

# Type Test Report

Report No.: TTR3IC13151A2SL

## Test Result Data

### Nameplate data

Type:	HMC3 315M-2	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	215.37 A	Frequency:	50 Hz
Output:	132 kW	Efficiency.:	95.4 %
Connection:	D	Cos $\phi$ :	0.93
Speed:	2973 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	2264.8 W	No load current:	35.43 A
Machine loss:	1508.91 W	Core loss:	719.8 W
Sound pressure level 1m:	86 dB(A)	Vibration:	0.9 mm/s

### Temperature rise test

Voltage:	400.0 V	Current:	215.37 A
Power:	132.00 kW	Temperature - rise:	74 K
Winding hotspot temperature:	102 °C	Bearing temperature:	61 °C
Frequency:	50 Hz	Ambient temperature:	29 °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	173.77	270.95	2965	531.37	0.93	94.95
<b>100</b>	<b>400</b>	<b>50</b>	<b>138.35</b>	<b>215.37</b>	<b>2973</b>	<b>423.97</b>	<b>0.93</b>	<b>95.41</b>
75	400	50	103.54	161.72	2980	317.22	0.92	95.62
50	400	50	69.29	111.66	2987	211.01	0.90	95.25
25	400	50	35.56	66.80	2994	105.28	0.77	92.81

### Locked rotor test at rated voltage

Input power:	351.4 kW	Cos $\phi$ :	0.34
Starting current:	1512.70 A	Starting torque:	869.45 Nm
Starting/Rated current:	7.02	Starting/Rated torque:	2.05

6/19/2017

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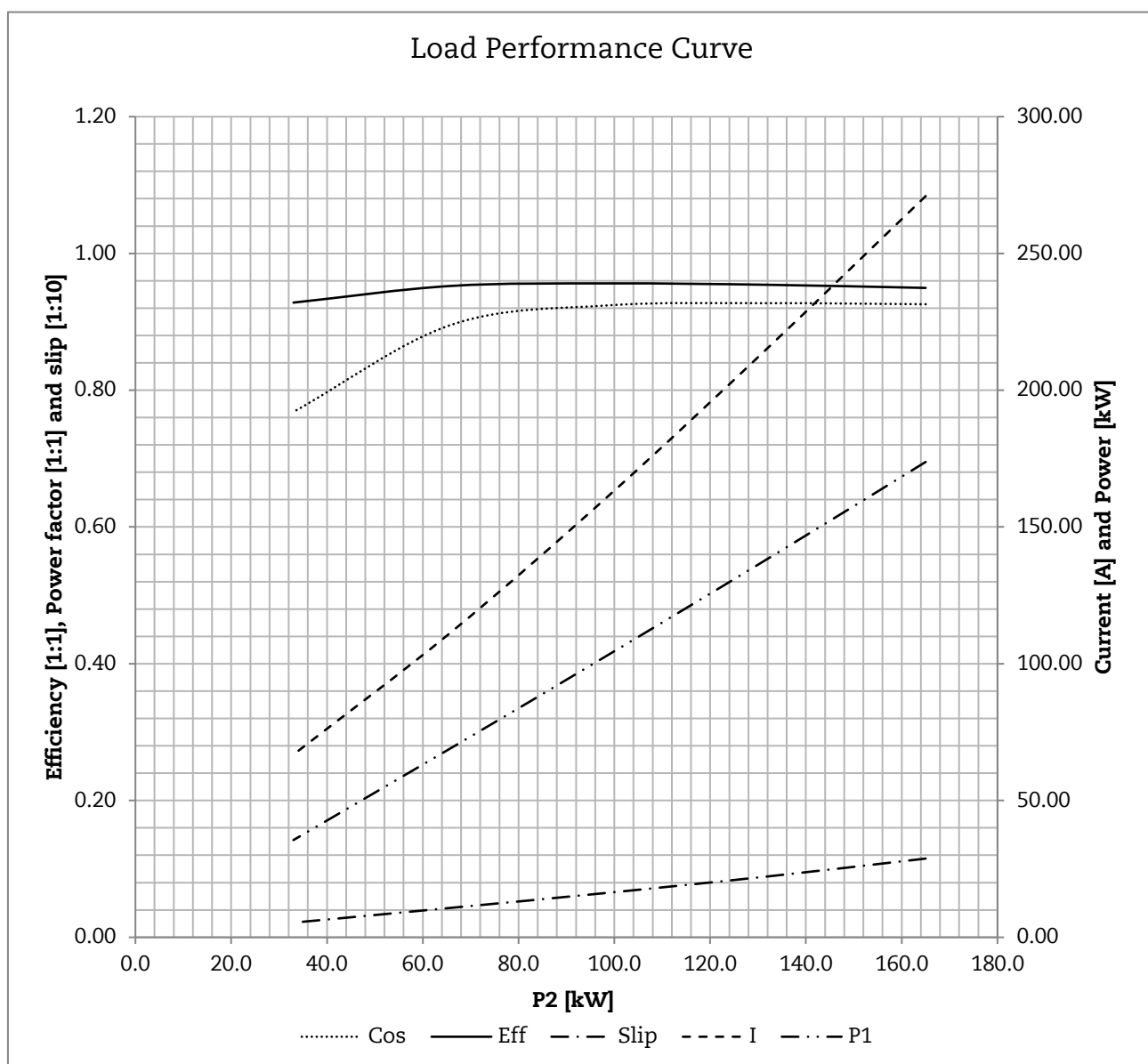
Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

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## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
165.0	173.8	0.950	270.95	531.4	0.93
132.0	138.3	0.954	215.37	424.0	0.93
99.0	103.5	0.956	161.72	317.2	0.92
66.0	69.3	0.952	111.66	211.0	0.90
33.0	35.6	0.928	66.80	105.3	0.77



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## No-load test data at rated frequency

U <sub>o</sub> V	I <sub>o</sub> A	P <sub>o</sub> W	P <sub>cul.</sub>
499.0	55.73	3083.0	89.3
461.6	44.22	2632.0	56.2
418.9	37.72	2337.0	40.9
381.9	33.27	2214.0	31.8
340.9	29.14	2086.0	24.4
298.5	24.51	1989.0	17.3
258.5	21.83	1890.0	13.7
219.1	19.23	1789.0	10.6
179.5	17.18	1692.0	8.5
140.8	14.24	1624.0	5.8

