DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 - Nema Premium Efficiency (Derating)
Product code	: 11166654

Frame	: 364/5T	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3R(D)
Duty cycle	: S1	Rotation	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m	Approx. weight	: 394 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.9448 kgm²
Design	: B		

Output		60 HP (45 kW)	50 HP (37 kW)	50 HP (37 kW)	50 HP (37 kW)	60 HP (45 kW)	60 HP (45 kW)	60 HP (45 kW)
Poles		4	4	4	4	4	4	4
Frequency		60 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Rated voltage		230/460 V	380 V	400 V	415 V	380 V	400 V	415 V
Rated current		143/71.6 A	71.0 A	69.1 A	67.4 A	86.5 A	82.6 A	80.2 A
L. R. Amperes		917/458 A	448 A	477 A	499 A	450 A	479 A	497 A
LRC		6.4 Code G	6.3 Code G	6.9 Code H	7.4 Code J	5.2 Code E	5.8 Code F	6.2 Code G
No load current		56.0/28.0 A	27.6 A	29.8 A	31.6 A	27.6 A	29.8 A	31.6 A
Rated speed		1780 rpm	1480 rpm	1482 rpm	1484 rpm	1470 rpm	1475 rpm	1477 rpm
Slip		1.11 %	1.33 %	1.20 %	1.07 %	2.00 %	1.67 %	1.53 %
Rated torque		24.5 kgfm	24.5 kgfm	24.5 kgfm	24.5 kgfm	29.6 kgfm	29.5 kgfm	29.5 kgfm
Locked rotor torque		210 %	200 %	220 %	240 %	160 %	180 %	200 %
Breakdown torque		240 %	240 %	260 %	280 %	200 %	210 %	230 %
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	95 K
Noise level		67 dB(A)	63 dB(A)	63 dB(A)	63 dB(A)	63 dB(A)	63 dB(A)	63 dB(A)
Locked rotor time		15 s (hot) 27 s (cold)	10 s (hot) 18 s (cold)	10 s (hot) 18 s (cold)	10 s (hot) 18 s (cold)	10 s (hot) 18 s (cold)	10 s (hot) 18 s (cold)	10 s (hot) 18 s (cold)
Efficiency (%)	50%	94.1	93.7	93.3	93.4	94.1	94.1	94.1
	75%	94.5	93.9	93.9	94.2	93.6	93.6	94.1
	100%	95.0	94.2	94.2	94.3	93.0	93.6	94.1
Power Factor	Start	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	50%	0.69	0.71	0.68	0.65	0.76	0.73	0.70
	75%	0.79	0.80	0.78	0.76	0.82	0.81	0.80
	100%	0.83	0.84	0.82	0.81	0.85	0.84	0.83
Losses at normative operating points (speed;torque), in percentage of rated output power								
P1 (0,9;1,0)		5.07	5.30	5.58	5.60	5.47	5.45	5.12
P2 (0,5;1,0)		4.08	4.26	4.49	4.51	4.40	4.39	4.12
P3 (0,25;1,0)		3.81	3.98	4.19	4.20	4.10	4.09	3.84
P4 (0,9;0,5)		2.61	2.73	2.88	2.89	2.82	2.81	2.64
P5 (0,5;0,5)		1.71	1.79	1.88	1.89	1.84	1.84	1.73
P6 (0,5;0,25)		1.17	1.22	1.28	1.29	1.26	1.25	1.18
P7 (0,25;0,25)		0.77	0.80	0.84	0.85	0.83	0.82	0.77

	Drive end	Non drive end
Bearing type	6314-C3	6314-C3
Lubrication interval	12000 h	12000 h
Lubricant amount	27 g	27 g
Lubricant type	MOBIL POLYREX EM	

Foundation loads
Max. traction : 563 kgf
Max. compression : 957 kgf

Notes:

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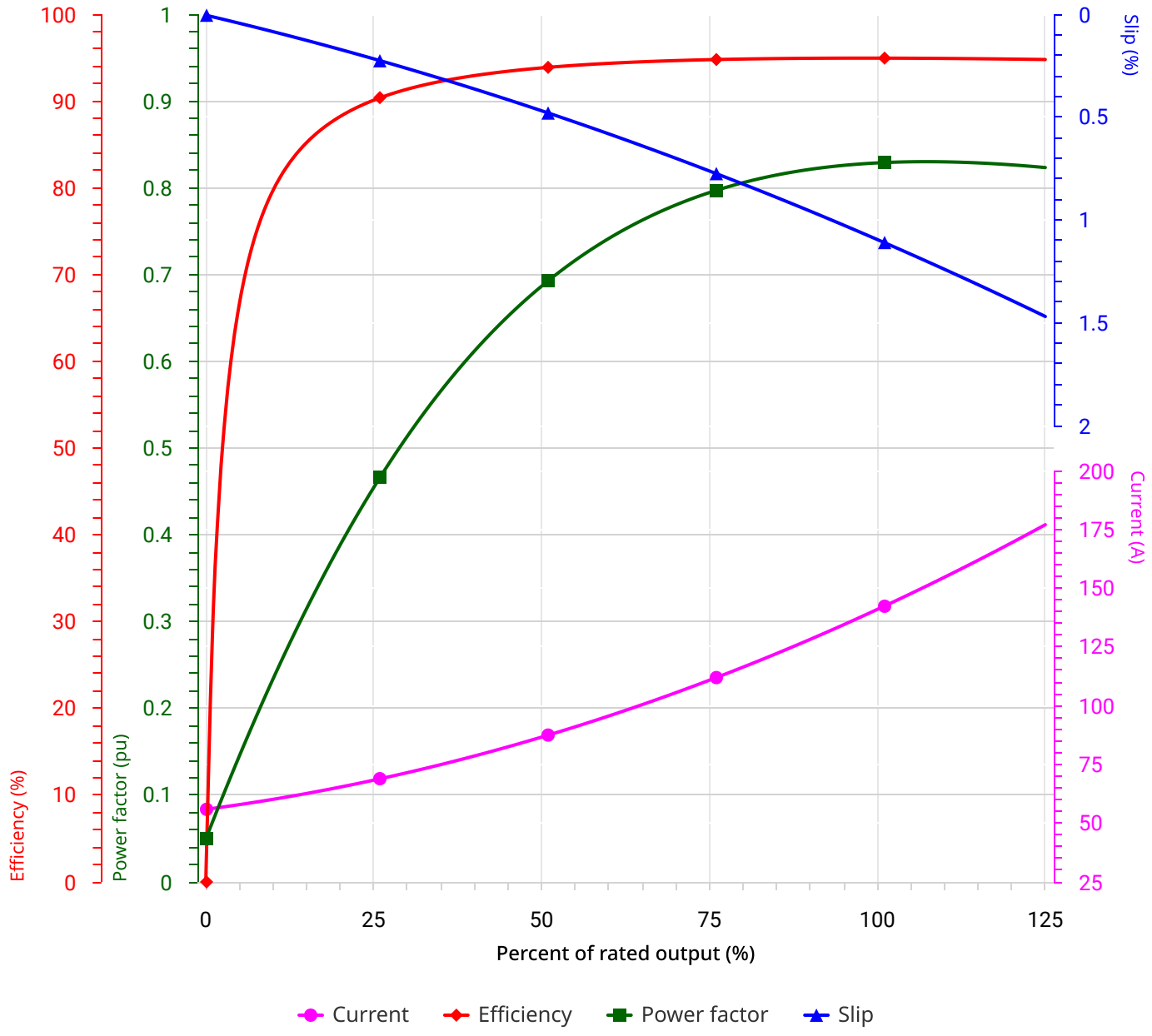
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 - Nema Premium Efficiency (Derating)
Product code	: 11166654



Performance	: 60 HP (45 kW) 230/460V 60Hz 4P 364/5T

Rated current	: 143/71.6 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 6.4 Code G	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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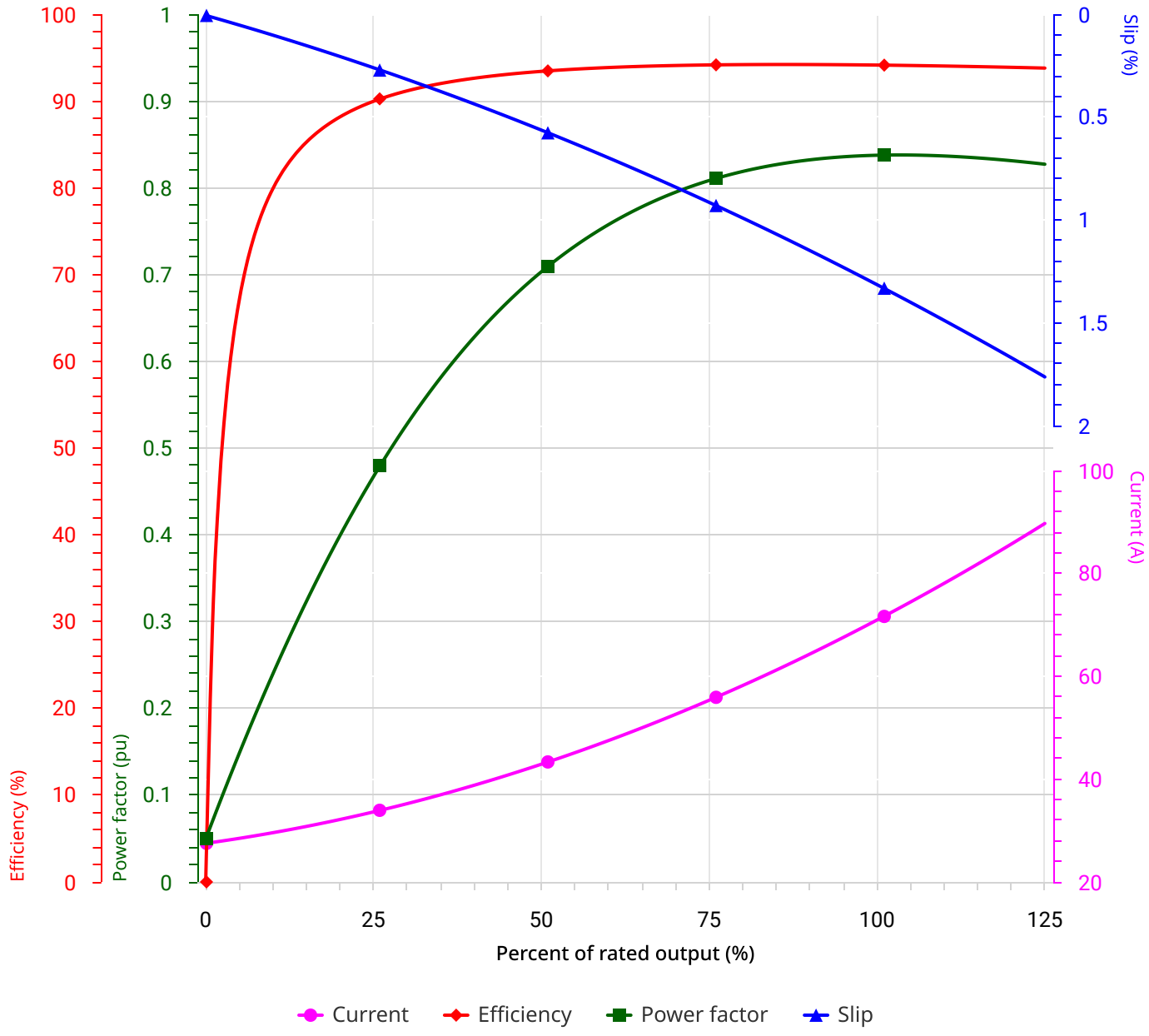
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Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 - Nema Premium Efficiency (Derating)
Product code	: 11166654



Performance	: 50 HP (37 kW) 380V 50Hz 4P 364/5T

Rated current	: 71.0 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 6.3 Code G	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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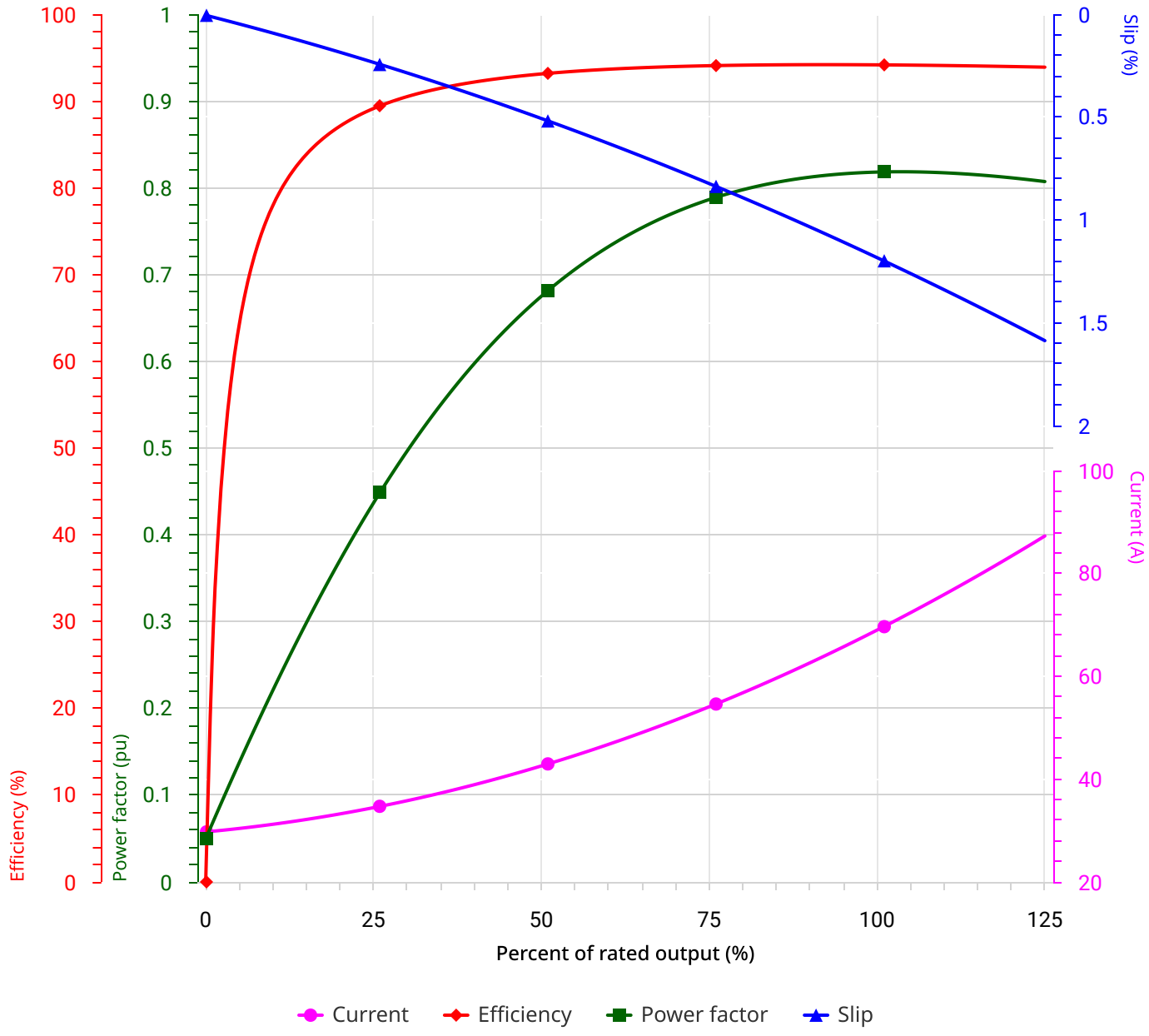
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Three Phase Induction Motor - Squirrel Cage

Customer	:
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Product code	: 11166654



Performance	: 50 HP (37 kW) 400V 50Hz 4P 364/5T

Rated current	: 69.1 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 6.9 Code H	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1482 rpm	Design	: B

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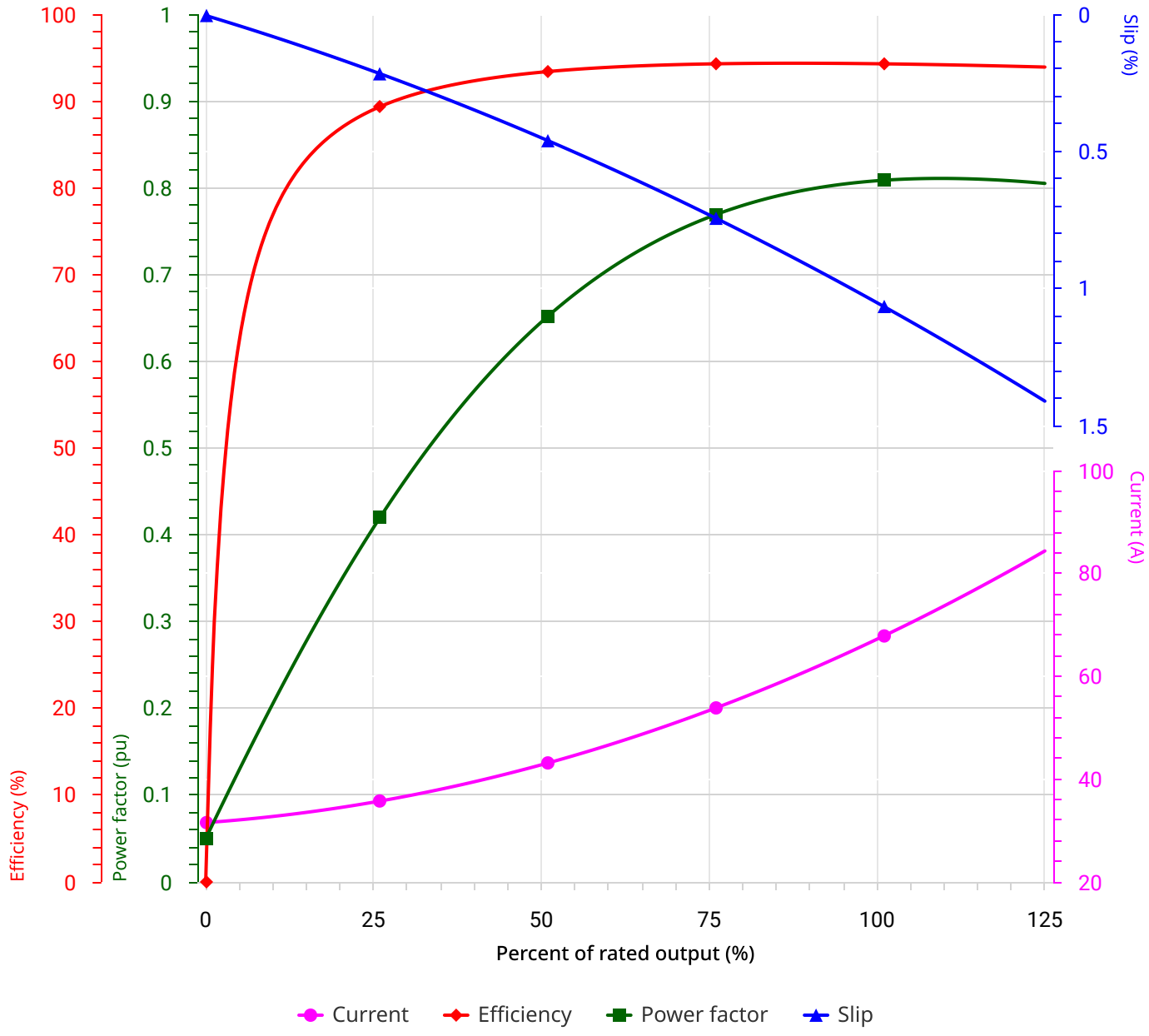
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Three Phase Induction Motor - Squirrel Cage

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Performance	: 50 HP (37 kW) 415V 50Hz 4P 364/5T

Rated current	: 67.4 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 7.4 Code J	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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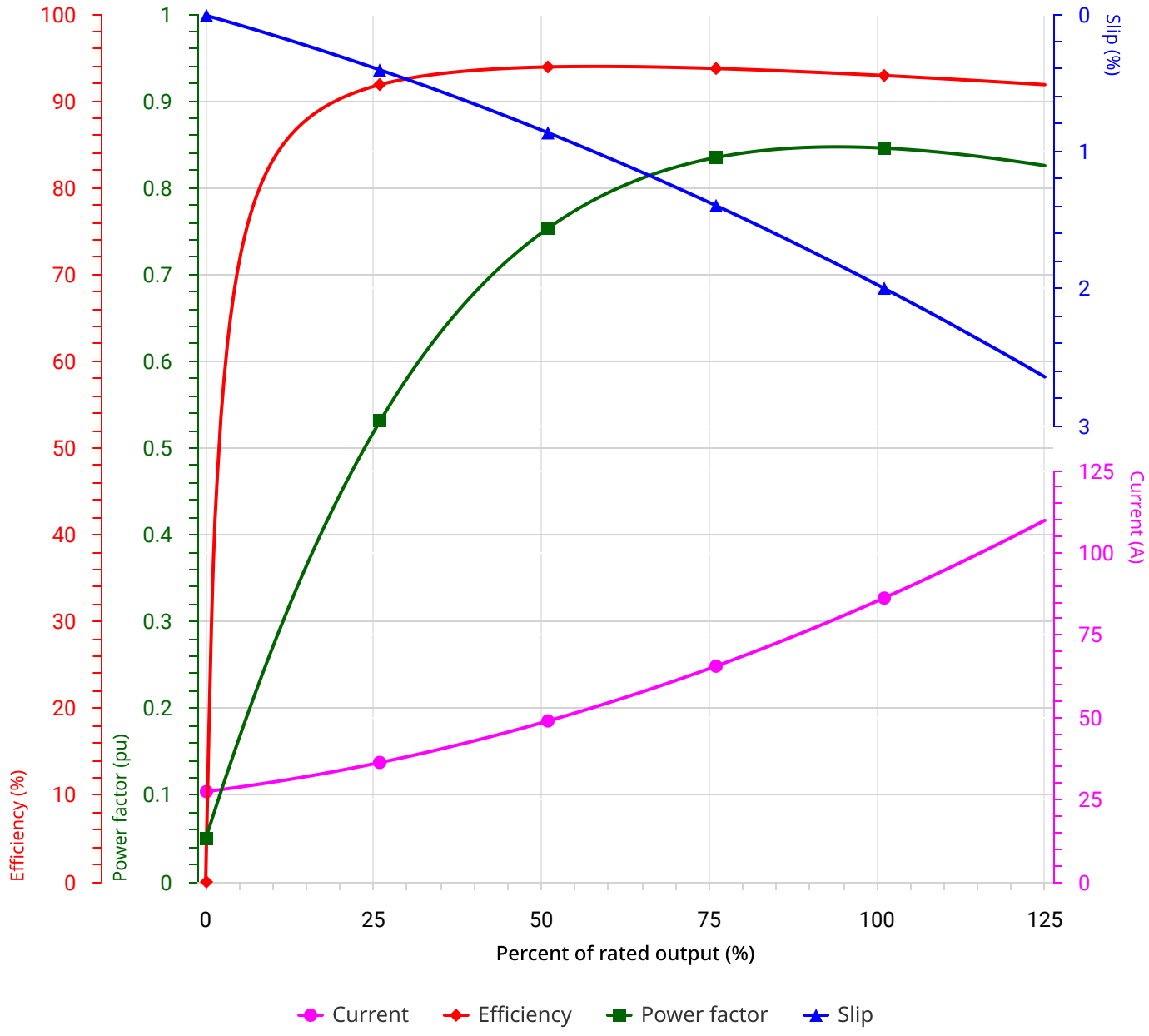
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Performance	: 60 HP (45 kW) 380V 50Hz 4P 364/5T

Rated current	: 86.5 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 5.2 Code E	Duty cycle	: Cont.(S1)
Rated torque	: 29.6 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1470 rpm	Design	: B

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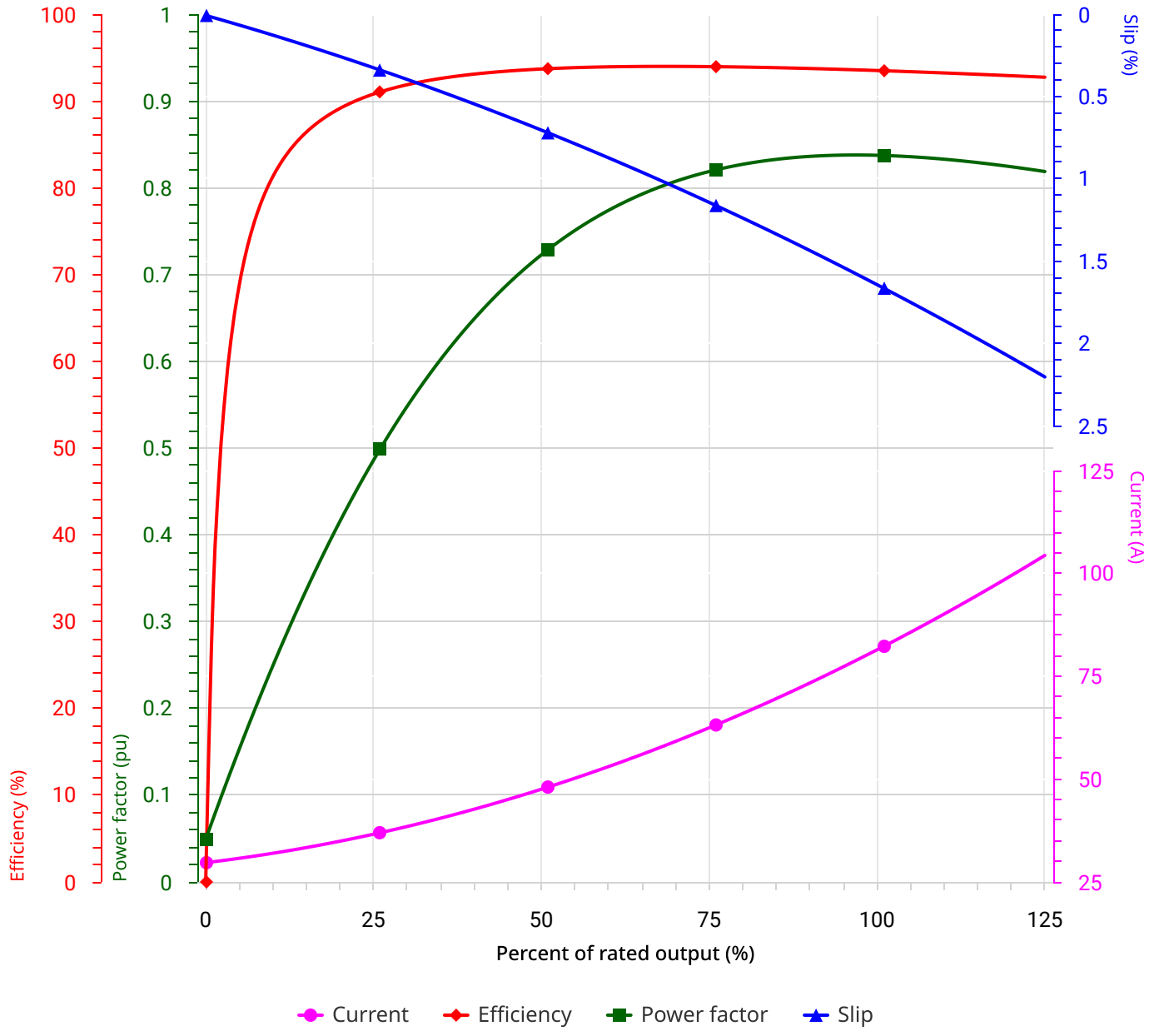
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Performance	: 60 HP (45 kW) 400V 50Hz 4P 364/5T

Rated current	: 82.6 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 5.8 Code F	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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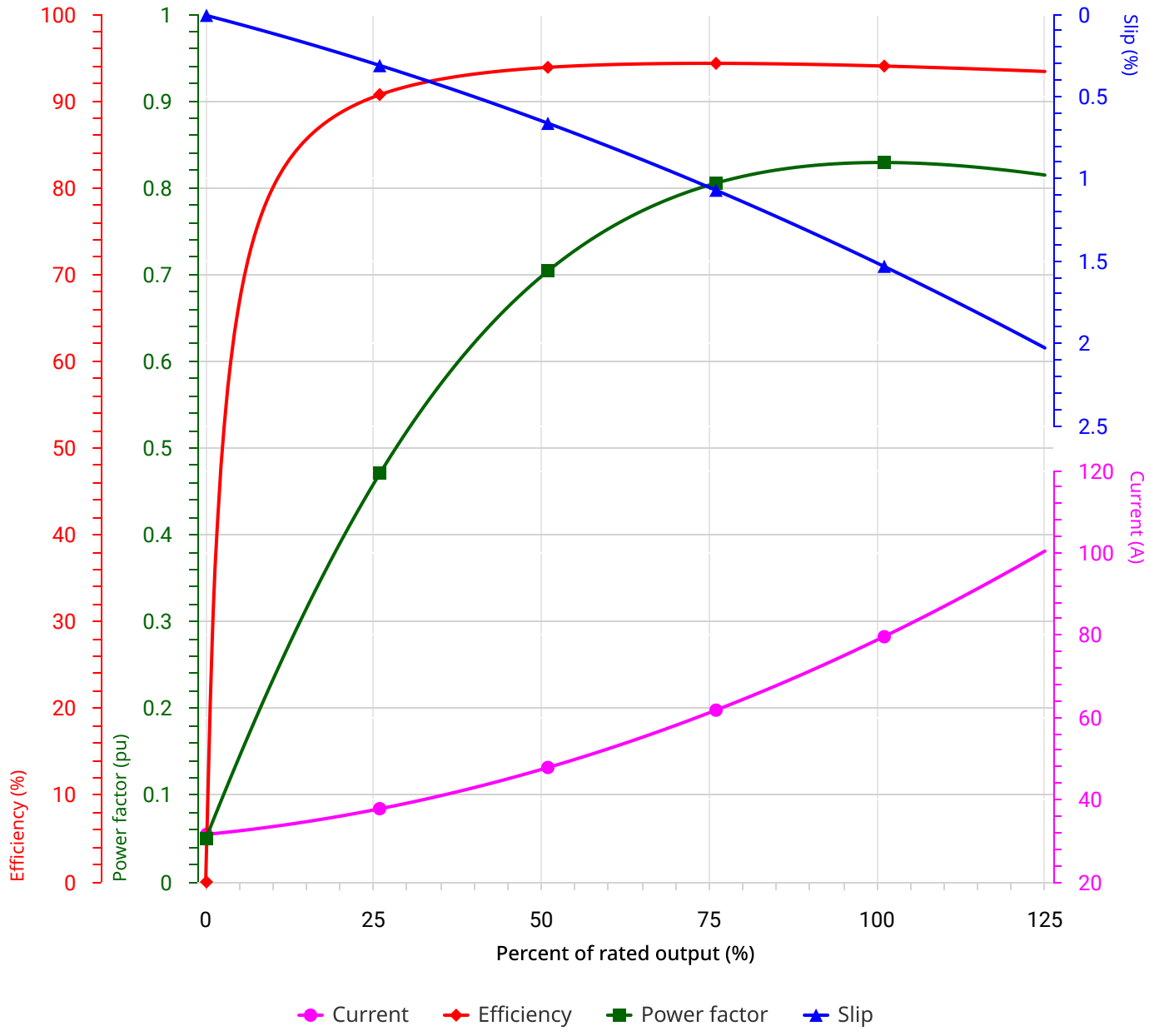
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Performance	: 60 HP (45 kW) 415V 50Hz 4P 364/5T

Rated current	: 80.2 A	Moment of inertia (J)	: 0.9448 kgm²
LRC	: 6.2 Code G	Duty cycle	: Cont.(S1)
Rated torque	: 29.5 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 230 %	Temperature rise	: 95 K
Rated speed	: 1477 rpm	Design	: B

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