

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 14406836	
Frame	: 254T	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	: 150 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0974 kgm ²		
Design	: B				
Output [HP]	15	15	15	15	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	36.8/18.4	22.1	21.3	20.8	
L. R. Amperes [A]	269/134	128	136	141	
LRC [A]	7.3x(Code J)	5.8x(Code G)	6.4x(Code G)	6.8x(Code H)	
No load current [A]	17.2/8.60	8.40	9.20	9.60	
Rated speed [RPM]	1770	1455	1460	1465	
Slip [%]	1.67	3.00	2.67	2.33	
Rated torque [kgfm]	6.15	7.48	7.46	7.43	
Locked rotor torque [%]	300	220	250	270	
Breakdown torque [%]	300	229	250	270	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	46s (cold) 26s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	
Noise level ²	69.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	
Efficiency (%)	25%	89.4	92.1	91.4	90.8
	50%	90.2	91.0	91.0	91.0
	75%	91.7	91.7	91.7	91.0
	100%	92.4	90.2	91.0	91.0
Power Factor	25%	0.39	0.45	0.42	0.39
	50%	0.65	0.71	0.68	0.64
	75%	0.75	0.79	0.77	0.75
	100%	0.81	0.84	0.82	0.81
Bearing type	: <u>Drive end</u> 6309 C3 <u>Non drive end</u> 6209 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 241 kgf		
Lubrication interval	: 20000 h 20000 h	Max. compression	: 390 kgf		
Lubricant amount	: 13 g 9 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 40.7A SF 1.15 SFA 46.8A					
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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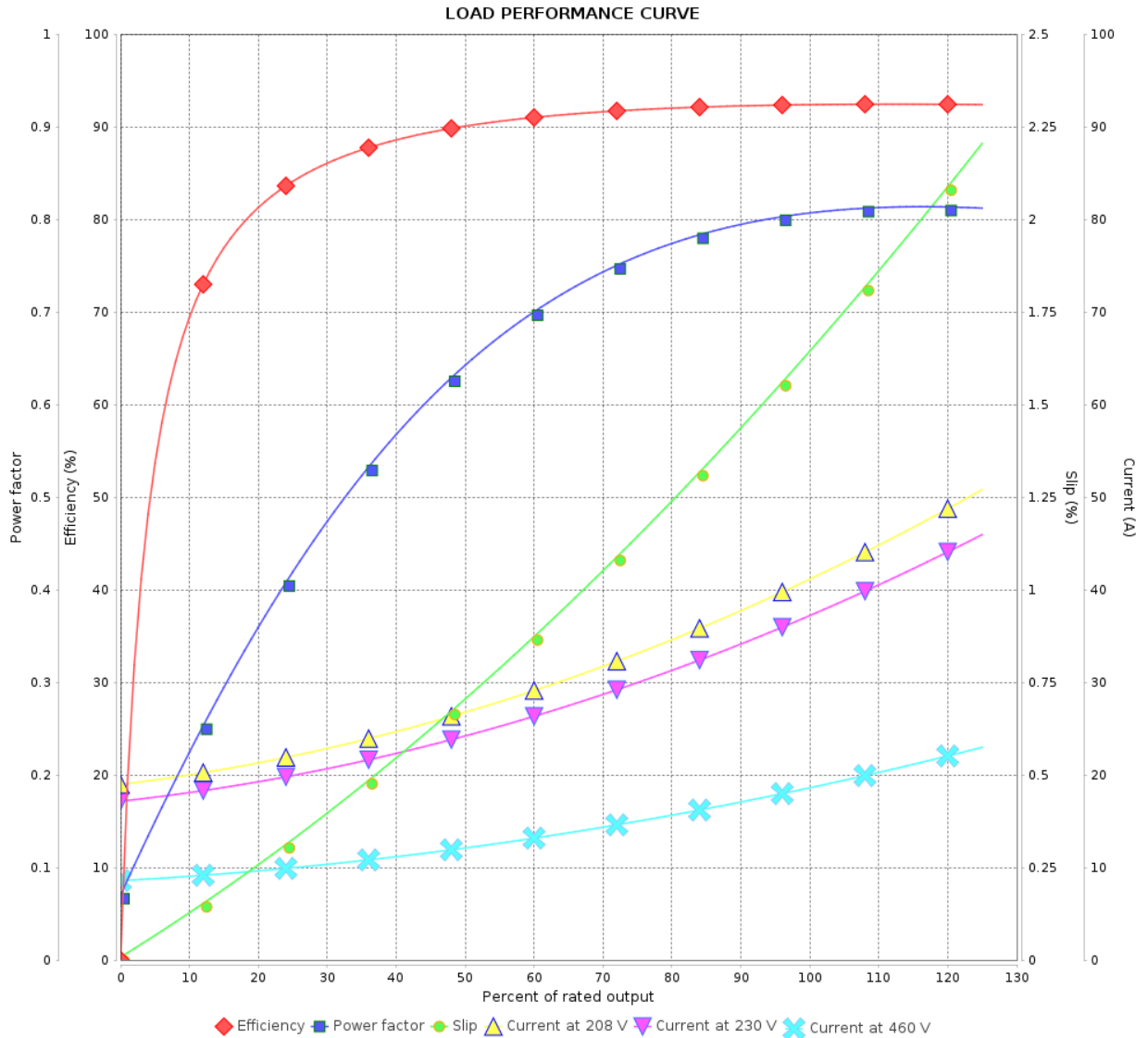
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Performance : 230/460 V 60 Hz 4P

Rated current : 36.8/18.4 A
 LRC : 7.3
 Rated torque : 6.15 kgfm
 Locked rotor torque : 300 %
 Breakdown torque : 300 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.0974 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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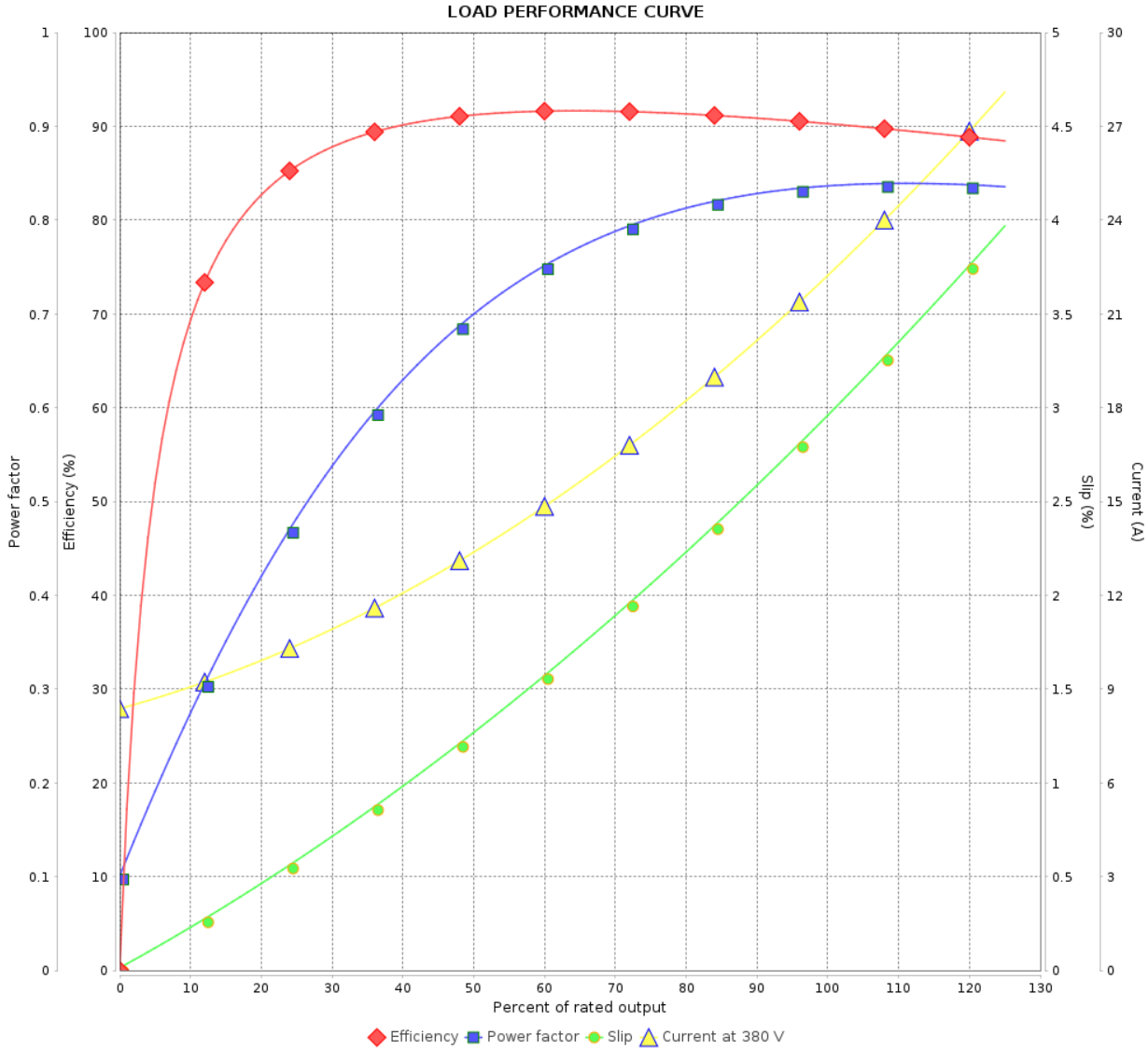
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Performance : 380 V 50 Hz 4P IE2

Rated current : 22.1 A
LRC : 5.8
Rated torque : 7.48 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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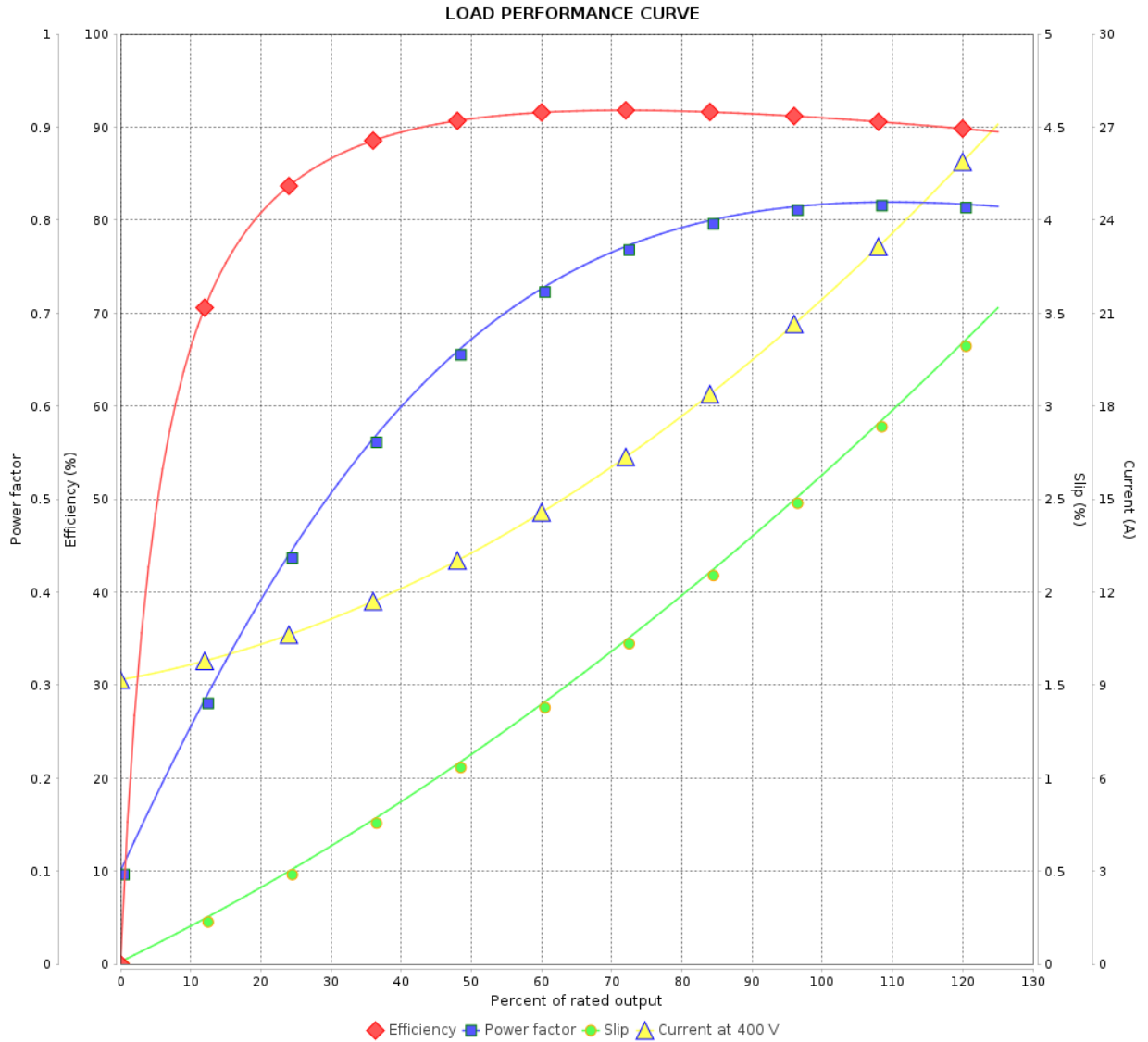
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Performance : 400 V 50 Hz 4P IE2

Rated current : 21.3 A
LRC : 6.4
Rated torque : 7.46 kgfm
Locked rotor torque : 250 %
Breakdown torque : 250 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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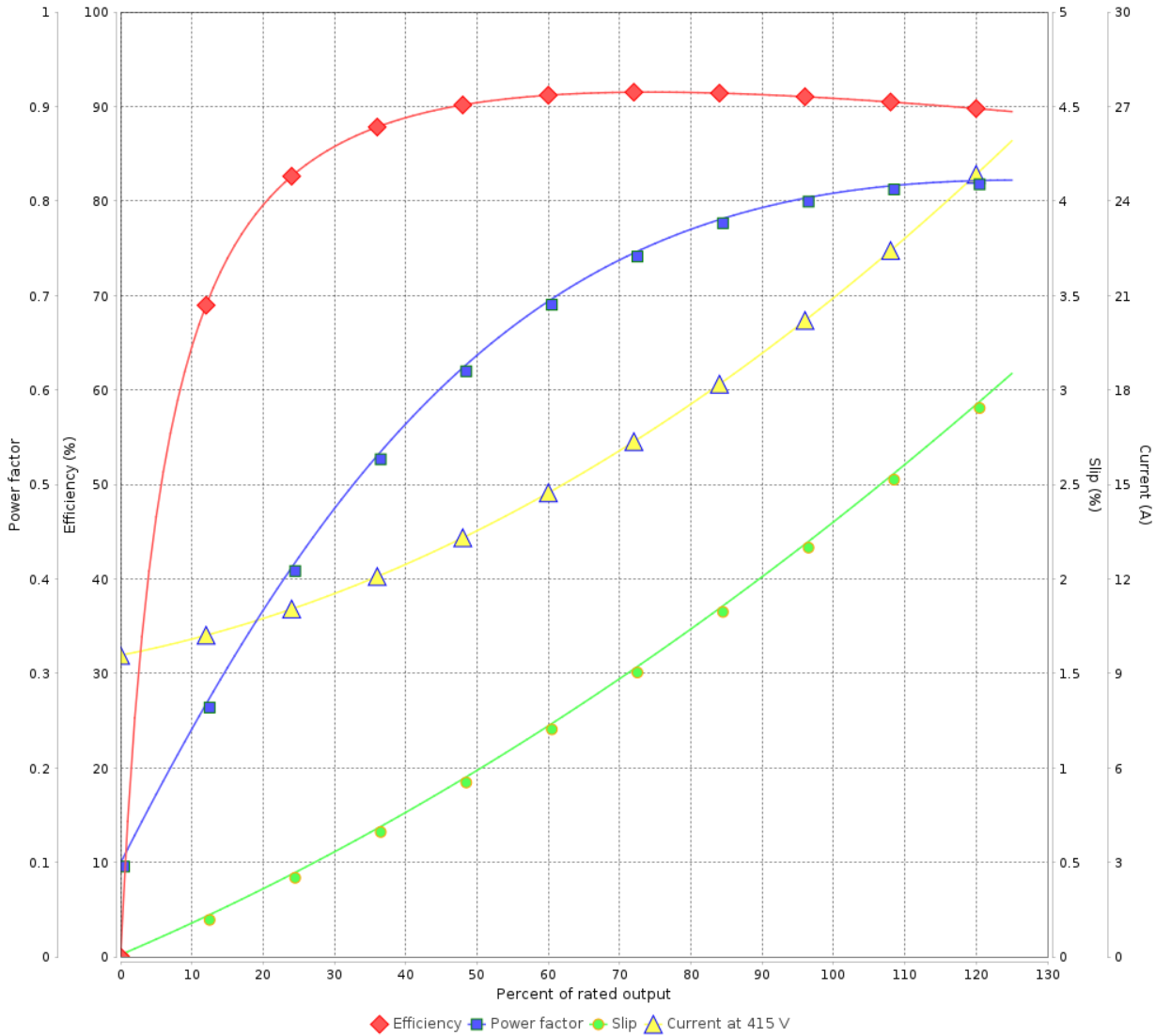


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Performance : 415 V 50 Hz 4P IE2

Rated current : 20.8 A
LRC : 6.8
Rated torque : 7.43 kgfm
Locked rotor torque : 270 %
Breakdown torque : 270 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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