

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14281643

Frame : 182/4TC	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 : 62.0 kg
Protection degree : IP55	Moment of inertia (J) : 0.0224 kgm ²
Design : B	

Output [HP]	2	2	2	2
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	6.26/3.13	3.66	3.59	3.56
L. R. Amperes [A]	46.9/23.5	22.0	24.1	25.3
LRC [A]	7.5x(Code L)	6.0x(Code J)	6.7x(Code K)	7.1x(Code L)
No load current [A]	4.00/2.00	1.80	1.95	2.05
Rated speed [RPM]	1165	955	960	965
Slip [%]	2.92	4.50	4.00	3.50
Rated torque [kgfm]	1.25	1.52	1.51	1.50
Locked rotor torque [%]	300	220	260	300
Breakdown torque [%]	330	240	270	300
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	82s (cold) 46s (hot)	90s (cold) 50s (hot)	77s (cold) 43s (hot)	70s (cold) 39s (hot)
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	82.5	87.5	86.1
	50%	84.5	87.0	86.5
	75%	86.5	87.5	87.5
	100%	88.5	86.5	87.5
Power Factor	25%	0.26	0.32	0.29
	50%	0.47	0.53	0.49
	75%	0.58	0.65	0.62
	100%	0.68	0.72	0.69

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

Losses (%)	P1 (0,9;1,0)	12.3	14.7	13.5	13.5
	P2 (0,5;1,0)	9.9	11.9	10.9	10.9
	P3 (0,25;1,0)	9.3	11.2	10.2	10.2
	P4 (0,9;0,5)	7.3	8.7	8.0	8.0
	P5 (0,5;0,5)	5.0	6.0	5.5	5.5
	P6 (0,5;0,25)	3.9	4.6	4.3	4.3
	P7 (0,25;0,25)	2.9	3.4	3.2	3.2

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6307 2RS	6206 2RS	Max. traction : 63 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 125 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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Notes
USABLE @208V 6.92A SF 1.15 SFA 7.96A

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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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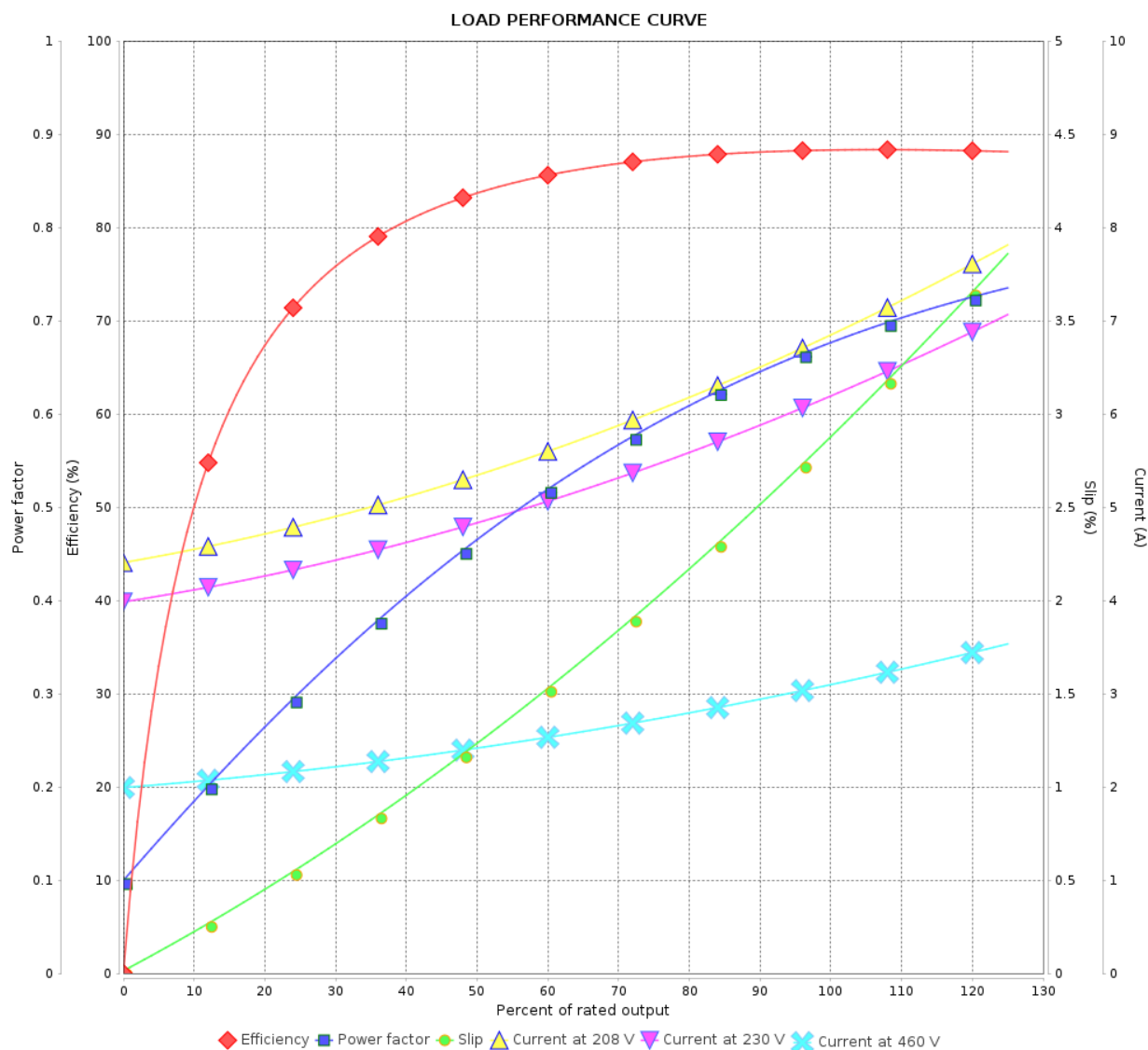
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Customer :

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

Product code : 14281643



Performance : 230/460 V 60 Hz 6P

Rated current : 6.26/3.13 A
LRC : 7.5
Rated torque : 1.25 kgfm
Locked rotor torque : 300 %
Breakdown torque : 330 %
Rated speed : 1165 rpm

Moment of inertia (J) : 0.0224 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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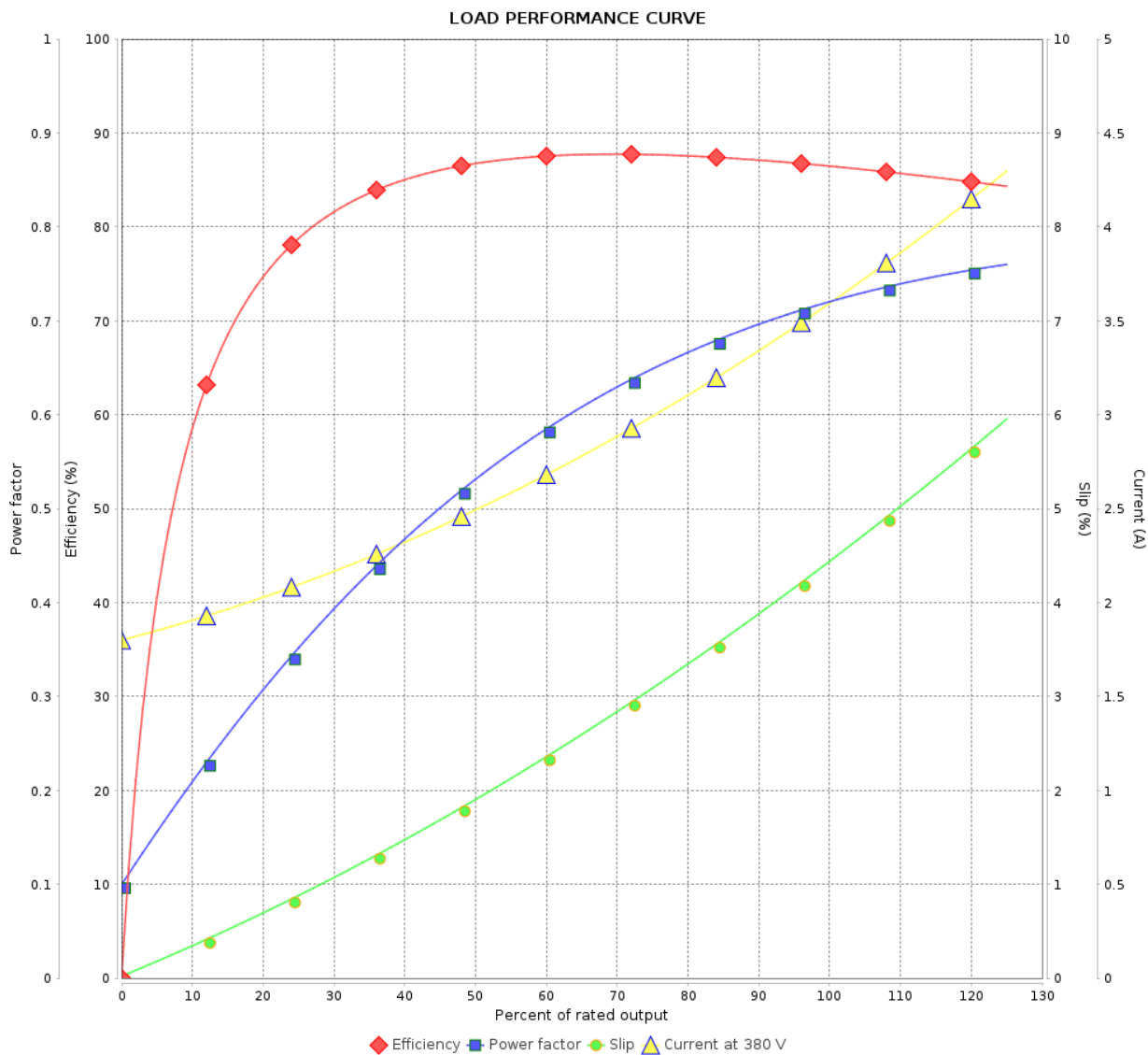
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Performance : 380 V 50 Hz 6P IE4

Rated current : 3.66 A
LRC : 6.0
Rated torque : 1.52 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 955 rpm

Moment of inertia (J) : 0.0224 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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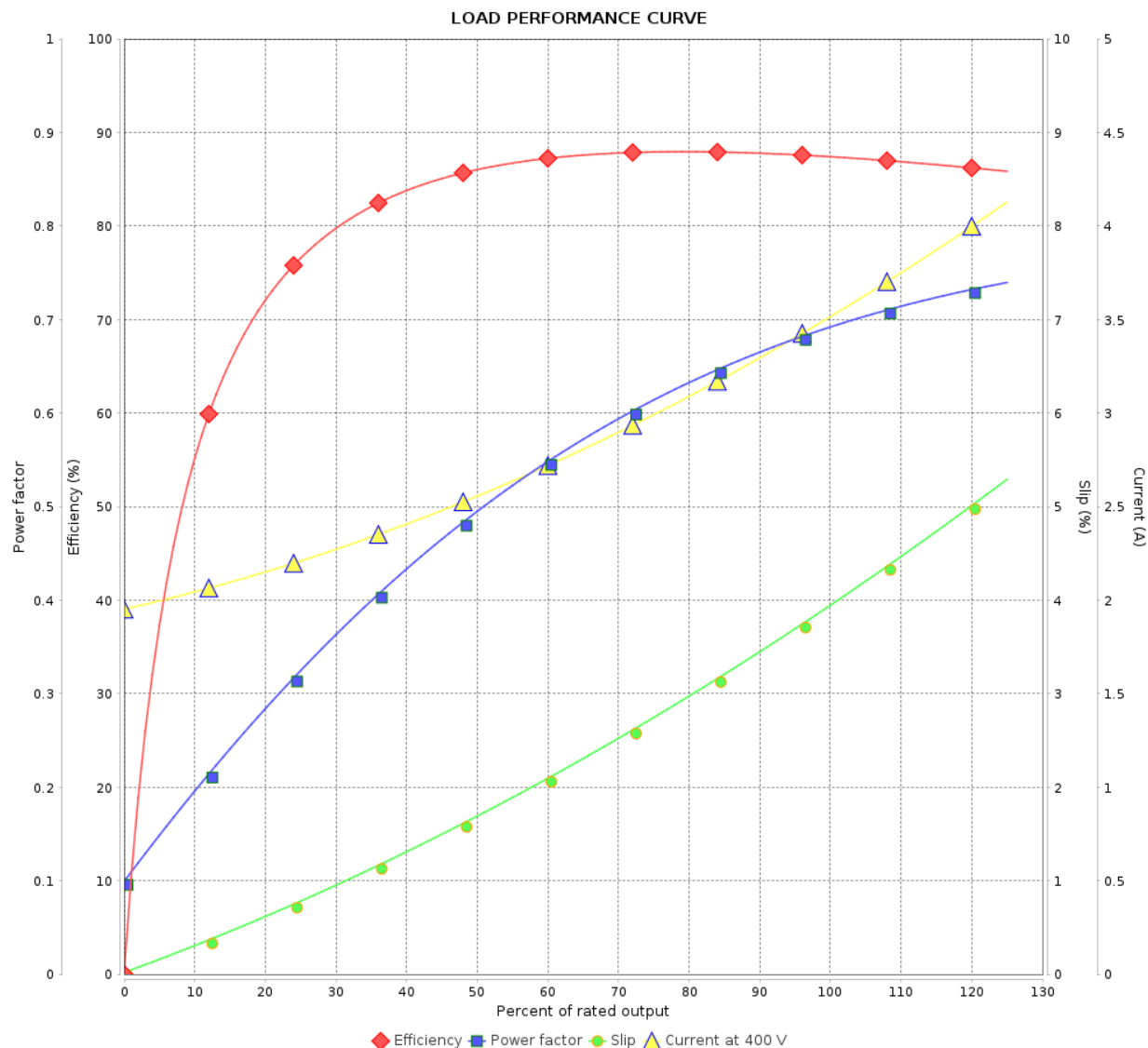
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Performance : 400 V 50 Hz 6P IE4

Rated current : 3.59 A
LRC : 6.7
Rated torque : 1.51 kgfm
Locked rotor torque : 260 %
Breakdown torque : 270 %
Rated speed : 960 rpm

Moment of inertia (J) : 0.0224 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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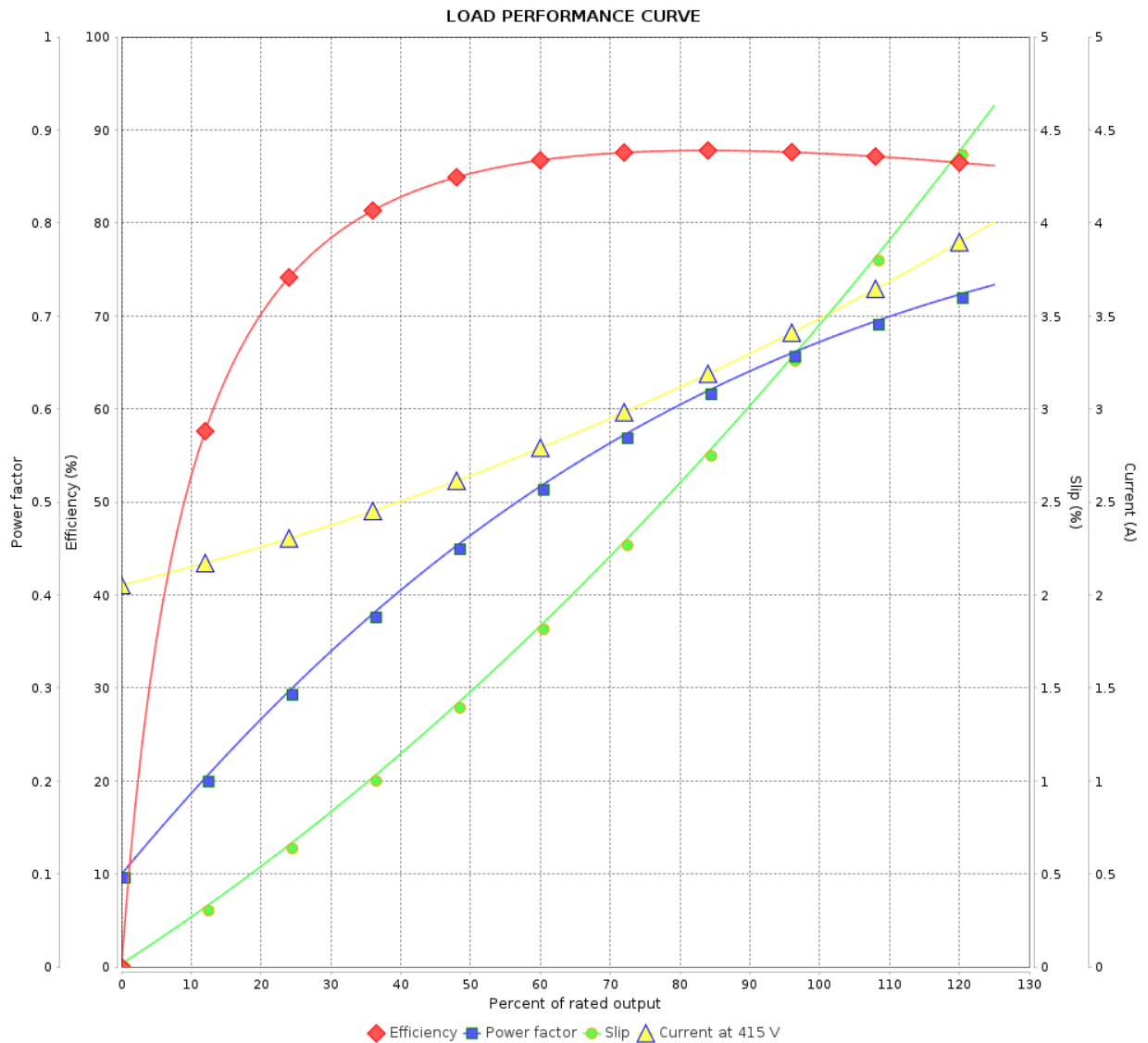
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Premium Efficiency Three-Phase

Product code : 14281643



Performance : 415 V 50 Hz 6P IE4

Rated current	: 3.56 A	Moment of inertia (J)	: 0.0224 kgm ²
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

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