

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14480957

Frame	: 143/5T	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>	: 31.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0017 kgm <sup>2</sup>
Design	: B		

Output [HP]	1.5	1.5	1.5	1.5
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	4.10/2.05	2.36	2.32	2.29
L. R. Amperes [A]	37.7/18.9	18.9	19.5	19.9
LRC [A]	9.2x(Code M)	8.0x(Code K)	8.4x(Code L)	8.7x(Code L)
No load current [A]	2.00/1.00	0.900	1.00	1.10
Rated speed [RPM]	3500	2860	2885	2895
Slip [%]	2.78	4.67	3.83	3.50
Rated torque [kgfm]	0.311	0.381	0.377	0.376
Locked rotor torque [%]	340	280	320	360
Breakdown torque [%]	440	300	330	360
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	36s (cold) 20s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%	76.9	79.0	79.6
	50%	78.5	79.5	80.0
	75%	82.5	82.5	82.5
	100%	84.0	82.5	82.5
Power Factor	25%	0.38	0.46	0.42
	50%	0.62	0.70	0.66
	75%	0.73	0.81	0.77
	100%	0.80	0.86	0.83

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6205 2RS	6204 2RS	Max. traction : 22 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 54 kgf
Lubrication interval	: -	-	
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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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

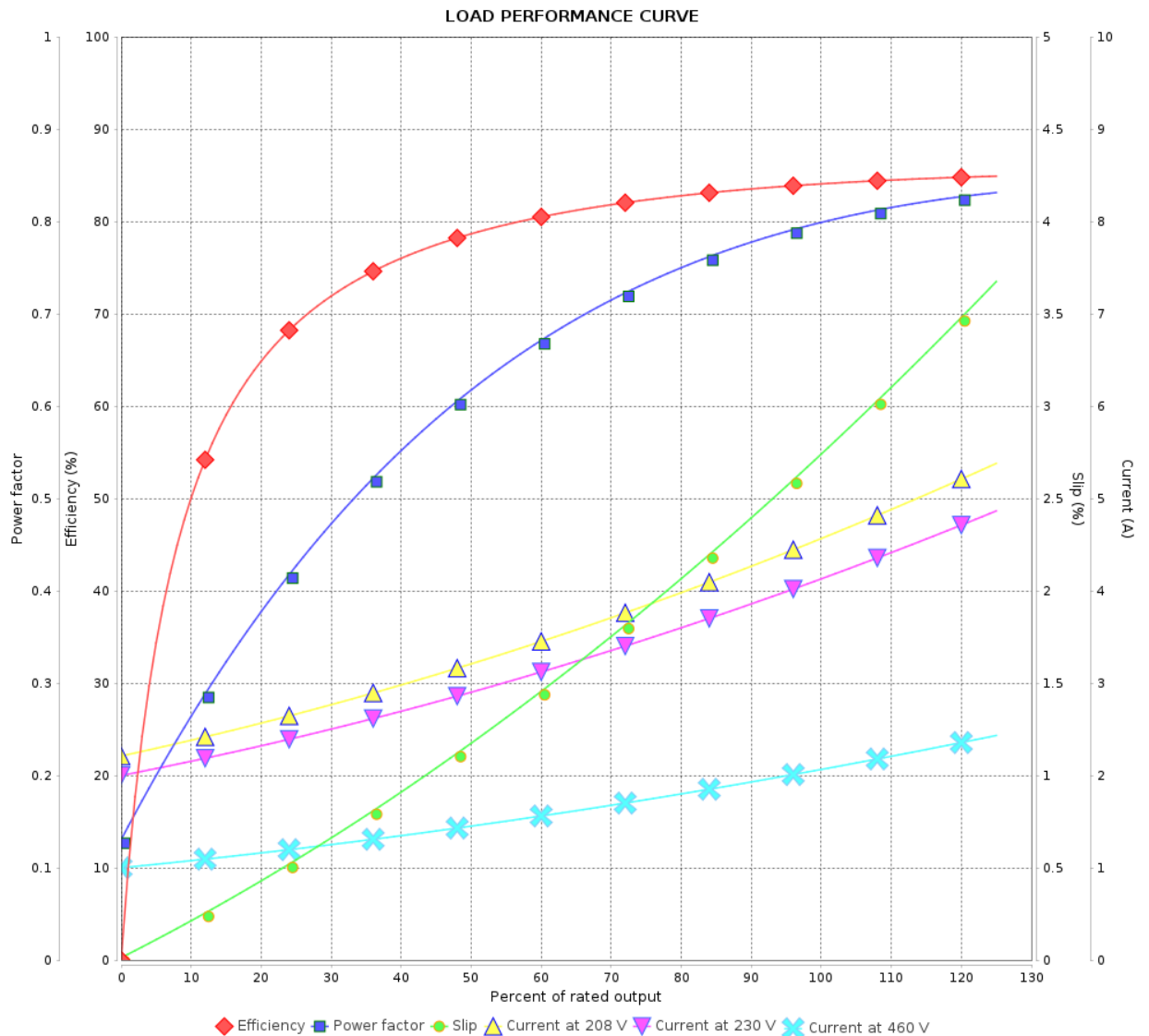
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 2P

Rated current : 4.10/2.05 A  
LRC : 9.2  
Rated torque : 0.311 kgfm  
Locked rotor torque : 340 %  
Breakdown torque : 440 %  
Rated speed : 3500 rpm

Moment of inertia (J) : 0.0017 kgm<sup>2</sup>  
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

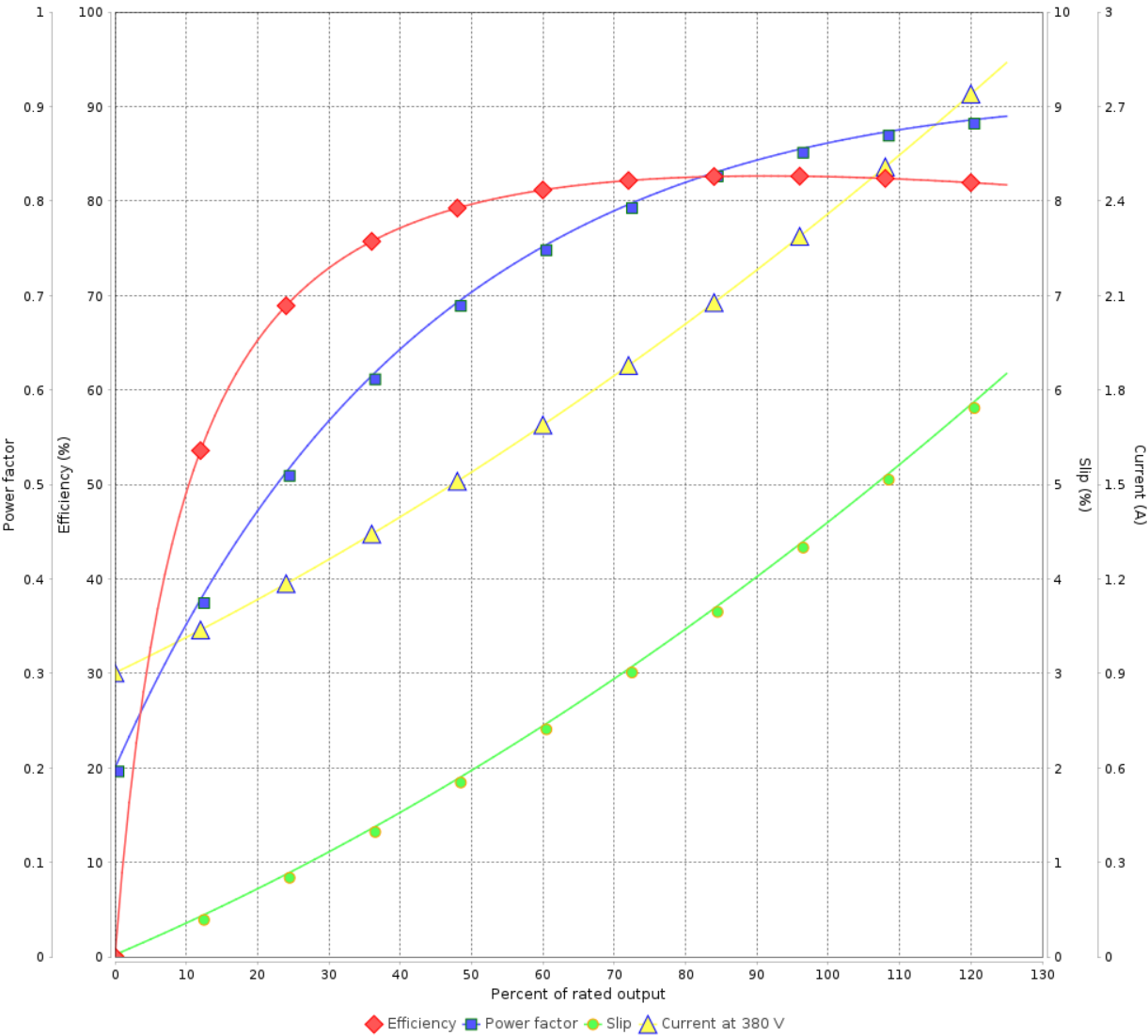


Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 2.36 A  
LRC : 8.0  
Rated torque : 0.381 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 300 %  
Rated speed : 2860 rpm

Moment of inertia (J) : 0.0017 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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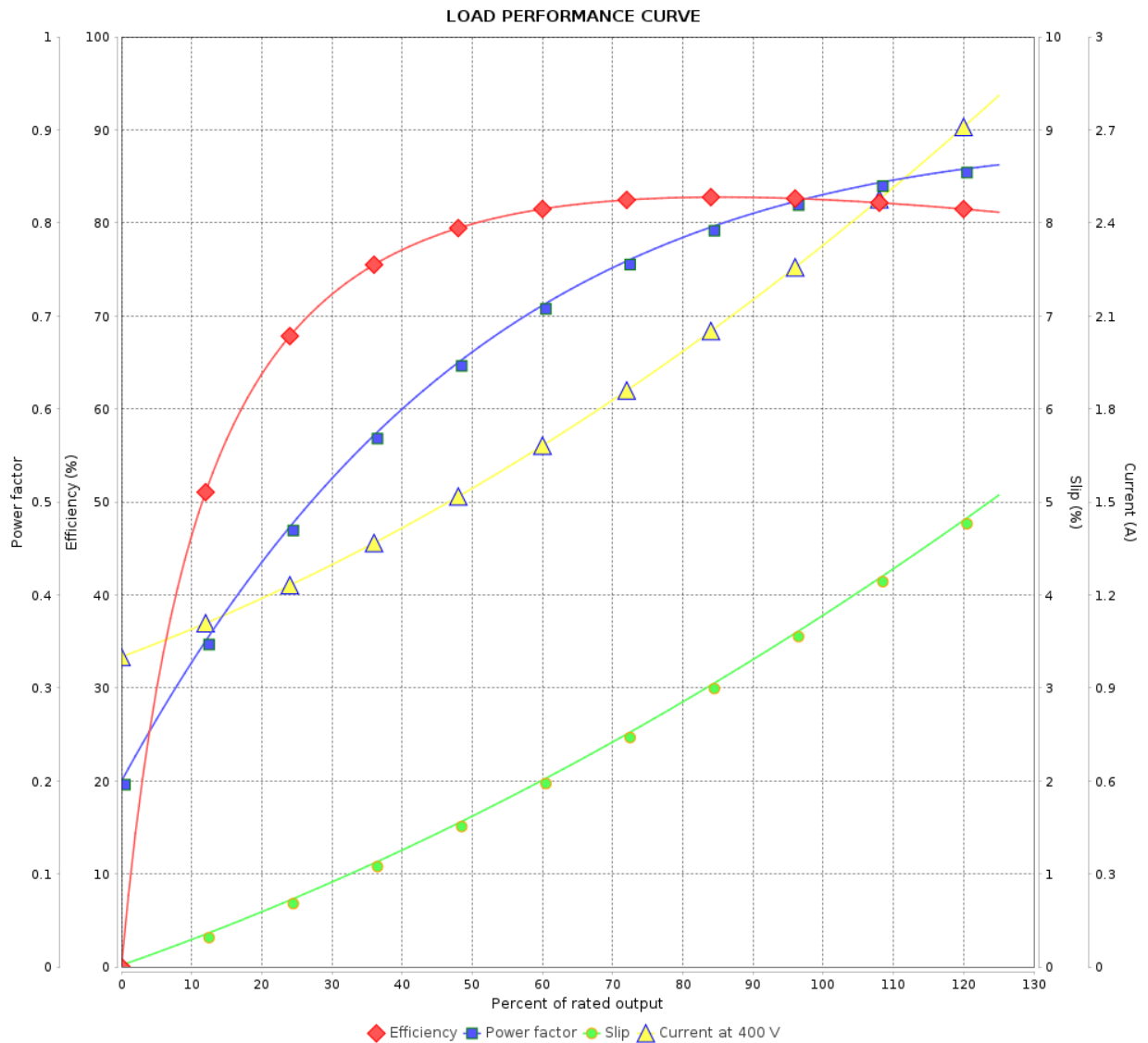
## Three Phase Induction Motor - Squirrel Cage



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

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Performance : 400 V 50 Hz 2P IE2

Rated current	: 2.32 A	Moment of inertia (J)	: 0.0017 kgm <sup>2</sup>
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.377 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2885 rpm	Design	: B

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Three Phase Induction Motor - Squirrel Cage

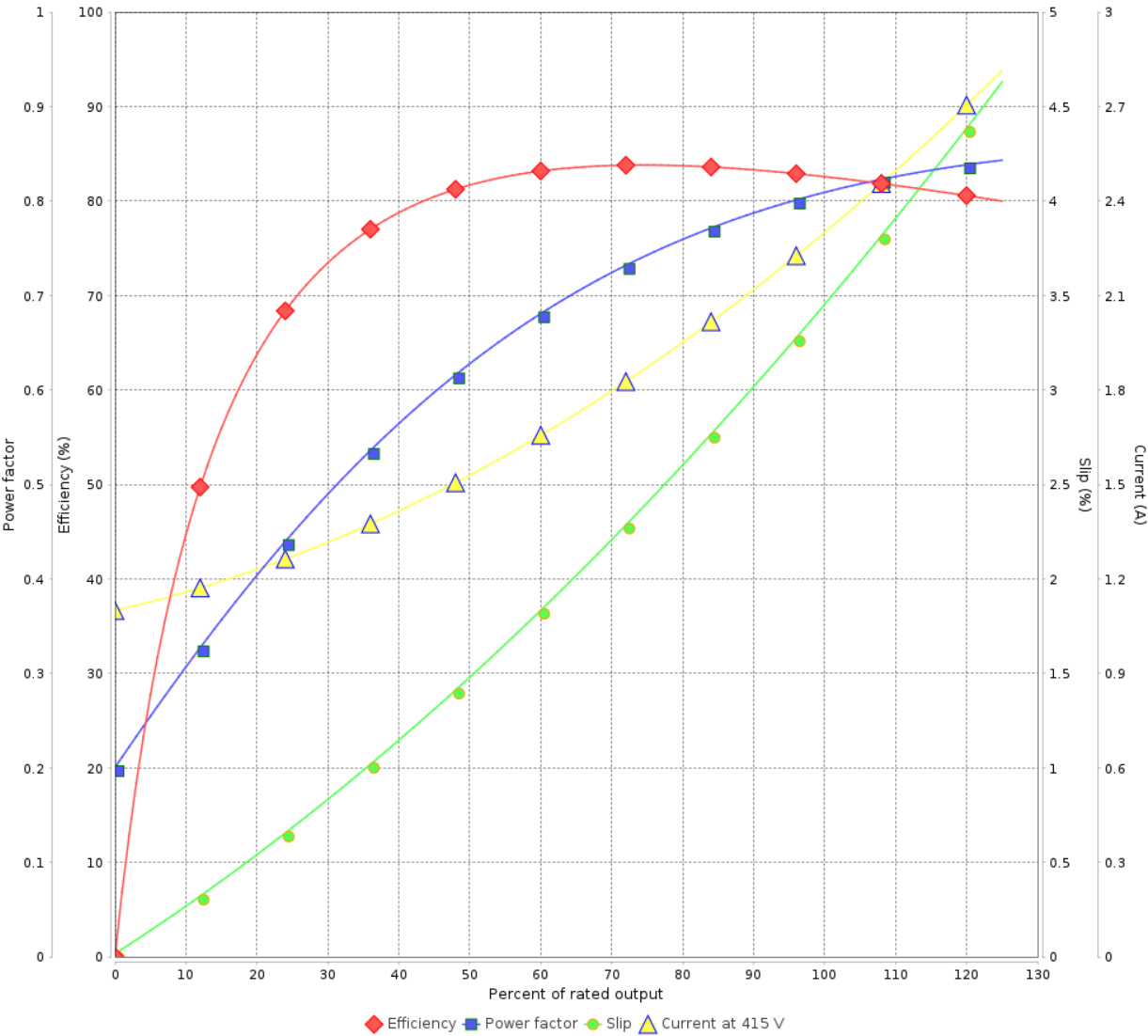


Customer :

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LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE2

Rated current : 2.29 A  
LRC : 8.7  
Rated torque : 0.376 kgfm  
Locked rotor torque : 360 %  
Breakdown torque : 360 %  
Rated speed : 2895 rpm

Moment of inertia (J) : 0.0017 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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