

DATA SHEET

PRELIMINARY
DOCUMENT



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)
Product code : 12645345

Frame : 160M	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : B3L(E)
Duty cycle : Cont.(S1)	Rotation : Both
Ambient temperature : -20 °C to +40 °C	Starting method : Direct On Line
Altitude : 1000 m	Approx. weight : 139 kg
Protection degree : IP55	Moment of inertia (J) : 0.1004 kgm ²
Design : N	

Output	15 HP (11 kW)		15 HP (11 kW)	15 HP (11 kW)
Poles	4		4	4
Frequency	60 Hz		50 Hz	50 Hz
Rated voltage	230/460 V		380 V	415 V
Rated current	36.4/18.2 A		21.5 A	20.7 A
L. R. Amperes	309/155 A		161 A	176 A
LRC	8.5 Code K		7.5 Code H	8.5 Code K
No load current	18.2/9.08 A		9.00 A	10.2 A
Rated speed	1780 rpm		1470 rpm	1476 rpm
Slip	1.11 %		2.00 %	1.60 %
Rated torque	6.12 kgfm		7.41 kgfm	7.38 kgfm
Locked rotor torque	300 %		220 %	270 %
Breakdown torque	330 %		250 %	310 %
Service factor	1.25		1.00	1.00
Temperature rise	80 K		80 K	80 K
Noise level	64 dB(A)		61 dB(A)	61 dB(A)
Locked rotor time	16 s (hot) 29 s (cold)		14 s (hot) 25 s (cold)	11 s (hot) 20 s (cold)
Efficiency (%)	50%	89.5	91.0	90.4
	75%	91.7	91.4	91.4
	100%	92.4	91.4	91.4
Power Factor	Start	0.55	0.49	0.49
	50%	0.63	0.69	0.62
	75%	0.75	0.79	0.74
	100%	0.82	0.85	0.81
Losses at normative operating points (speed;torque), in percentage of rated output power				
P1 (0,9;1,0)	7.89		9.02	9.02
P2 (0,5;1,0)	6.37		7.28	7.28
P3 (0,25;1,0)	6.04		6.90	6.90
P4 (0,9;0,5)	4.56		5.21	5.21
P5 (0,5;0,5)	3.06		3.50	3.50
P6 (0,5;0,25)	2.32		2.65	2.65
P7 (0,25;0,25)	1.62		1.85	1.85

	Drive end	Non drive end	Foundation loads
Bearing type	6309-C3	6209-C3	Max. traction : 286 kgf
Lubrication interval	20000 h	20000 h	Max. compression : 425 kgf
Lubricant amount	13 g	9 g	
Lubricant type	MOBIL POLYREX EM		

Notes:

Rev.	Changes Summary		Performed	Checked	Date
Performed by					
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Date	2026/10/19				

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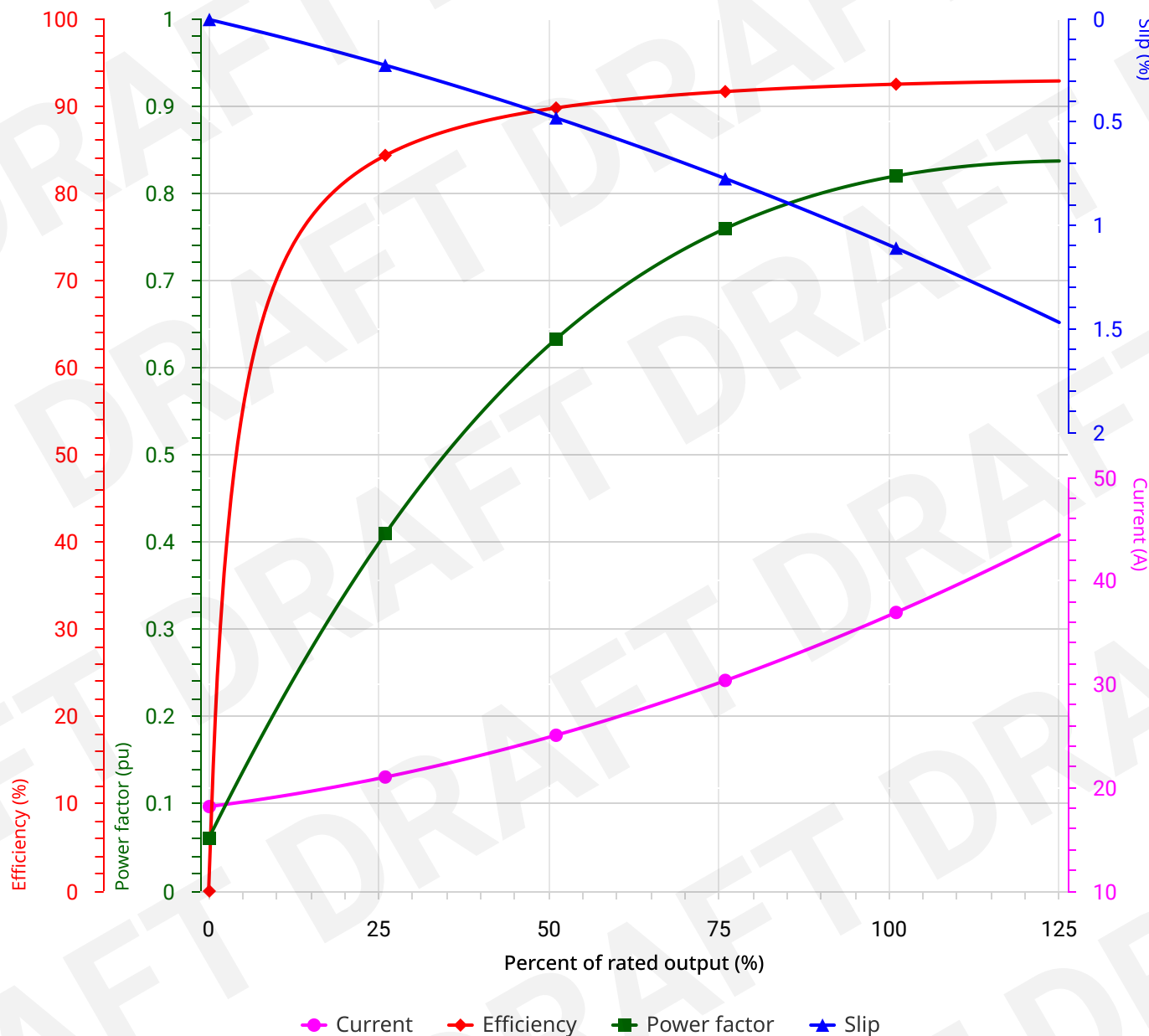
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)
Product code : 12645345



Performance : 15 HP (11 kW) 208/230/460V 60Hz 4P 160M

Rated current : 40.3/36.4/18.2 A
LRC : 8.5 Code K
Rated torque : 6.12 kgfm
Locked rotor torque : 300 %
Breakdown torque : 330 %
Rated speed : 1780 rpm

Moment of inertia (J) : 0.1004 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : N

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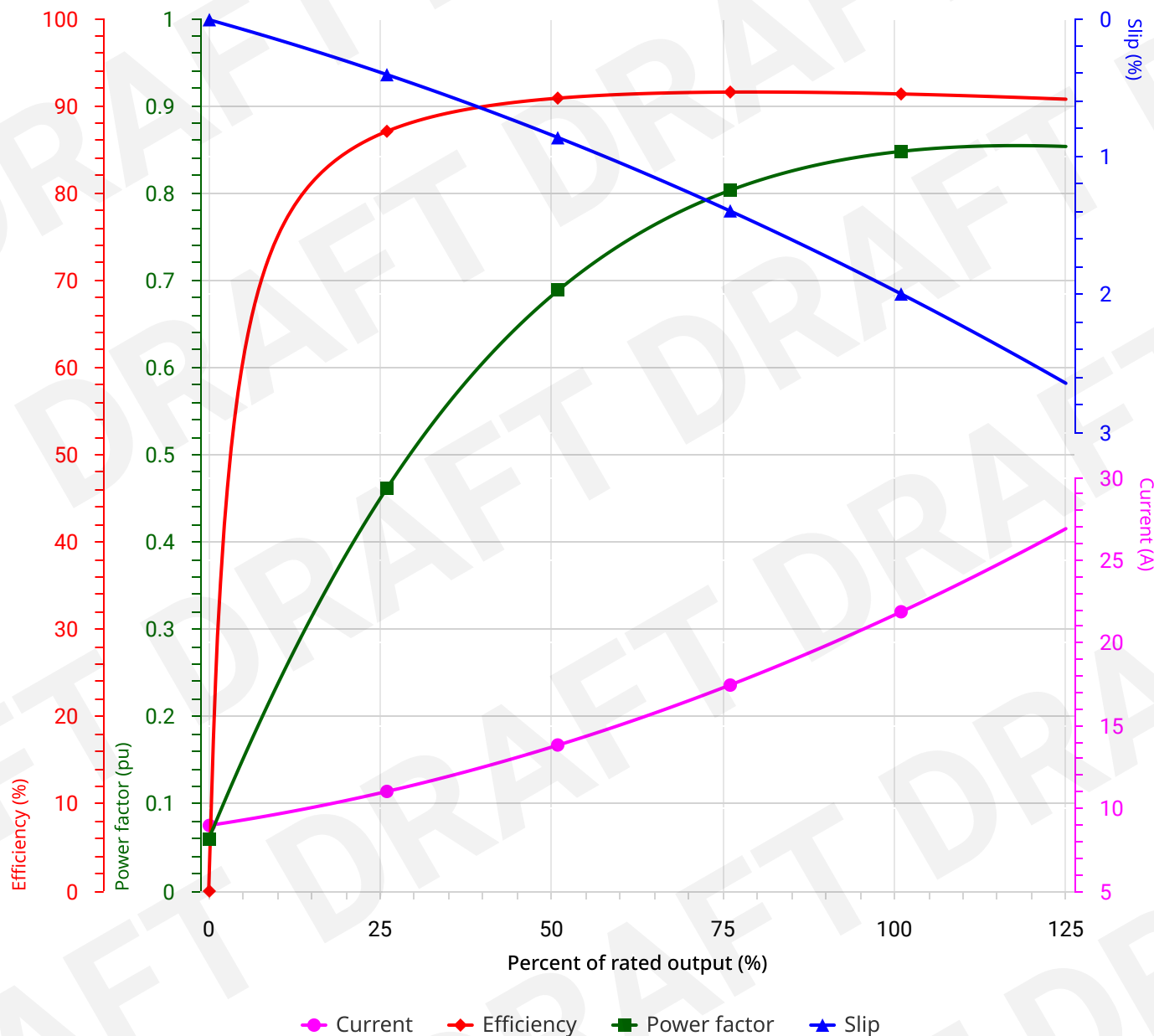
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)
Product code : 12645345



Performance : 15 HP (11 kW) 380V 50Hz 4P 160M

Rated current : 21.5 A	Moment of inertia (J) : 0.1004 kgm ²
LRC : 7.5 Code H	Duty cycle : Cont.(S1)
Rated torque : 7.41 kgfm	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1470 rpm	Design : N

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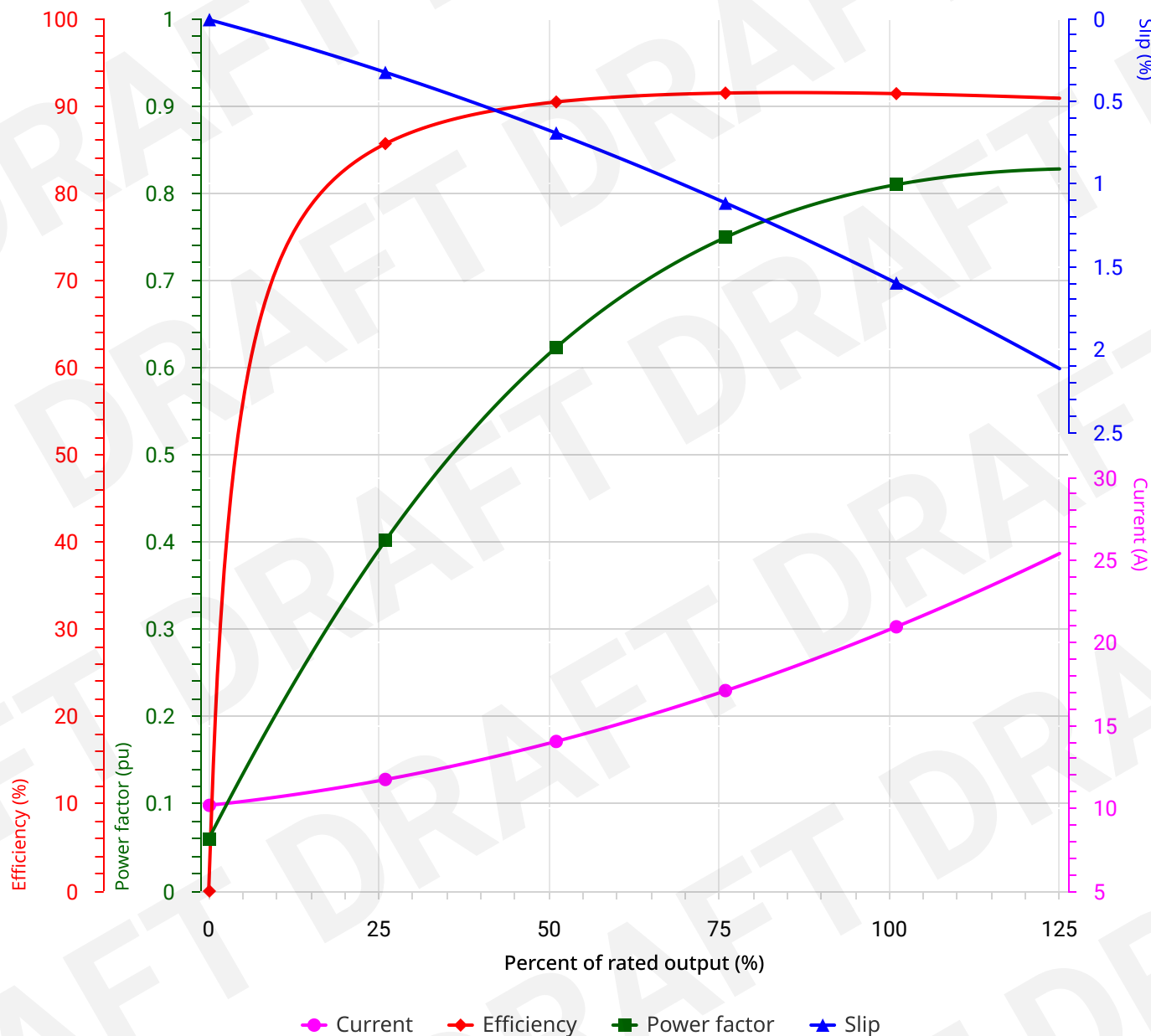
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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)
Product code : 12645345



Performance : 15 HP (11 kW) 415V 50Hz 4P 160M

Rated current	: 20.7 A	Moment of inertia (J)	: 0.1004 kgm ²
LRC	: 8.5 Code K	Duty cycle	: Cont.(S1)
Rated torque	: 7.38 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1476 rpm	Design	: N

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