

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase Product code : 10781668

Frame	: 286JM	Cooling method	: IC01 - ODP
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	: 193 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.2063 kgm ²
Design	: B		

Output [HP]	30	25	25	25	30	30	30
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]	69.8/34.9	35.7	34.7	34.3	42.9	41.4	40.1
L. R. Amperes [A]	461/230	246	250	244	215	232	245
LRC [A]	6.6x(Code G)	6.9x(Code H)	7.2x(Code H)	7.1x(Code H)	5.0x(Code E)	5.6x(Code F)	6.1x(Code G)
No load current [A]	24.2/12.1	12.0	14.0	13.5	11.7	12.6	13.2
Rated speed [RPM]	1770	1470	1470	1475	1460	1465	1468
Slip [%]	1.67	2.00	2.00	1.67	2.67	2.33	2.13
Rated torque [kgfm]	12.3	12.3	12.3	12.3	14.9	14.9	14.8
Locked rotor torque [%]	240	220	250	270	170	190	210
Breakdown torque [%]	270	240	270	300	200	220	240
Service factor	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	30s (cold) 17s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	30s (cold) 17s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)
Noise level ²	63.0 dB(A)						
Efficiency (%)	25%						
	50%	93.6	92.2	92.2	92.2	91.7	91.7
	75%	94.1	92.6	92.6	92.6	92.4	92.4
	100%	94.1	92.6	92.6	92.6	91.7	92.4
Power Factor	25%						
	50%	0.70	0.70	0.66	0.63	0.74	0.70
	75%	0.80	0.80	0.78	0.75	0.83	0.80
	100%	0.84	0.85	0.83	0.81	0.85	0.83

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6311 Z C3	6211 Z C3	Max. traction : 413 kgf
Sealing	: Without	Without	Max. compression : 606 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 18 g	11 g	
Lubricant type	: Mobil Polyrex EM		

Notes
USABLE @208V 78.3A SF 1.15 SFA 90.0A

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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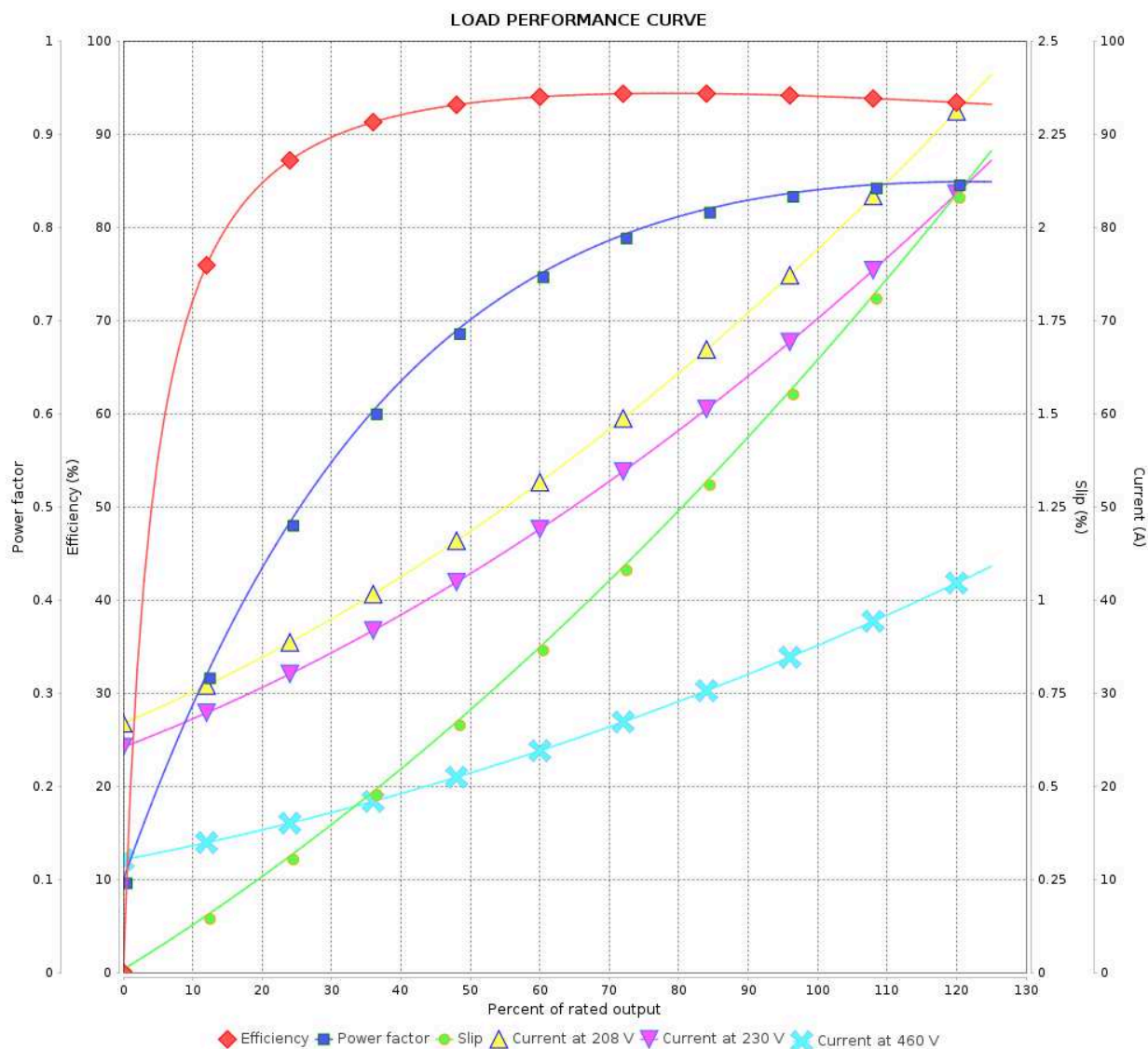
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
LRC : 6.6
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 270 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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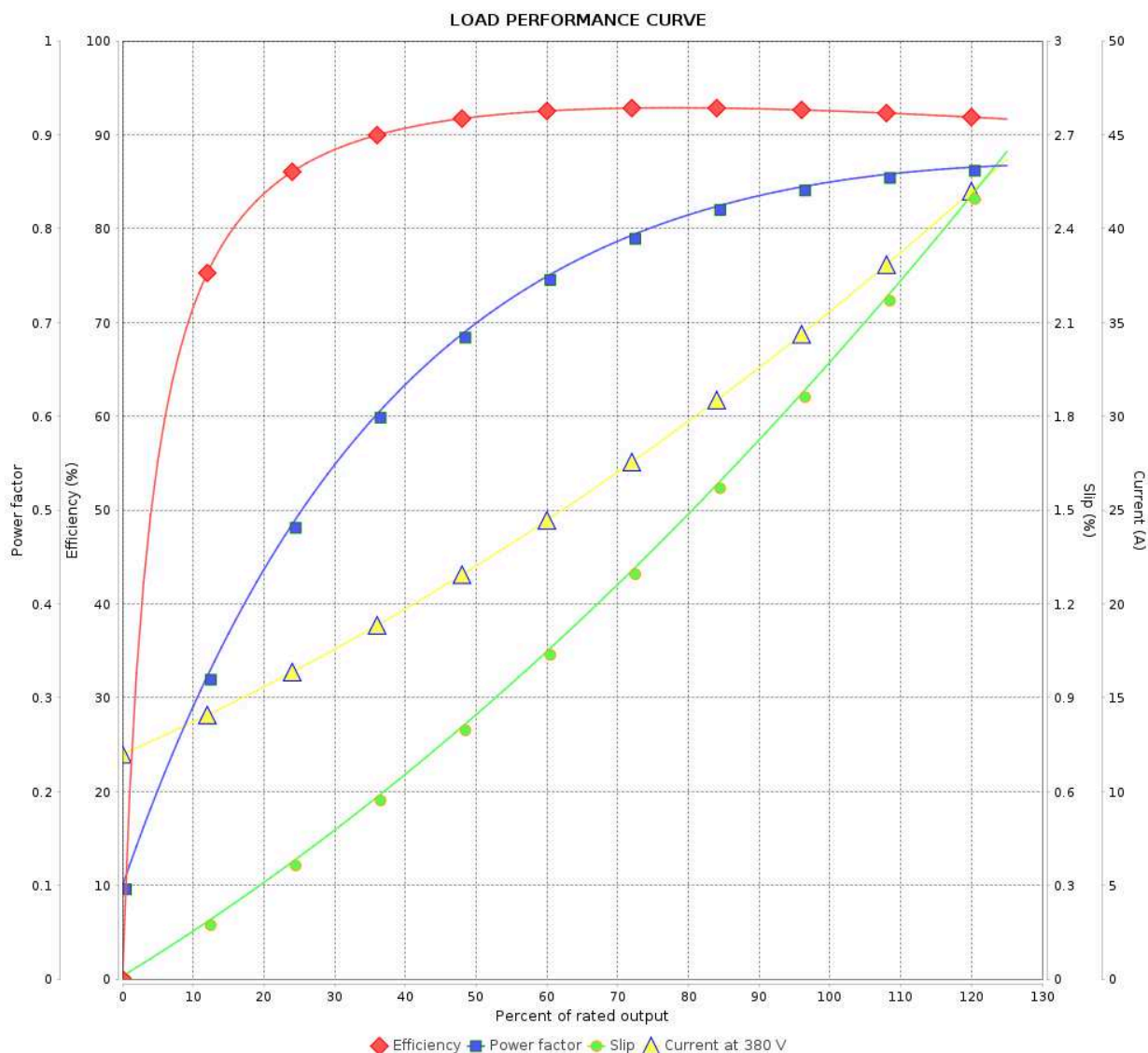
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
LRC : 6.9
Rated torque : 12.3 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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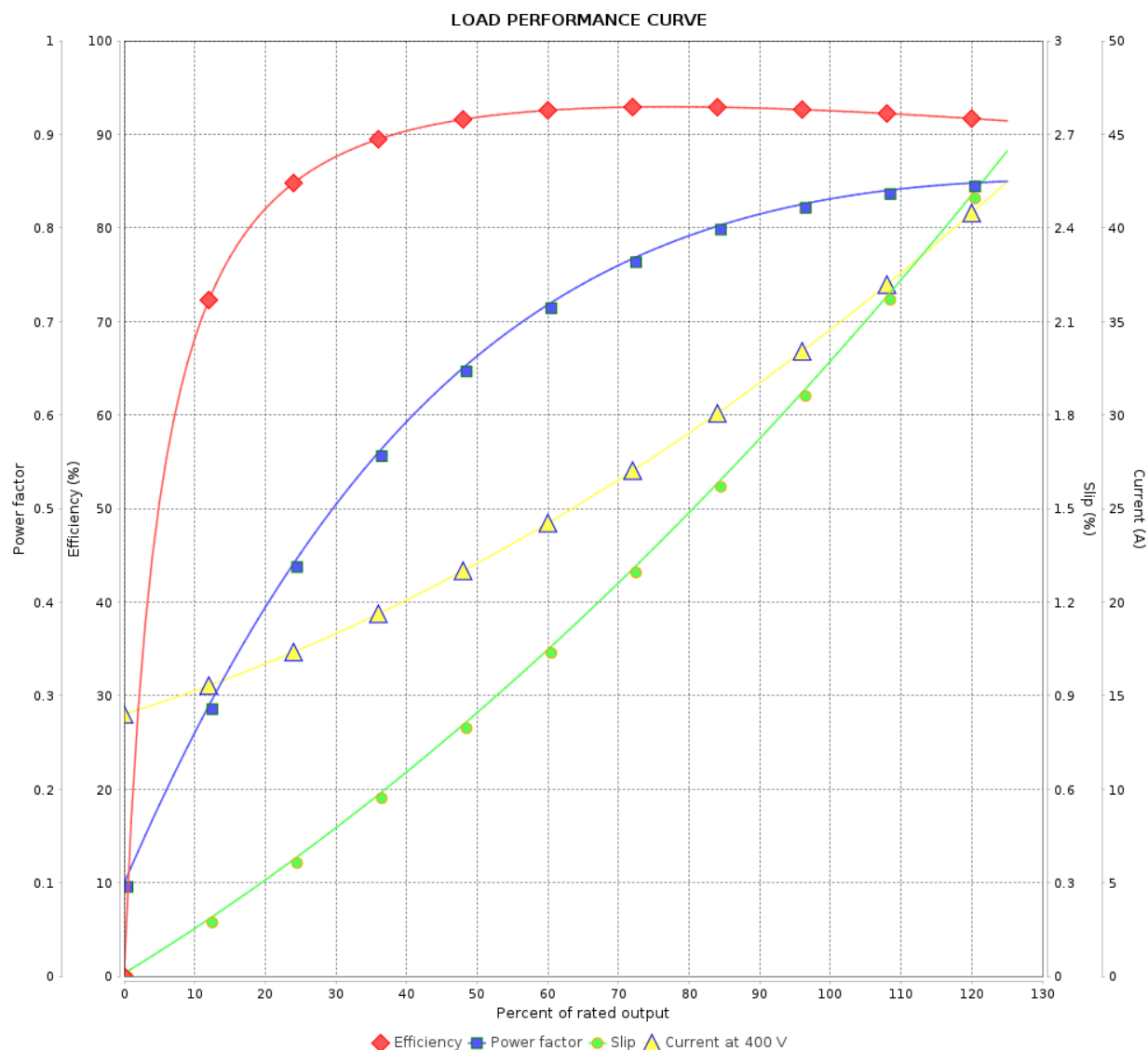
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
LRC : 7.2
Rated torque : 12.3 kgfm
Locked rotor torque : 250 %
Breakdown torque : 270 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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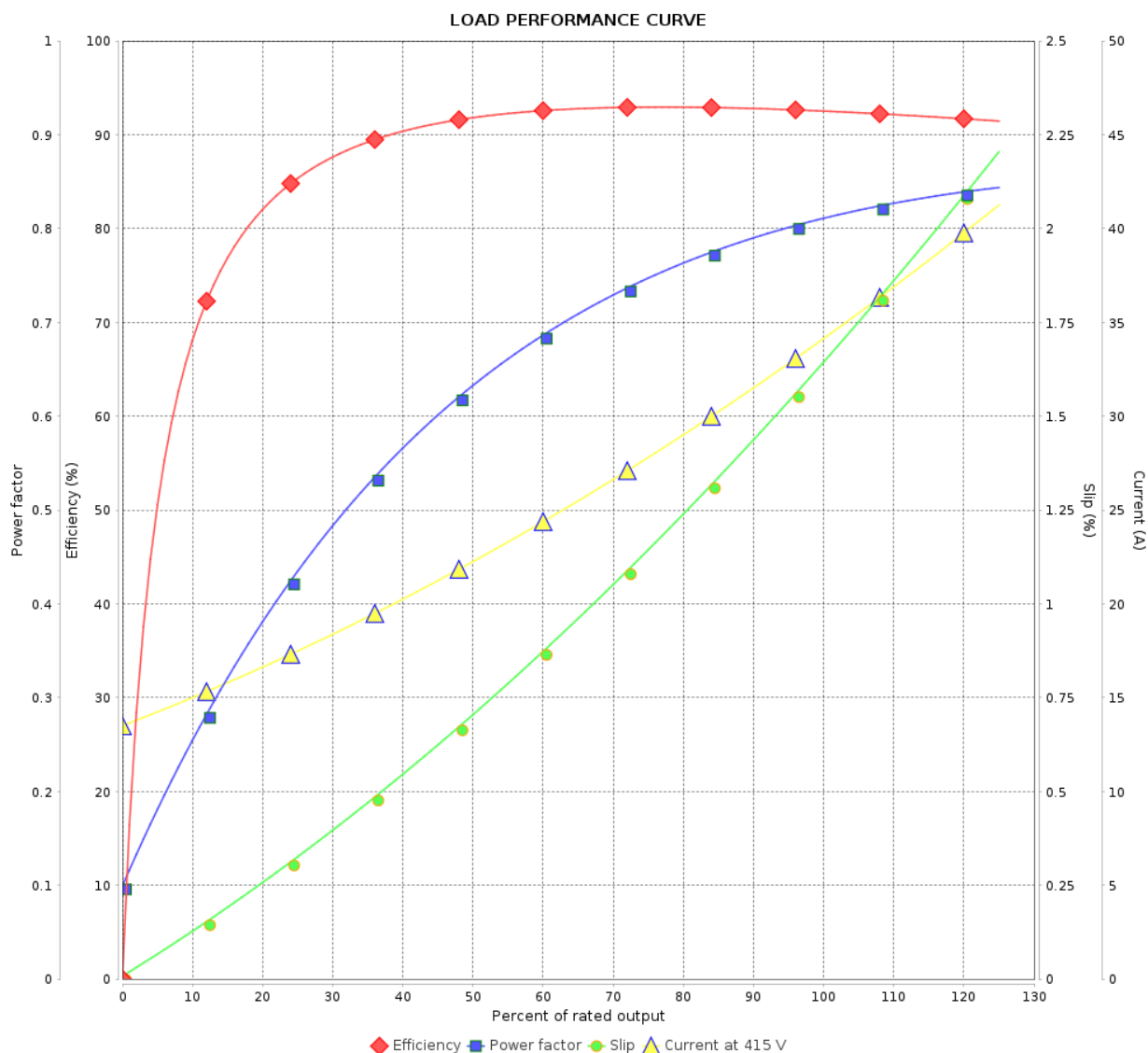
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
LRC : 7.1
Rated torque : 12.3 kgfm
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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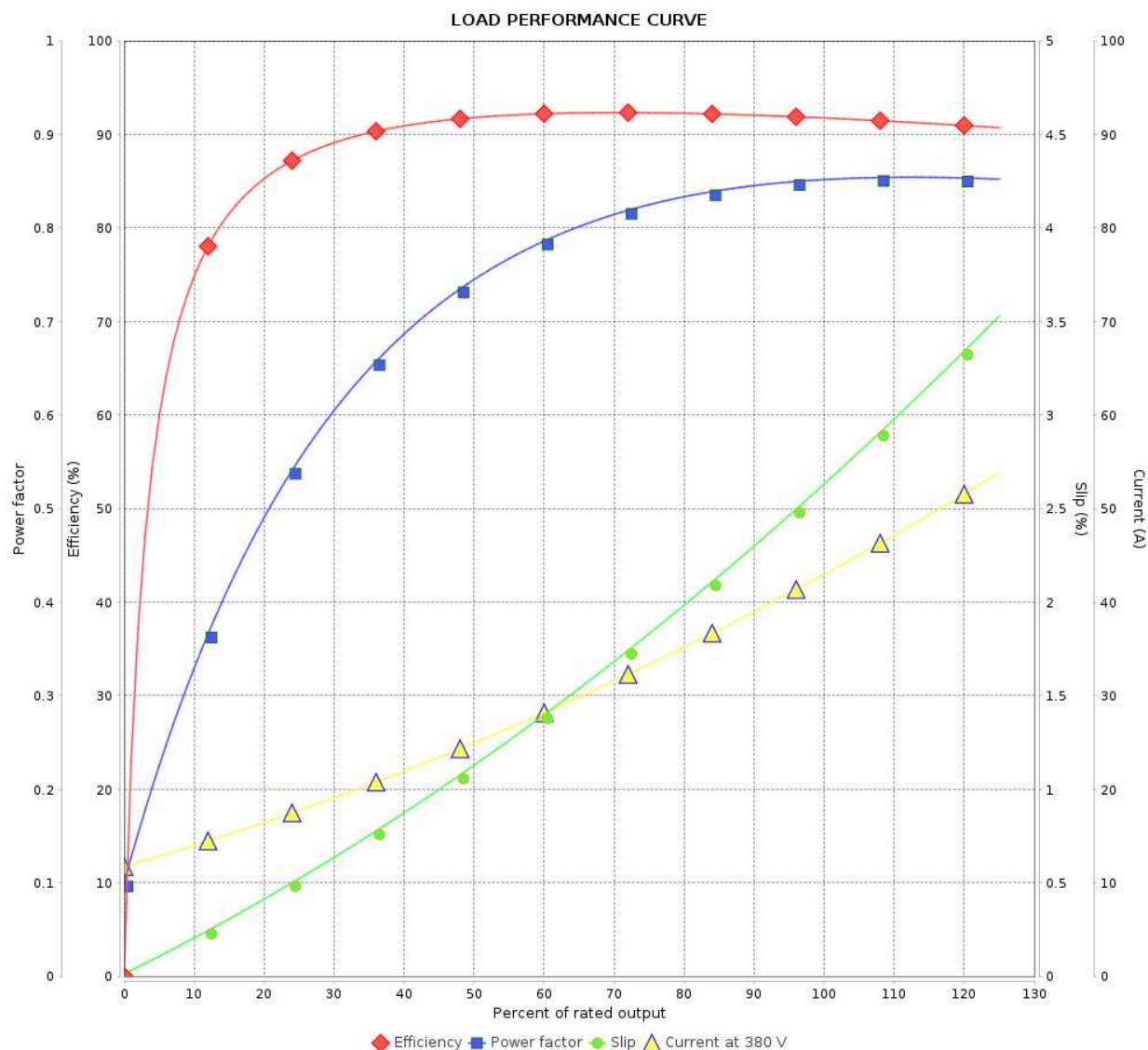
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 380 V 50 Hz 4P IE2

Rated current : 42.9 A
LRC : 5.0
Rated torque : 14.9 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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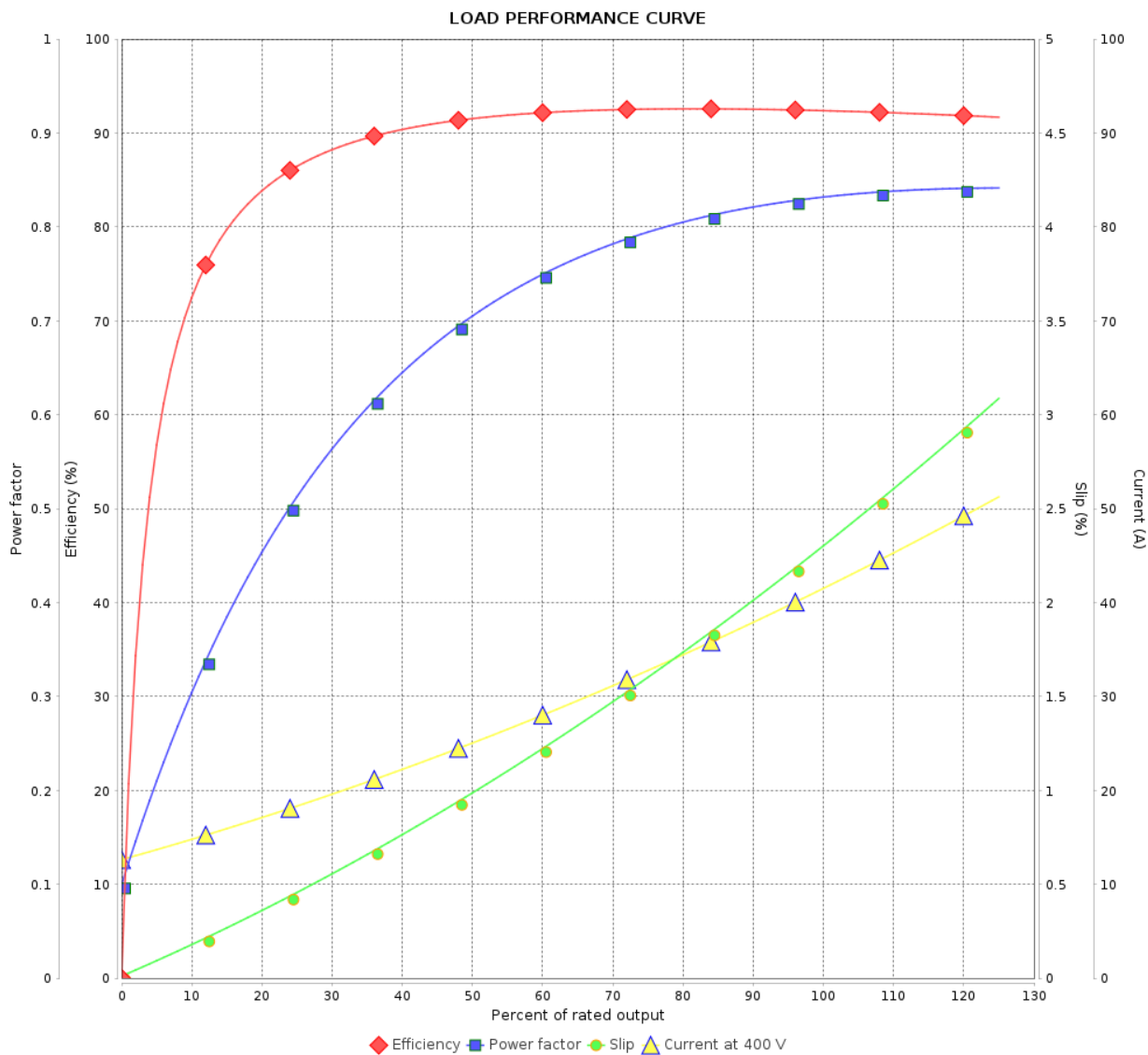
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 10781668



Performance : 400 V 50 Hz 4P IE2

Rated current : 41.4 A
LRC : 5.6
Rated torque : 14.9 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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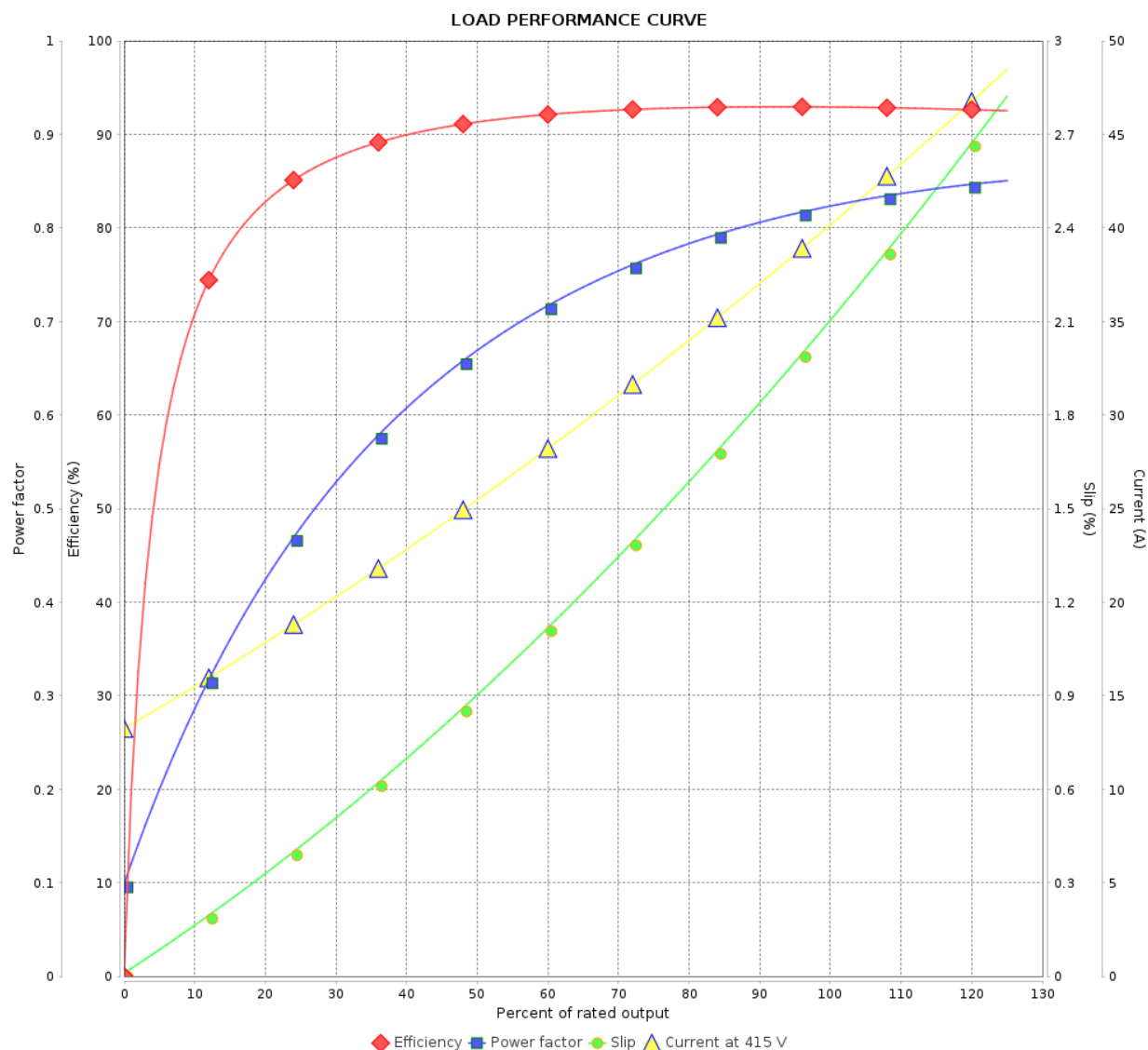
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 10781668

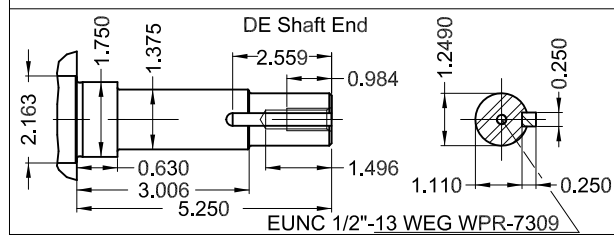
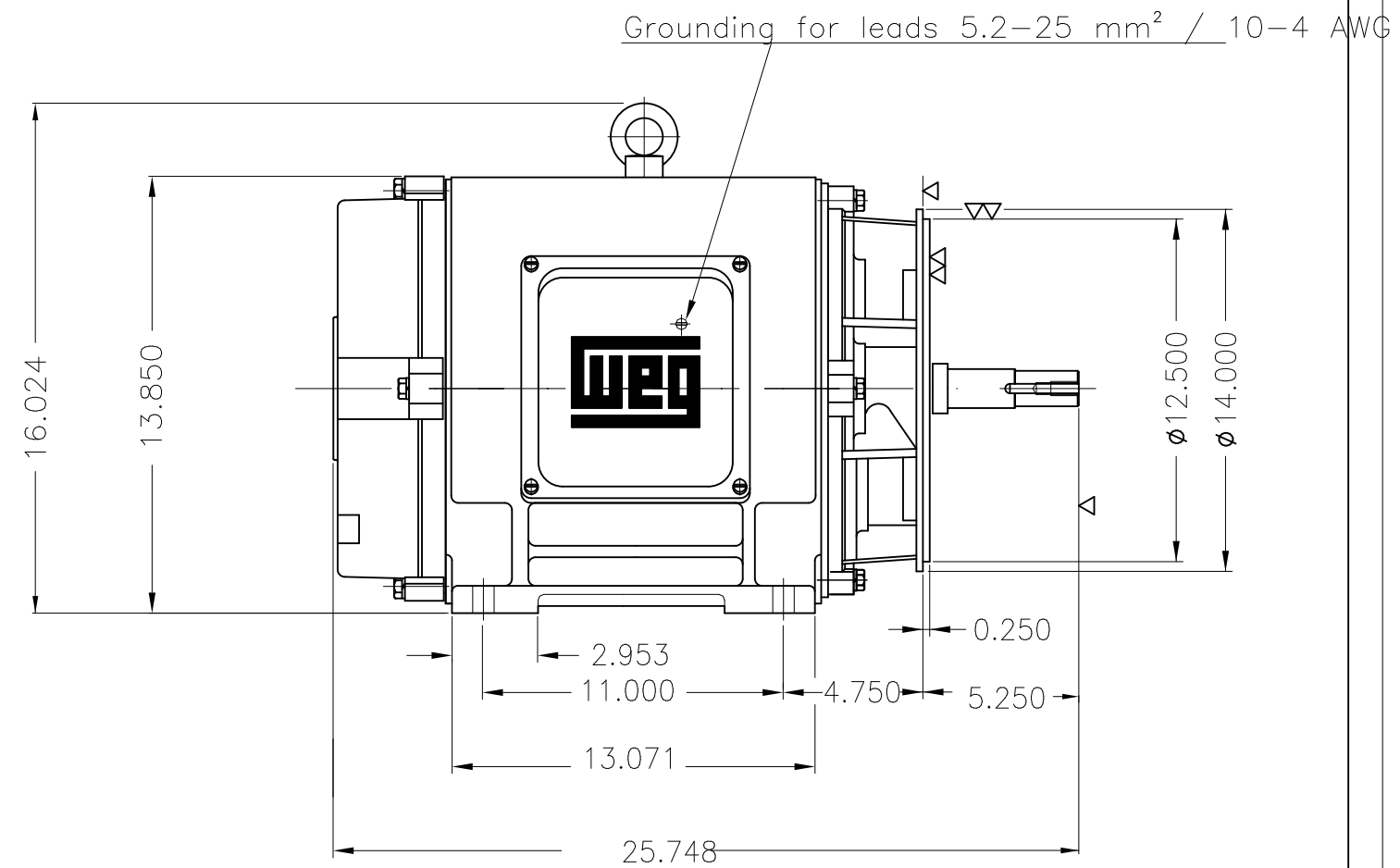
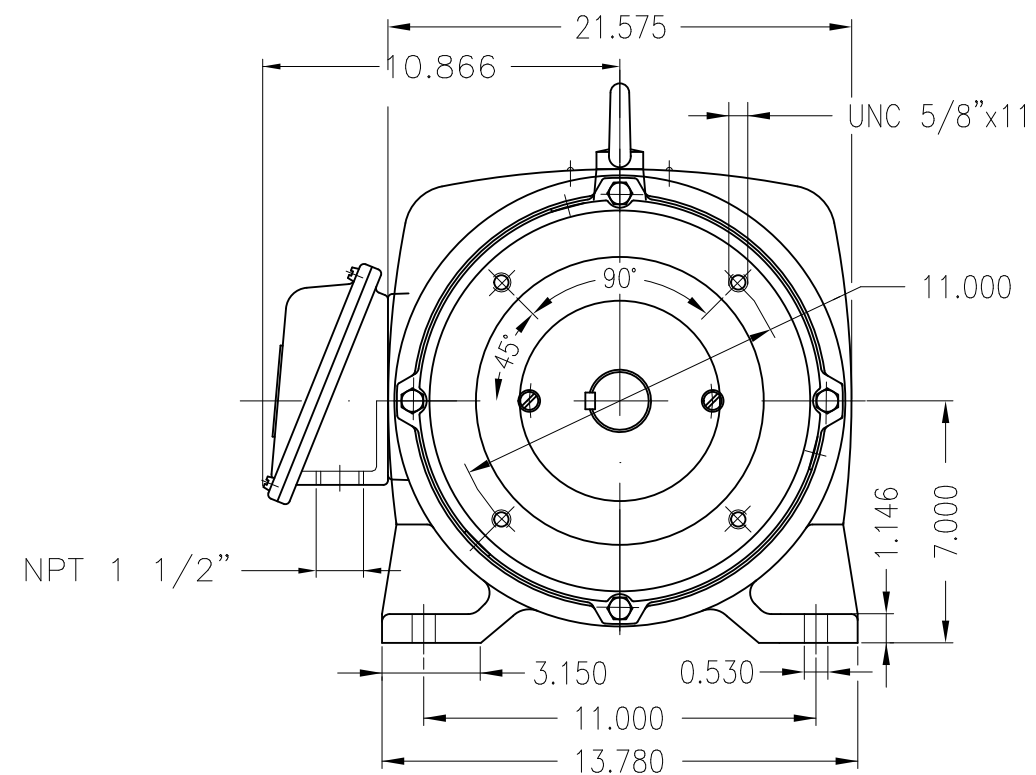


Performance : 415 V 50 Hz 4P IE3

Rated current : 40.1 A
LRC : 6.1
Rated torque : 14.8 kgfm
Locked rotor torque : 210 %
Breakdown torque : 240 %
Rated speed : 1468 rpm

Moment of inertia (J) : 0.2063 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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30 HP 04 Poles 60 Hz							A
				HYBRISUSER			00
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED	DATE VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR JM/JP/JET PUMP NEMA PREM. EFF. FRAME 286JM IP23 ODP	PREVIEW WDD 00			
CHECKED							
RELEASED							
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1	