

Type Test Report

Report No.: TTR3IA21120A2SL

Test Result Data

Nameplate data

Type:	HMA3 112M-4	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	7.82 A	Frequency:	50 Hz
Output:	4 kW	Efficiency.:	89.2 %
Connection:	D	Cos ϕ :	0.83
Speed:	1458 rpm	Insulation Class:	F

No-Load test at rated voltage

No load loss:	186 W	No load current:	3.88 A
Machine loss:	33 W	Core loss:	103.1 W
Sound pressure level 1m:	58 dB(A)	Vibration:	1.1 mm/s

Temperature rise test

Voltage:	400.0 V	Current:	7.82 A
Power:	4.00 kW	Temperature - rise:	55 K
Winding hotspot temperature:	80 °C	Bearing temperature:	77 °C
Frequency:	50 Hz	Ambient temperature:	25 °C

Load performance test

Load %	Un V	f Hz	P1 KW	I1 A	N rpm	T Nm	Cos ϕ Cos ϕ	Eff (η) %
125	400	50	5.67	9.51	1446	33.02	0.86	88.14
100	400	50	4.49	7.82	1458	26.20	0.83	89.18
75	400	50	3.35	6.37	1470	19.49	0.76	89.67
50	400	50	2.26	5.16	1481	12.90	0.63	88.76
25	400	50	1.21	4.18	1490	6.41	0.42	82.74

Locked rotor test at rated voltage

Input power:	31.1 kW	Cos ϕ :	0.61
Starting current:	73.17 A	Starting torque:	81.59 Nm
Starting/Rated current:	9.36	Starting/Rated torque:	3.11

6/19/2017

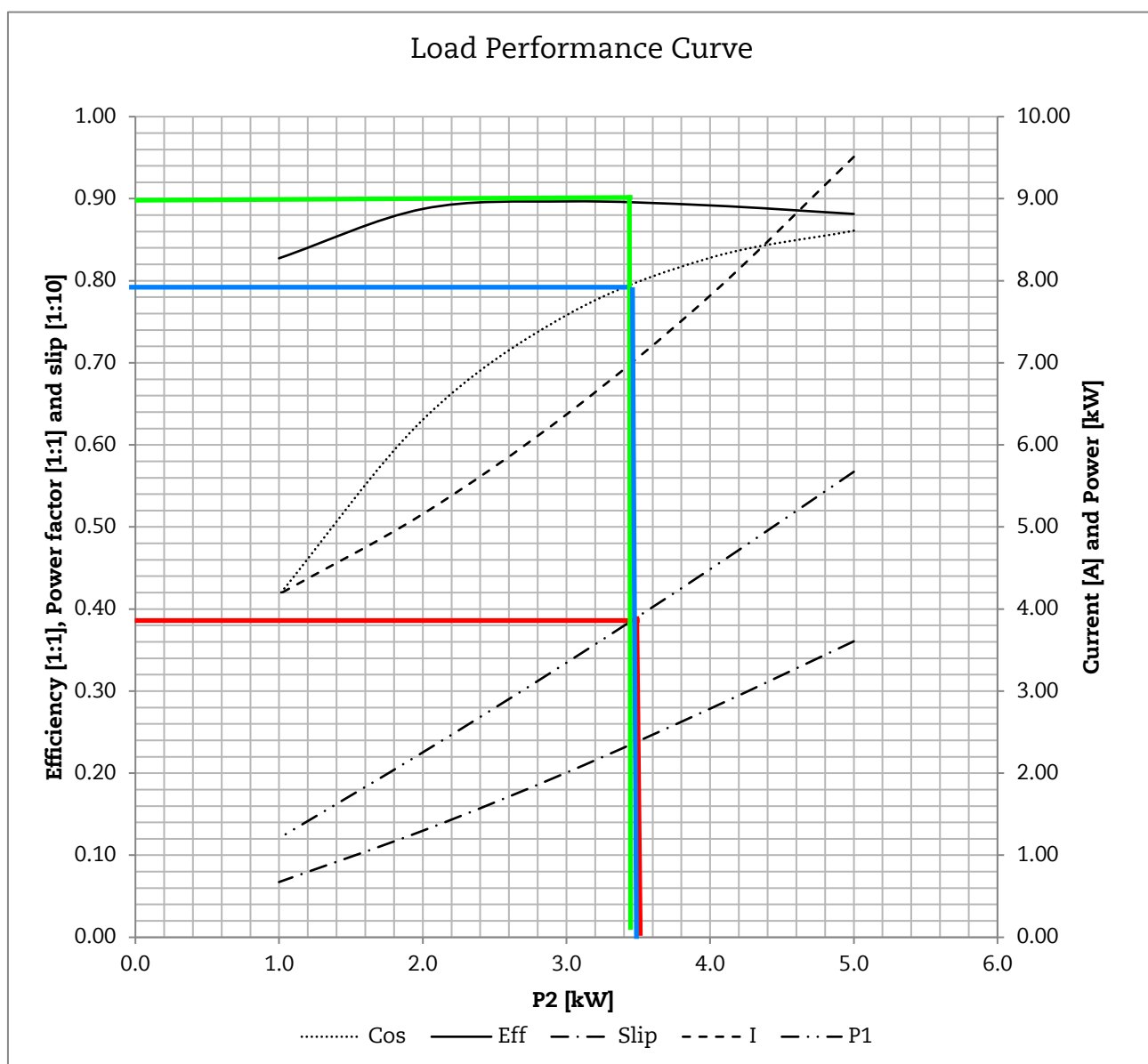
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

Load test data

P2 kW	P1 kW	Eff (η) P2/P1	I A	T Nm	Cos ϕ
5.0	5.7	0.881	9.51	33.0	0.86
4.0	4.5	0.892	7.82	26.2	0.83
3.0	3.3	0.897	6.37	19.5	0.76
2.0	2.3	0.888	5.16	12.9	0.63
1.0	1.2	0.827	4.18	6.4	0.42



No-load test data at rated frequency

U _o V	I _o A	P _o W	P _{cul.}
500.0	8.29	487.0	235.4
439.3	4.99	255.0	85.3
398.9	3.86	186.0	51.0
319.5	2.69	118.0	24.8
280.0	2.29	98.0	17.9
239.9	1.91	81.0	12.5
200.1	1.56	65.0	8.3
160.1	1.23	53.0	5.2
120.0	0.93	44.0	3.0
100.0	0.79	39.0	1.0

