

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W21 Explosion Proof NEMA Premium Efficiency Three-Phase	Product code :	14353304		
Frame	: 213/5T	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	: 92.8 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0620 kgm ²		
Design	: B				
Output [HP]	5	5	5	5	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	13.7/6.83	8.20	7.82	7.65	
L. R. Amperes [A]	92.9/46.4	45.1	47.7	49.7	
LRC [A]	6.8x(Code J)	5.5x(Code G)	6.1x(Code H)	6.5x(Code J)	
No load current [A]	6.90/3.45	3.41	3.68	3.90	
Rated speed [RPM]	1170	960	965	970	
Slip [%]	2.50	4.00	3.50	3.00	
Rated torque [kgfm]	3.10	3.78	3.76	3.74	
Locked rotor torque [%]	170	150	160	190	
Breakdown torque [%]	260	215	220	250	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	102s (cold) 57s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	
Efficiency (%)	25%	88.2	89.8	89.1	87.2
	50%	88.5	88.5	88.5	87.5
	75%	89.5	88.5	88.5	88.5
	100%	89.5	86.8	87.5	88.5
Power Factor	25%	0.34	0.40	0.37	0.35
	50%	0.58	0.65	0.61	0.58
	75%	0.70	0.75	0.73	0.71
	100%	0.76	0.79	0.78	0.76
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	11.1	14.4	13.5	12.3
	P2 (0,5;1,0)	9.1	11.8	11.1	10.1
	P3 (0,25;1,0)	8.8	11.4	10.8	9.8
	P4 (0,9;0,5)	5.8	7.5	7.1	6.4
	P5 (0,5;0,5)	4.0	5.2	4.9	4.5
	P6 (0,5;0,25)	2.9	3.7	3.5	3.2
	P7 (0,25;0,25)	2.1	2.7	2.6	2.3
Bearing type	: Drive end : 6308 2RS Non drive end : 6207 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 126 kgf			
Lubrication interval	: - -	Max. compression : 219 kgf			
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
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.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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Notes
USABLE @208V 15.1A SF 1.15 SFA 17.4A

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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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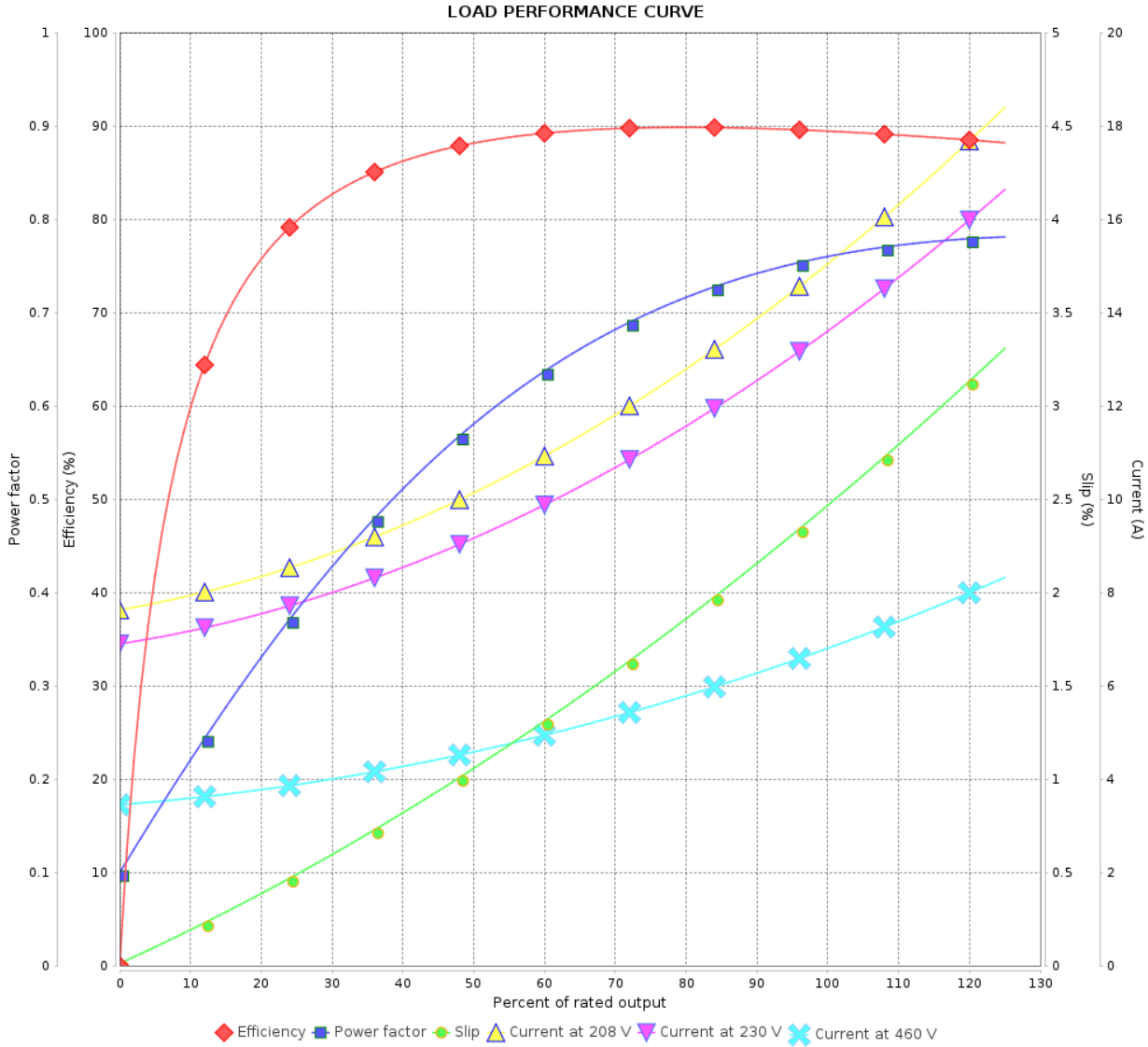
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14353304



Performance : 230/460 V 60 Hz 6P

Rated current : 13.7/6.83 A
 LRC : 6.8
 Rated torque : 3.10 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 260 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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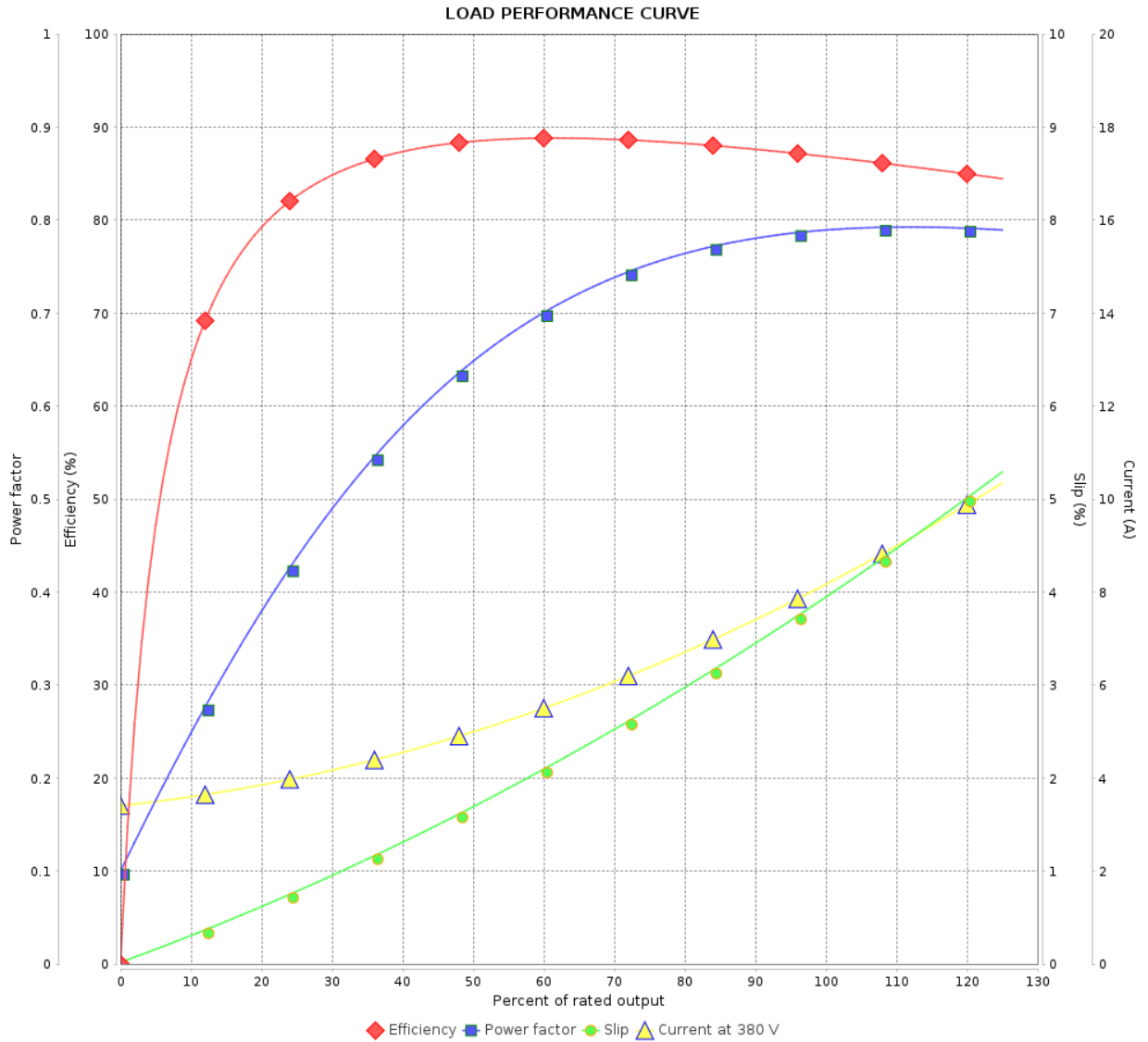
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 6P IE3

Rated current : 8.20 A
 LRC : 5.5
 Rated torque : 3.78 kgfm
 Locked rotor torque : 150 %
 Breakdown torque : 215 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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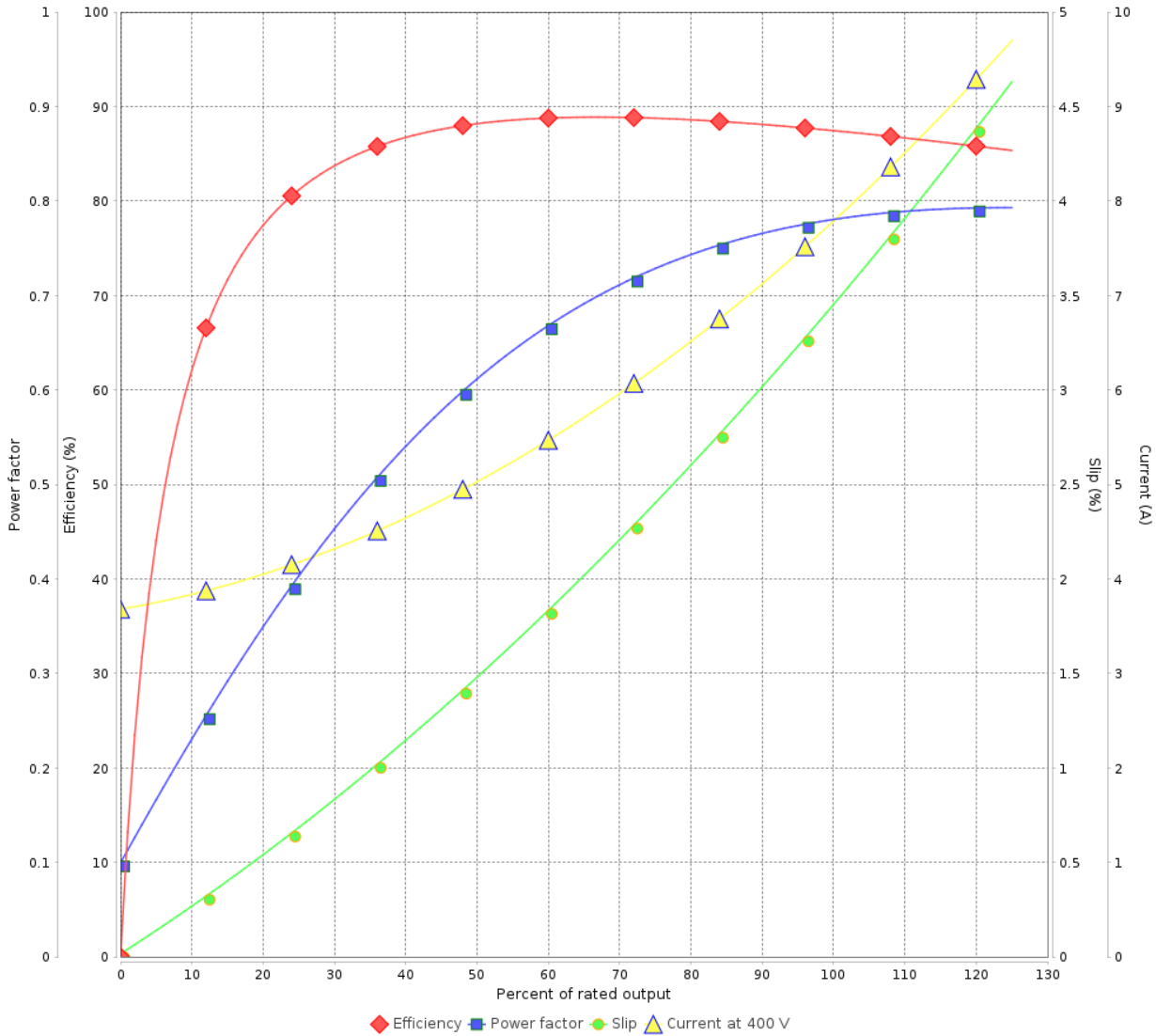


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Performance : 400 V 50 Hz 6P IE3

Rated current : 7.82 A
LRC : 6.1
Rated torque : 3.76 kgfm
Locked rotor torque : 160 %
Breakdown torque : 220 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.0620 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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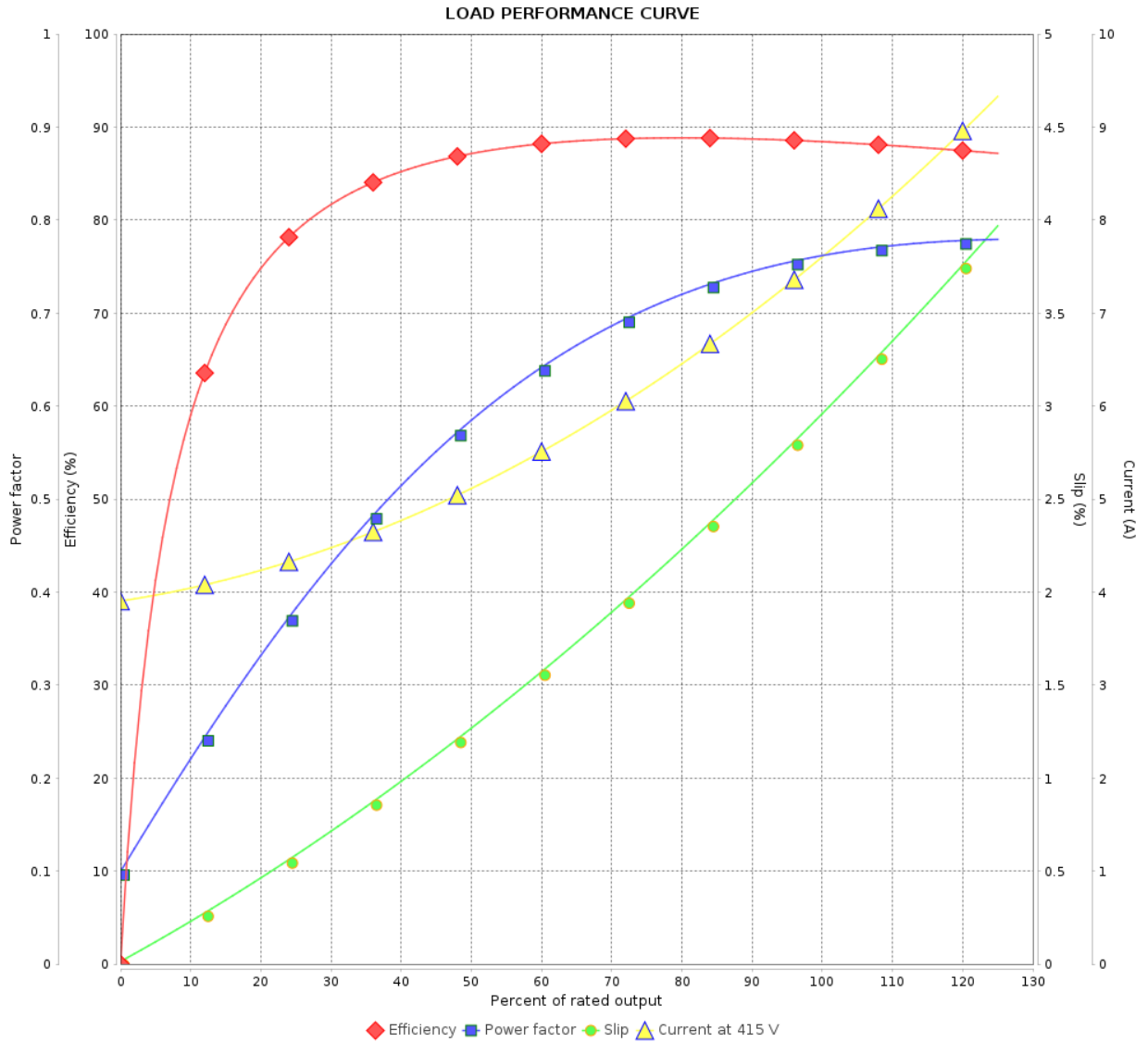
Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

Product code : 14353304



Performance : 415 V 50 Hz 6P IE3

Rated current : 7.65 A
 LRC : 6.5
 Rated torque : 3.74 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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