

# Type Test Report

Report No.: TTR3IA21000A1SL

## Test Result Data

### Nameplate data

Type:	HMA3 100L1-4	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	4.55 A	Frequency:	50 Hz
Output:	2.2 kW	Efficiency.:	86.8 %
Connection:	Y	Cos $\phi$ :	0.80
Speed:	1455 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	144.7 W	No load current:	2.44 A
Machine loss:	25.6 W	Core loss:	82.2 W
Sound pressure level 1m:	56 dB(A)	Vibration:	0.9 mm/s

### Temperature rise test

Voltage:	400.0 V	Current:	4.55 A
Power:	2.20 kW	Temperature - rise:	49 K
Winding hotspot temperature:	73 °C	Bearing temperature:	72 °C
Frequency:	50 Hz	Ambient temperature:	24 °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	3.21	5.49	1441	18.22	0.84	85.74
<b>100</b>	<b>400</b>	<b>50</b>	<b>2.53</b>	<b>4.55</b>	<b>1455</b>	<b>14.44</b>	<b>0.80</b>	<b>86.75</b>
75	400	50	1.89	3.75	1468	10.74	0.73	87.00
50	400	50	1.29	3.10	1479	7.10	0.60	85.35
25	400	50	0.71	2.60	1489	3.53	0.40	77.18

### Locked rotor test at rated voltage

Input power:	15.2 kW	Cos $\phi$ :	0.59
Starting current:	37.01 A	Starting torque:	43.47 Nm
Starting/Rated current:	8.13	Starting/Rated torque:	3.01

6/19/2017

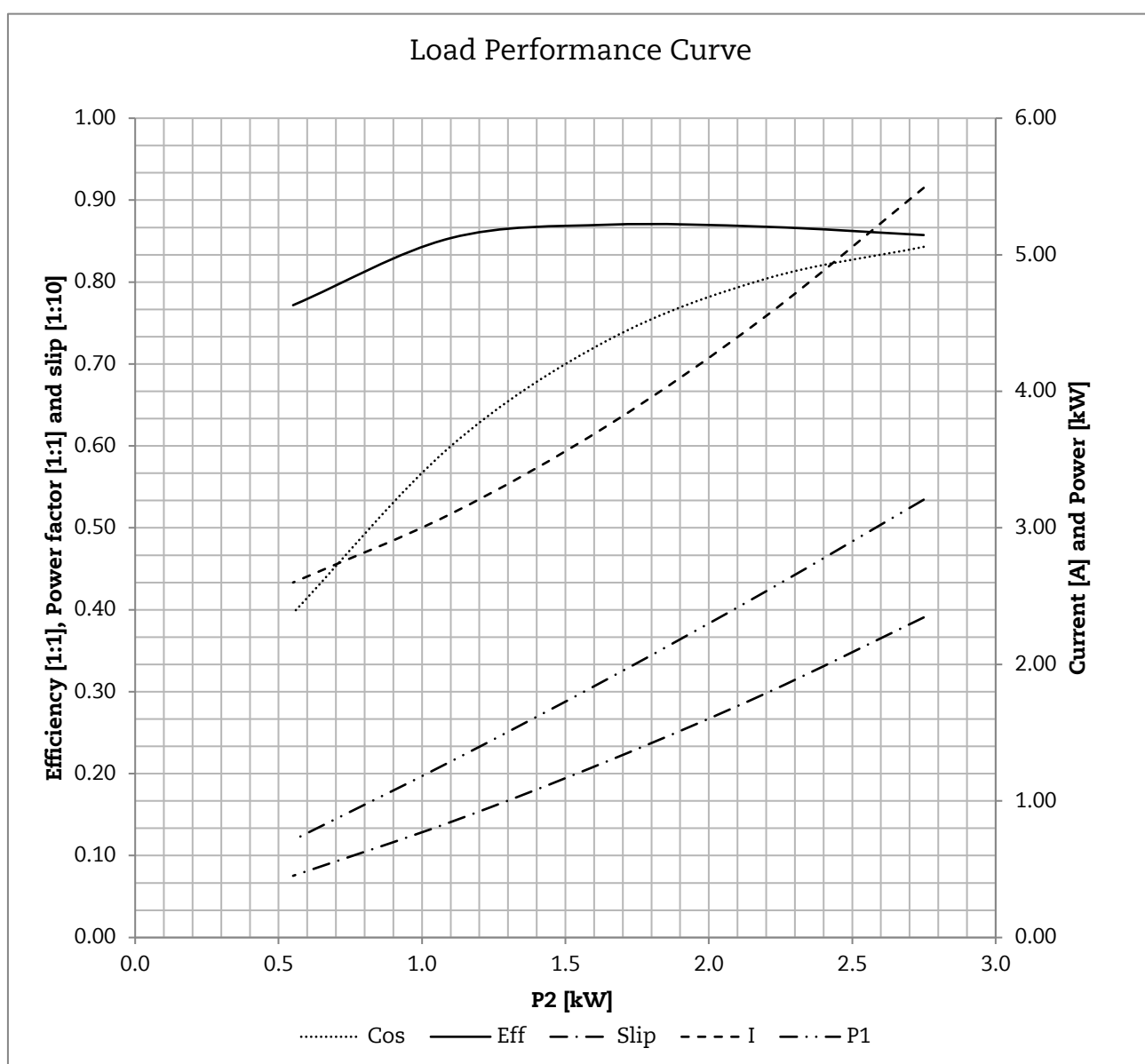
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
2.7	3.2	0.857	5.49	18.2	0.84
2.2	2.5	0.868	4.55	14.4	0.80
1.6	1.9	0.870	3.75	10.7	0.73
1.1	1.3	0.854	3.10	7.1	0.60
0.6	0.7	0.772	2.60	3.5	0.40



## No-load test data at rated frequency

Uo V	Io A	Po W	Pcul.
501.9	5.51	389.0	198.1
439.0	3.15	196.0	64.8
399.2	2.45	147.0	39.2
319.6	1.71	96.0	19.1
280.0	1.45	79.0	13.6
240.0	1.20	65.0	9.4
200.1	0.98	52.0	6.3
160.0	0.77	42.0	3.9
119.9	0.59	35.0	2.3
100.0	0.50	31.0	0.3

