

Type Test Report

Report No.: TTR3IC21801A2SL

Test Result Data

Nameplate data

Type:	HMC3 180L-4	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	38.98 A	Frequency:	50 Hz
Output:	22 kW	Efficiency.:	93.2 %
Connection:	D	Cos ϕ :	0.88
Speed:	1475 rpm	Insulation Class:	F

No-Load test at rated voltage

No load loss:	631.24 W	No load current:	14.65 A
Machine loss:	119.55 W	Core loss:	424.12 W
Sound pressure level 1m:	74 dB(A)	Vibration:	0.8 mm/s

Temperature rise test

Voltage:	400.0 V	Current:	38.98 A
Power:	22.00 kW	Temperature - rise:	53 K
Winding hotspot temperature:	86 °C	Bearing temperature:	67 °C
Frequency:	50 Hz	Ambient temperature:	32 °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	29.51	48.33	1467	178.97	0.88	92.02
100	400	50	23.89	38.98	1475	142.45	0.88	93.22
75	400	50	17.89	30.48	1482	106.33	0.85	93.87
50	400	50	11.80	23.14	1488	70.58	0.74	92.61
25	400	50	6.11	17.37	1495	35.15	0.51	87.57

Locked rotor test at rated voltage

Input power:	114.3 kW	Cos ϕ :	0.49
Starting current:	334.27 A	Starting torque:	400.76 Nm
Starting/Rated current:	8.58	Starting/Rated torque:	2.81

6/19/2017

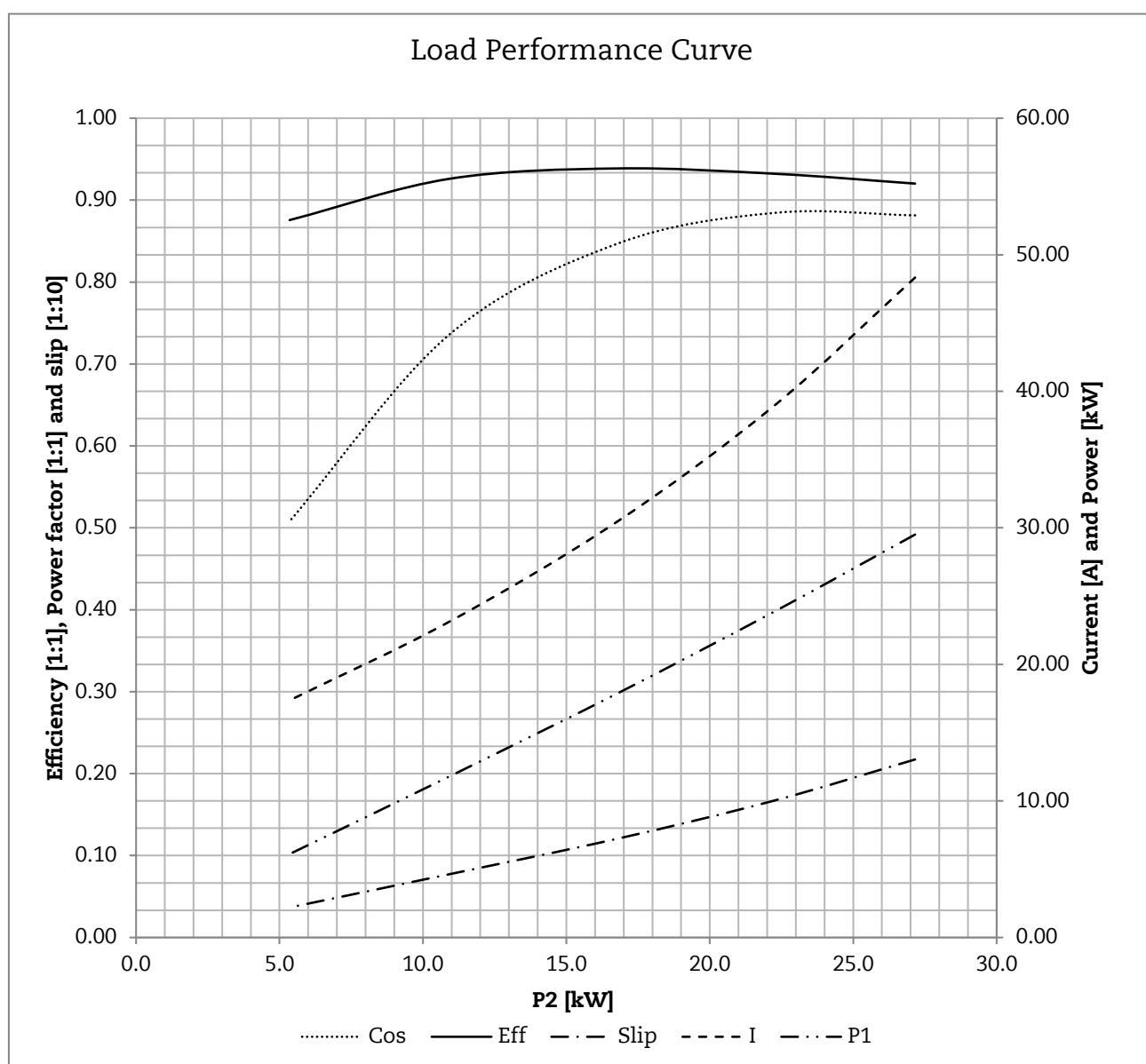
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

Load test data

P2 kW	P1 kW	Eff (η) P2/P1	I A	T Nm	Cos ϕ
27.2	29.5	0.920	48.33	179.0	0.88
22.3	23.9	0.932	38.98	142.5	0.88
16.8	17.9	0.939	30.48	106.3	0.85
10.9	11.8	0.926	23.14	70.6	0.74
5.4	6.1	0.876	17.37	35.1	0.51



No-load test data at rated frequency

Uo V	Io A	Po W	Pcul.
495.4	23.69	1280.0	231.5
454.2	18.50	890.0	141.2
414.0	15.44	680.0	98.3
373.5	13.41	560.0	74.2
333.1	11.63	460.0	55.8
292.6	10.06	380.0	41.7
252.4	8.48	320.0	29.7
221.9	7.44	260.0	22.8
191.6	6.35	240.0	16.6
161.4	5.32	200.0	11.7

