

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11941857

Frame	: 284/6TS	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	: 181 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1419 kgm ²
Design	: B		

Output [HP]	30	25	25	25	30	30	30
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	34.6	34.6	33.2	32.4	42.0	40.0	38.2
L. R. Amperes [A]	218	214	233	233	206	220	237
LRC [A]	6.3x(Code G)	6.2x(Code G)	7.0x(Code H)	7.2x(Code H)	4.9x(Code E)	5.5x(Code F)	6.2x(Code G)
No load current [A]	9.90	9.40	10.0	10.6	9.40	10.0	10.6
Rated speed [RPM]	3549	2946	2953	2957	2923	2938	2942
Slip [%]	1.42	1.80	1.57	1.43	2.57	2.07	1.93
Rated torque [kgfm]	6.13	6.16	6.14	6.14	7.45	7.41	7.40
Locked rotor torque [%]	240	220	250	229	180	200	220
Breakdown torque [%]	250	229	270	290	200	210	240
Service factor	1.25	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K
Locked rotor time	27s (cold) 15s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%						
	50%	91.7	91.0	91.1	91.2	89.0	91.0
	75%	91.7	91.5	91.5	91.8	89.5	91.0
	100%	91.7	92.4	92.4	92.4	89.5	91.0
Power Factor	25%						
	50%	0.77	0.80	0.76	0.74	0.83	0.78
	75%	0.85	0.86	0.84	0.82	0.88	0.85
	100%	0.87	0.88	0.87	0.86	0.89	0.88

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

Losses (%)	P1 (0,9;1,0)	8.5	7.7	7.7	7.7	11.0	10.2	9.3
	P2 (0,5;1,0)	6.7	6.1	6.1	6.1	8.6	8.0	7.3
	P3 (0,25;1,0)	6.4	5.8	5.8	5.8	8.3	7.7	7.0
	P4 (0,9;0,5)	4.2	3.8	3.8	3.8	5.5	5.1	4.6
	P5 (0,5;0,5)	2.5	2.3	2.3	2.3	3.3	3.0	2.8
	P6 (0,5;0,25)	1.6	1.4	1.4	1.4	2.0	1.9	1.7
	P7 (0,25;0,25)	1.0	0.9	0.9	0.9	1.2	1.1	1.0

Bearing type	: 6311 C3	Non drive end	6211 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 163 kgf
	: Labyrinth		Labyrinth	Max. compression	: 344 kgf
Lubrication interval	: 14000 h		17000 h		
Lubricant amount	: 18 g		11 g		
Lubricant type	: Mobil Polyrex EM				

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Customer

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Notes

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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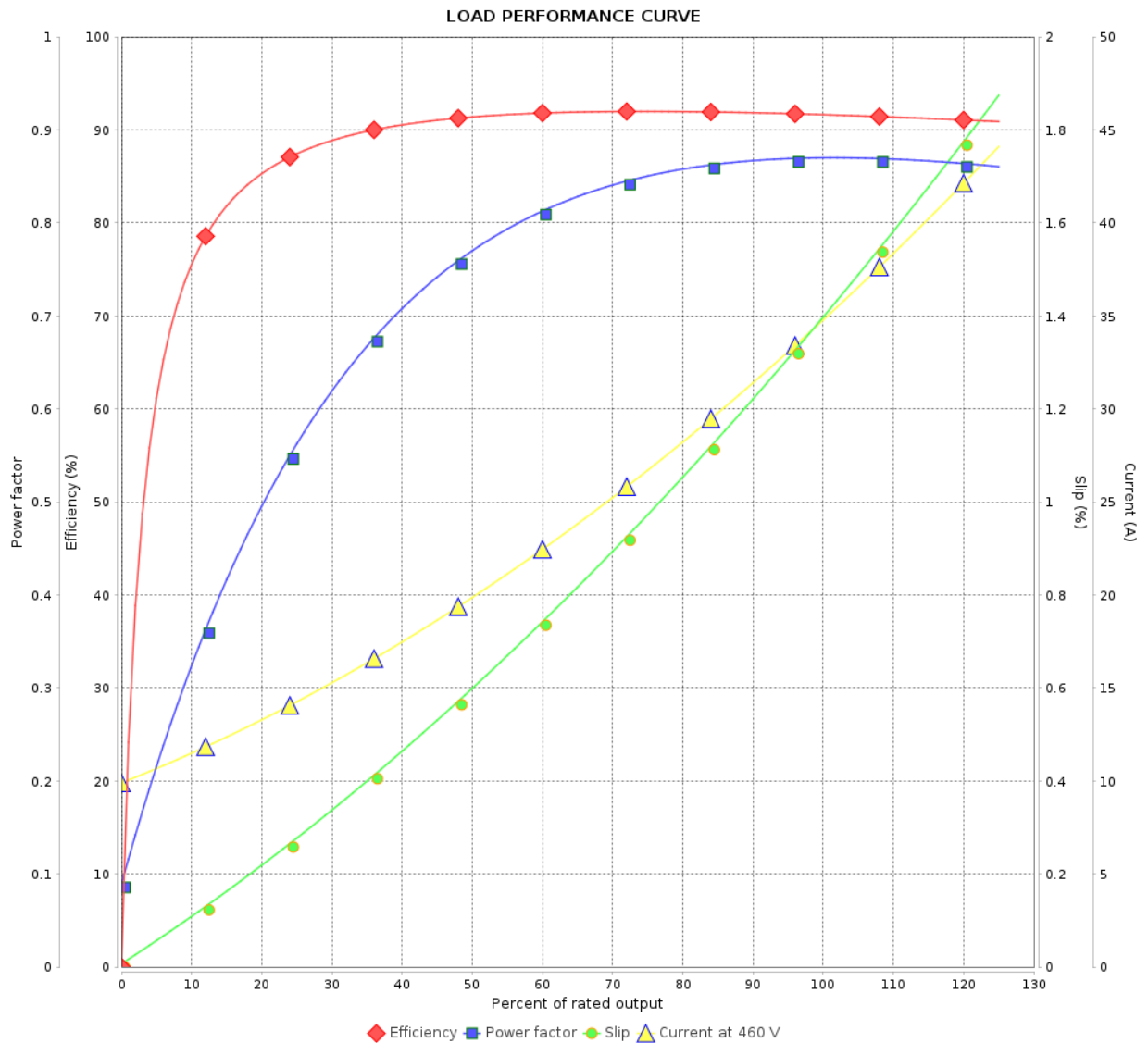
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11941857



Performance : 460 V 60 Hz 2P

Rated current	: 34.6 A	Moment of inertia (J)	: 0.1419 kgm ²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 6.13 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3549 rpm	Design	: B

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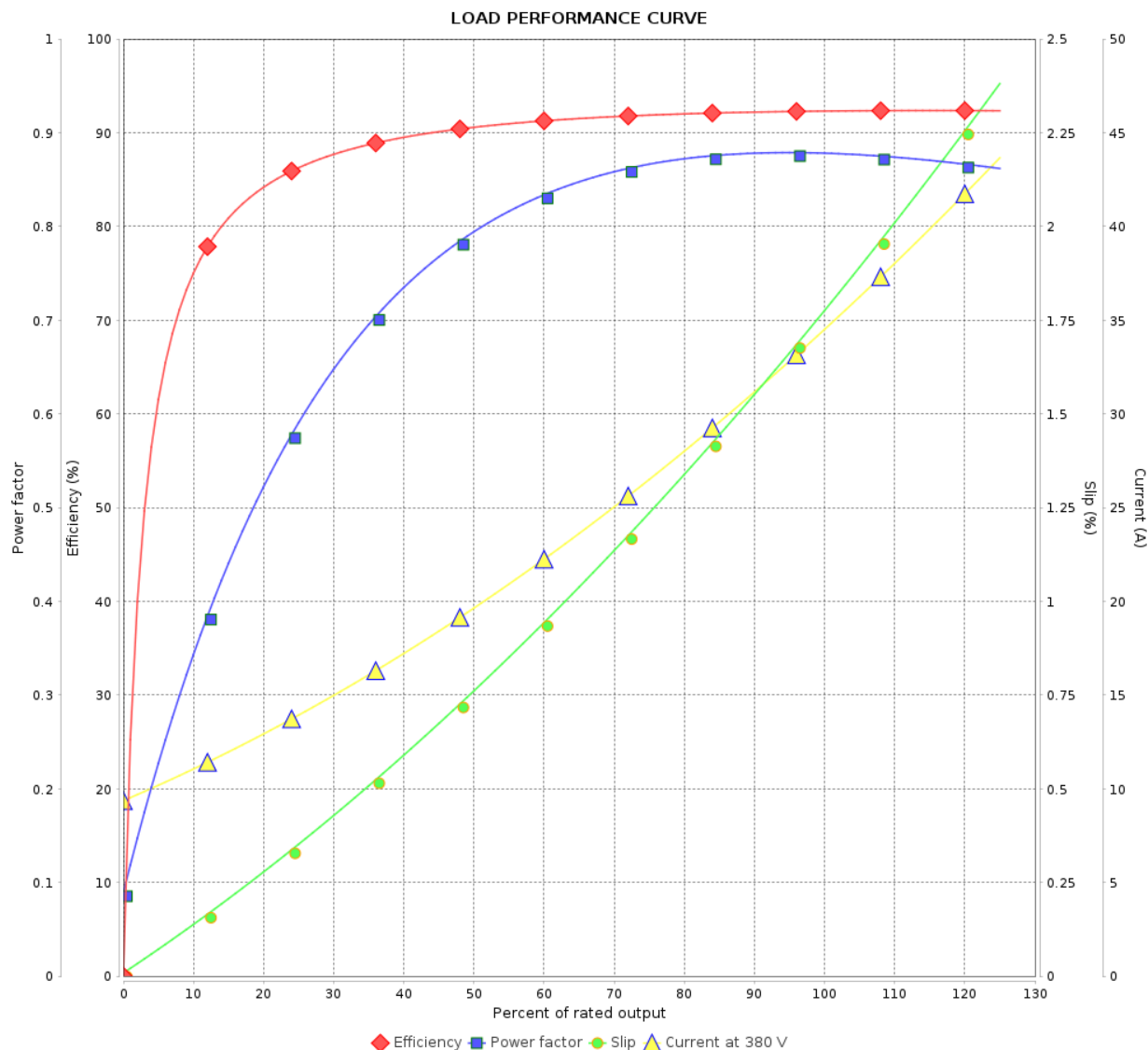
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11941857



Performance : 380 V 50 Hz 2P IE3

Rated current : 34.6 A
LRC : 6.2
Rated torque : 6.16 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 2946 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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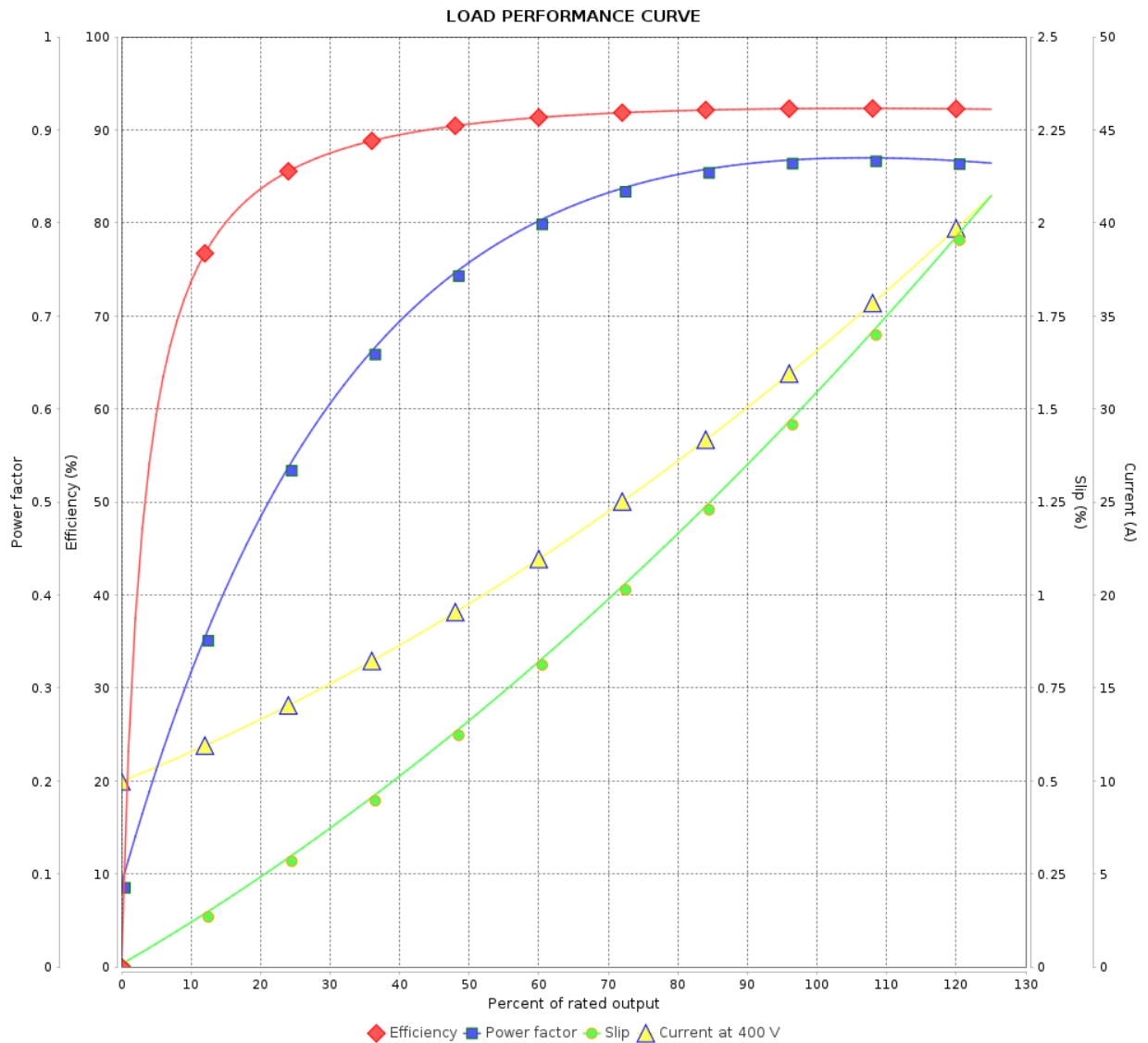
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11941857



Performance : 400 V 50 Hz 2P IE3

Rated current : 33.2 A
LRC : 7.0
Rated torque : 6.14 kgfm
Locked rotor torque : 250 %
Breakdown torque : 270 %
Rated speed : 2953 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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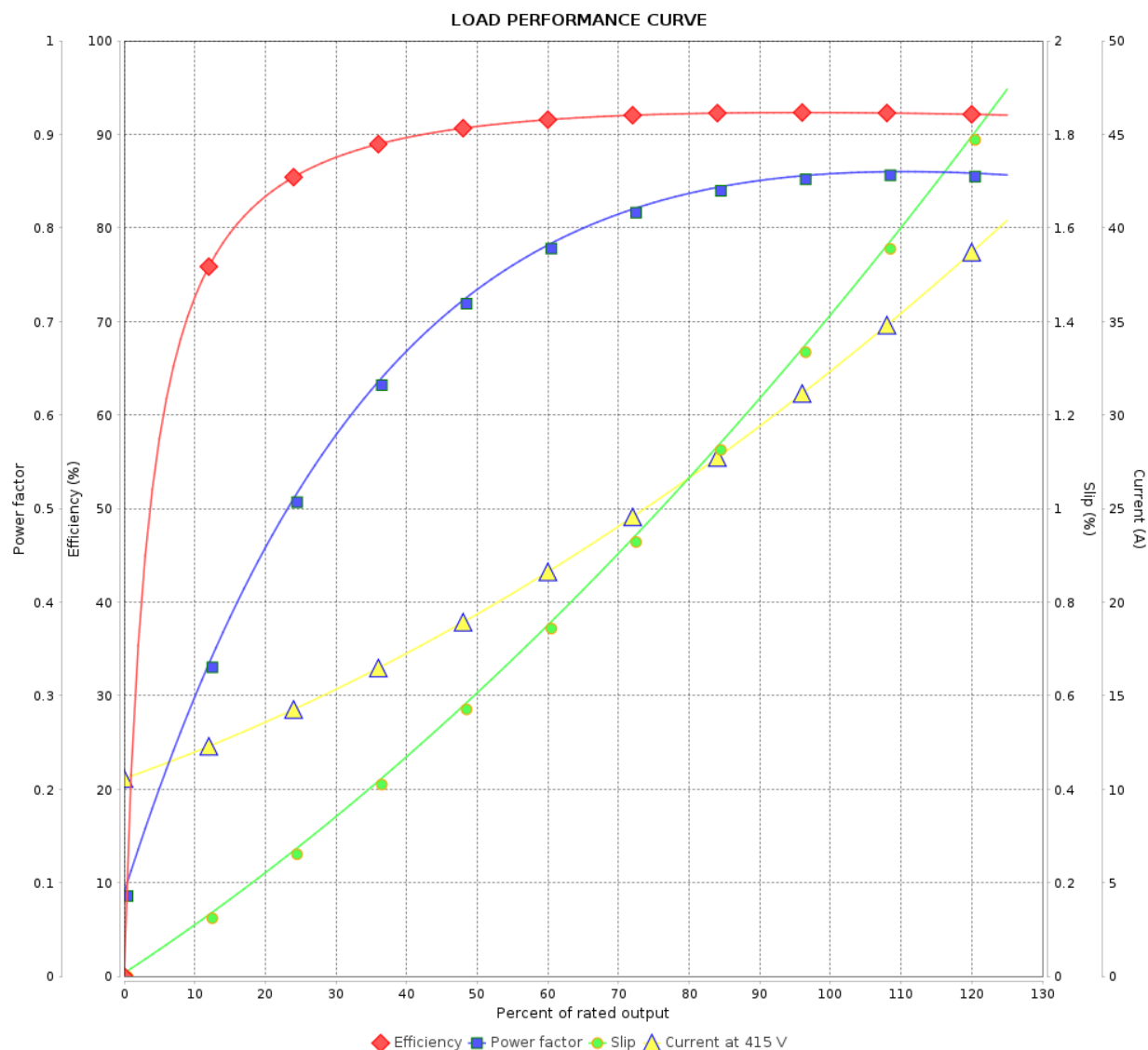
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11941857



Performance : 415 V 50 Hz 2P IE3

Rated current : 32.4 A
LRC : 7.2
Rated torque : 6.14 kgfm
Locked rotor torque : 229 %
Breakdown torque : 290 %
Rated speed : 2957 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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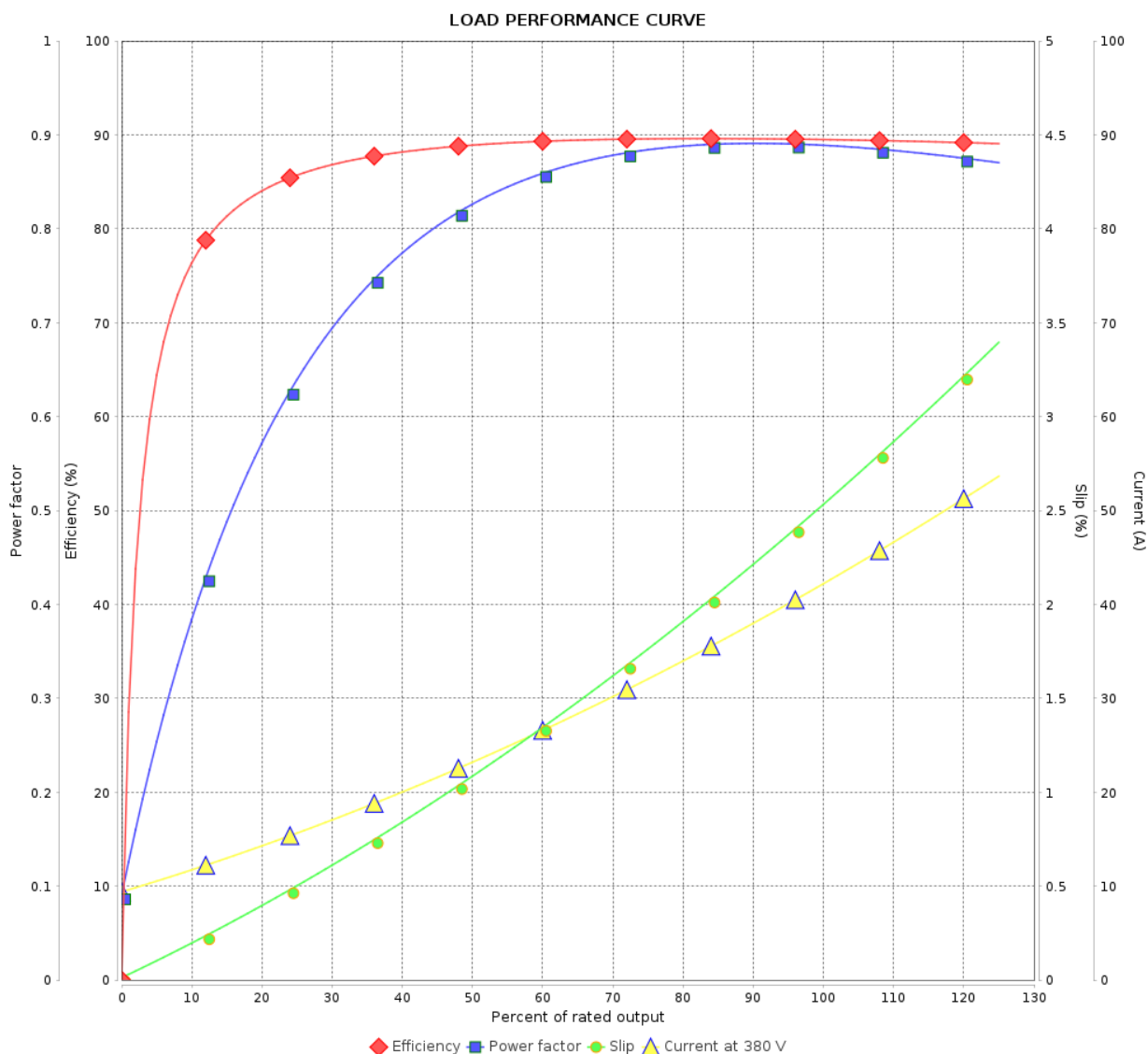
Three Phase Induction Motor - Squirrel Cage



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Product code : 11941857



Performance : 380 V 50 Hz 2P

Rated current : 42.0 A
LRC : 4.9
Rated torque : 7.45 kgfm
Locked rotor torque : 180 %
Breakdown torque : 200 %
Rated speed : 2923 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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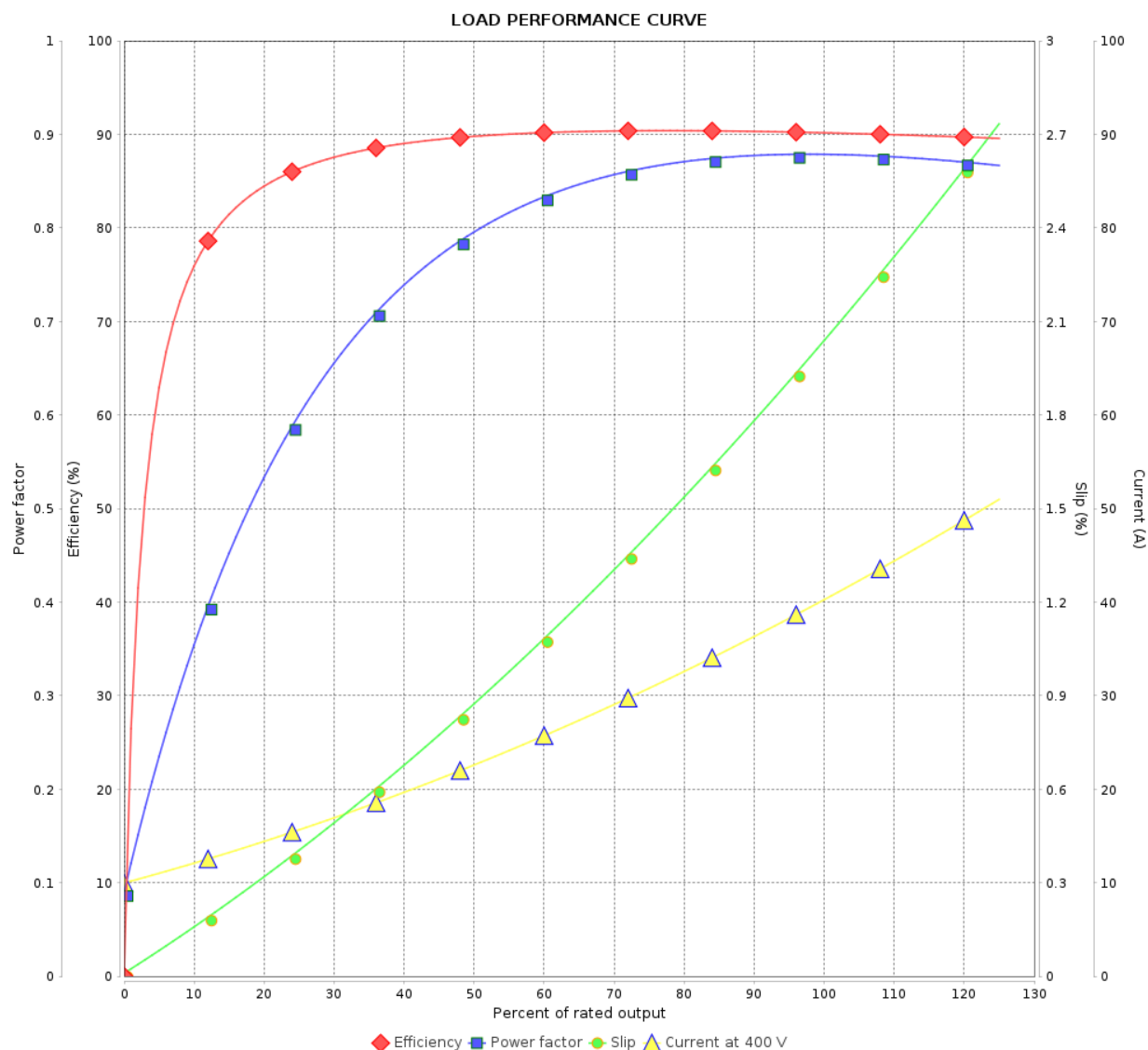
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11941857



Performance : 400 V 50 Hz 2P IE1

Rated current : 40.0 A
LRC : 5.5
Rated torque : 7.41 kgfm
Locked rotor torque : 200 %
Breakdown torque : 210 %
Rated speed : 2938 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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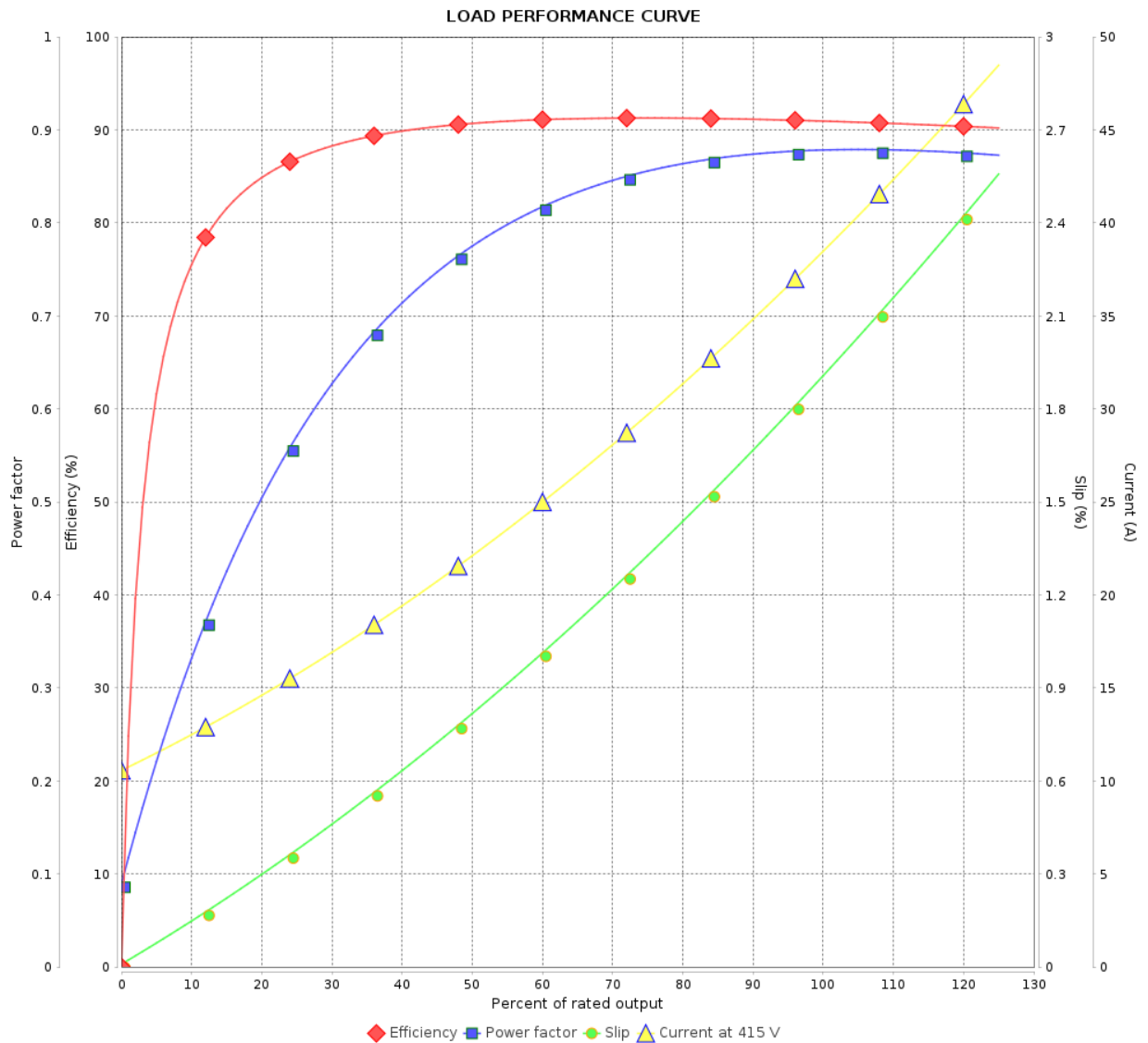
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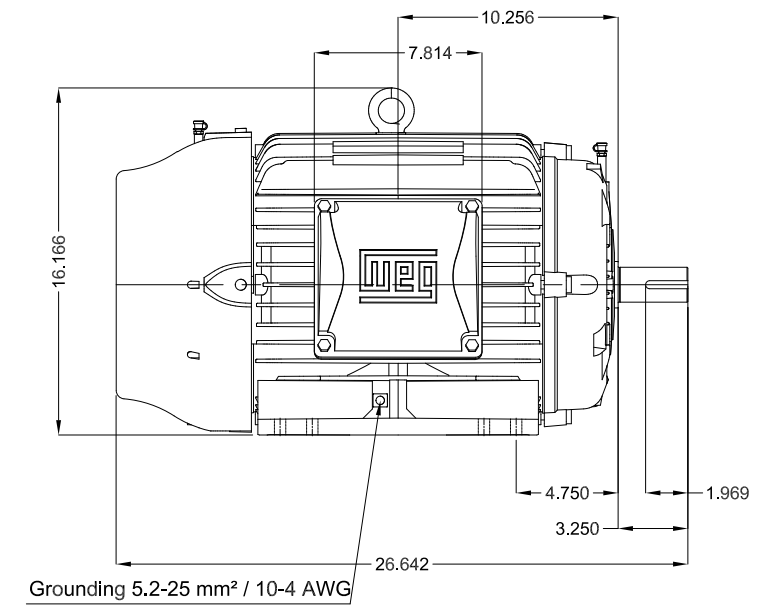
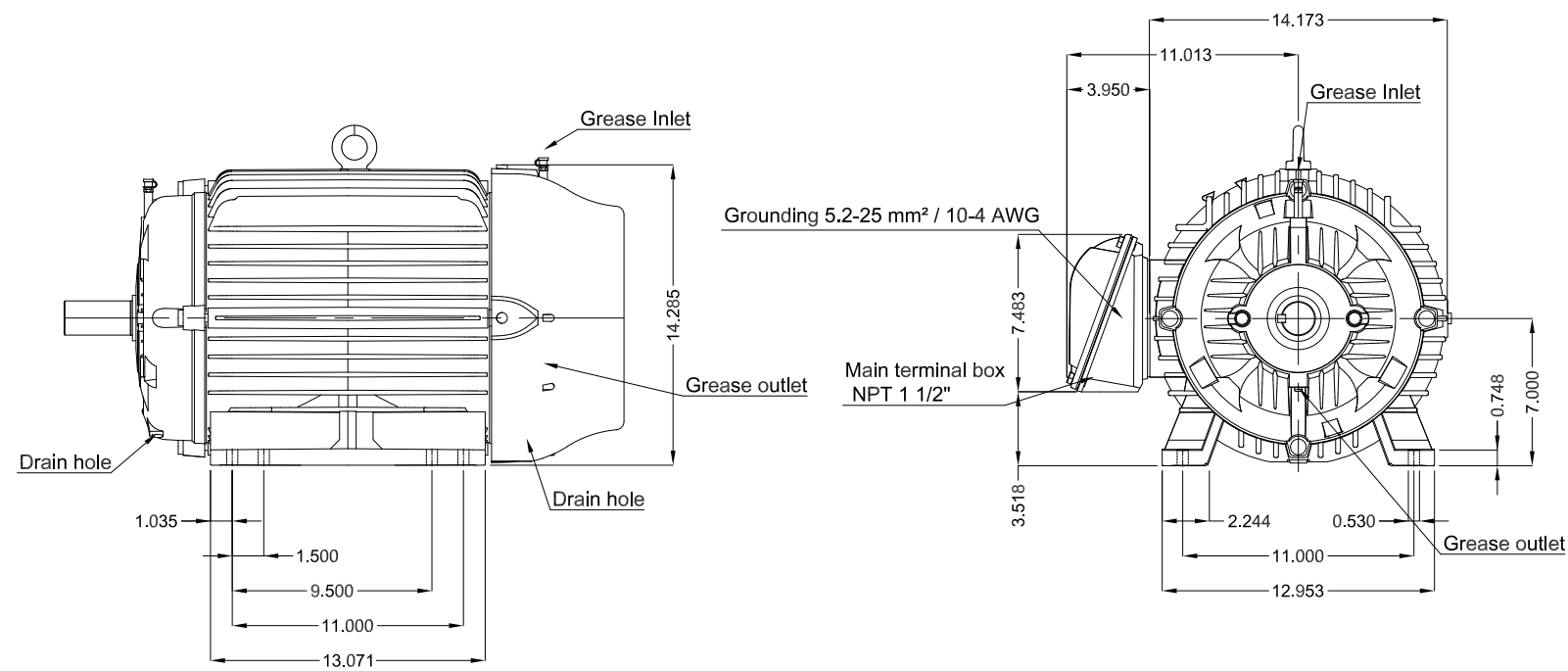
Performance : 415 V 50 Hz 2P IE1



Rated current : 38.2 A
LRC : 6.2
Rated torque : 7.40 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 2942 rpm

Moment of inertia (J) : 0.1419 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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