

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14325313

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	: 90.2 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0582 kgm ²
Design	: B		

Output [HP]	7.5	7.5	7.5	7.5
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	18.8/9.41	11.3	10.7	10.6
L. R. Amperes [A]	126/63.0	61.9	68.7	72.1
LRC [A]	6.7x(Code H)	5.5x(Code F)	6.4x(Code H)	6.8x(Code H)
No load current [A]	6.80/3.40	3.30	3.60	3.80
Rated speed [RPM]	1765	1450	1460	1460
Slip [%]	1.94	3.33	2.67	2.67
Rated torque [kgfm]	3.08	3.75	3.73	3.73
Locked rotor torque [%]	210	175	180	210
Breakdown torque [%]	280	215	280	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	89.4	88.2	87.6
	50%	90.2	88.5	88.5
	75%	91.0	89.5	89.5
	100%	91.7	89.5	90.2
Power Factor	25%	0.40	0.46	0.41
	50%	0.60	0.66	0.61
	75%	0.73	0.77	0.73
	100%	0.80	0.83	0.80

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	8.8	11.4	10.6	10.6
	P2 (0,5;1,0)	7.3	9.4	8.7	8.7
	P3 (0,25;1,0)	6.4	8.3	7.7	7.7
	P4 (0,9;0,5)	4.4	5.6	5.2	5.2
	P5 (0,5;0,5)	2.9	3.7	3.5	3.5
	P6 (0,5;0,25)	1.9	2.5	2.3	2.3
	P7 (0,25;0,25)	1.3	1.6	1.5	1.5

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6308 2RS	6207 2RS	Max. traction	: 141 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 231 kgf
Lubrication interval	: -	-		
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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Checked by				
Date	28/10/2024			

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Customer : _____

Notes
USABLE @208V 20.8A SF 1.15 SFA 23.9A

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Customer :

Thermal protection					
ID	Application	Type	Quantity	Sensing Temperature	
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C	
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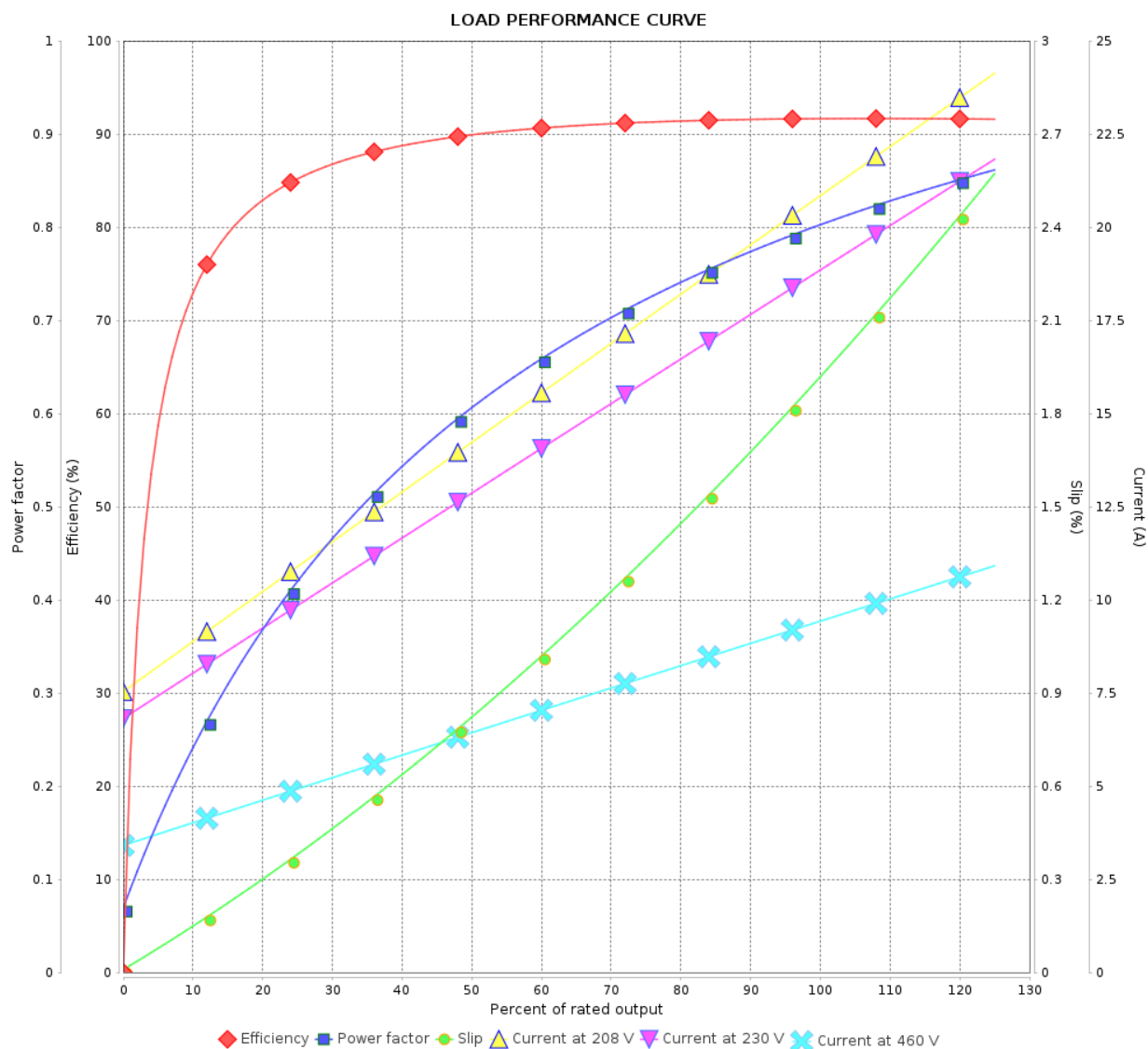
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Customer :

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

Product code : 14325313



Performance : 230/460 V 60 Hz 4P

Rated current : 18.8/9.41 A
LRC : 6.7
Rated torque : 3.08 kgfm
Locked rotor torque : 210 %
Breakdown torque : 280 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0582 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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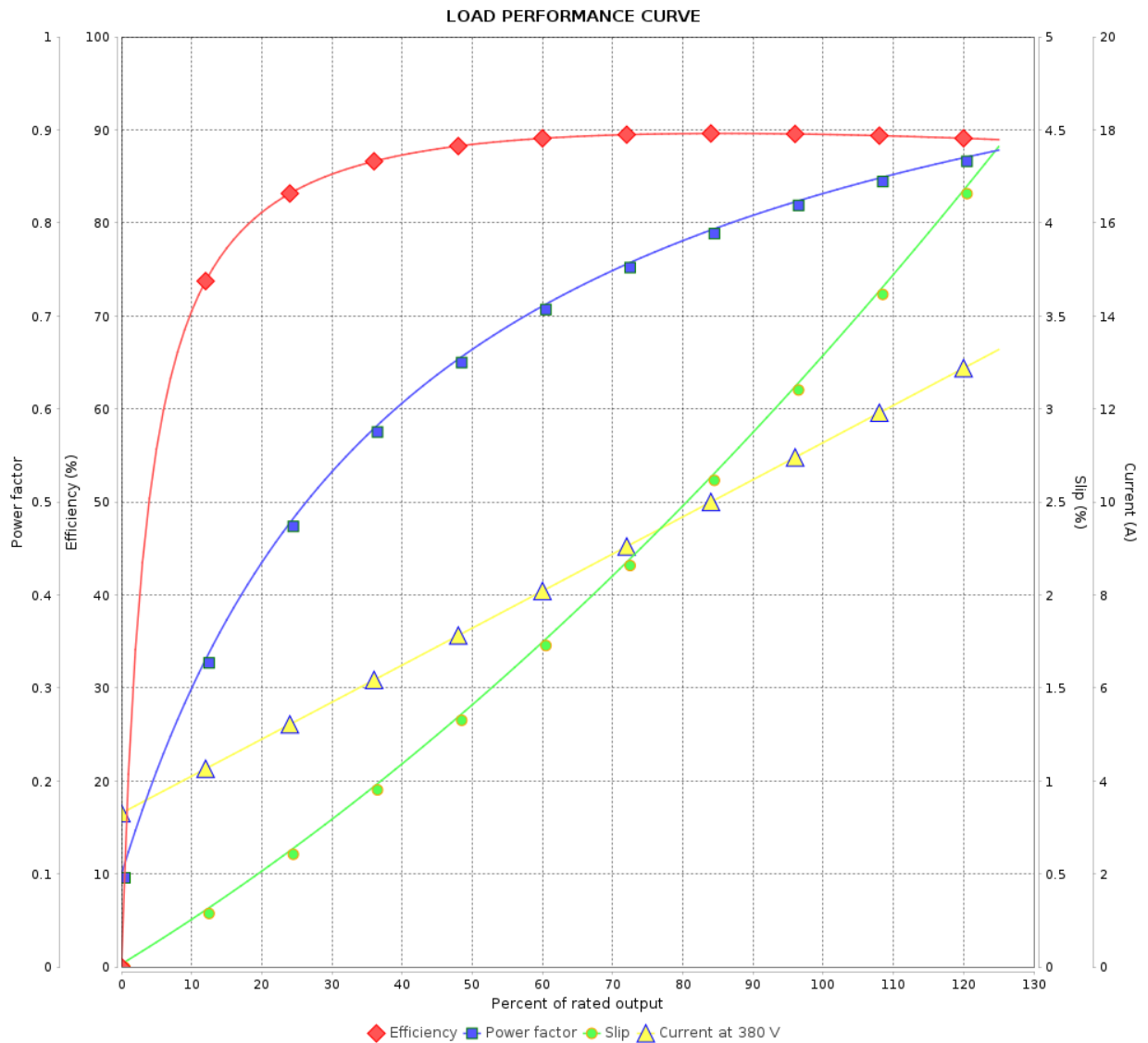
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE2

Rated current : 11.3 A
LRC : 5.5
Rated torque : 3.75 kgfm
Locked rotor torque : 175 %
Breakdown torque : 215 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0582 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

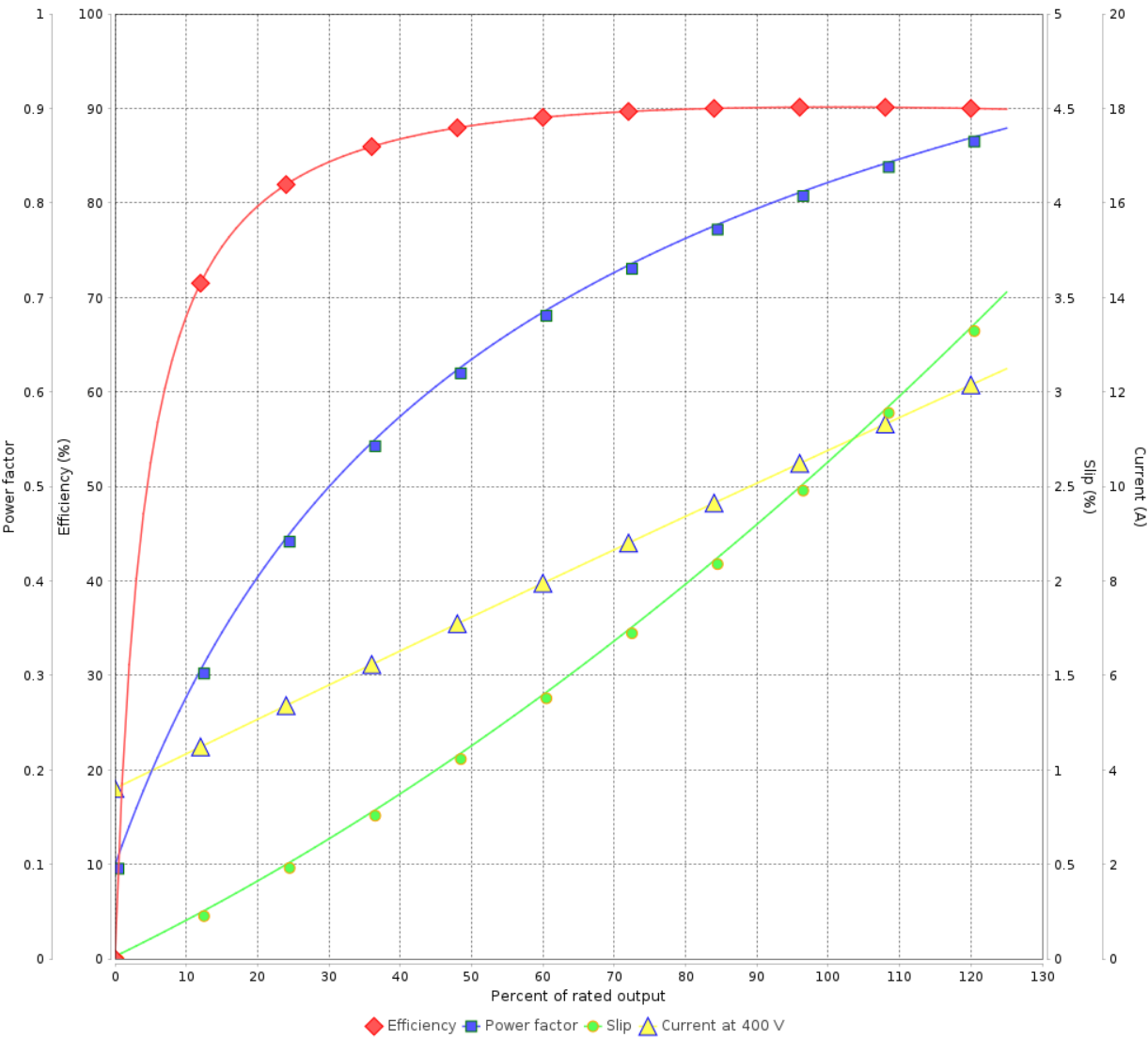


Customer :

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Performance : 400 V 50 Hz 4P IE3

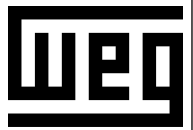
Rated current : 10.7 A
LRC : 6.4
Rated torque : 3.73 kgfm
Locked rotor torque : 180 %
Breakdown torque : 280 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0582 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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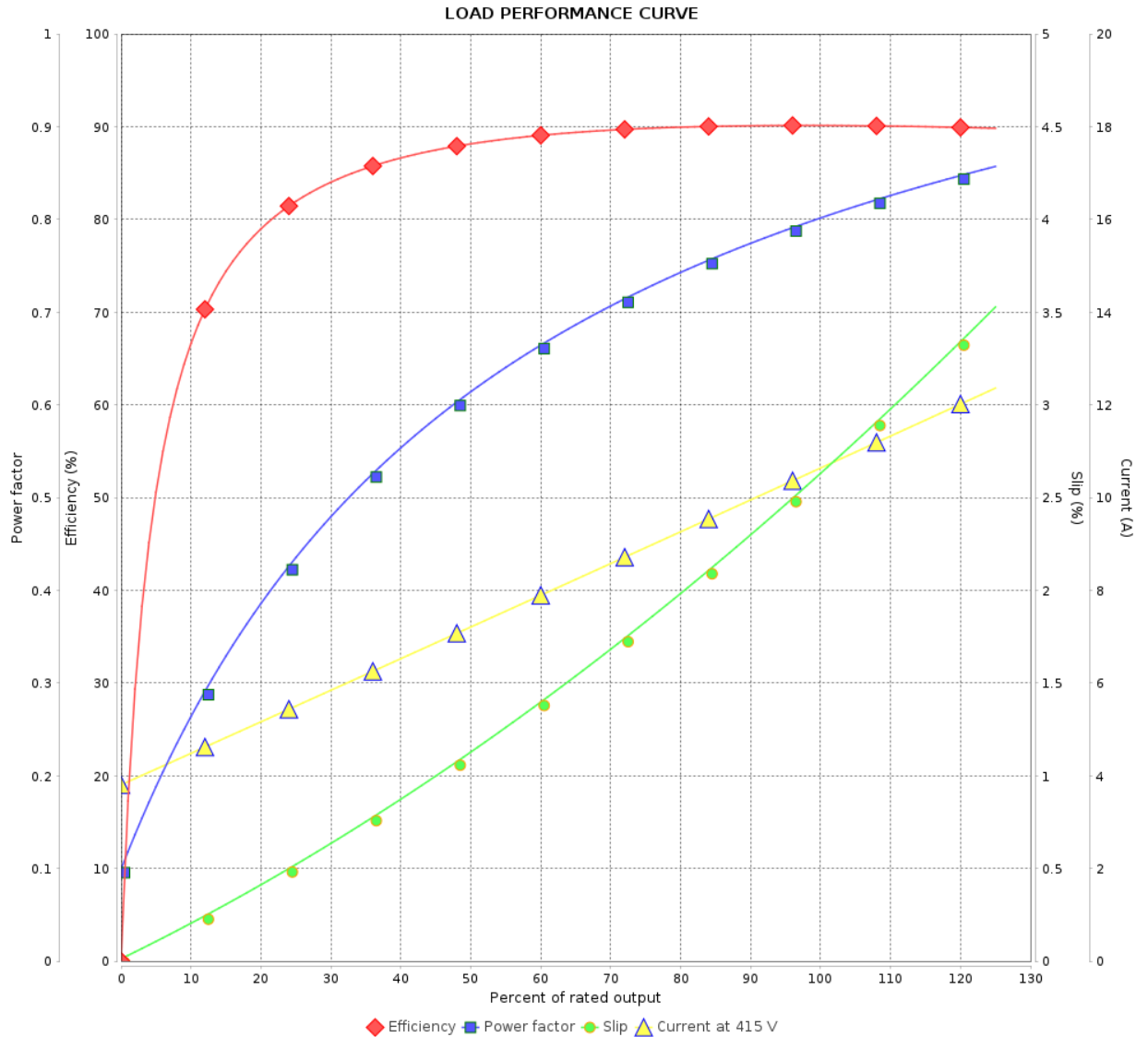
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14325313



Performance : 415 V 50 Hz 4P IE3

Rated current	: 10.6 A	Moment of inertia (J)	: 0.0582 kgm ²
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 3.73 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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