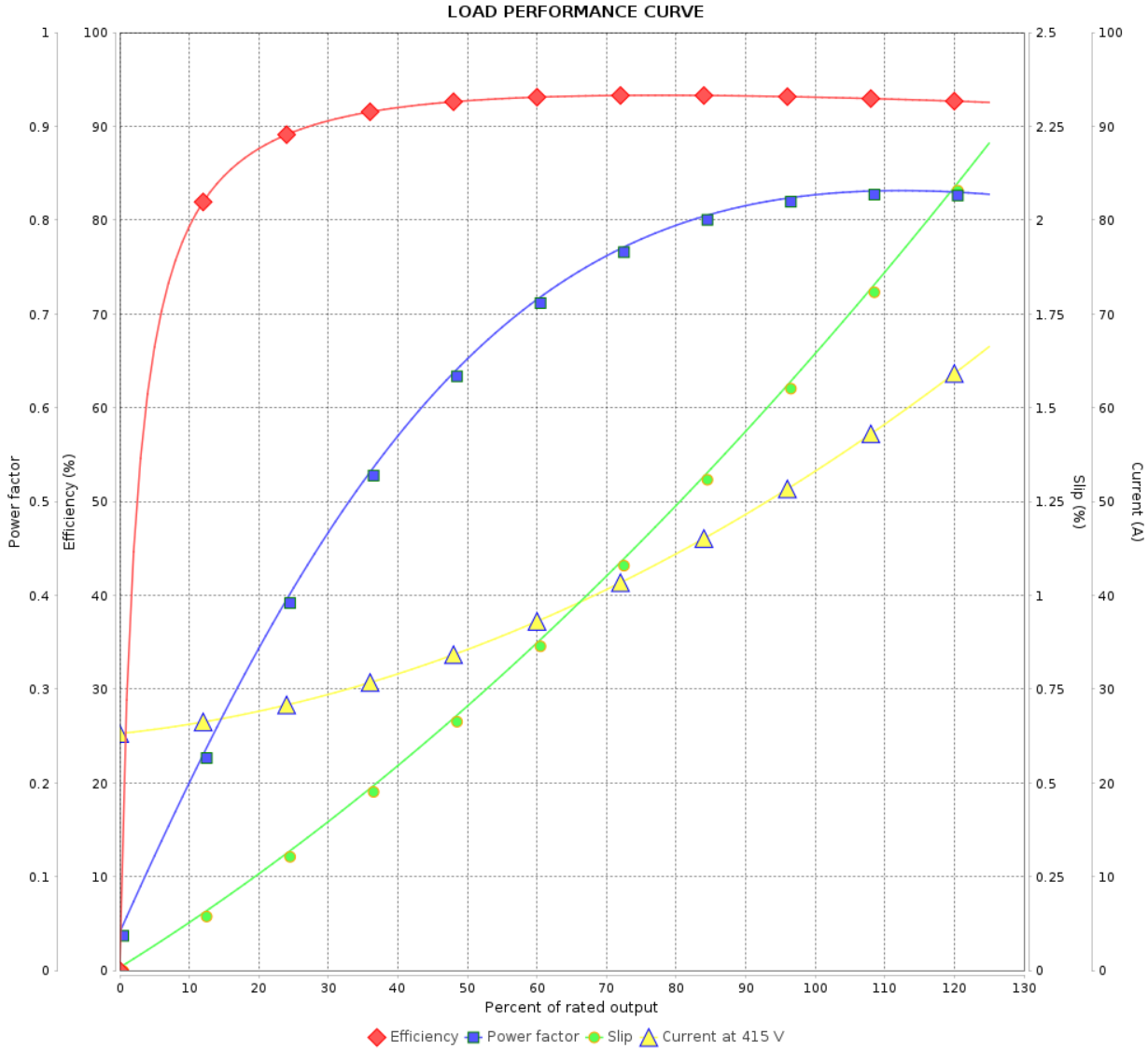
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Performance : 415 V 50 Hz 4P IE2

Rated current : 54.1 A
 LRC : 7.4
 Rated torque : 19.7 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.3441 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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