

# Type Test Report

Report No.: TTR3IC12801A2SL

## Test Result Data

### Nameplate data

Type:	HMC3 280M-2	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	146.48 A	Frequency:	50 Hz
Output:	90 kW	Efficiency.:	95.0 %
Connection:	D	Cos $\phi$ :	0.93
Speed:	2975 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	1963.03 W	No load current:	27.18 A
Machine loss:	1093.13 W	Core loss:	830.84 W
Sound pressure level 1m:	89.5 dB(A)	Vibration:	0.7 mm/s

### Temperature rise test

Voltage:	400.0 V	Current:	146.48 A
Power:	90.00 kW	Temperature - rise:	66 K
Winding hotspot temperature:	97 °C	Bearing temperature:	68 °C
Frequency:	50 Hz	Ambient temperature:	26 °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	118.86	184.26	2967	362.08	0.93	94.65
<b>100</b>	<b>400</b>	<b>50</b>	<b>94.71</b>	<b>146.48</b>	<b>2975</b>	<b>288.95</b>	<b>0.93</b>	<b>95.02</b>
75	400	50	70.99	110.43	2981	216.22	0.93	95.08
50	400	50	47.64	76.77	2988	143.84	0.90	94.45
25	400	50	24.65	46.14	2994	71.77	0.77	91.27

### Locked rotor test at rated voltage

Input power:	328.2 kW	Cos $\phi$ :	0.37
Starting current:	1295.22 A	Starting torque:	869.72 Nm
Starting/Rated current:	8.84	Starting/Rated torque:	3.01

6/19/2017

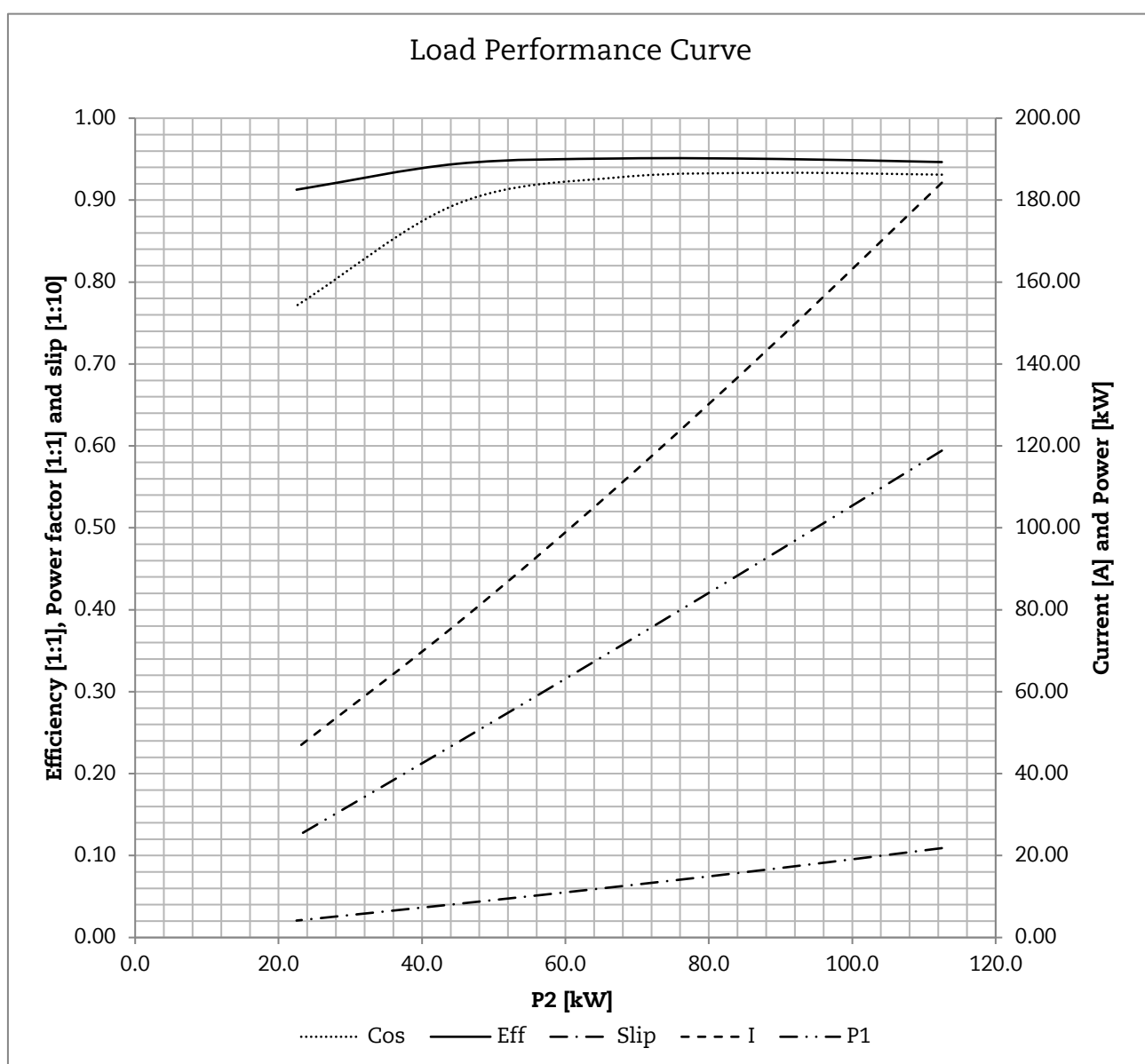
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

## Load test data

P2 kW	P1 kW	Eff ( $\eta$ ) P2/P1	I A	T Nm	Cos $\phi$
112.5	118.9	0.946	184.26	362.1	0.93
90.0	94.7	0.950	146.48	289.0	0.93
67.5	71.0	0.951	110.43	216.2	0.93
45.0	47.6	0.944	76.77	143.8	0.90
22.5	24.7	0.913	46.14	71.8	0.77



## No-load test data at rated frequency

Uo V	Io A	Po W	Pcul.
499.3	44.41	2640.0	104.2
456.5	34.05	2250.0	61.3
415.7	28.67	2030.0	43.4
375.5	25.18	1870.0	33.5
335.0	22.12	1740.0	25.9
294.5	19.21	1620.0	19.5
254.3	16.60	1520.0	14.6
224.0	14.46	1440.0	11.0
193.9	12.60	1370.0	8.4
163.5	11.17	1300.0	6.6

