

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code :	14406886
Frame	: 256T	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	: 163 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0611 kgm ²		
Design	: B				
Output [HP]	20	20	20	20	20
Poles	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	46.4/23.2	27.8	26.4	25.8	25.8
L. R. Amperes [A]	288/144	136	145	157	157
LRC [A]	6.2x(Code G)	4.9x(Code D)	5.5x(Code F)	6.1x(Code G)	6.1x(Code G)
No load current [A]	13.4/6.70	6.40	6.80	7.20	7.20
Rated speed [RPM]	3530	2900	2910	2920	2920
Slip [%]	1.94	3.33	3.00	2.67	2.67
Rated torque [kgfm]	4.11	5.01	4.99	4.97	4.97
Locked rotor torque [%]	200	140	160	180	180
Breakdown torque [%]	250	190	210	229	229
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	46s (cold) 26s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	90.0	89.9	89.9	89.9
	50%	90.2	90.2	90.2	90.2
	75%	91.0	91.0	91.0	91.0
	100%	91.0	91.0	91.0	91.0
Power Factor	25%	0.55	0.61	0.58	0.55
	50%	0.79	0.83	0.81	0.79
	75%	0.86	0.88	0.87	0.86
	100%	0.89	0.90	0.90	0.89
Bearing type	: <u>Drive end</u> 6309 C3 <u>Non drive end</u> 6209 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 98 kgf			
Lubrication interval	: 15797 h 18447 h	Max. compression : 261 kgf			
Lubricant amount	: 13 g 9 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 50.6A SF 1.10 SFA 55.6A					
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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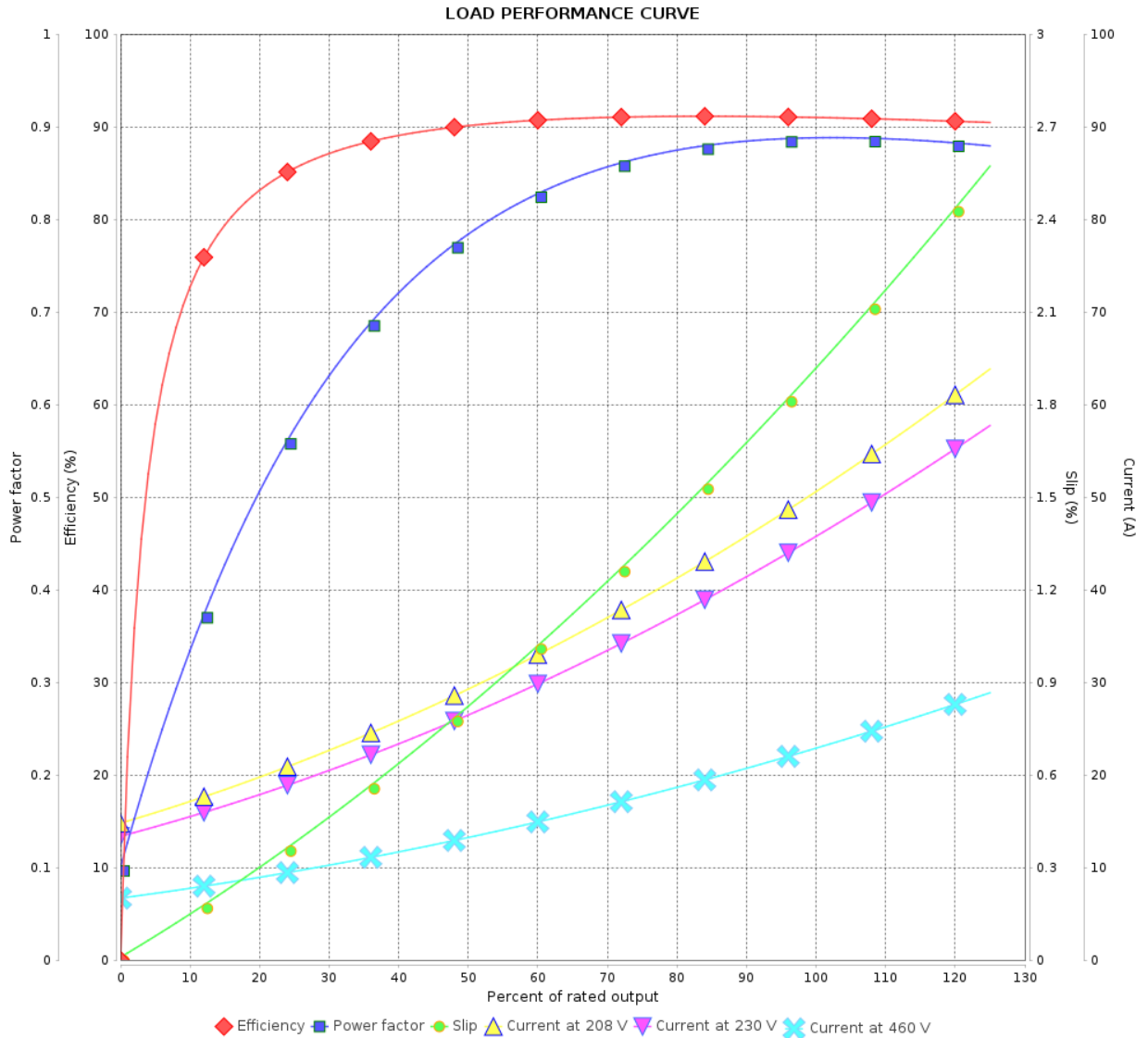
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Customer :

Product line : W21 Explosion Proof NEMA Premium
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Performance : 230/460 V 60 Hz 2P

Rated current : 46.4/23.2 A
 LRC : 6.2
 Rated torque : 4.11 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3530 rpm

Moment of inertia (J) : 0.0611 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

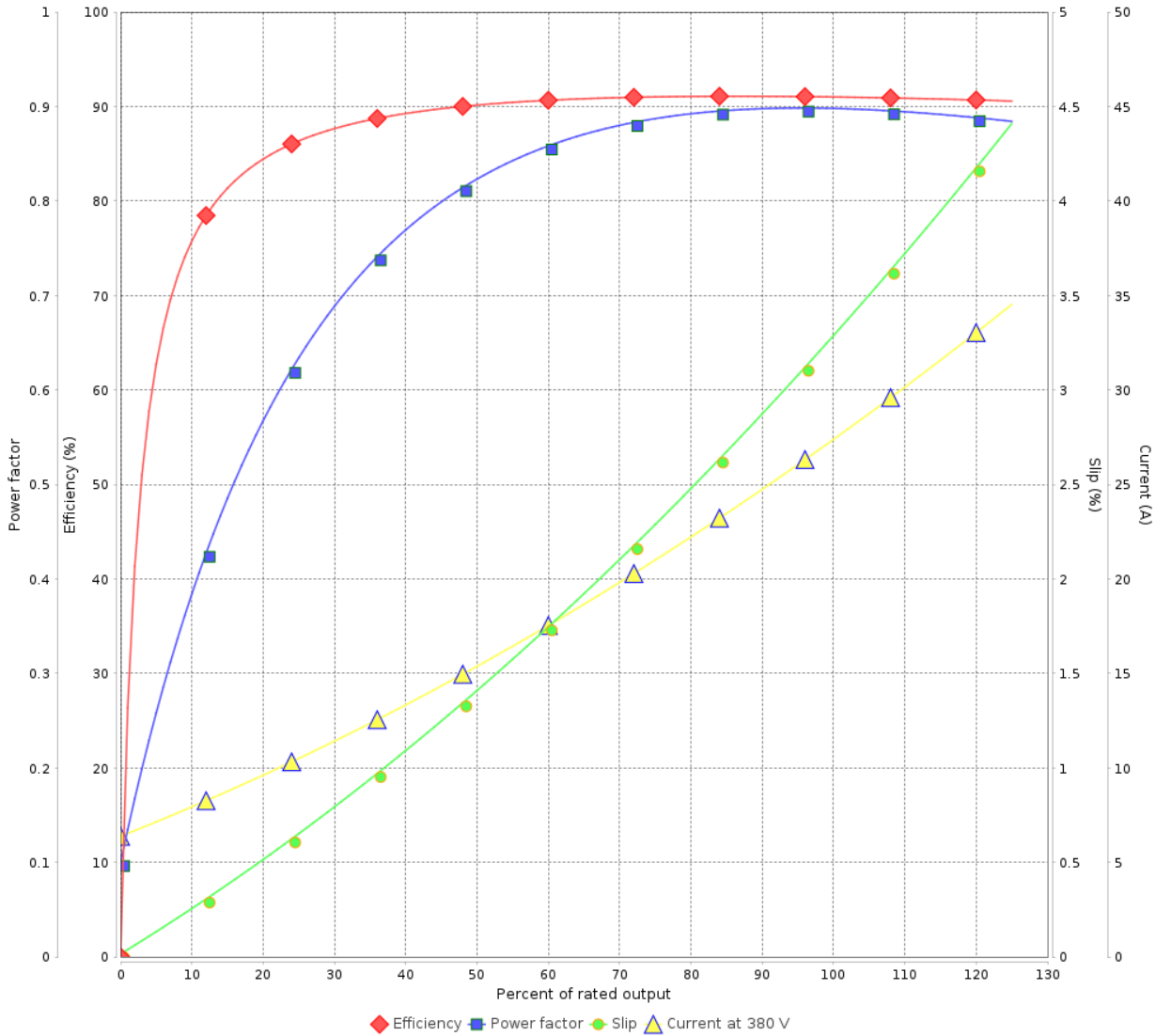


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Performance : 380 V 50 Hz 2P IE2

Rated current : 27.8 A
LRC : 4.9
Rated torque : 5.01 kgfm
Locked rotor torque : 140 %
Breakdown torque : 190 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0611 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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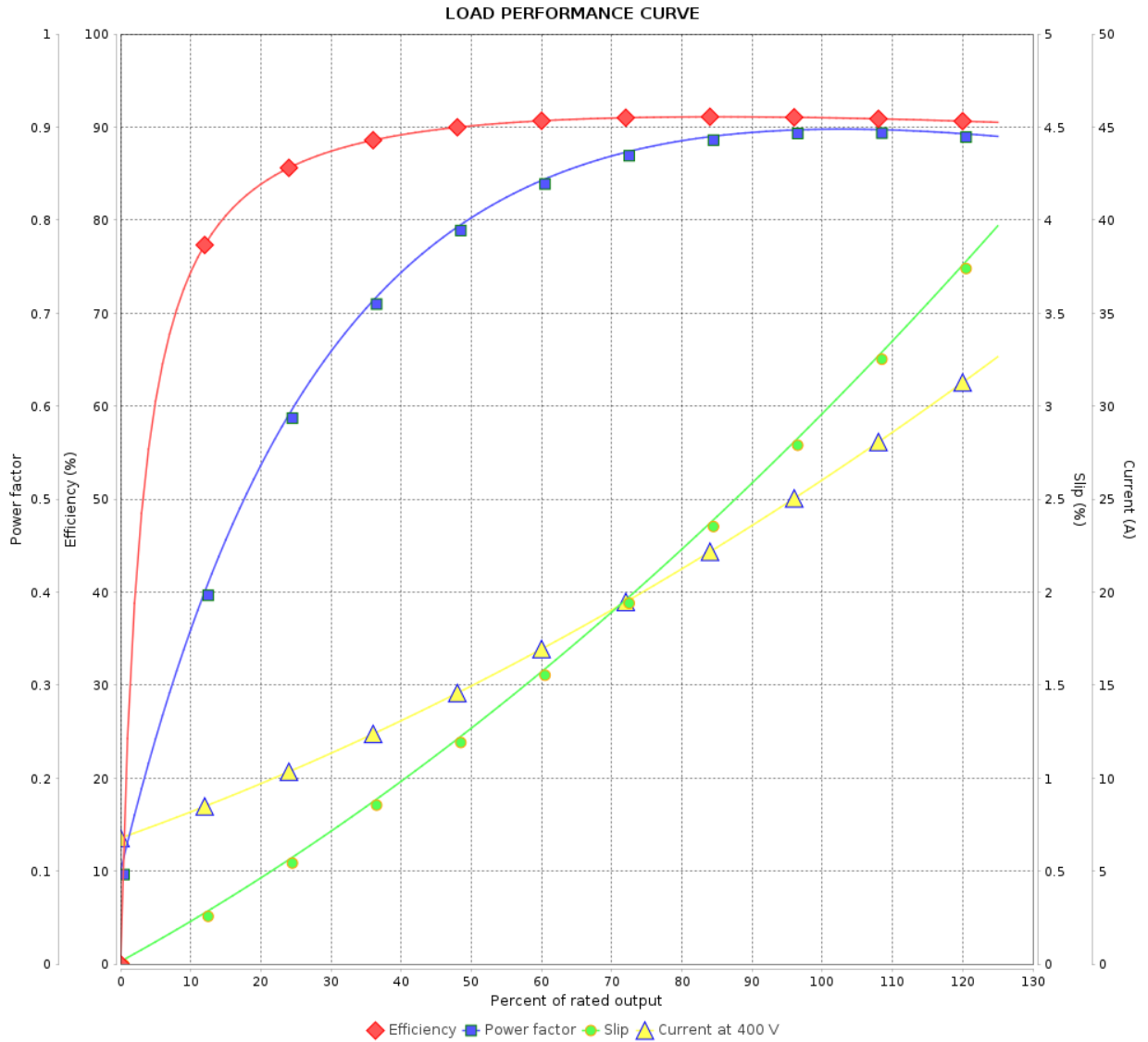
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Performance : 400 V 50 Hz 2P IE2

Rated current : 26.4 A
 LRC : 5.5
 Rated torque : 4.99 kgfm
 Locked rotor torque : 160 %
 Breakdown torque : 210 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.0611 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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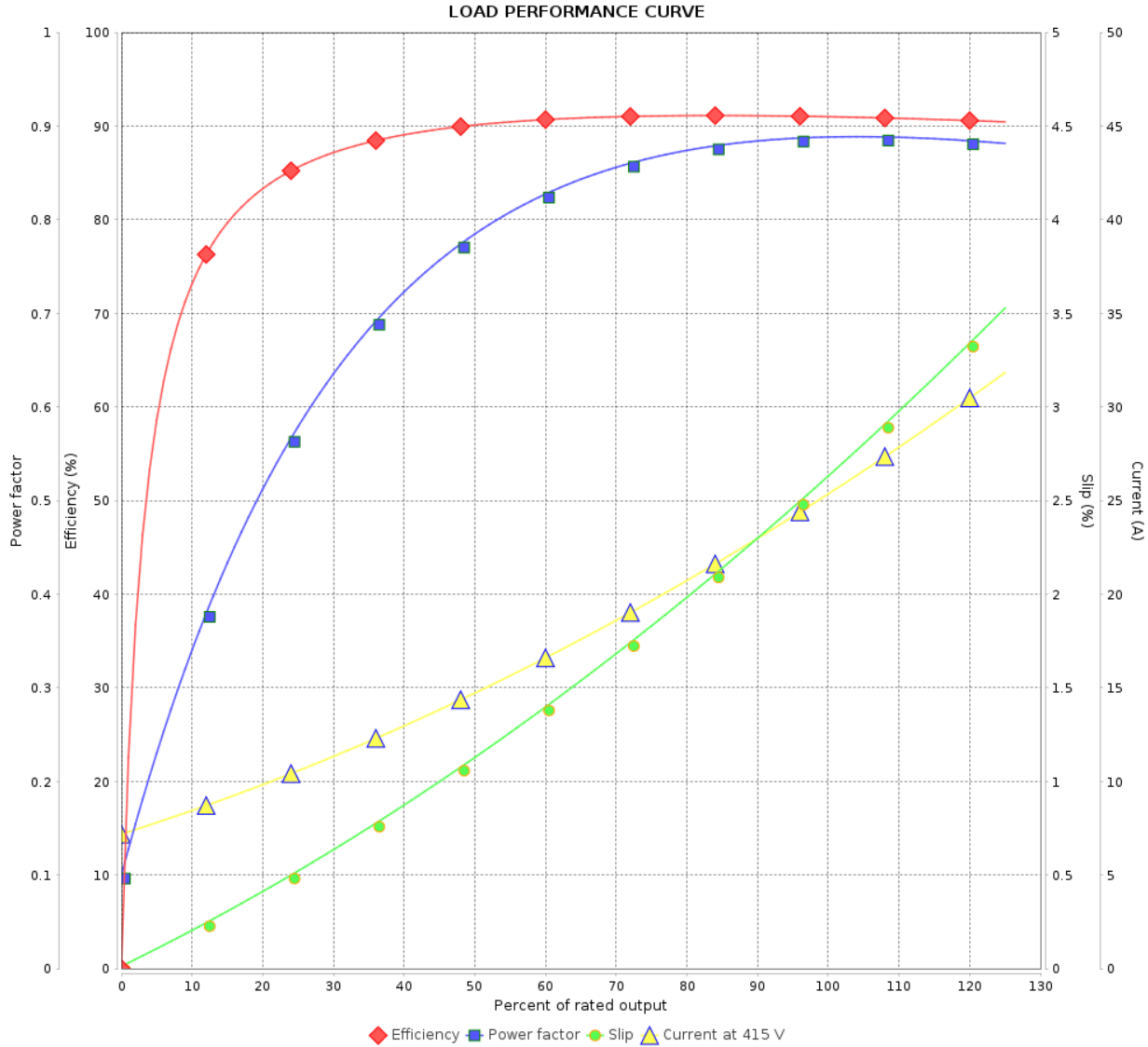
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Performance : 415 V 50 Hz 2P IE2

Rated current : 25.8 A
LRC : 6.1
Rated torque : 4.97 kgfm
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 2920 rpm

Moment of inertia (J) : 0.0611 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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