

# Type Test Report

Report No.: TTR3IA11120A1SL

## Test Result Data

### Nameplate data

Type:	HMA3 112M-2	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	7,13 A	Frequency:	50 Hz
Output:	4 kW	Efficiency.:	88,4 %
Connection:	Y	Cos $\phi$ :	0,92
Speed:	2915 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	201,9 W	No load current:	2,11 A
Machine loss:	78,6 W	Core loss:	108,8 W
Sound pressure level 1m:	67 dB(A)	Vibration:	0,9 mm/s

### Temperature rise test

Voltage:	400,0 V	Current:	7,13 A
Power:	4,00 kW	Temperature - rise:	55 K
Winding hotspot temperature:	80 °C	Bearing temperature:	71 °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 $\phi$ Cos $\phi$	Eff ( $\eta$ ) %
125	400	50	5,72	8,97	2890	16,52	0,92	87,43
<b>100</b>	<b>400</b>	<b>50</b>	<b>4,52</b>	<b>7,13</b>	<b>2915</b>	<b>13,11</b>	<b>0,92</b>	<b>88,43</b>
75	400	50	3,38	5,48	2940	9,75	0,89	88,87
50	400	50	2,28	4,01	2962	6,45	0,82	87,87
25	400	50	1,23	2,74	2979	3,21	0,65	81,65

### Locked rotor test at rated voltage

Input power:	24,4 kW	Cos $\phi$ :	0,57
Starting current:	62,16 A	Starting torque:	34,16 Nm
Starting/Rated current:	8,72	Starting/Rated torque:	2,61

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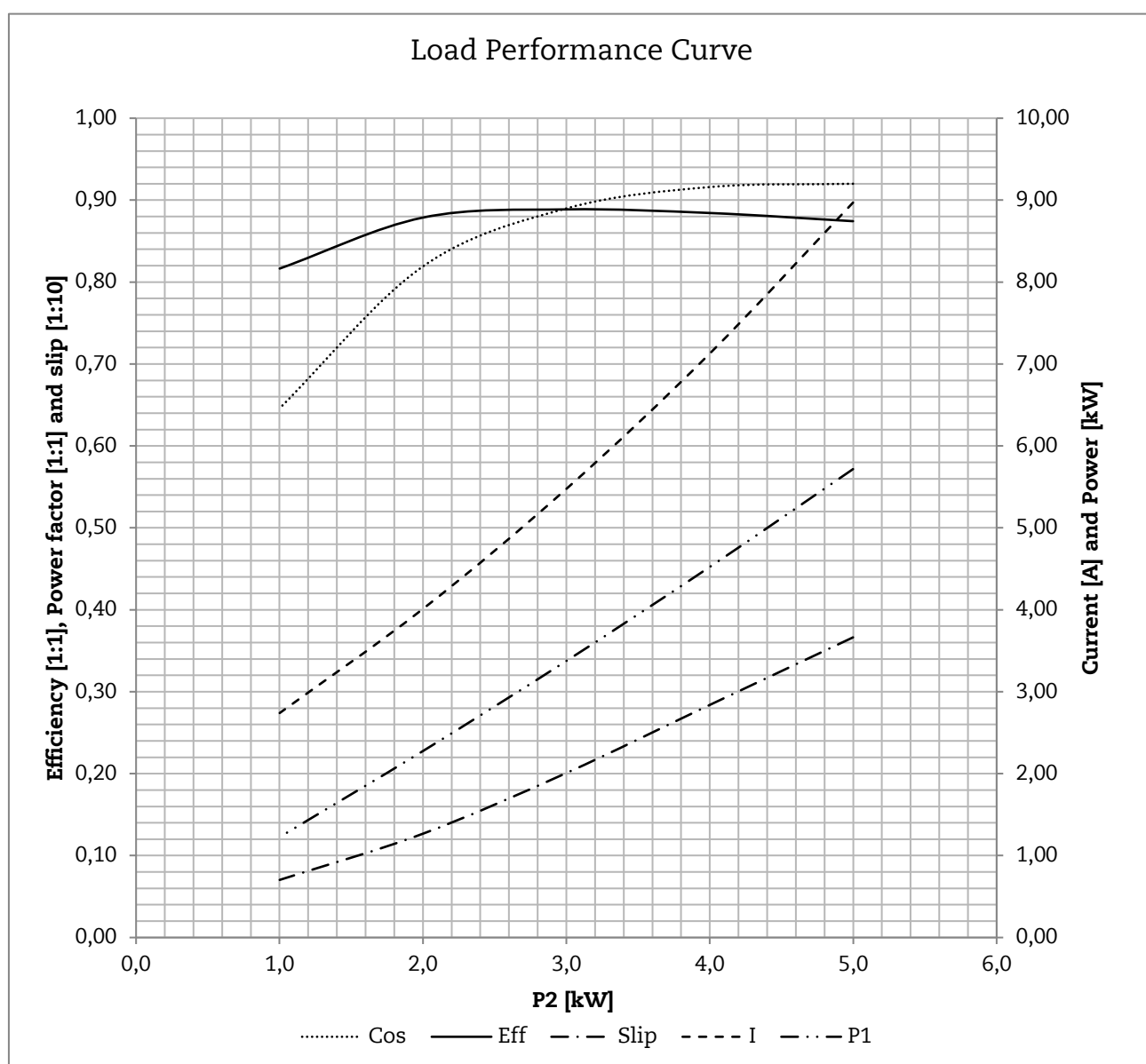
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
5,0	5,7	0,874	8,97	16,5	0,92
4,0	4,5	0,884	7,13	13,1	0,92
3,0	3,4	0,889	5,48	9,7	0,89
2,0	2,3	0,879	4,01	6,4	0,82
1,0	1,2	0,817	2,74	3,2	0,65



## No-load test data at rated frequency

U <sub>0</sub> V	I <sub>0</sub> A	P <sub>0</sub> W	P <sub>cul.</sub>
500,2	4,62	368,0	71,0
440,5	2,70	235,0	24,2
398,9	2,09	203,0	14,5
319,5	1,50	152,0	7,5
280,0	1,28	134,0	6,3
239,7	1,07	121,0	3,8
200,2	0,90	105,0	2,7
160,2	0,75	99,0	1,9
119,9	0,66	90,0	1,4
100,0	0,62	82,0	0,9

