DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878

Frame	: 143/5JM	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B34R(D)
Duty cycle	: S1	Rotation	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m	Approx. weight	: 25.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0066 kgm²
Design	: B		

Output		2 HP (1.5	2 HP (1.5	1.5 HP (1.1	1.5 HP (1.1	1.5 HP (1.1	2 HP (1.5	2 HP (1.5	2 HP (1.5
Poles		4	4	4	4	4	4	4	4
Frequency		60 Hz	60 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Rated voltage		230/460 V	208 V	380 V	400 V	415 V	380 V	400 V	415 V
Rated current		5.72/2.86 A	5.85 A	2.67 A	2.72 A	2.72 A	3.37 A	3.26 A	3.27 A
L. R. Amperes			48.6 A	21.9 A	23.7 A	24.5 A	21.9 A	23.5 A	25.2 A
LRC		47.5/23.7 A	8.3 Code K	8.2 Code L	8.7 Code M	9.0 Code N	6.5 Code J	7.2 Code K	7.7 Code L
No load current				1.70 A			1.70 A		2.10 A
Rated speed		8.3 Code L	2.98 A	1460 rpm	1.90 A	2.10 A	1435 rpm	1.90 A	1450 rpm
Slip		3.46/1.73 A	1750 rpm	2.67 %	1465 rpm	1465 rpm	4.33 %	1440 rpm	3.33 %
Rated torque			2.78 %	0.746 kgfm	2.33 %	2.33 %	1.01 kgfm	4.00 %	1.00 kgfm
Locked rotor torque		1750 rpm	1.00 kgfm		0.743 kgfm	0.743 kgfm	240 %	1.01 kgfm	280 %
Breakdown torque		2.78 %	280 %	320 %			270 %	260 %	310 %
Service factor		0.829 kgfm	350 %	360 %	340 %	380 %	1.25	290 %	1.25
Temperature rise			1.25	1.25	380 %	410 %	80 K	1.25	80 K
Noise level		280 %	80 K	80 K	1.25	1.25	49 dB(A)	80 K	49 dB(A)
Locked rotor time		350 %	51.0 dB(A)	49 dB(A)	80 K	80 K	11 s (hot) 20 s (cold)	49 dB(A)	9 s (hot) 16 s (cold)
		1.25	10 s (hot) 18 s (cold)	16 s (hot) 29 s (cold)	49 dB(A)	49 dB(A)		10 s (hot) 18 s (cold)	
		80 K			14 s (hot) 25 s (cold)	12 s (hot) 22 s (cold)			
		51 dB(A)							
		10 s (hot) 18 s (cold)							
Efficiency (%)	50%	85.0	85.0	83.5	82.0	81.0	84.0	83.5	83.0
	75%	86.0	86.0	84.2	83.5	83.1	84.0	84.0	84.0
	100%	86.5	86.5	84.5	84.5	84.1	82.5	84.0	84.0
Power Factor	Start	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
	50%	0.55	0.55	0.52	0.48	0.45	0.62	0.58	0.53
	75%	0.68	0.68	0.65	0.61	0.56	0.75	0.72	0.67
	100%	0.76	0.76	0.74	0.69	0.67	0.82	0.79	0.76
Losses at normative operating points (speed;torque), in percentage of rated output power									
P1 (0,9;1,0)		16.86	16.86	18.72	18.26	17.91	19.09	17.23	16.92
P2 (0,5;1,0)		13.36	13.36	14.84	14.47	14.19	15.13	13.66	13.41
P3 (0,25;1,0)		12.05	12.05	13.38	13.05	12.80	13.65	12.32	12.10
P4 (0,9;0,5)		12.11	12.11	13.44	13.11	12.86	13.71	12.38	12.15
P5 (0,5;0,5)		8.73	8.73	9.69	9.46	9.27	9.89	8.92	8.76
P6 (0,5;0,25)		7.94	7.94	8.81	8.60	8.43	8.99	8.12	7.97
P7 (0,25;0,25)		5.92	5.92	6.57	6.41	6.29	6.70	6.05	5.94

	Drive end	Non drive end
Bearing type	6206-ZZ	6204-ZZ
Lubrication interval	-	-
Lubricant amount	-	-
Lubricant type	POLYUREA BASED GREASE	

Foundation loads
Max. traction : 75 kgf
Max. compression : 100 kgf

Notes:

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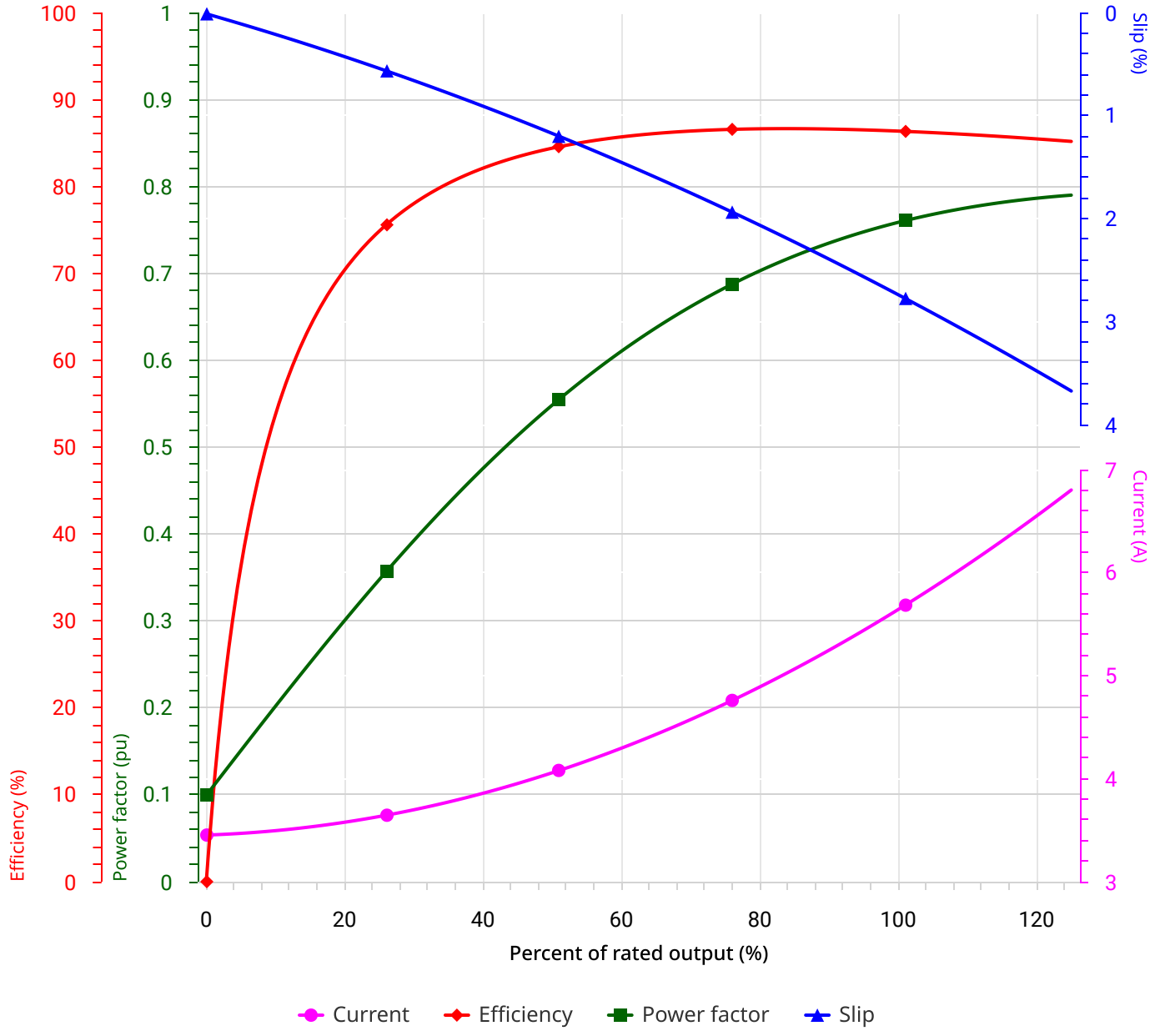
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 2 HP (1.5 kW) 230/460V 60Hz 4P 143/5JM

Rated current	: 5.72/2.86 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 8.3 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 0.829 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: B

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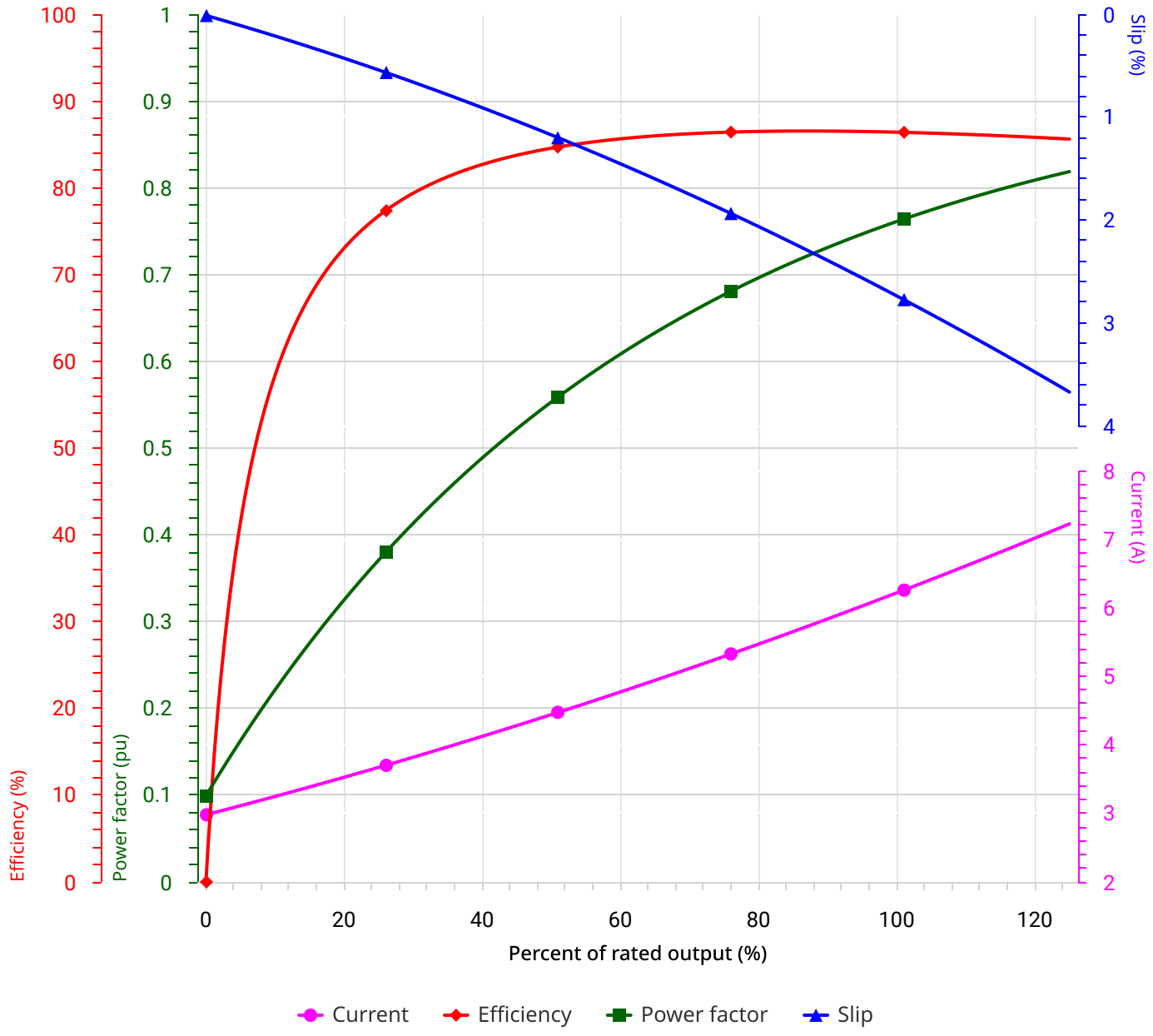
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Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 2 HP (1.5 kW) 208V 60Hz 4P 143/5JM

Rated current	: 5.85 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 8.3 Code K	Duty cycle	: Cont.(S1)
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: 00002

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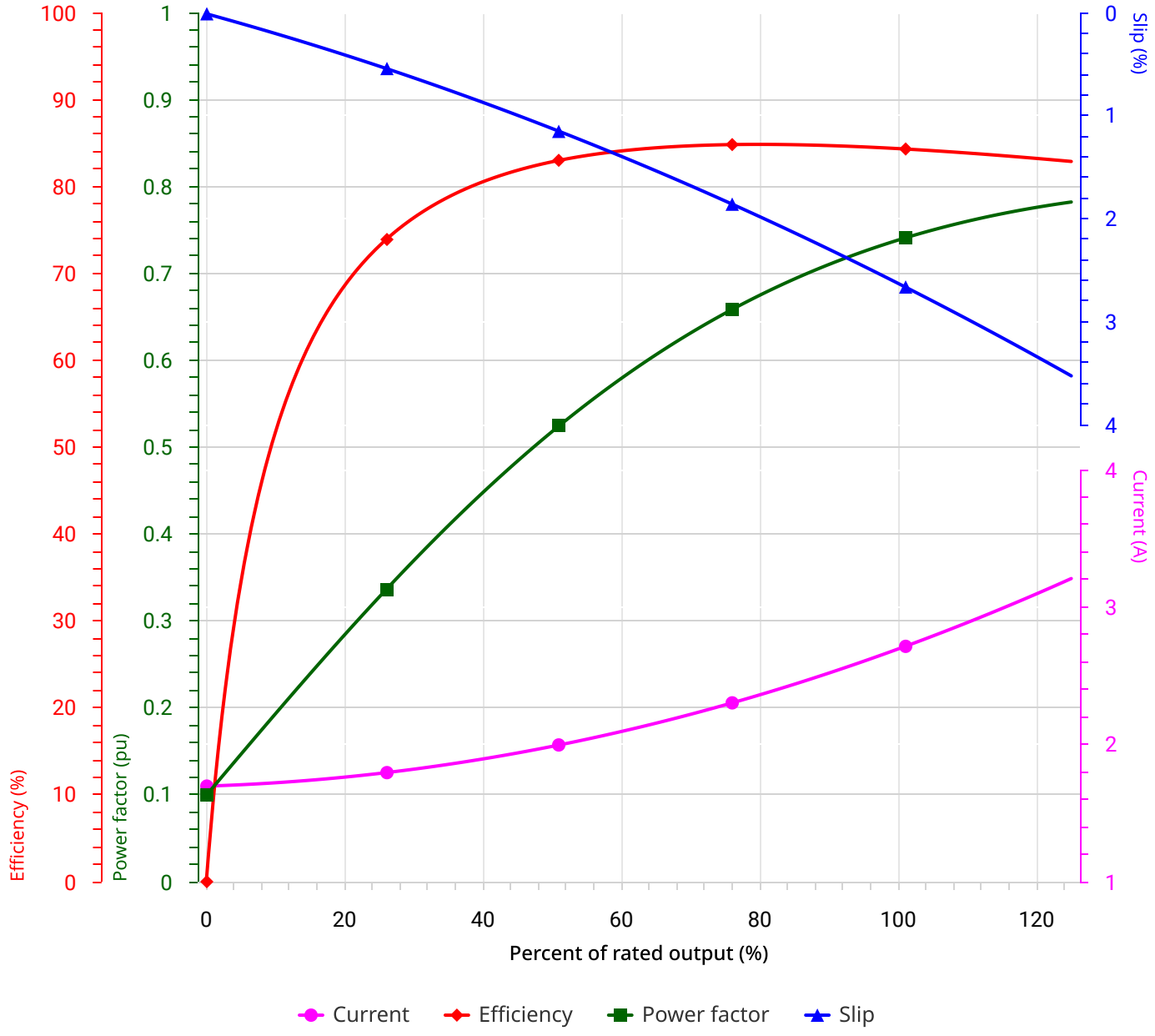
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Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 1.5 HP (1.1 kW) 380V 50Hz 4P 143/5JM

Rated current	: 2.67 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 8.2 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 0.746 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.25
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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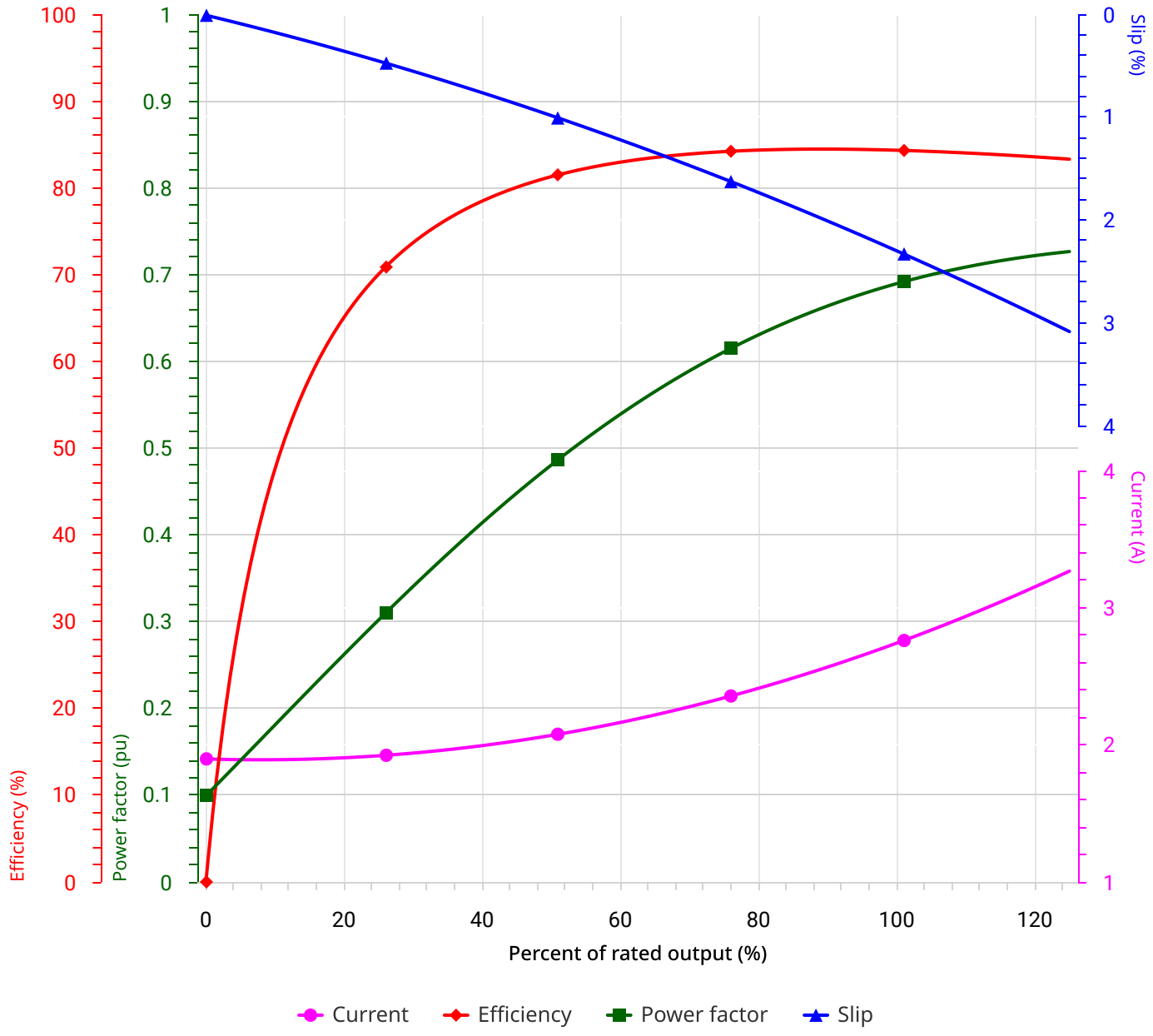
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Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 1.5 HP (1.1 kW) 400V 50Hz 4P 143/5JM		
Rated current	: 2.72 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 8.7 Code M	Duty cycle	: Cont.(S1)
Rated torque	: 0.743 kgfm	Insulation class	: F
Locked rotor torque	: 340 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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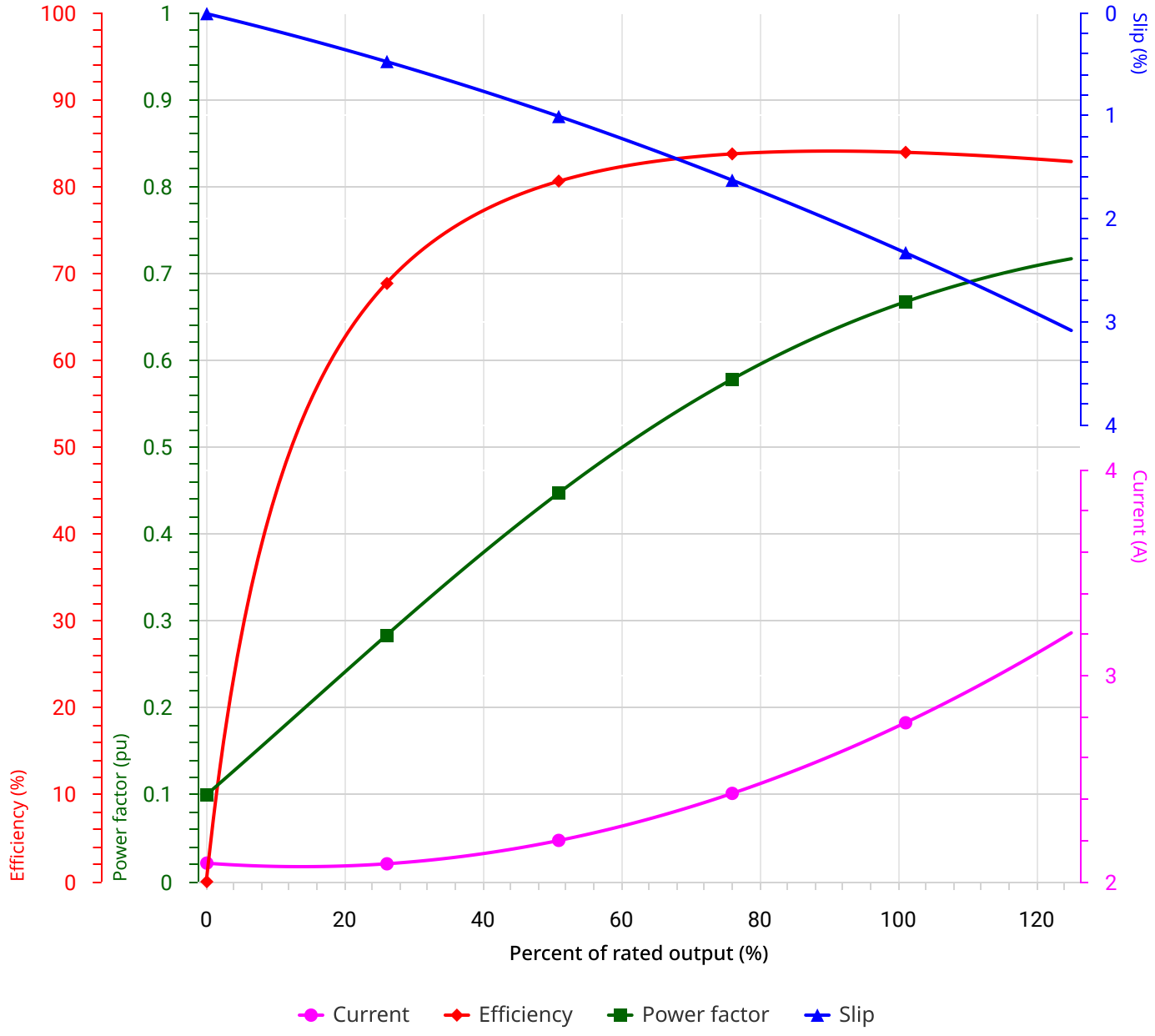
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Three Phase Induction Motor - Squirrel Cage

Customer	:
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 1.5 HP (1.1 kW) 415V 50Hz 4P 143/5JM

Rated current	: 2.72 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 9.0 Code N	Duty cycle	: Cont.(S1)
Rated torque	: 0.743 kgfm	Insulation class	: F
Locked rotor torque	: 380 %	Service factor	: 1.25
Breakdown torque	: 410 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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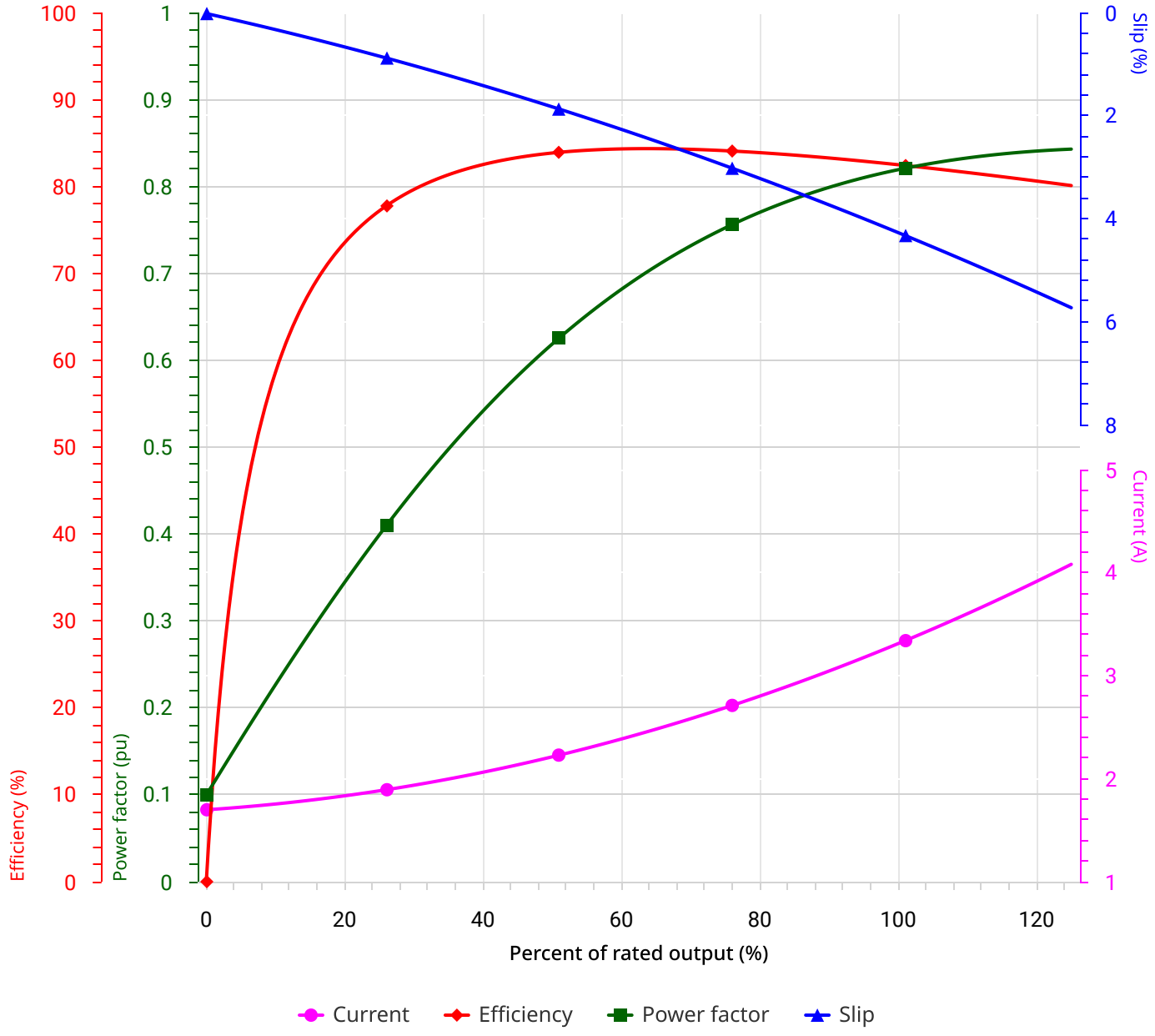
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Product code	: 12070878



Performance	: 2 HP (1.5 kW) 380V 50Hz 4P 143/5JM

Rated current	: 3.37 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 6.5 Code J	Duty cycle	: Cont.(S1)
Rated torque	: 1.01 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: B

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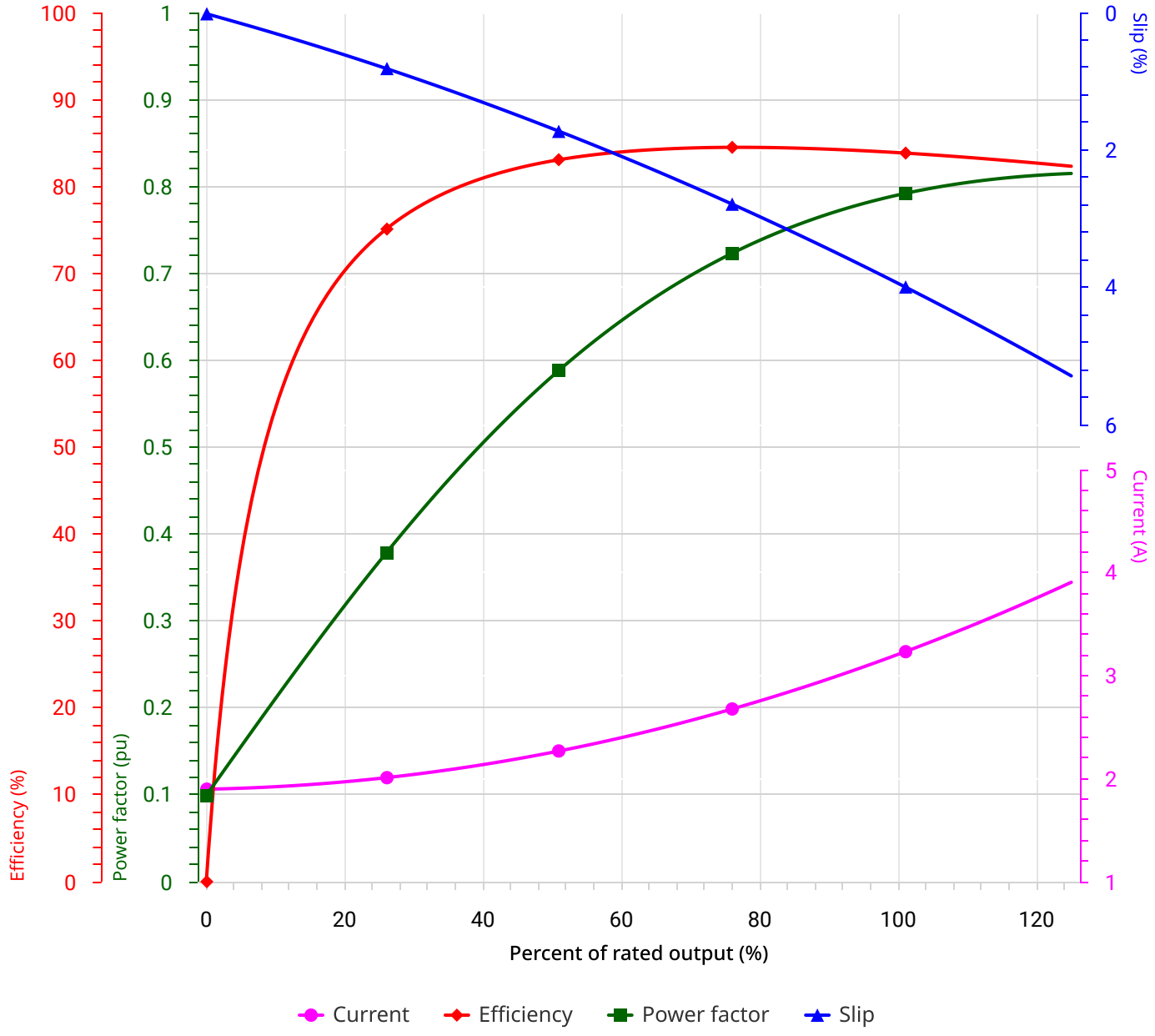
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Product code	: 12070878



Performance	: 2 HP (1.5 kW) 400V 50Hz 4P 143/5JM

Rated current	: 3.26 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 7.2 Code K	Duty cycle	: Cont.(S1)
Rated torque	: 1.01 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

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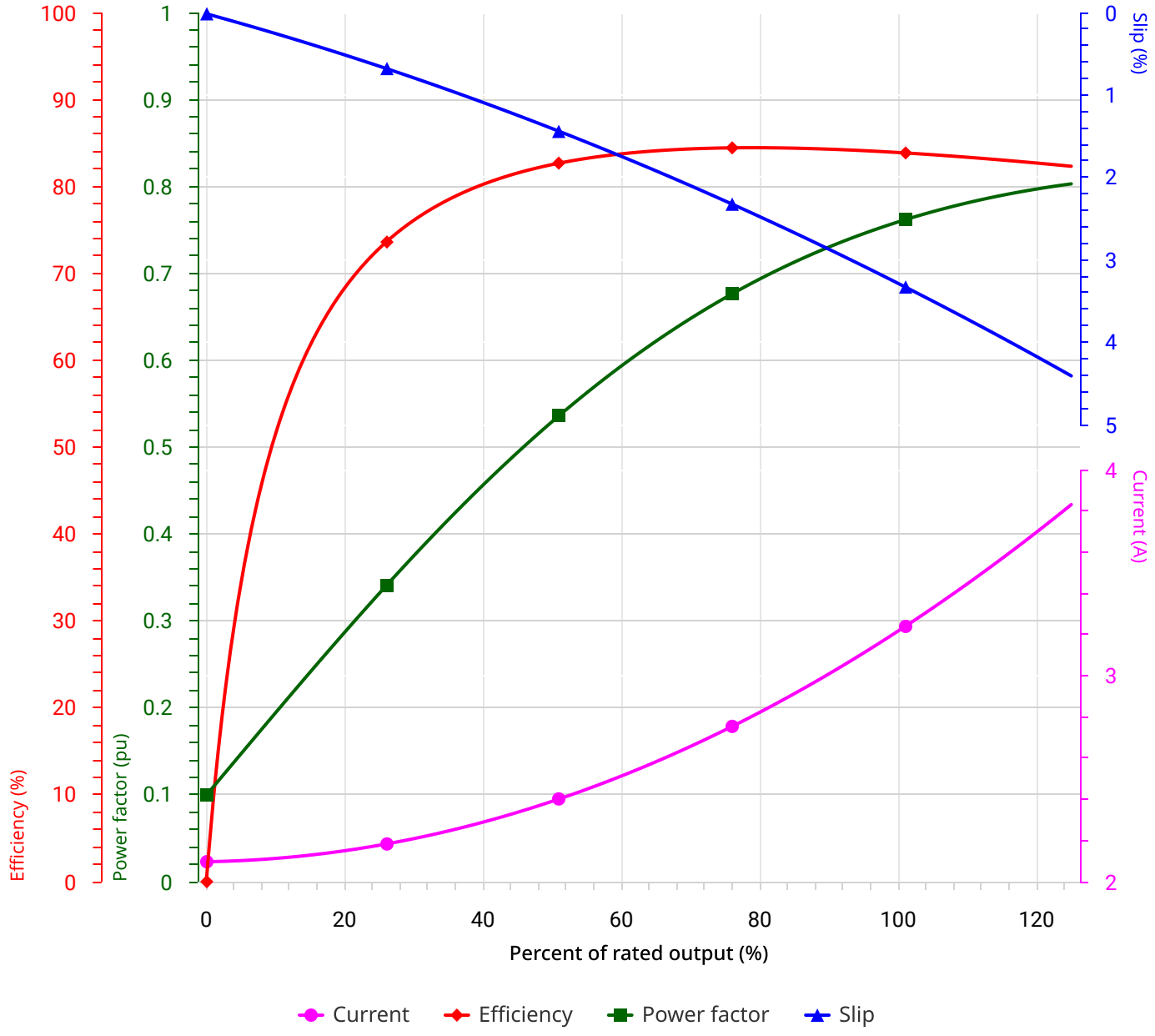
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Three Phase Induction Motor - Squirrel Cage

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Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency - Derating
Product code	: 12070878



Performance	: 2 HP (1.5 kW) 415V 50Hz 4P 143/5JM

Rated current	: 3.27 A	Moment of inertia (J)	: 0.0066 kgm²
LRC	: 7.7 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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