

Type Test Report

Report No.: TTR3IC11600A2SL

Test Result Data

Nameplate data

Type:	HMC3 160M1-2	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	19.38 A	Frequency:	50 Hz
Output:	11 kW	Efficiency.:	91.2 %
Connection:	D	Cos ϕ :	0.90
Speed:	2954 rpm	Insulation Class:	F

No-Load test at rated voltage

No load loss:	453.52 W	No load current:	5.72 A
Machine loss:	79.2 W	Core loss:	350.47 W
Sound pressure level 1m:	78 dB(A)	Vibration:	1.0 mm/s

Temperature rise test

Voltage:	400.0 V	Current:	19.38 A
Power:	11.00 kW	Temperature - rise:	54 K
Winding hotspot temperature:	80 °C	Bearing temperature:	53 °C
Frequency:	50 Hz	Ambient temperature:	27 °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	15.17	24.14	2940	44.66	0.91	90.61
100	400	50	12.06	19.38	2954	35.57	0.90	91.22
75	400	50	9.04	14.95	2966	26.56	0.87	91.28
50	400	50	6.11	10.96	2978	17.64	0.80	90.11
25	400	50	3.25	7.51	2989	8.79	0.62	84.71

Locked rotor test at rated voltage

Input power:	52.0 kW	Cos ϕ :	0.43
Starting current:	173.47 A	Starting torque:	89.60 Nm
Starting/Rated current:	8.95	Starting/Rated torque:	2.52

6/19/2017

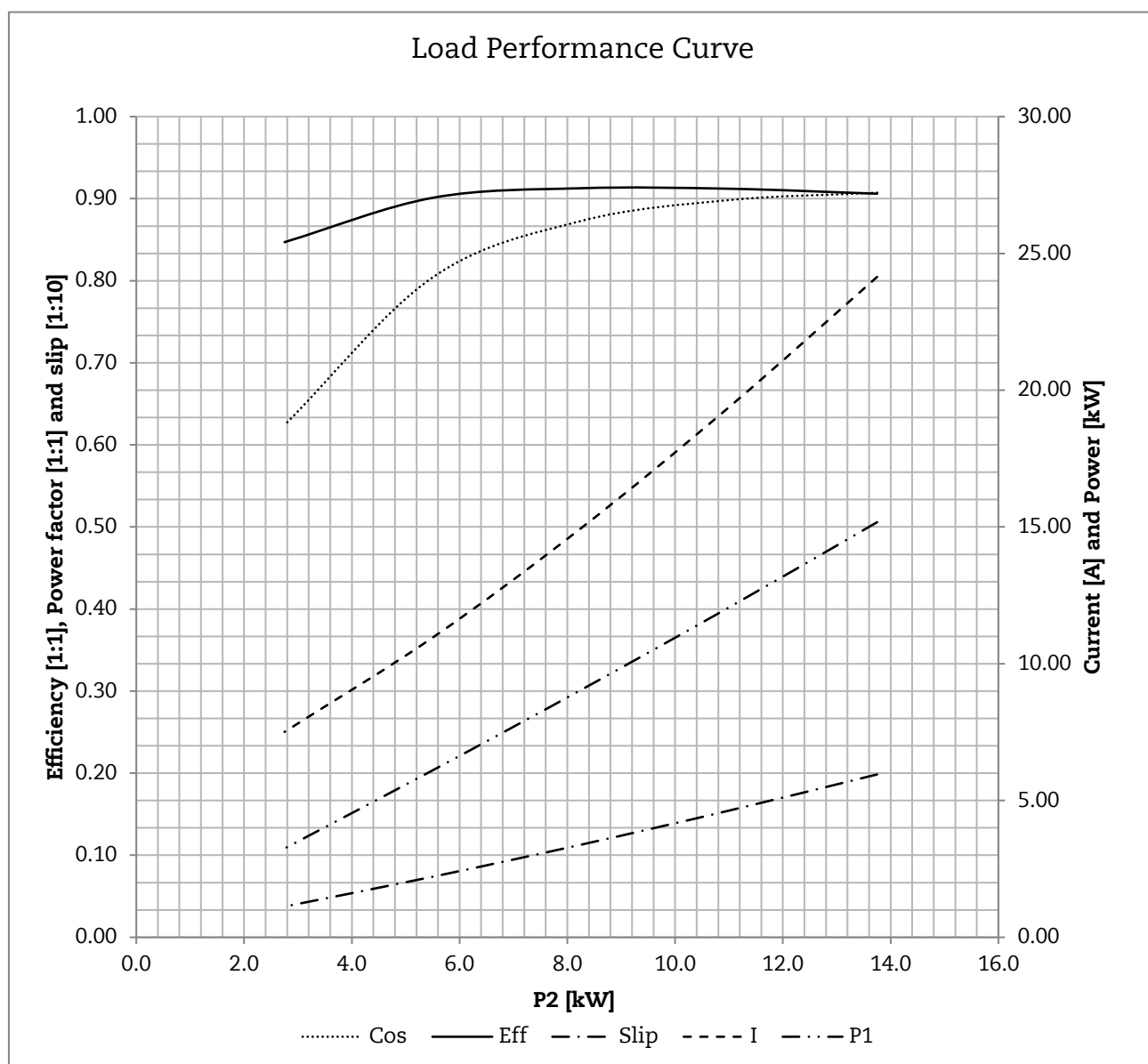
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

Load test data

P2 kW	P1 kW	Eff (η) P2/P1	I A	T Nm	Cos ϕ
13.7	15.2	0.906	24.14	44.7	0.91
11.0	12.1	0.912	19.38	35.6	0.90
8.3	9.0	0.913	14.95	26.6	0.87
5.5	6.1	0.901	10.96	17.6	0.80
2.8	3.2	0.847	7.51	8.8	0.62



No-load test data at rated frequency

Uo V	Io A	Po W	Pcul.
495.8	11.56	1010.0	97.4
454.1	8.27	660.0	49.9
413.6	6.23	490.0	28.3
400.8	5.62	460.0	23.0
373.7	5.16	390.0	19.4
332.9	4.34	320.0	13.7
292.6	3.72	270.0	10.1
251.9	3.06	230.0	6.8
222.1	2.72	190.0	5.4
191.5	2.31	160.0	3.9

