

# Type Test Report

Report No.: TTR3IC23152A2SL

## Test Result Data

### Nameplate data

Type:	HMC3 315L1-4	Protection Class.:	IP55
Voltage:	400 V	Duty:	S1
Current:	263.57 A	Frequency:	50 Hz
Output:	160 kW	Efficiency.:	96.3 %
Connection:	D	Cos $\phi$ :	0.91
Speed:	1487 rpm	Insulation Class:	F

### No-Load test at rated voltage

No load loss:	2556.55 W	No load current:	69.46 A
Machine loss:	754.77 W	Core loss:	1685.74 W
Sound pressure level 1m:	84.8 dB(A)	Vibration:	0.3 mm/s

### Temperature rise test

Voltage:	400.0 V	Current:	263.57 A
Power:	160.00 kW	Temperature - rise:	66 K
Winding hotspot temperature:	88 °C	Bearing temperature:	55 °C
Frequency:	50 Hz	Ambient temperature:	27 °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	208.52	331.63	1484	1287.32	0.91	95.37
<b>100</b>	<b>400</b>	<b>50</b>	<b>166.33</b>	<b>263.57</b>	<b>1487</b>	<b>1027.43</b>	<b>0.91</b>	<b>96.31</b>
75	400	50	124.65	201.57	1491	768.87	0.89	96.58
50	400	50	83.48	145.62	1494	511.48	0.83	95.75
25	400	50	42.81	95.73	1497	255.23	0.65	92.91

### Locked rotor test at rated voltage

Input power:	504.7 kW	Cos $\phi$ :	0.35
Starting current:	2064.90 A	Starting torque:	2332.34 Nm
Starting/Rated current:	7.83	Starting/Rated torque:	2.27

6/19/2017

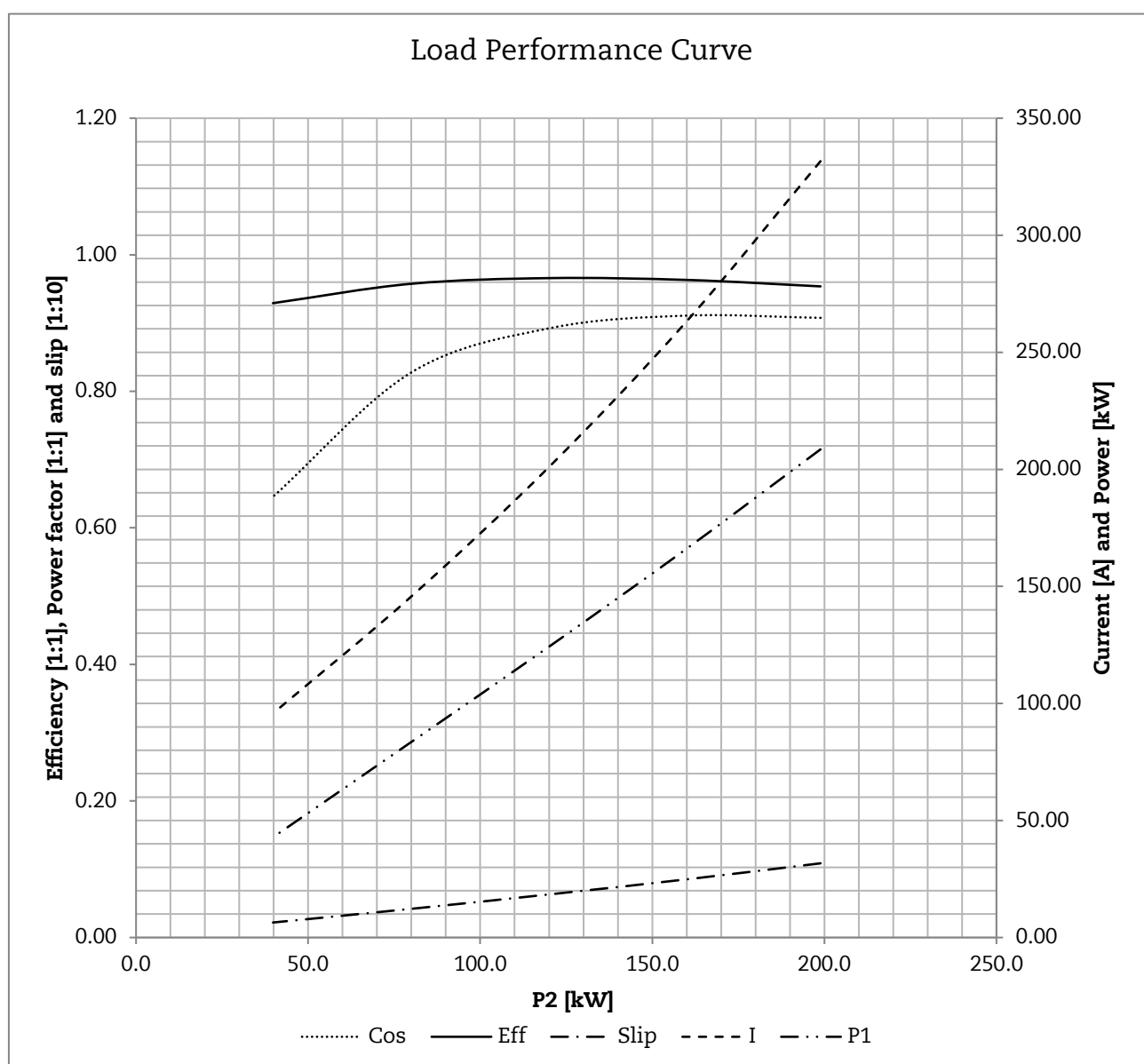
**HOYER**  
EXCEEDING EXPECTATIONS

www.hoyermotors.com

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 $\phi$
198.9	208.5	0.954	331.63	1287.3	0.91
160.2	166.3	0.963	263.57	1027.4	0.91
120.4	124.6	0.966	201.57	768.9	0.89
79.9	83.5	0.958	145.62	511.5	0.83
39.8	42.8	0.929	95.73	255.2	0.65



## No-load test data at rated frequency

U <sub>o</sub> V	I <sub>o</sub> A	P <sub>o</sub> W	P <sub>cul.</sub>
499.9	143.58	5890.0	512.7
450.1	93.59	3596.0	217.8
410.1	73.15	2708.0	133.1
370.0	61.08	2241.0	92.8
329.5	52.59	1902.0	68.8
289.6	44.84	1651.0	50.0
249.9	38.24	1426.0	36.4
220.0	33.12	1294.0	27.3
189.8	28.33	1129.0	20.0
159.8	23.90	1028.0	14.2

