

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W21 Explosion Proof NEMA Premium Efficiency Three-Phase	Product code :	14284388		
Frame	: 143/5TC	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	: 34.2 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0055 kgm ²		
Design	: B				
Output [HP]	1.5	1.5	1.5	1.5	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	4.10/2.05	2.40	2.33	2.27	
L. R. Amperes [A]	36.5/18.2	15.8	16.8	17.5	
LRC [A]	8.9x(Code L)	6.6x(Code H)	7.2x(Code J)	7.7x(Code K)	
No load current [A]	2.40/1.20	1.20	1.30	1.40	
Rated speed [RPM]	1755	1440	1445	1450	
Slip [%]	2.50	4.00	3.67	3.33	
Rated torque [kgfm]	0.620	0.756	0.753	0.751	
Locked rotor torque [%]	270	200	229	250	
Breakdown torque [%]	350	260	290	320	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	80.2	83.7	83.7	80.9
	50%	81.5	84.0	84.0	82.5
	75%	85.5	84.0	84.0	84.0
	100%	86.5	84.0	84.0	85.5
Power Factor	25%	0.34	0.39	0.35	0.33
	50%	0.58	0.66	0.62	0.58
	75%	0.70	0.77	0.74	0.71
	100%	0.78	0.83	0.81	0.79
Bearing type	: <u>Drive end</u> 6205 2RS <u>Non drive end</u> 6204 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 51 kgf		
Lubrication interval	: - -	Max. compression	: 85 kgf		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 4.53A SF 1.15 SFA 5.21A					
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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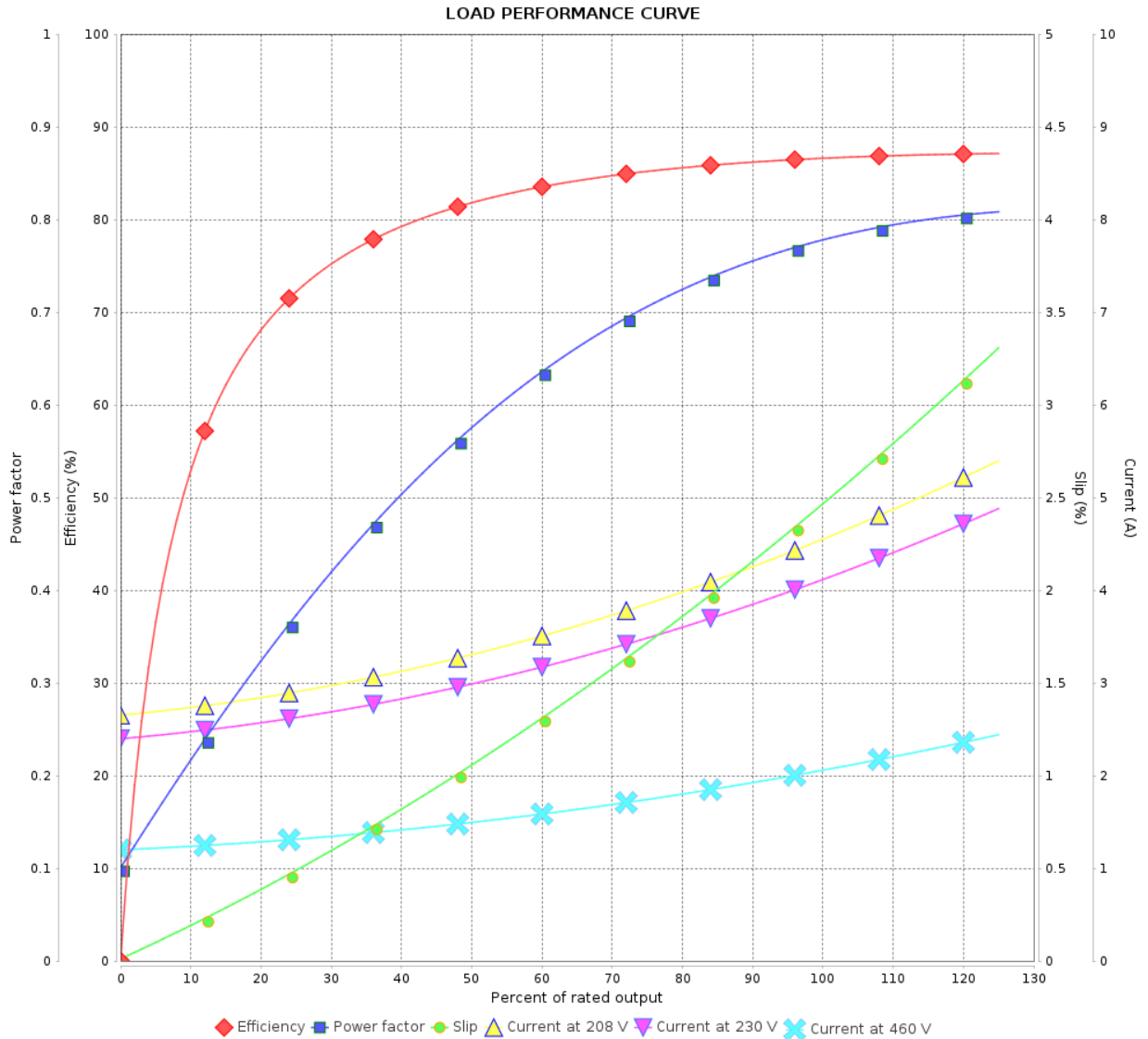
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Performance : 230/460 V 60 Hz 4P

Rated current : 4.10/2.05 A
 LRC : 8.9
 Rated torque : 0.620 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.0055 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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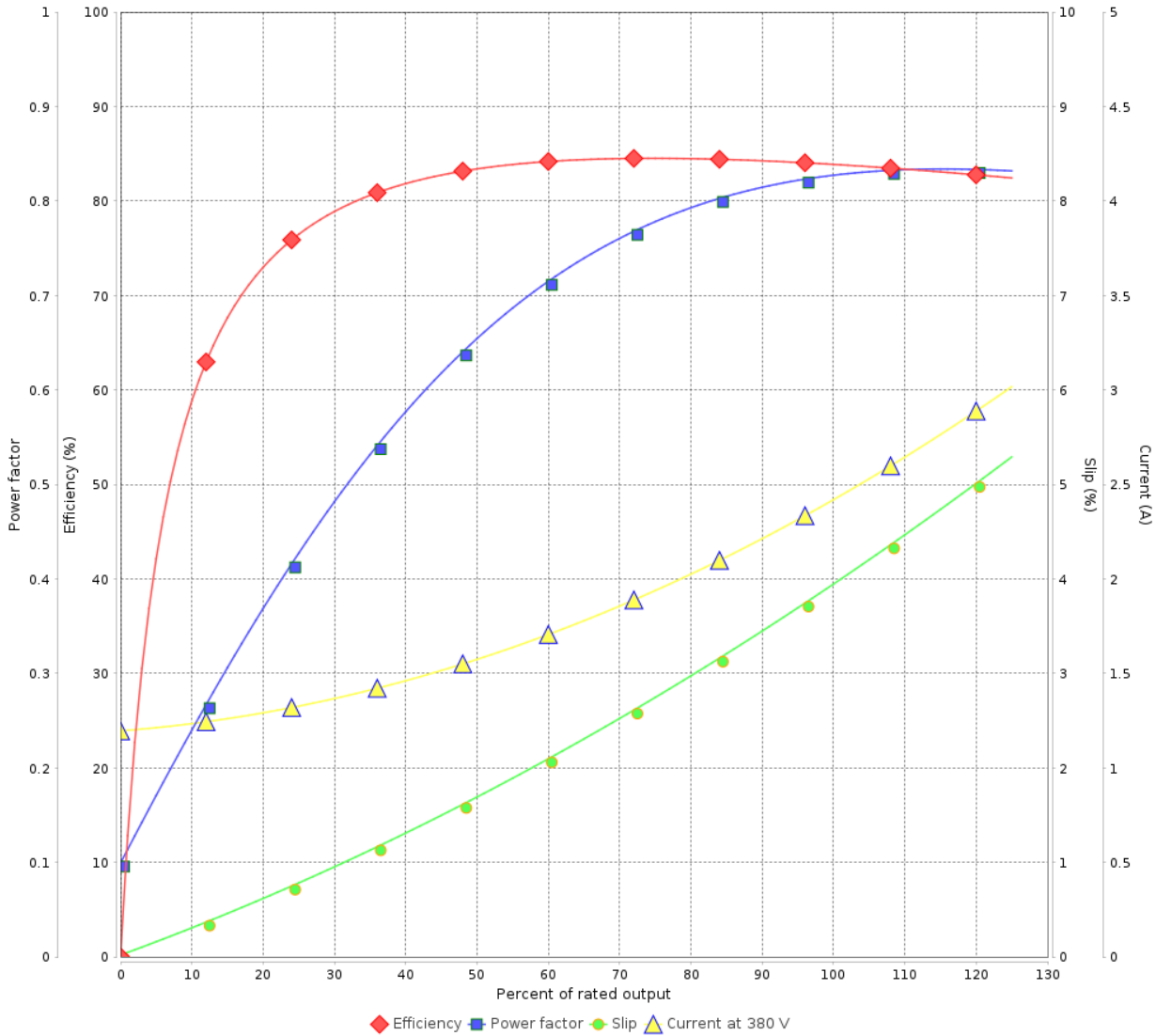


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Performance : 380 V 50 Hz 4P IE2

Rated current : 2.40 A
LRC : 6.6
Rated torque : 0.756 kgfm
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0055 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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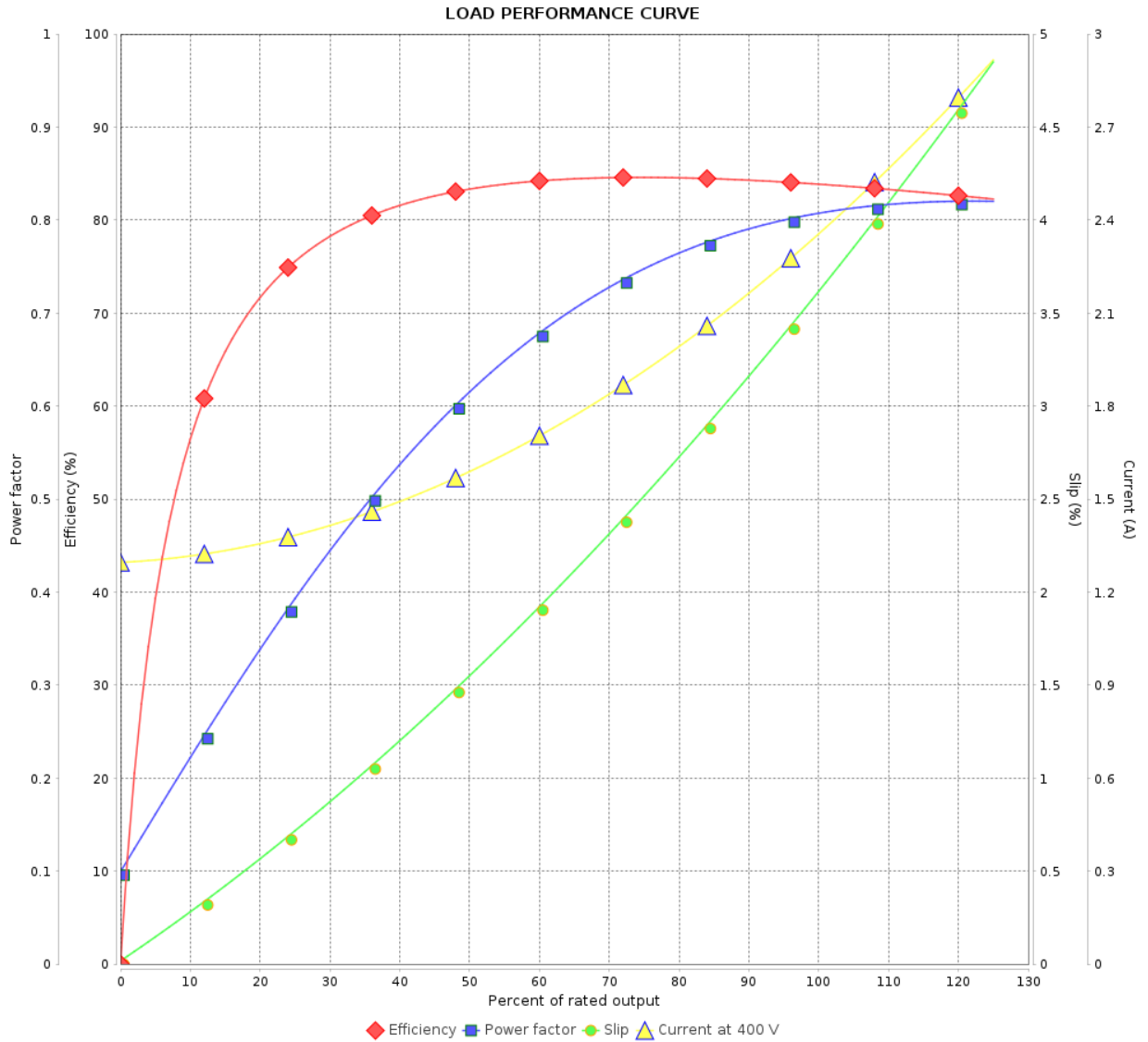
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Performance : 400 V 50 Hz 4P IE2

Rated current : 2.33 A
 LRC : 7.2
 Rated torque : 0.753 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0055 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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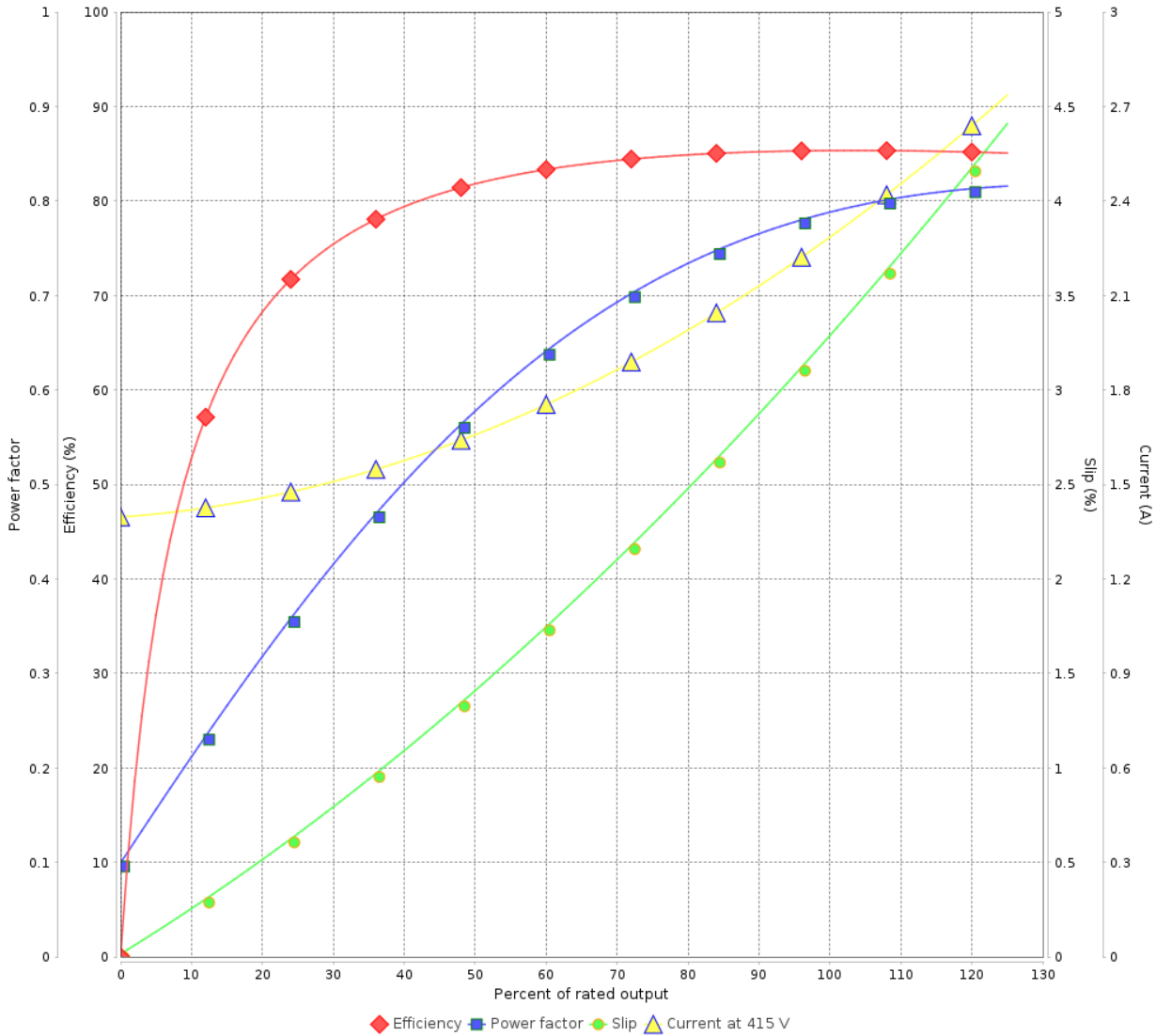


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Performance : 415 V 50 Hz 4P IE3

Rated current : 2.27 A
LRC : 7.7
Rated torque : 0.751 kgfm
Locked rotor torque : 250 %
Breakdown torque : 320 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0055 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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