

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11166654

Frame : 364/5T	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 : 393 kg
Protection degree : IP55	Moment of inertia (J) : 0.9448 kgm ²
Design : B	

Output [HP]	60	50	50	50	60	60	60
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	143/71.6	71.0	69.1	67.4	86.5	82.6	80.2
L. R. Amperes [A]	888/444	447	477	499	450	479	497
LRC [A]	6.2x(Code G)	6.3x(Code G)	6.9x(Code H)	7.4x(Code J)	5.2x(Code E)	5.8x(Code F)	6.2x(Code G)
No load current [A]	56.0/28.0	27.6	29.8	31.6	27.6	29.8	31.6
Rated speed [RPM]	1780	1480	1482	1484	1470	1475	1477
Slip [%]	1.11	1.33	1.20	1.07	2.00	1.67	1.53
Rated torque [kgfm]	24.5	24.5	24.5	24.5	29.6	29.5	29.5
Locked rotor torque [%]	220	200	220	240	160	180	200
Breakdown torque [%]	240	240	260	280	200	210	229
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)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level ²	67.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	93.7	93.3	93.4	94.1	94.1
	75%	94.5	93.9	93.9	94.2	93.6	94.1
	100%	95.0	94.2	94.2	94.3	93.0	94.1
Power Factor	25%						
	50%	0.71	0.71	0.68	0.65	0.76	0.70
	75%	0.80	0.80	0.78	0.76	0.82	0.80
	100%	0.83	0.84	0.82	0.81	0.85	0.83

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

Losses (%)	P1 (0,9;1,0)	5.1	5.1	5.1	5.1	5.1	5.1
	P2 (0,5;1,0)	4.1	4.1	4.1	4.1	4.1	4.1
	P3 (0,25;1,0)	3.8	3.8	3.8	3.8	3.8	3.8
	P4 (0,9;0,5)	2.6	2.6	2.6	2.6	2.6	2.6
	P5 (0,5;0,5)	1.7	1.7	1.7	1.7	1.7	1.7
	P6 (0,5;0,25)	1.2	1.2	1.2	1.2	1.2	1.2
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 565 kgf
Sealing :	WSeal	WSeal	Max. compression : 958 kgf
Lubrication interval :	12000 h	12000 h	
Lubricant amount :	27 g	27 g	
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.

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 151A SF 1.10 SFA 166A

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LOAD PERFORMANCE CURVE

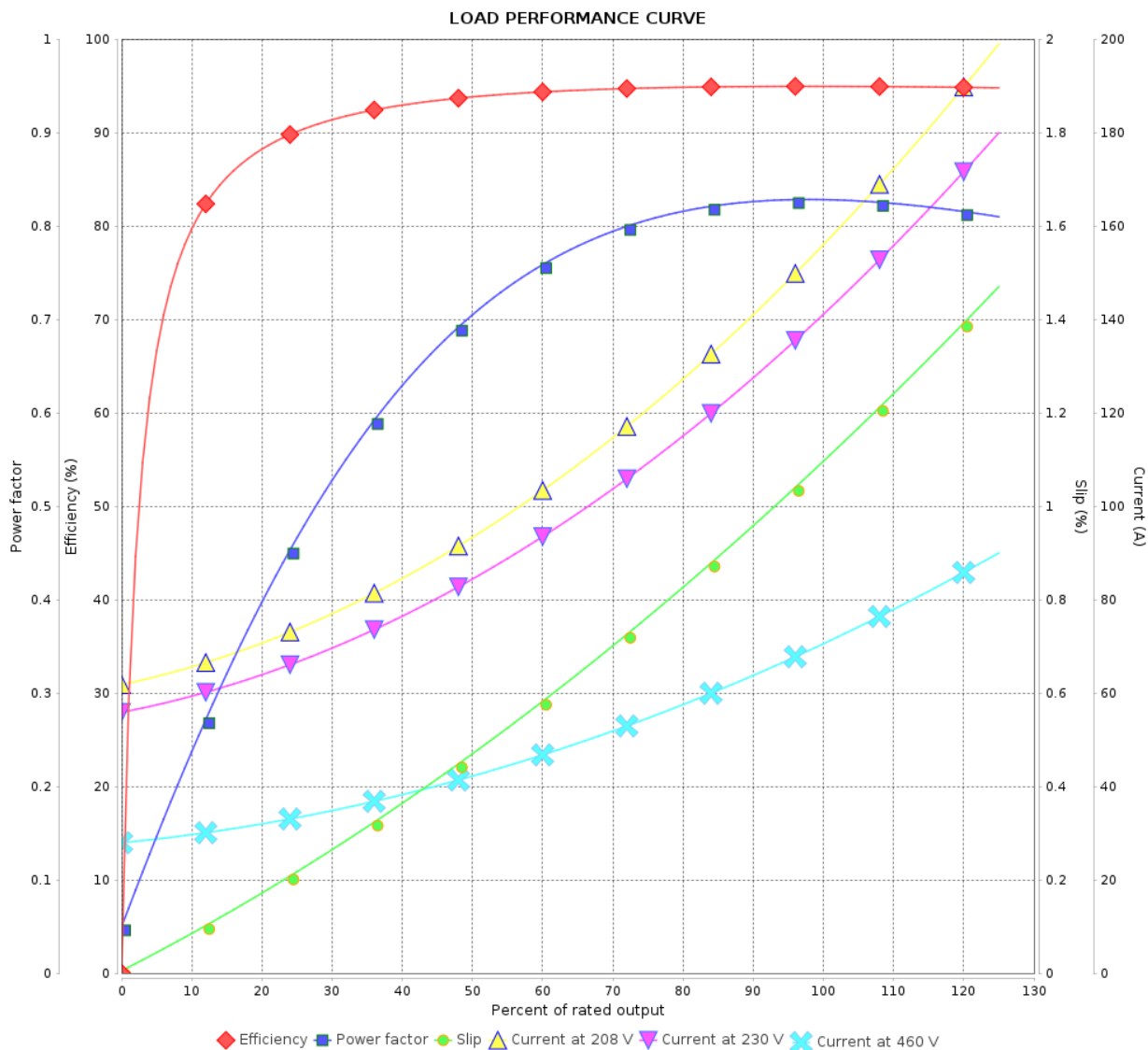
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11166654



Performance : 230/460 V 60 Hz 4P

Rated current : 143/71.6 A
LRC : 6.2
Rated torque : 24.5 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 0.9448 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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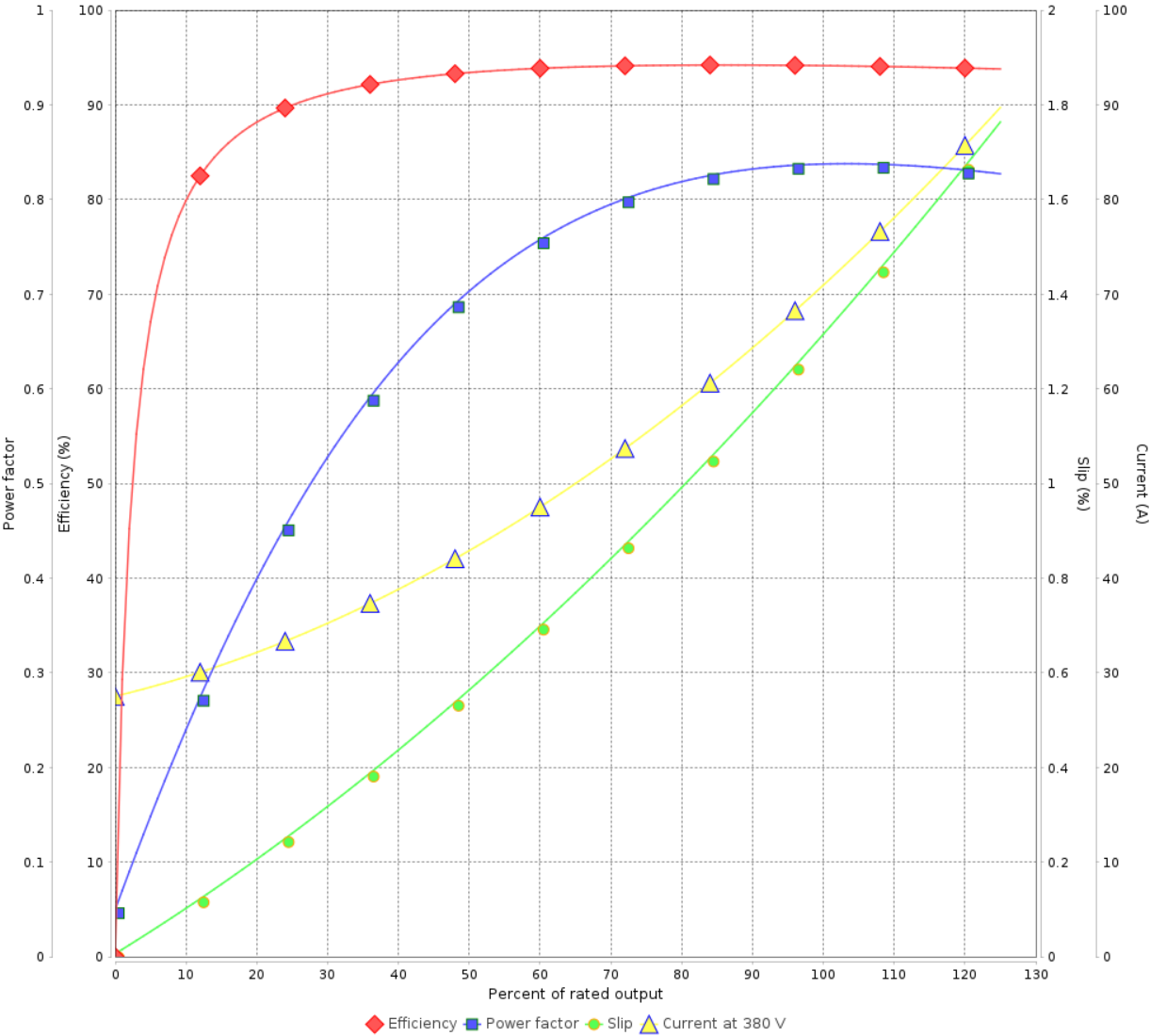
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11166654

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Performance : 380 V 50 Hz 4P IE3			
Rated current	: 71.0 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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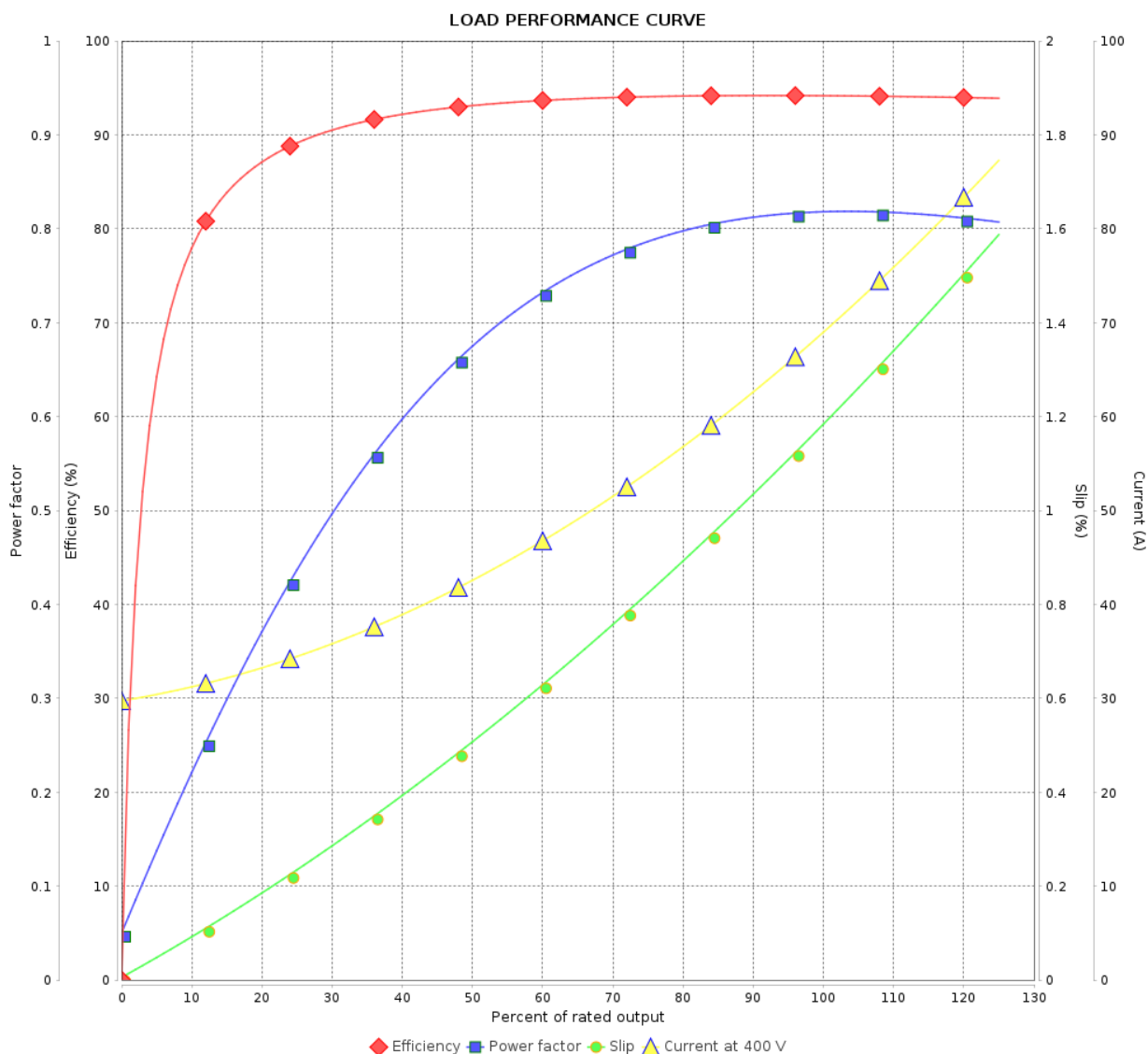
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11166654



Performance : 400 V 50 Hz 4P IE3

Rated current : 69.1 A
LRC : 6.9
Rated torque : 24.5 kgfm
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 1482 rpm

Moment of inertia (J) : 0.9448 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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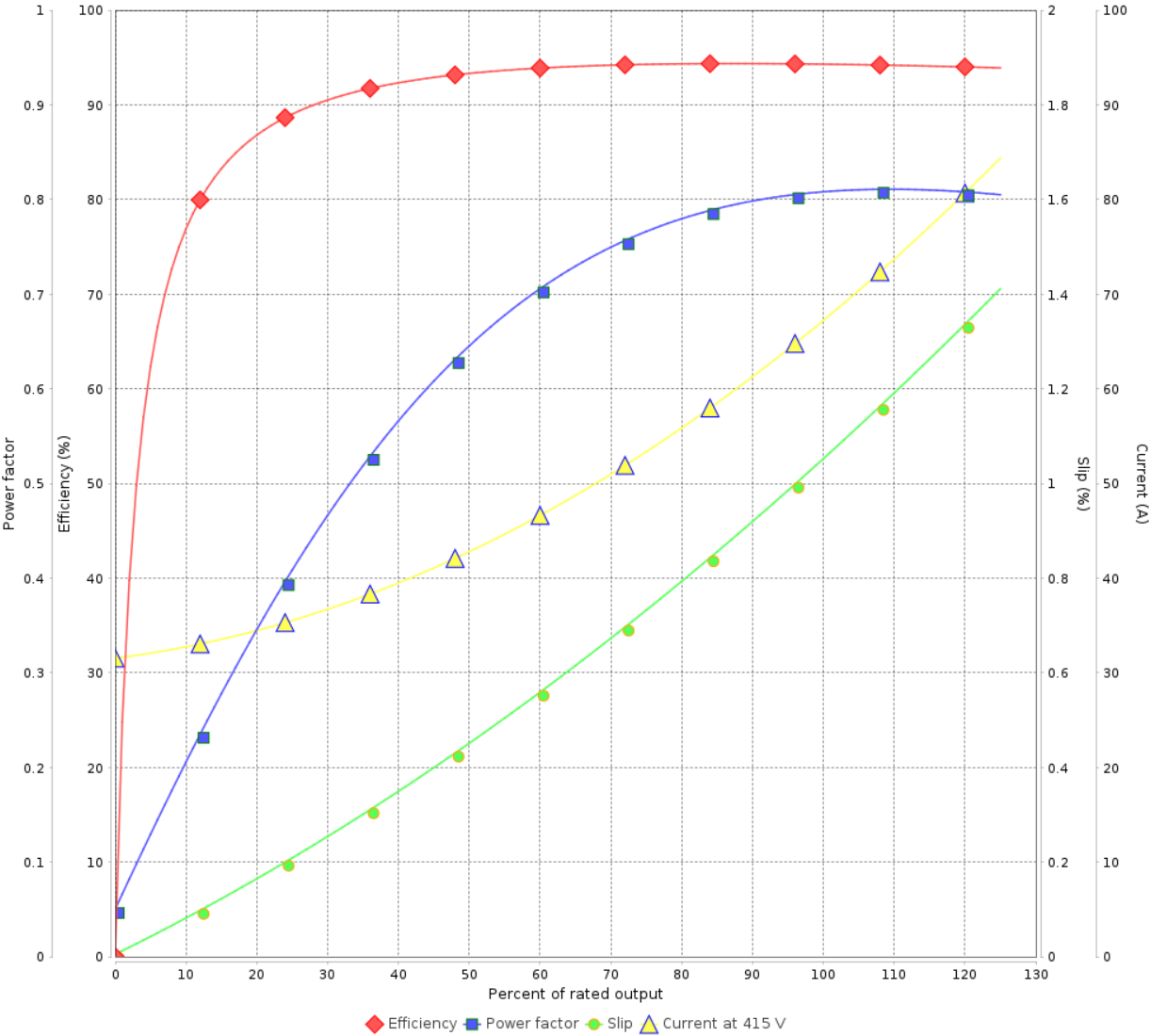
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11166654

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Performance : 415 V 50 Hz 4P IE3			
Rated current	: 67.4 A	Moment of inertia (J)	: 0.9448 kgm ²
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

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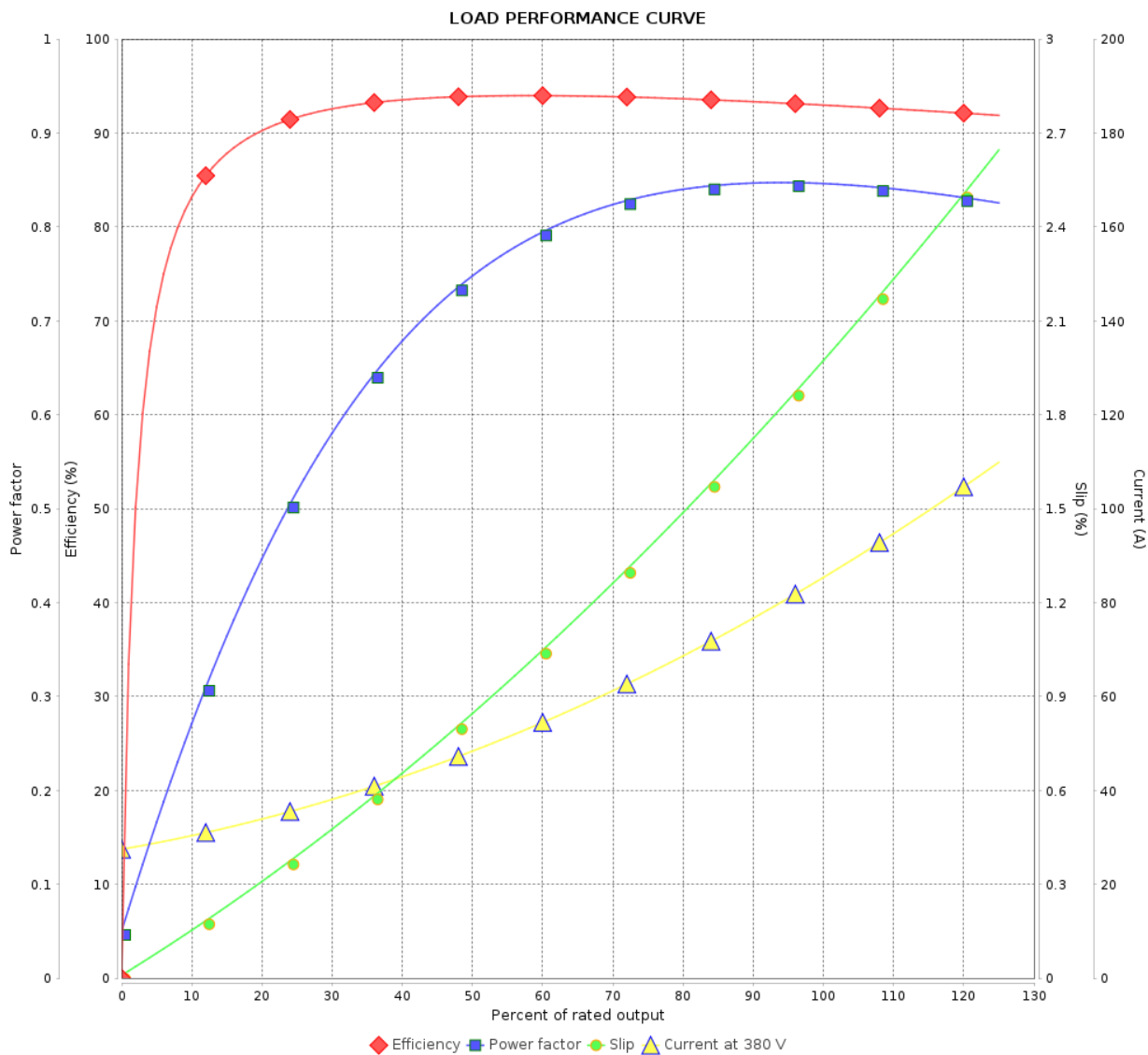
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11166654



Performance : 380 V 50 Hz 4P IE1

Rated current : 86.5 A
LRC : 5.2
Rated torque : 29.6 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.9448 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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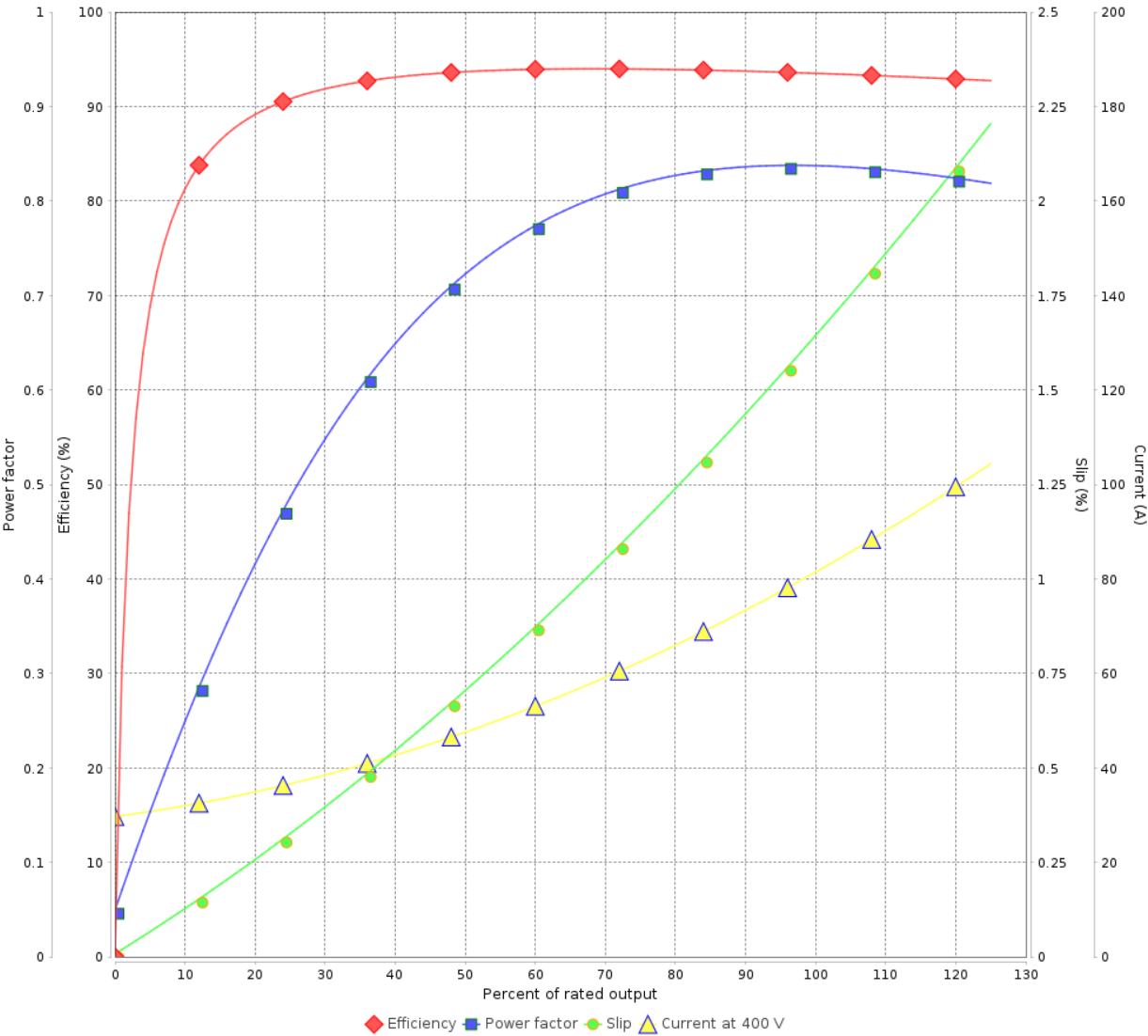
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11166654

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 82.6 A	Moment of inertia (J)	: 0.9448 kgm ²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 29.5 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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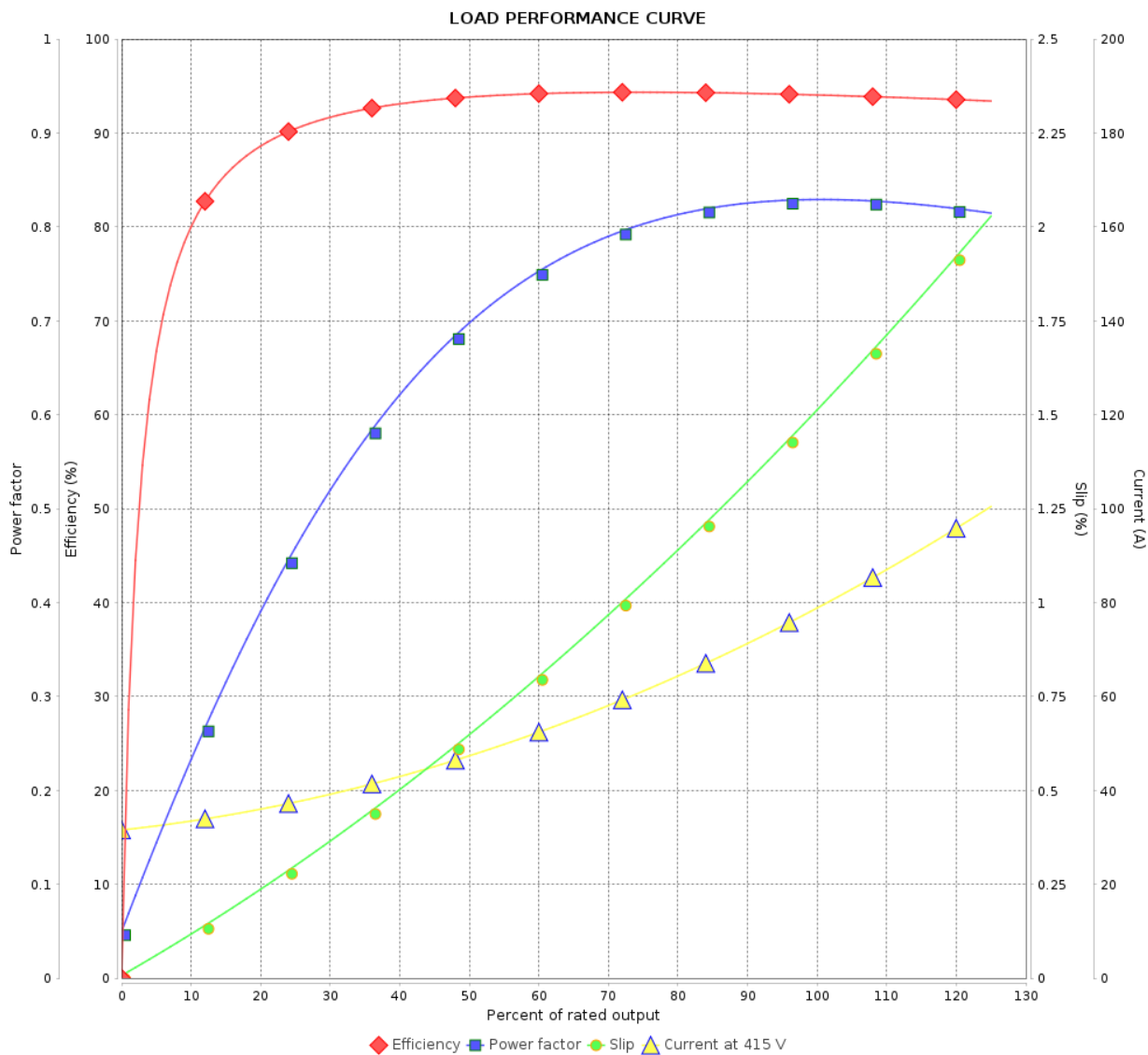
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11166654

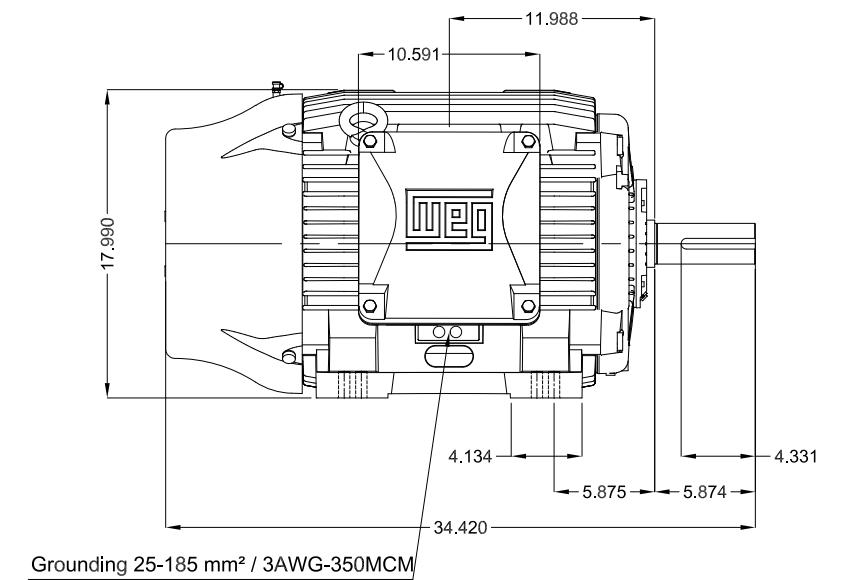
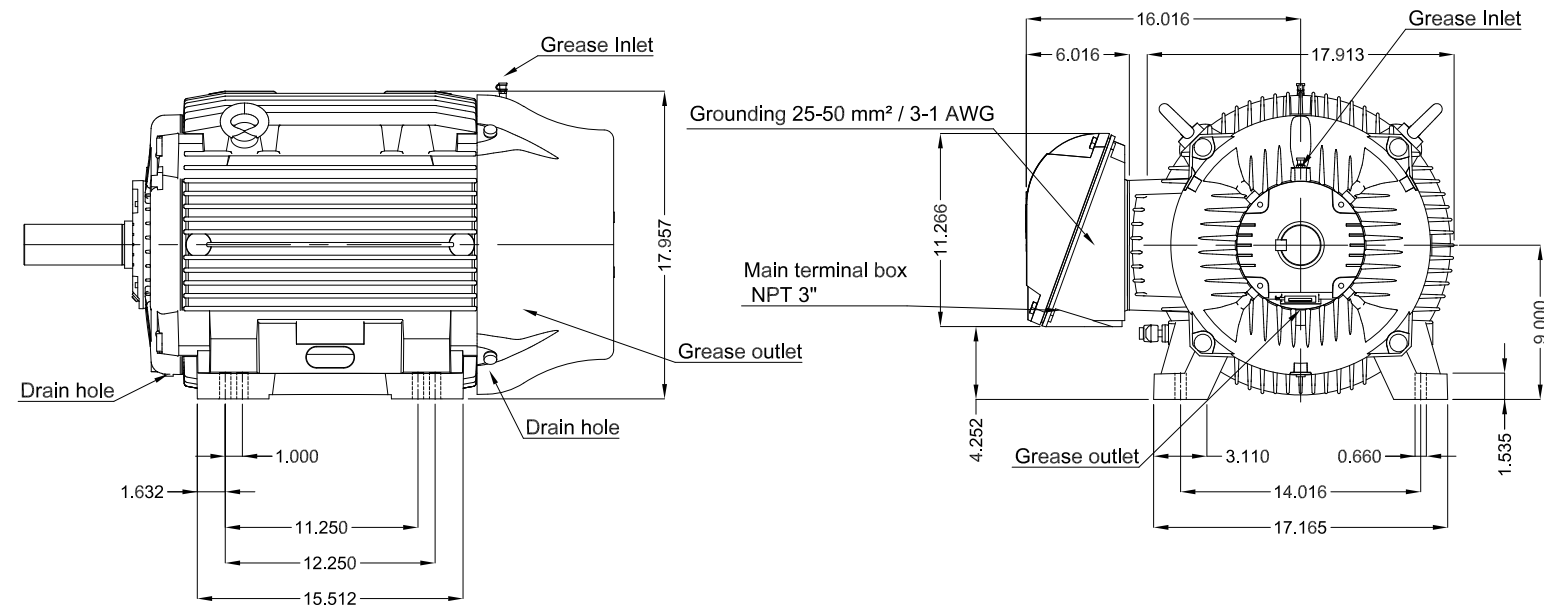


Performance : 415 V 50 Hz 4P IE2

Rated current : 80.2 A
LRC : 6.2
Rated torque : 29.5 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1477 rpm

Moment of inertia (J) : 0.9448 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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60 HP 04 Poles 60 Hz										A	
							HYBRISUSER			00	
ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR W22 NEMA PREM. EFF. FRAME 364/5T IP55 TEFC					PREVIEW WDD 00			
CHECKED											
RELEASED											
REL. DATE											
						SHEET		/			

Without vertical jackscrews
Color RAL 5009
Painting plan 203A
Mounting B3R(D)

DE Shaft End

0.625 10.625

2.3750 2.3740 2.020

DUNC 3/4"-10 WEG WPR-7339