

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14480938

Frame : 182/4T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 55.7 kg
Protection degree : IP55	Moment of inertia (J) : 0.0117 kgm <sup>2</sup>
Design : B	

Output [HP]	3	3	3	3
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	8.02/4.01	4.72	4.59	4.49
L. R. Amperes [A]	64.2/32.1	30.7	32.1	34.1
LRC [A]	8.0x(Code K)	6.5x(Code H)	7.0x(Code J)	7.6x(Code K)
No load current [A]	4.20/2.10	2.20	2.50	2.70
Rated speed [RPM]	1760	1450	1455	1460
Slip [%]	2.22	3.33	3.00	2.67
Rated torque [kgfm]	1.24	1.50	1.50	1.49
Locked rotor torque [%]	250	215	229	260
Breakdown torque [%]	320	250	260	290
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level <sup>2</sup>	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%			
	50%	87.3	88.5	87.5
	75%	88.5	88.5	88.5
	100%	89.5	87.5	88.5
Power Factor	25%			
	50%	0.59	0.63	0.59
	75%	0.71	0.75	0.71
	100%	0.77	0.81	0.79

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

Losses (%)	P1 (0,9;1,0)	11.0	13.4	13.4	12.2
	P2 (0,5;1,0)	8.7	10.6	10.6	9.6
	P3 (0,25;1,0)	8.3	10.1	10.1	9.2
	P4 (0,9;0,5)	6.4	7.8	7.8	7.1
	P5 (0,5;0,5)	4.2	5.1	5.1	4.7
	P6 (0,5;0,25)	3.2	3.9	3.9	3.6
	P7 (0,25;0,25)	2.3	2.8	2.8	2.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6307 2RS	6206 2RS	Max. traction : 62 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 118 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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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Notes  
USABLE @208V 8.65A SF 1.15 SFA 9.94A

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## Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal protection

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

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# LOAD PERFORMANCE CURVE

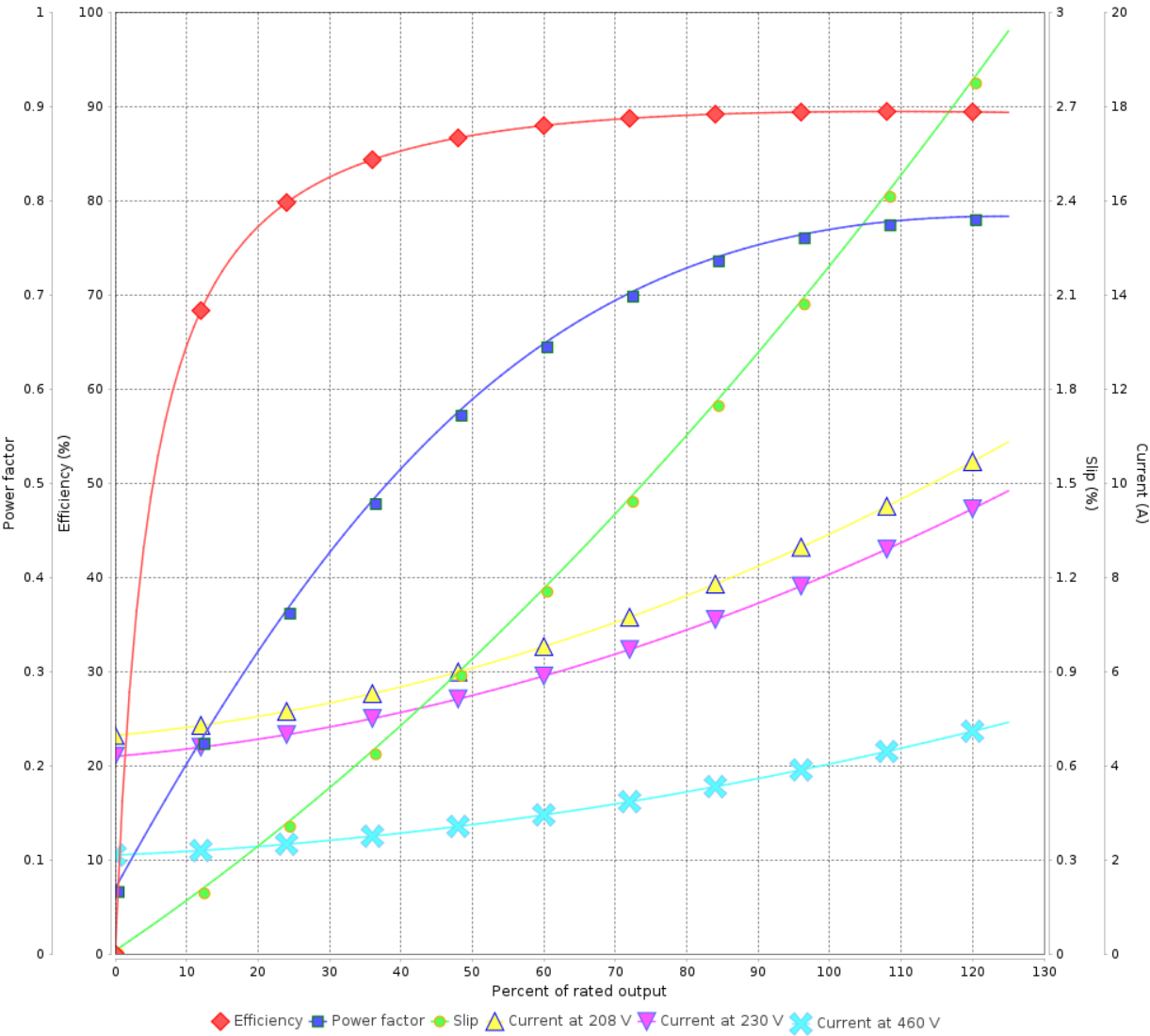
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase      Product code : 14480938

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 4P			
Rated current	: 8.02/4.01 A	Moment of inertia (J)	: 0.0117 kgm <sup>2</sup>
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 1.24 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

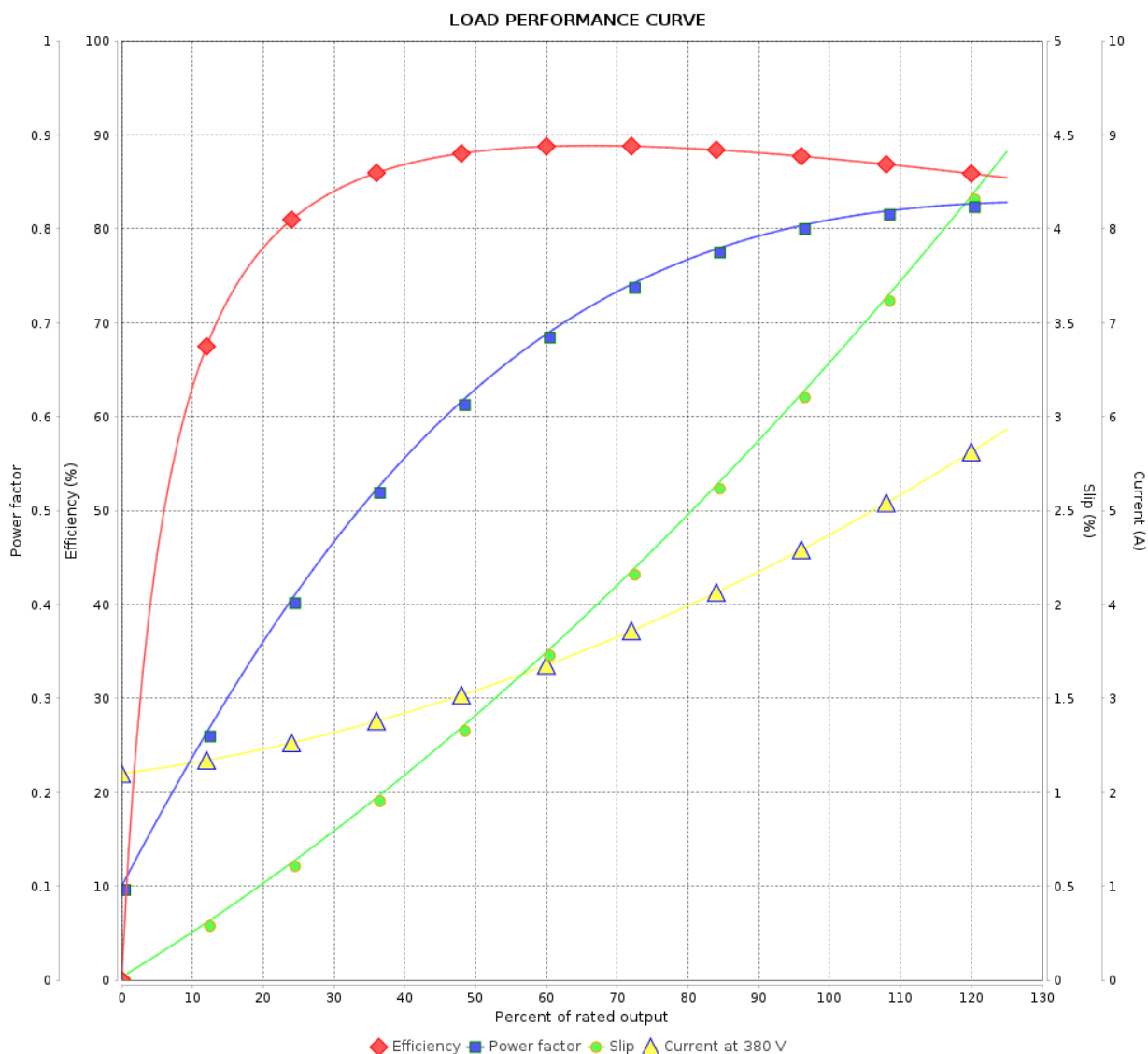
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14480938



Performance : 380 V 50 Hz 4P IE3

Rated current : 4.72 A  
LRC : 6.5  
Rated torque : 1.50 kgfm  
Locked rotor torque : 215 %  
Breakdown torque : 250 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0117 kgm<sup>2</sup>  
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

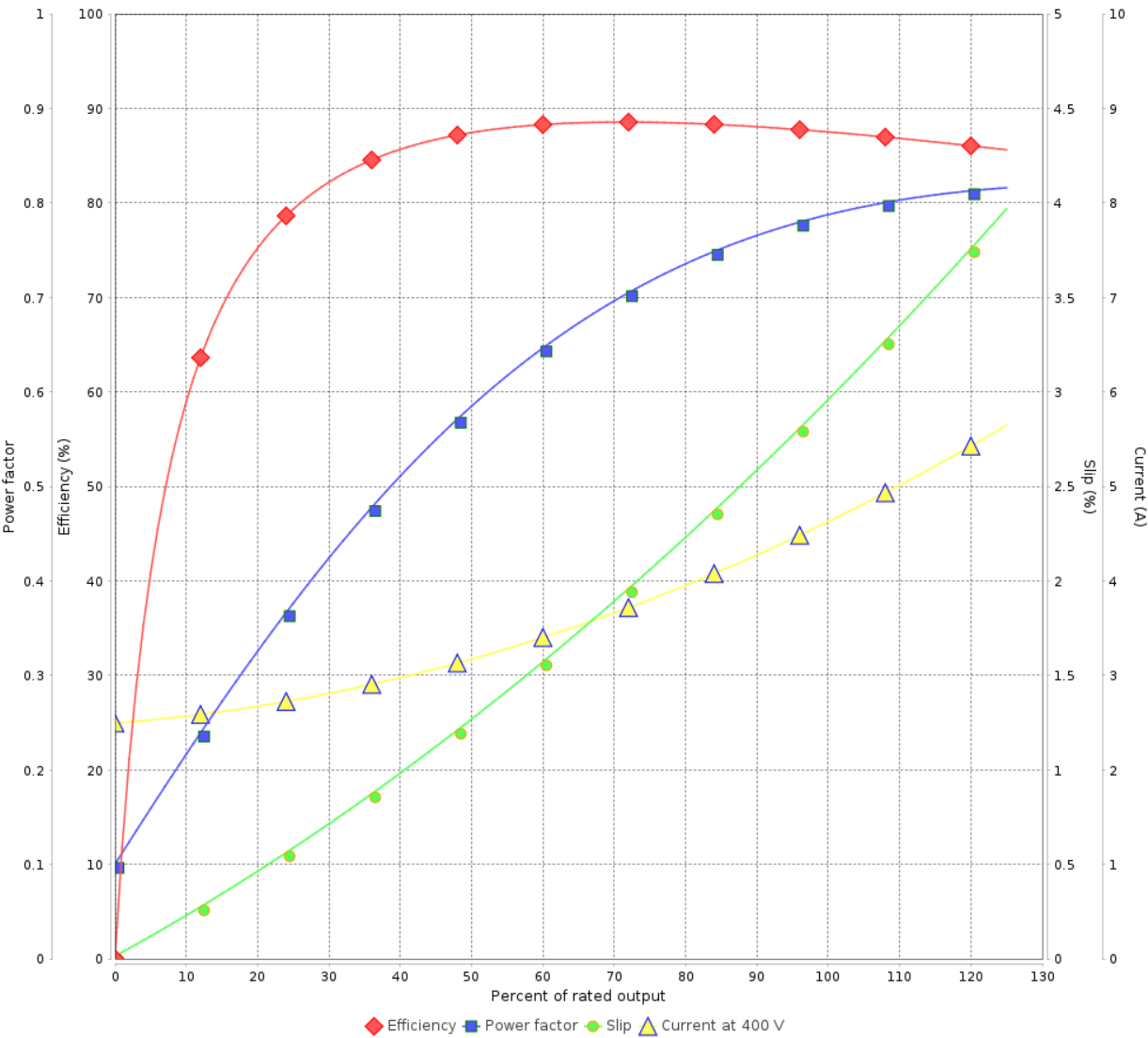


Customer :

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

Product code : 14480938

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Performance : 400 V 50 Hz 4P IE3

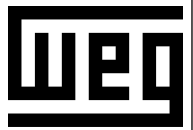
Rated current : 4.59 A  
LRC : 7.0  
Rated torque : 1.50 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 260 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0117 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

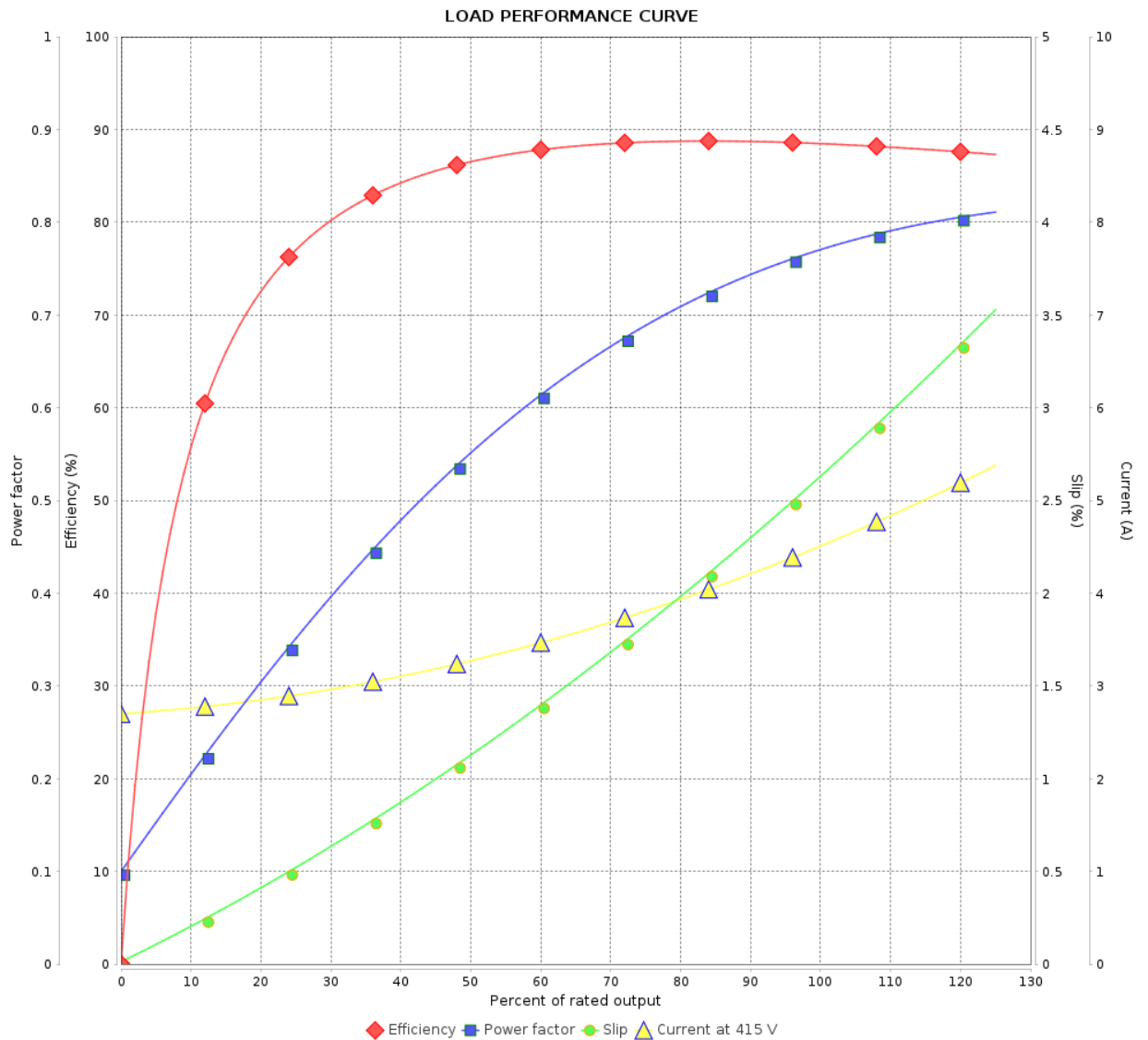
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14480938



Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.49 A	Moment of inertia (J)	: 0.0117 kgm <sup>2</sup>
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 1.49 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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