

# Type Test Report

Report No.: TTR3IC12250A2SL

## Test Result Data

### Nameplate data

Type:	HMC3 225M-2	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	75.79 A	Frequency:	50 Hz
Output:	45 kW	Efficiency.:	94.0 %
Connection:	D	Cos $\phi$ :	0.91
Speed:	2971 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	1332.97 W	No load current:	19.24 A
Machine loss:	705.38 W	Core loss:	588.33 W
Sound pressure level 1m:	84.4 dB(A)	Vibration:	0.8 mm/s

### Temperature rise test

Voltage:	400.0 V	Current:	75.79 A
Power:	45.00 kW	Temperature - rise:	60 K
Winding hotspot temperature:	79 °C	Bearing temperature:	37 °C
Frequency:	50 Hz	Ambient temperature:	19 °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	60.01	94.72	2963	181.28	0.91	93.72
<b>100</b>	<b>400</b>	<b>50</b>	<b>47.87</b>	<b>75.79</b>	<b>2971</b>	<b>144.64</b>	<b>0.91</b>	<b>94.00</b>
75	400	50	35.94	57.78	2979	108.20	0.90	93.90
50	400	50	24.22	41.39	2986	71.95	0.84	92.87
25	400	50	12.71	27.33	2993	35.89	0.67	88.51

### Locked rotor test at rated voltage

Input power:	202.2 kW	Cos $\phi$ :	0.44
Starting current:	659.08 A	Starting torque:	470.69 Nm
Starting/Rated current:	8.70	Starting/Rated torque:	3.25

6/19/2017

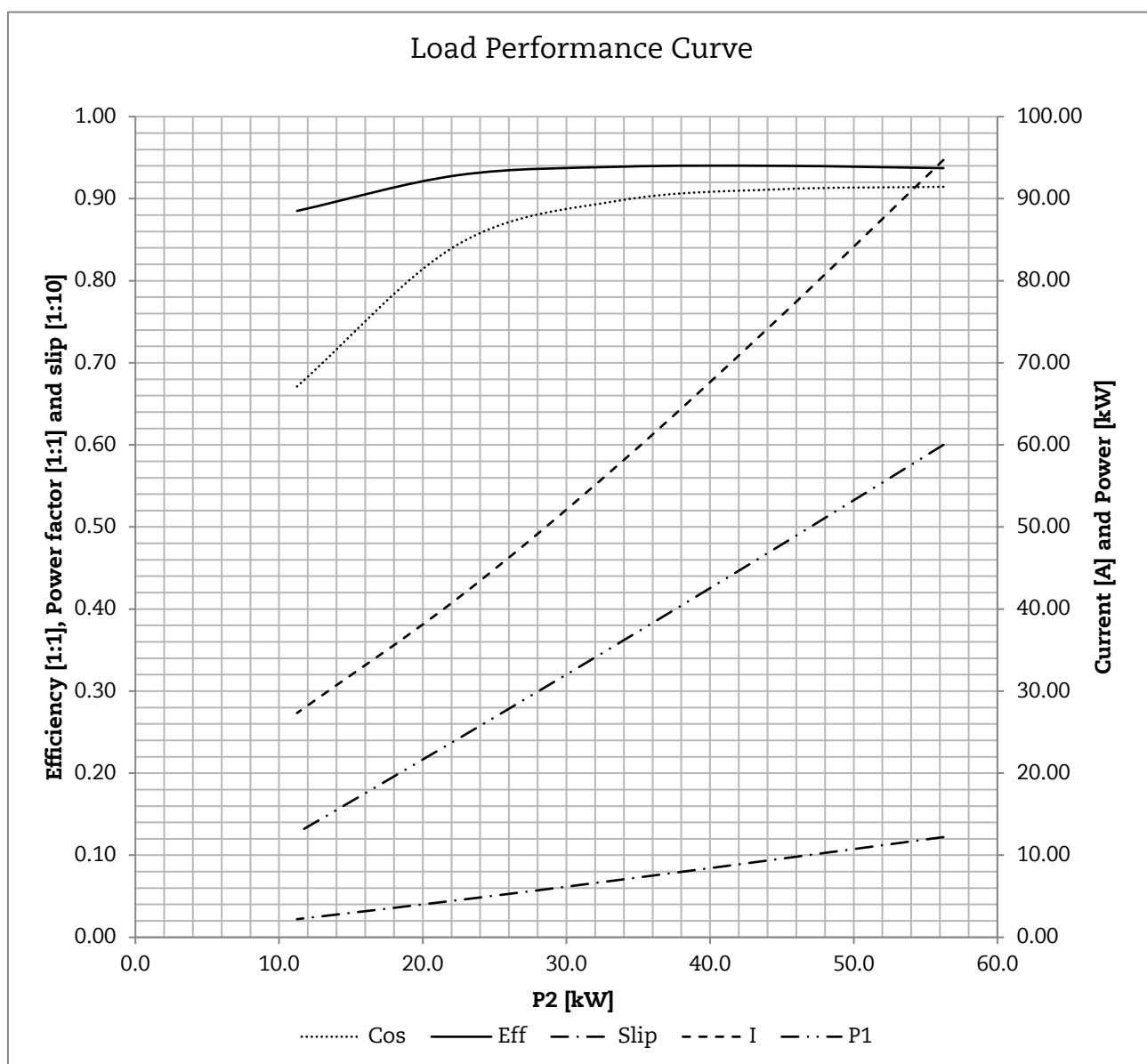
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
56.2	60.0	0.937	94.72	181.3	0.91
45.0	47.9	0.940	75.79	144.6	0.91
33.7	35.9	0.939	57.78	108.2	0.90
22.5	24.2	0.929	41.39	72.0	0.84
11.2	12.7	0.885	27.33	35.9	0.67



## 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>
499.4	39.66	2440.0	166.9
456.0	27.03	1810.0	77.5
415.8	20.75	1440.0	45.7
375.5	17.42	1210.0	32.2
335.2	14.78	1110.0	23.2
294.4	12.64	1030.0	17.0
254.4	10.77	960.0	12.3
224.1	9.33	910.0	9.2
193.7	8.22	870.0	7.2
163.6	7.25	830.0	5.6

