DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 - Nema Premium Efficiency (Derating)
Product code	: 12424790

Frame	: 284/6T	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	: 176 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2153 kgm²
Design	: B		

Output		25 HP (18.5	25 HP (18.5	25 HP (18.5	25 HP (18.5	20 HP (15 kW)	20 HP (15 kW)	20 HP (15 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		59.0/29.5 A	35.9 A	34.3 A	33.2 A	29.1 A	28.2 A	27.5 A
L. R. Amperes		366/183 A	190 A	189 A	196 A	175 A	189 A	198 A
LRC		6.2 Code G	5.3 Code F	5.5 Code F	5.9 Code G	6.0 Code G	6.7 Code H	7.2 Code J
No load current		22.0/11.0 A	11.0 A	11.7 A	12.4 A	11.0 A	11.7 A	12.4 A
Rated speed		1770 rpm	1455 rpm	1460 rpm	1465 rpm	1470 rpm	1473 rpm	1475 rpm
Slip		1.67 %	3.00 %	2.67 %	2.33 %	2.00 %	1.80 %	1.67 %
Rated torque		10.3 kgfm	12.5 kgfm	12.4 kgfm	12.4 kgfm	9.87 kgfm	9.85 kgfm	9.84 kgfm
Locked rotor torque		240 %	180 %	200 %	220 %	230 %	250 %	270 %
Breakdown torque		270 %	210 %	240 %	260 %	260 %	300 %	330 %
Service factor		1.25	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise		80 K	105 K	105 K	105 K	80 K	80 K	80 K
Noise level		63 dB(A)	61 dB(A)	61 dB(A)	61 dB(A)	61 dB(A)	61 dB(A)	61 dB(A)
Locked rotor time		24 s (hot) 43 s (cold)	14 s (hot) 25 s (cold)	14 s (hot) 25 s (cold)	14 s (hot) 25 s (cold)	18 s (hot) 32 s (cold)	18 s (hot) 32 s (cold)	18 s (hot) 32 s (cold)
Efficiency (%)	50%	92.4	92.4	92.4	92.4	91.3	91.3	91.2
	75%	93.0	91.7	92.4	92.4	92.1	92.5	92.5
	100%	93.6	91.0	91.7	92.4	92.1	92.6	92.7
Power Factor	Start	0.44	0.44	0.44	0.44	0.44	0.44	0.44
	50%	0.70	0.76	0.73	0.70	0.69	0.65	0.62
	75%	0.80	0.84	0.82	0.80	0.80	0.78	0.75
	100%	0.84	0.86	0.85	0.84	0.85	0.83	0.82
Losses at normative operating points (speed;torque), in percentage of rated output power								
P1 (0,9;1,0)		6.75	6.75	6.75	6.75	6.75	6.75	6.75
P2 (0,5;1,0)		5.83	5.83	5.83	5.83	5.83	5.83	5.83
P3 (0,25;1,0)		5.32	5.32	5.32	5.32	5.32	5.32	5.32
P4 (0,9;0,5)		3.15	3.15	3.15	3.15	3.15	3.15	3.15
P5 (0,5;0,5)		2.23	2.23	2.23	2.23	2.23	2.23	2.23
P6 (0,5;0,25)		1.42	1.42	1.42	1.42	1.42	1.42	1.42
P7 (0,25;0,25)		1.01	1.01	1.01	1.01	1.01	1.01	1.01

	Drive end	Non drive end
Bearing type	6311-C3	6211-C3
Lubrication interval	20000 h	20000 h
Lubricant amount	18 g	11 g
Lubricant type	MOBIL POLYREX EM	

Foundation loads
Max. traction : 371 kgf
Max. compression : 547 kgf

Notes:

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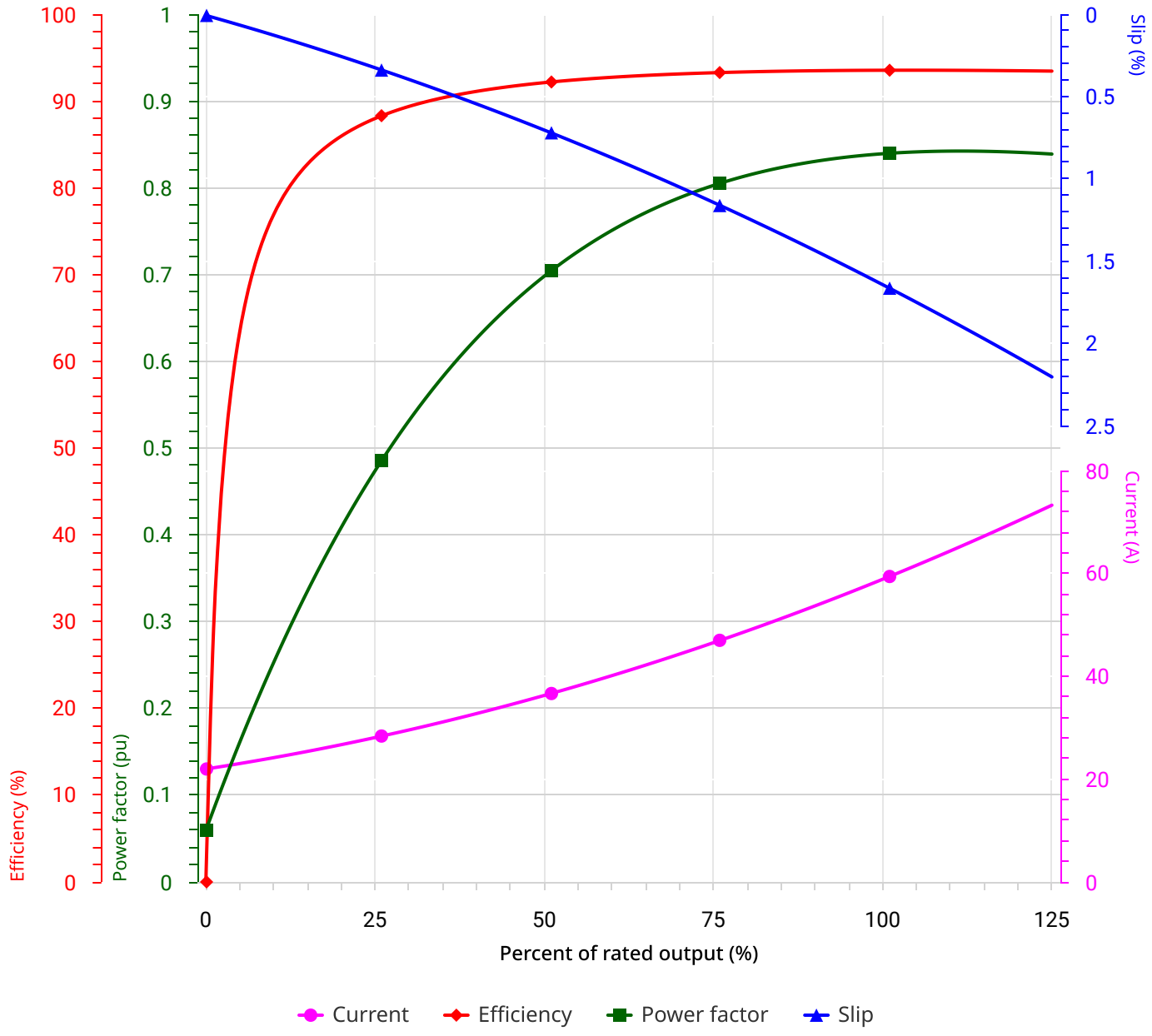
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 - Nema Premium Efficiency (Derating)
Product code	: 12424790



Performance	: 25 HP (18.5 kW) 208/230/460V 60Hz 4P 284/6T

Rated current	: 65.2/59.0/29.5 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 6.2 Code G	Duty cycle	: Cont.(S1)
Rated torque	: 10.3 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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				2026/11/09

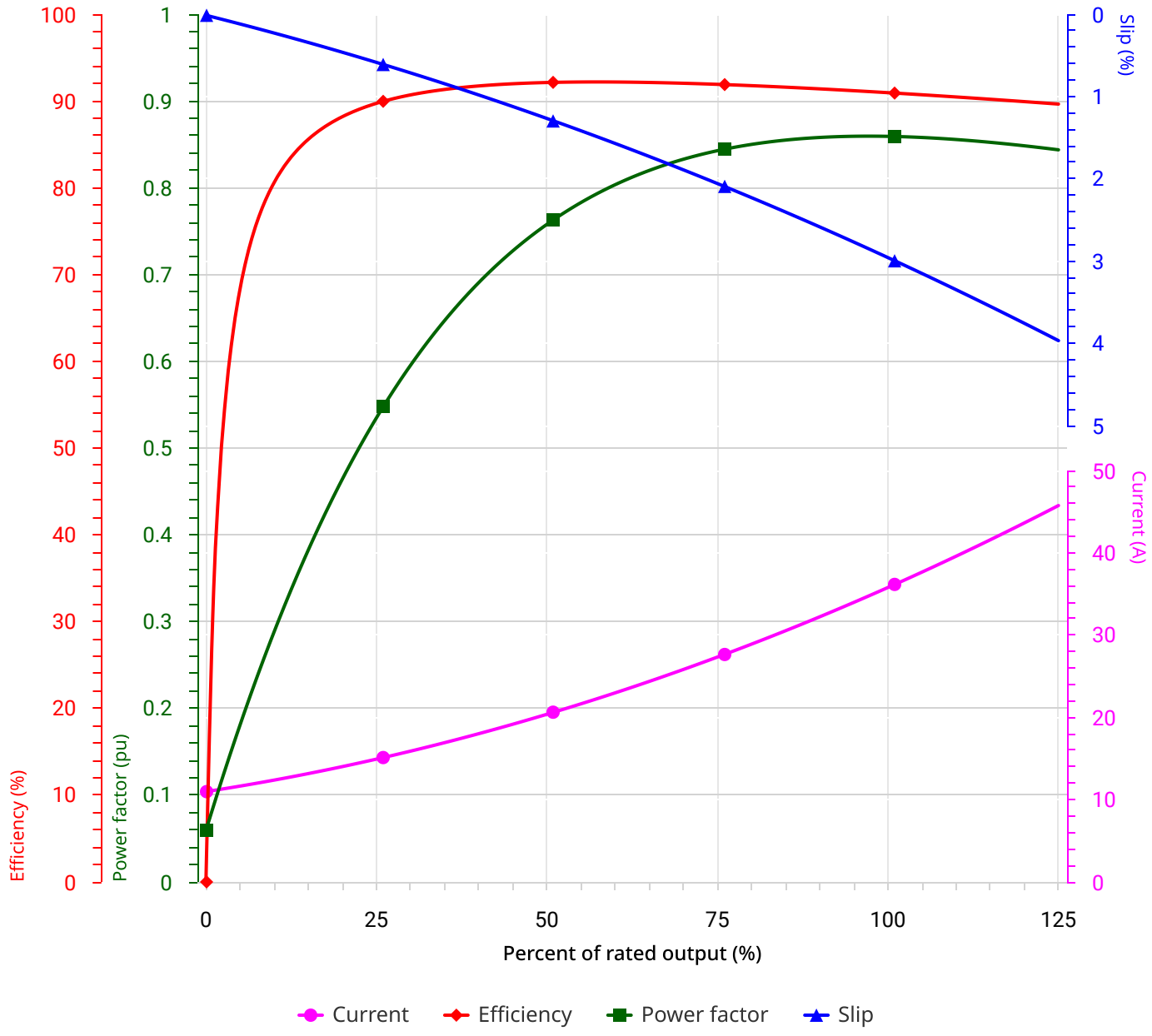
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Date	2026/11/09		2/8	0

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Three Phase Induction Motor - Squirrel Cage

Customer	:
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Product code	: 12424790



Performance	: 25 HP (18.5 kW) 380V 50Hz 4P 284/6T

Rated current	: 35.9 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 5.3 Code F	Duty cycle	: Cont.(S1)
Rated torque	: 12.5 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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				2026/11/09

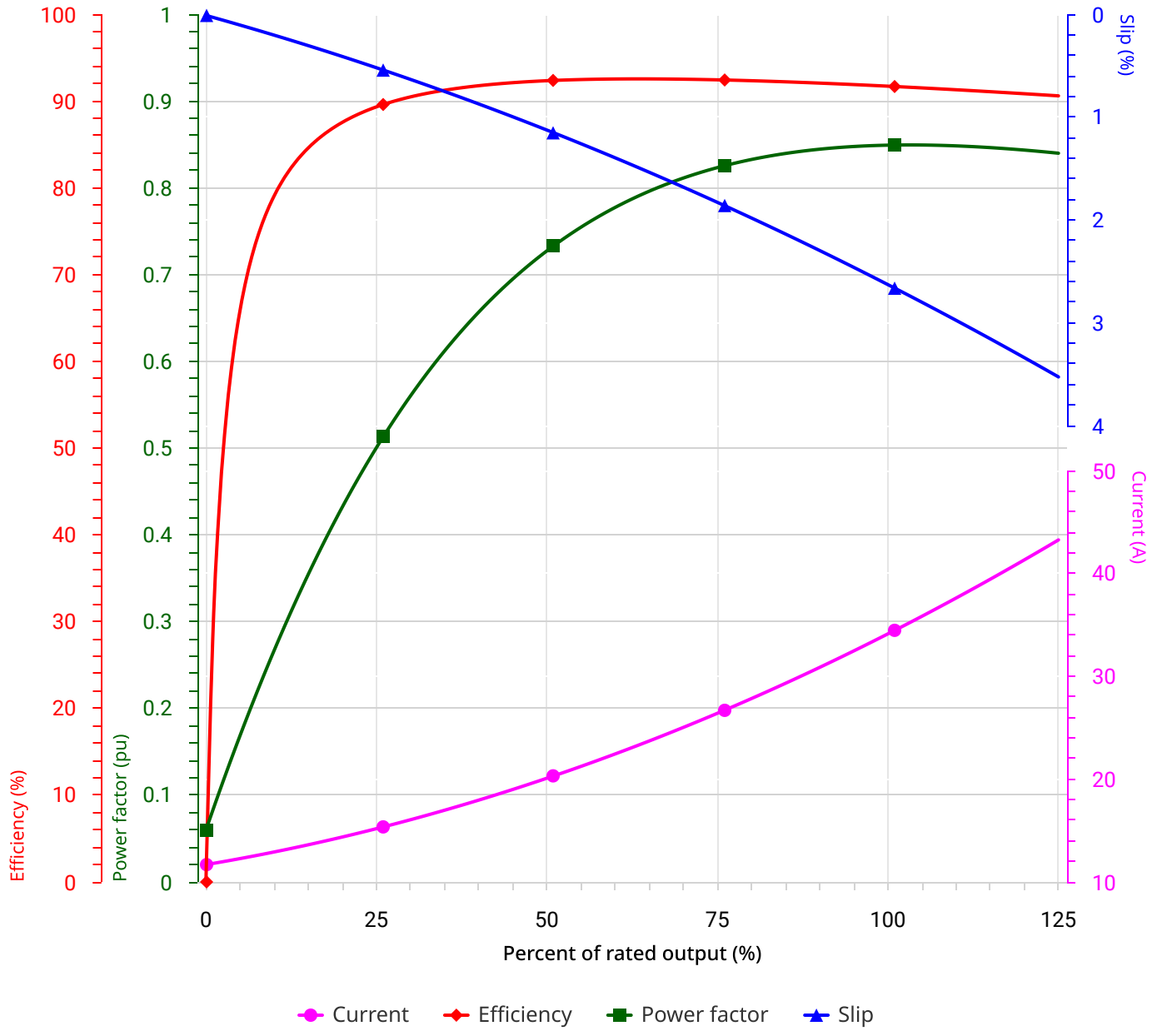
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Performance	: 25 HP (18.5 kW) 400V 50Hz 4P 284/6T

Rated current	: 34.3 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 5.5 Code F	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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				2026/11/09

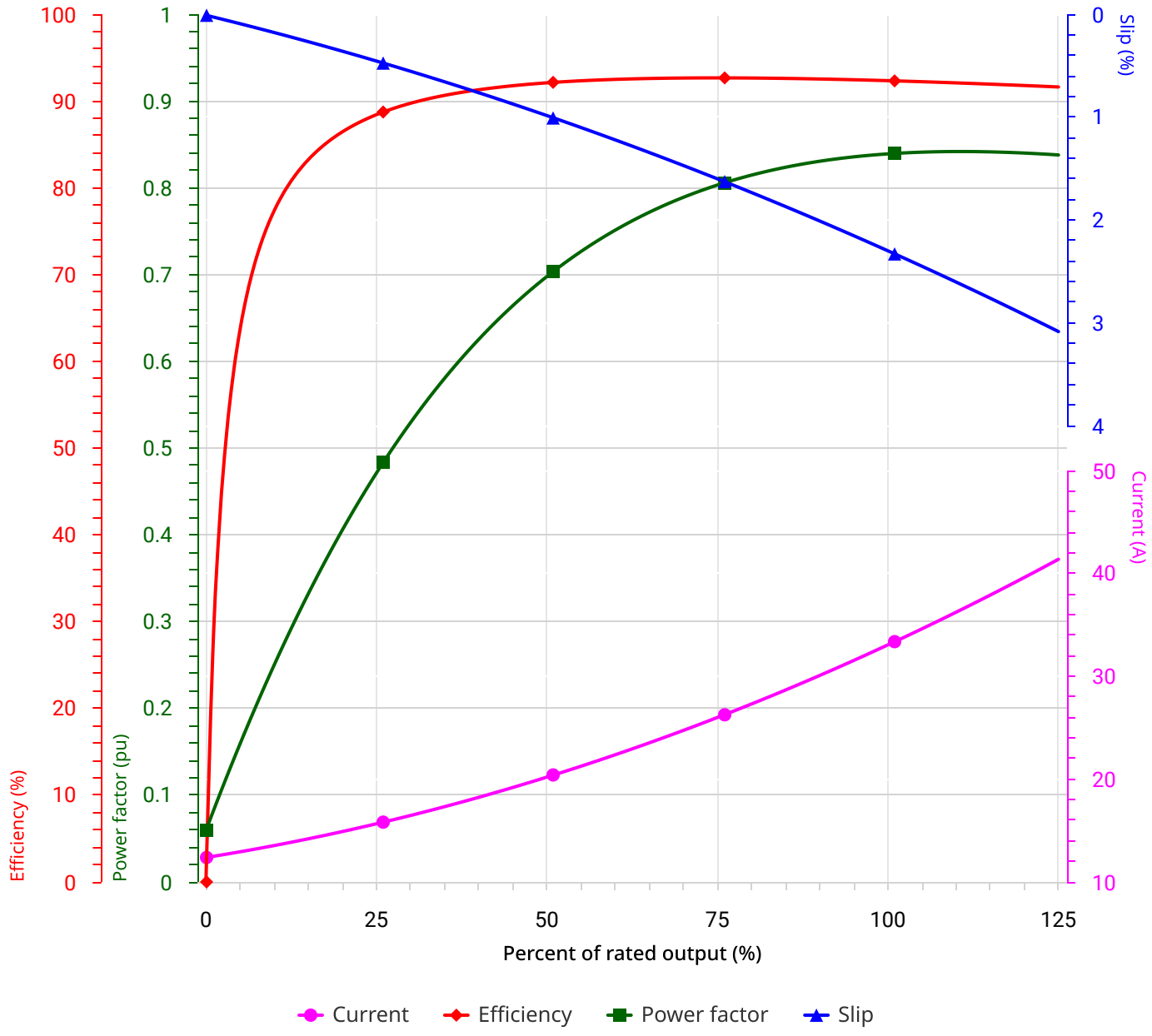
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Performance	: 25 HP (18.5 kW) 415V 50Hz 4P 284/6T

Rated current	: 33.2 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 5.9 Code G	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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				2026/11/09

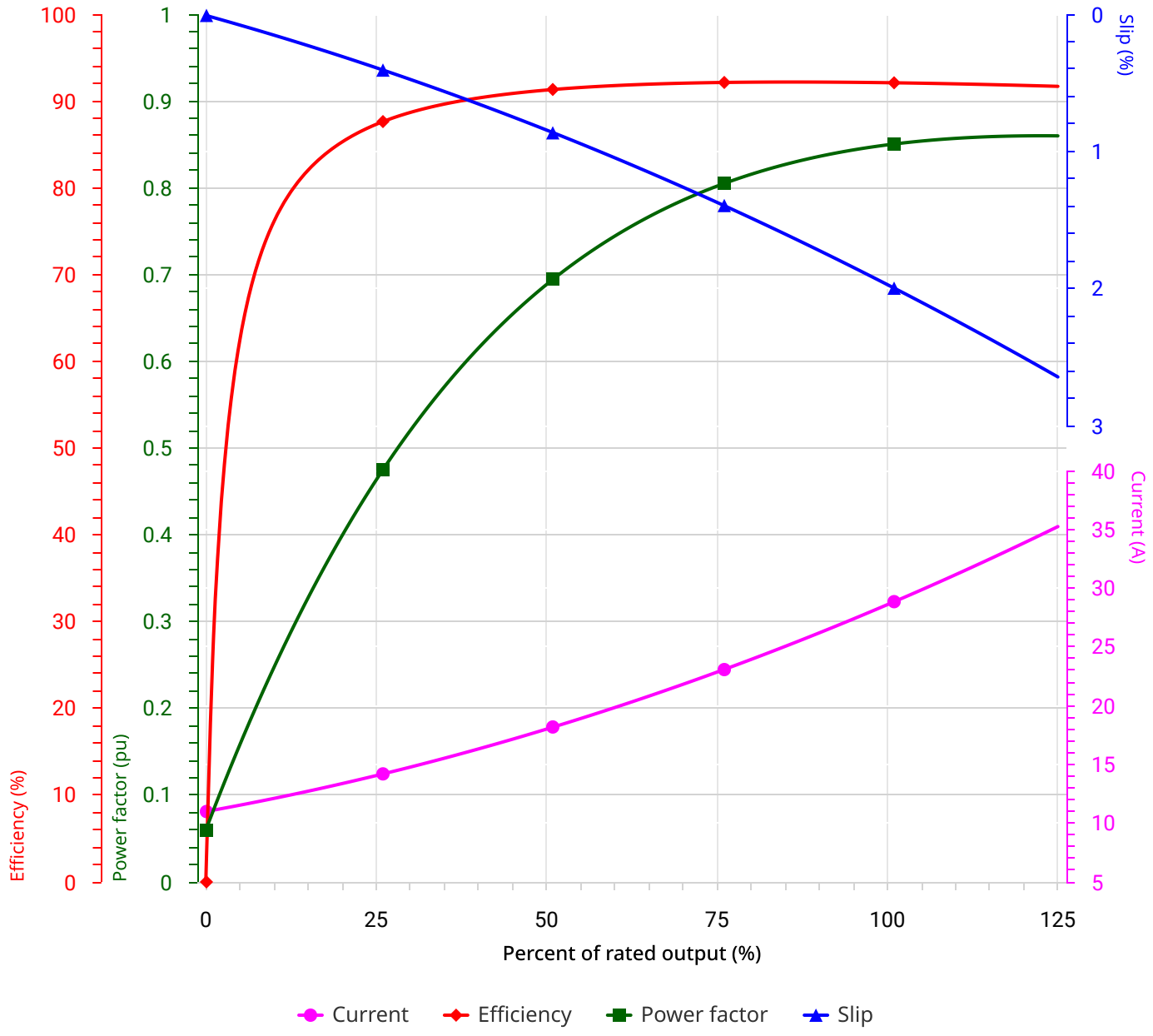
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Performance	: 20 HP (15 kW) 380V 50Hz 4P 284/6T

Rated current	: 29.1 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 6.0 Code G	Duty cycle	: Cont.(S1)
Rated torque	: 9.87 kgfm	Insulation class	: F
Locked rotor torque	: 230 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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				2026/11/09

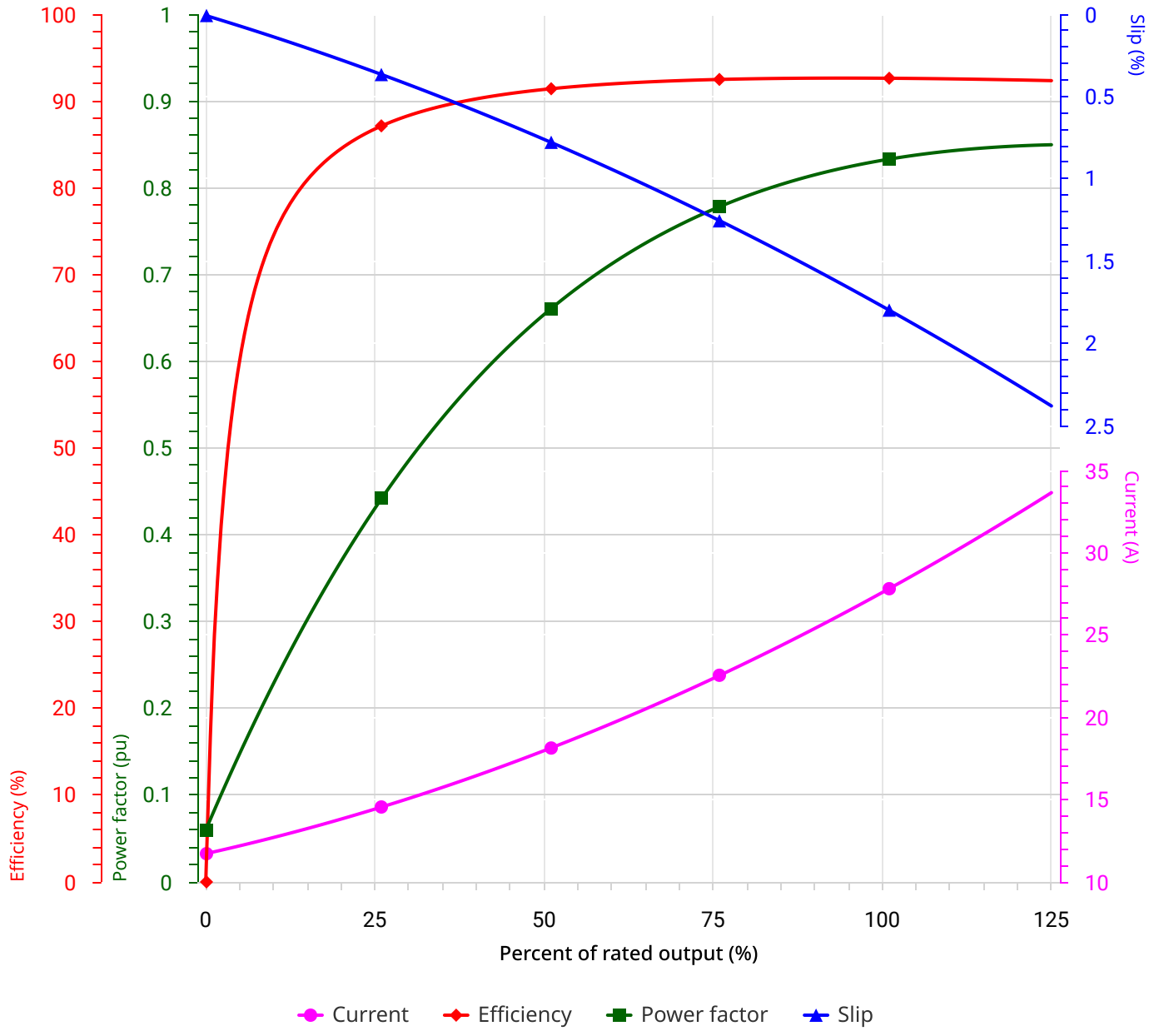
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Performance	: 20 HP (15 kW) 400V 50Hz 4P 284/6T

Rated current	: 28.2 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 6.7 Code H	Duty cycle	: Cont.(S1)
Rated torque	: 9.85 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1473 rpm	Design	: B

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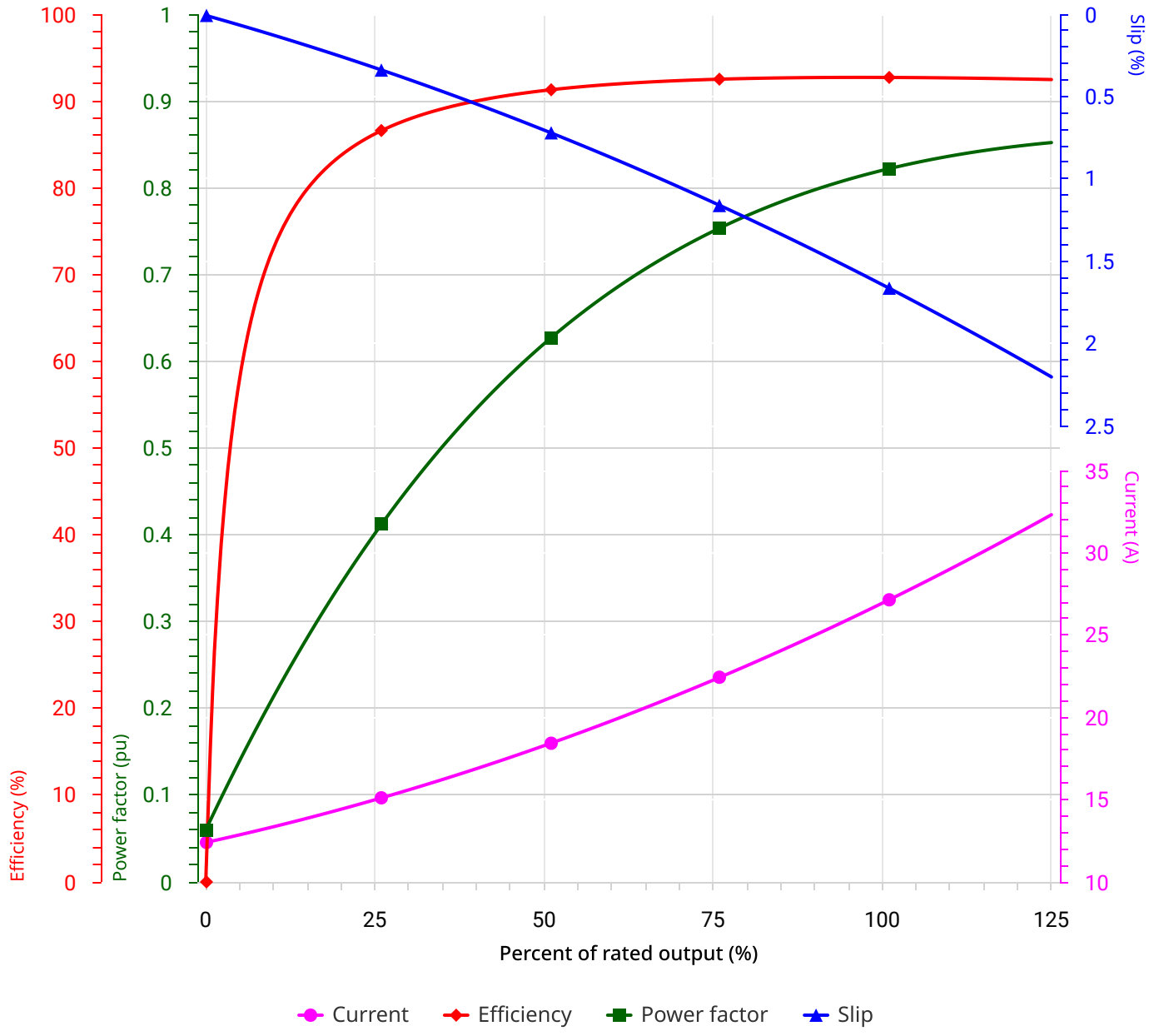
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Performance	: 20 HP (15 kW) 415V 50Hz 4P 284/6T

Rated current	: 27.5 A	Moment of inertia (J)	: 0.2153 kgm²
LRC	: 7.2 Code J	Duty cycle	: Cont.(S1)
Rated torque	: 9.84 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

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Date	2026/11/09		8/8	0

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