

# Type Test Report

Report No.: TTR3IC11600A1SL

## 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:	Y	Cos $\phi$ :	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 $\phi$ Cos $\phi$	Eff ( $\eta$ ) %
125	400	50	15,17	24,14	2940	44,66	0,91	90,61
<b>100</b>	<b>400</b>	<b>50</b>	<b>12,06</b>	<b>19,38</b>	<b>2954</b>	<b>35,57</b>	<b>0,90</b>	<b>91,22</b>
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 $\phi$ :	0,43
Starting current:	173,47 A	Starting torque:	89,60 Nm
Starting/Rated current:	8,95	Starting/Rated torque:	2,52

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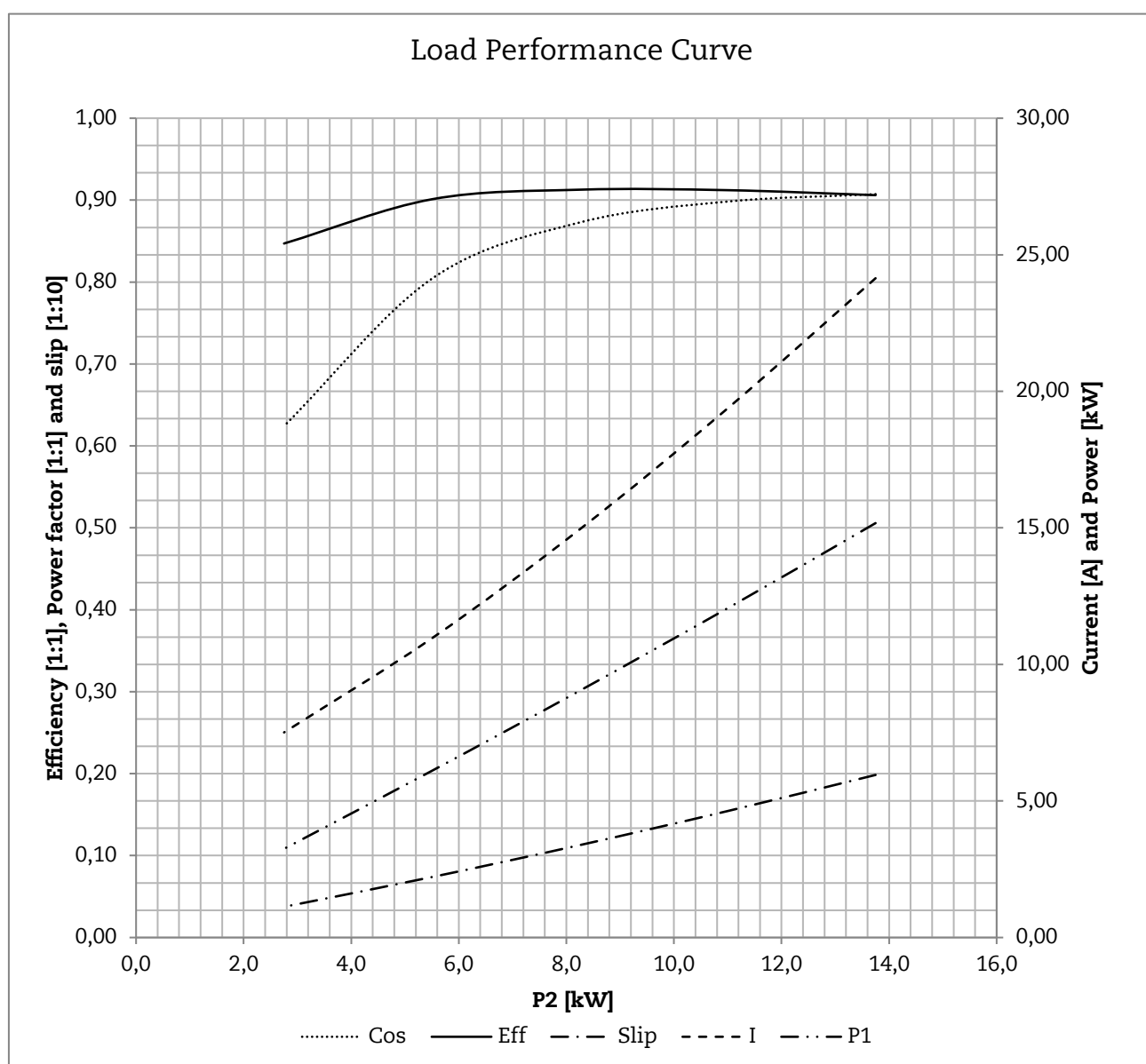
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
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

U <sub>0</sub> V	I <sub>0</sub> A	P <sub>0</sub> W	P <sub>cul.</sub>
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

