

Type Test Report

Report No.: TTR3IC21800A2SL

Test Result Data

Nameplate data

Type:	HMC3 180M-4	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	32.95 A	Frequency:	50 Hz
Output:	18.5 kW	Efficiency.:	92.7 %
Connection:	D	Cos ϕ :	0.88
Speed:	1474 rpm	Insulation Class:	F

No-Load test at rated voltage

No load loss:	584.63 W	No load current:	12.11 A
Machine loss:	105.44 W	Core loss:	402.22 W
Sound pressure level 1m:	73 dB(A)	Vibration:	0.9 mm/s

Temperature rise test

Voltage:	400.0 V	Current:	32.95 A
Power:	18.50 kW	Temperature - rise:	55 K
Winding hotspot temperature:	86 °C	Bearing temperature:	65 °C
Frequency:	50 Hz	Ambient temperature:	31 °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	24.88	40.90	1466	150.63	0.88	91.43
100	400	50	20.15	32.95	1474	119.87	0.88	92.70
75	400	50	15.10	25.72	1481	89.46	0.85	93.32
50	400	50	9.98	19.48	1488	59.37	0.74	91.90
25	400	50	5.19	14.57	1494	29.56	0.51	86.54

Locked rotor test at rated voltage

Input power:	90.5 kW	Cos ϕ :	0.49
Starting current:	268.51 A	Starting torque:	318.90 Nm
Starting/Rated current:	8.15	Starting/Rated torque:	2.66

6/19/2017

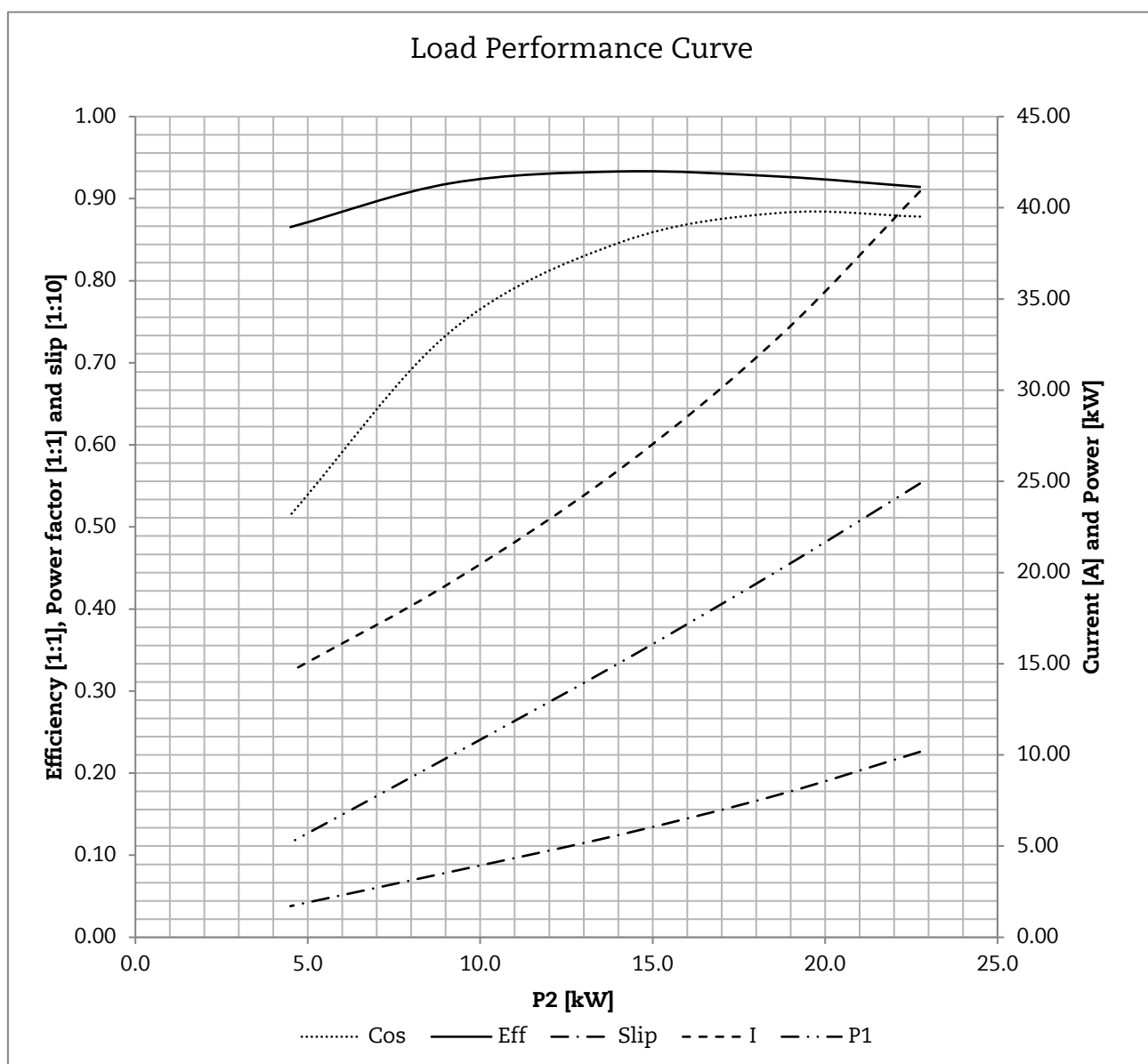
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

Load test data

P2 kW	P1 kW	Eff (η) P2/P1	I A	T Nm	Cos ϕ
22.8	24.9	0.914	40.90	150.6	0.88
18.7	20.2	0.927	32.95	119.9	0.88
14.1	15.1	0.933	25.72	89.5	0.85
9.2	10.0	0.919	19.48	59.4	0.74
4.5	5.2	0.865	14.57	29.6	0.51



No-load test data at rated frequency

U ₀ V	I ₀ A	P ₀ W	P _{cul.}
504.5	22.62	1390.0	274.2
450.7	15.26	830.0	124.8
411.4	12.81	640.0	87.9
373.2	10.98	500.0	64.6
332.4	9.58	420.0	49.2
291.8	8.15	360.0	35.6
251.1	6.95	310.0	25.9
220.5	6.06	260.0	19.7
191.2	5.25	230.0	14.8
160.2	4.38	190.0	10.3

