

Type Test Report

Report No.: TTR3IC32800A2SL

Test Result Data

Nameplate data

Type:	HMC3 280S-6	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	82.63 A	Frequency:	50 Hz
Output:	45 kW	Efficiency.:	93.9 %
Connection:	D	Cos ϕ :	0.84
Speed:	990 rpm	Insulation Class:	F

No-Load test at rated voltage

No load loss:	1513.94 W	No load current:	33.84 A
Machine loss:	404.3 W	Core loss:	931.81 W
Sound pressure level 1m:	77 dB(A)	Vibration:	0.5 mm/s

Temperature rise test

Voltage:	400.0 V	Current:	82.63 A
Power:	45.00 kW	Temperature - rise:	55 K
Winding hotspot temperature:	86 °C	Bearing temperature:	73 °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	59.55	102.13	988	543.88	0.84	93.08
100	400	50	48.35	82.63	990	433.92	0.84	93.89
75	400	50	36.31	65.06	993	324.62	0.81	93.98
50	400	50	24.08	50.01	995	215.89	0.69	92.04
25	400	50	12.71	38.11	998	107.70	0.48	86.73

Locked rotor test at rated voltage

Input power:	156.2 kW	Cos ϕ :	0.41
Starting current:	554.37 A	Starting torque:	973.27 Nm
Starting/Rated current:	6.71	Starting/Rated torque:	2.24

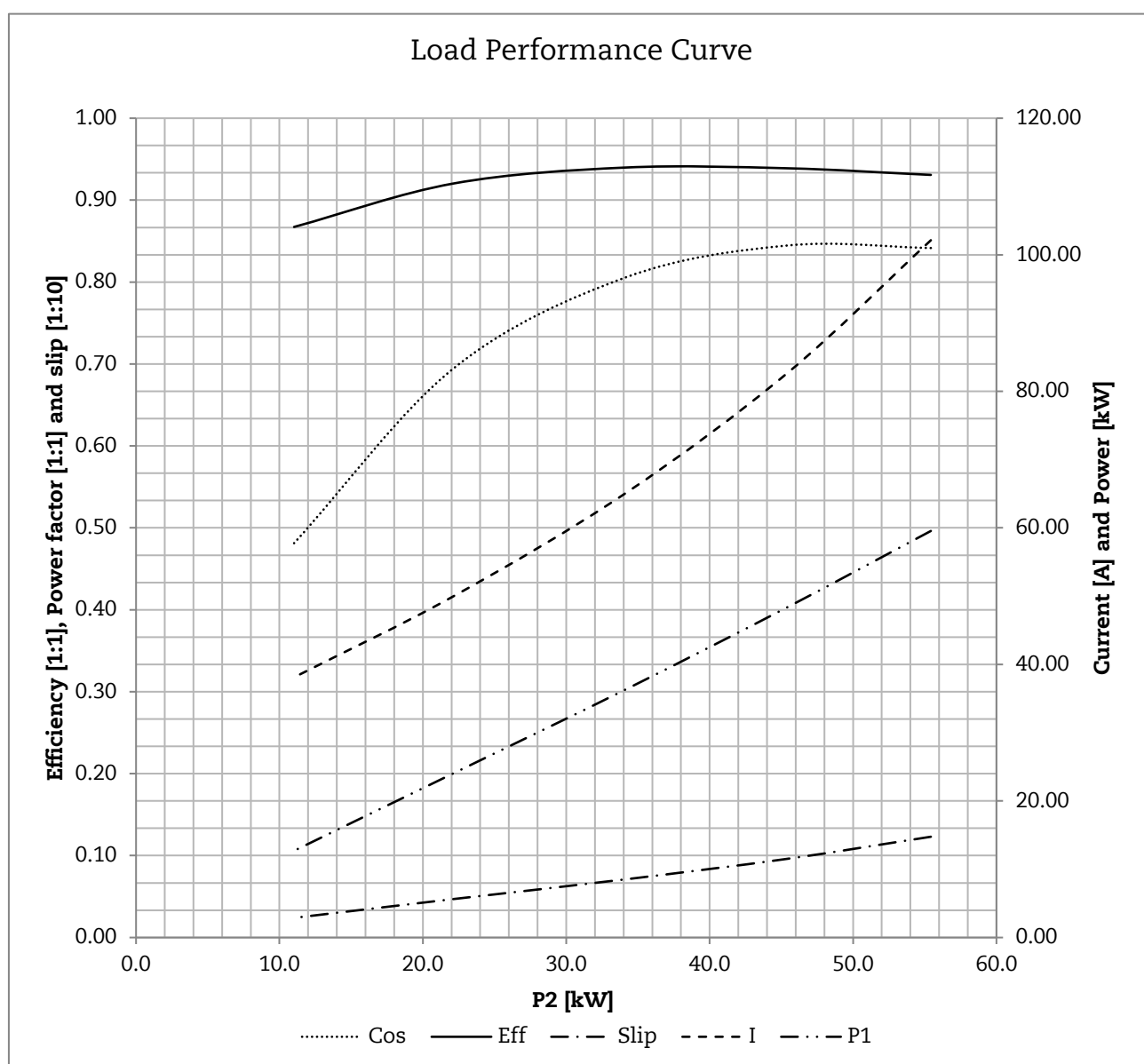
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Load test data

P2 kW	P1 kW	Eff (η) P2/P1	I A	T Nm	Cos ϕ
55.4	59.5	0.931	102.13	543.9	0.84
45.4	48.4	0.939	82.63	433.9	0.84
34.1	36.3	0.940	65.06	324.6	0.81
22.2	24.1	0.920	50.01	215.9	0.69
11.0	12.7	0.867	38.11	107.7	0.48



No-load test data at rated frequency

U _o V	I _o A	P _o W	P _{cul.}
495.7	67.19	3550.0	663.3
462.2	50.57	2380.0	375.7
423.9	37.70	1690.0	208.8
383.8	29.44	1290.0	127.3
343.4	24.33	1060.0	87.0
302.9	20.73	900.0	63.1
262.1	17.44	790.0	44.7
222.1	14.50	650.0	30.9
181.7	11.65	570.0	19.9
141.2	9.01	500.0	11.9

