

Type Test Report

Report No.: TTR3IC21600A1SL

Test Result Data

Nameplate data

| | | | |
|-------------|-------------|--------------------|--------|
| Type: | HMC3 160M-4 | Protection Class.: | IP55 |
| Voltage: | 400 V | Duty: | S1 |
| Current: | 21,06 A | Frequency: | 50 Hz |
| Output: | 11 kW | Efficiency.: | 91,6 % |
| Connection: | Y | Cos ϕ : | 0,83 |
| Speed: | 1474 rpm | Insulation Class: | F |

No-Load test at rated voltage

| | | | |
|--------------------------|----------|------------------|----------|
| No load loss: | 447,65 W | No load current: | 9,16 A |
| Machine loss: | 73,21 W | Core loss: | 304,87 W |
| Sound pressure level 1m: | 71 dB(A) | Vibration: | 0,8 mm/s |

Temperature rise test

| | | | |
|------------------------------|----------|----------------------|---------|
| Voltage: | 400,0 V | Current: | 21,06 A |
| Power: | 11,00 kW | Temperature - rise: | 58 K |
| Winding hotspot temperature: | 88 °C | Bearing temperature: | 60 °C |
| Frequency: | 50 Hz | Ambient temperature: | 30 °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 | 15,05 | 25,87 | 1466 | 89,57 | 0,84 | 90,33 |
| 100 | 400 | 50 | 12,16 | 21,06 | 1474 | 71,28 | 0,83 | 91,60 |
| 75 | 400 | 50 | 9,10 | 16,75 | 1481 | 53,20 | 0,78 | 92,07 |
| 50 | 400 | 50 | 6,05 | 13,10 | 1488 | 35,30 | 0,67 | 90,10 |
| 25 | 400 | 50 | 3,22 | 10,32 | 1494 | 17,57 | 0,45 | 83,77 |

Locked rotor test at rated voltage

| | | | |
|-------------------------|----------|------------------------|-----------|
| Input power: | 60,8 kW | Cos ϕ : | 0,51 |
| Starting current: | 172,37 A | Starting torque: | 206,80 Nm |
| Starting/Rated current: | 8,18 | Starting/Rated torque: | 2,90 |

05-12-2017

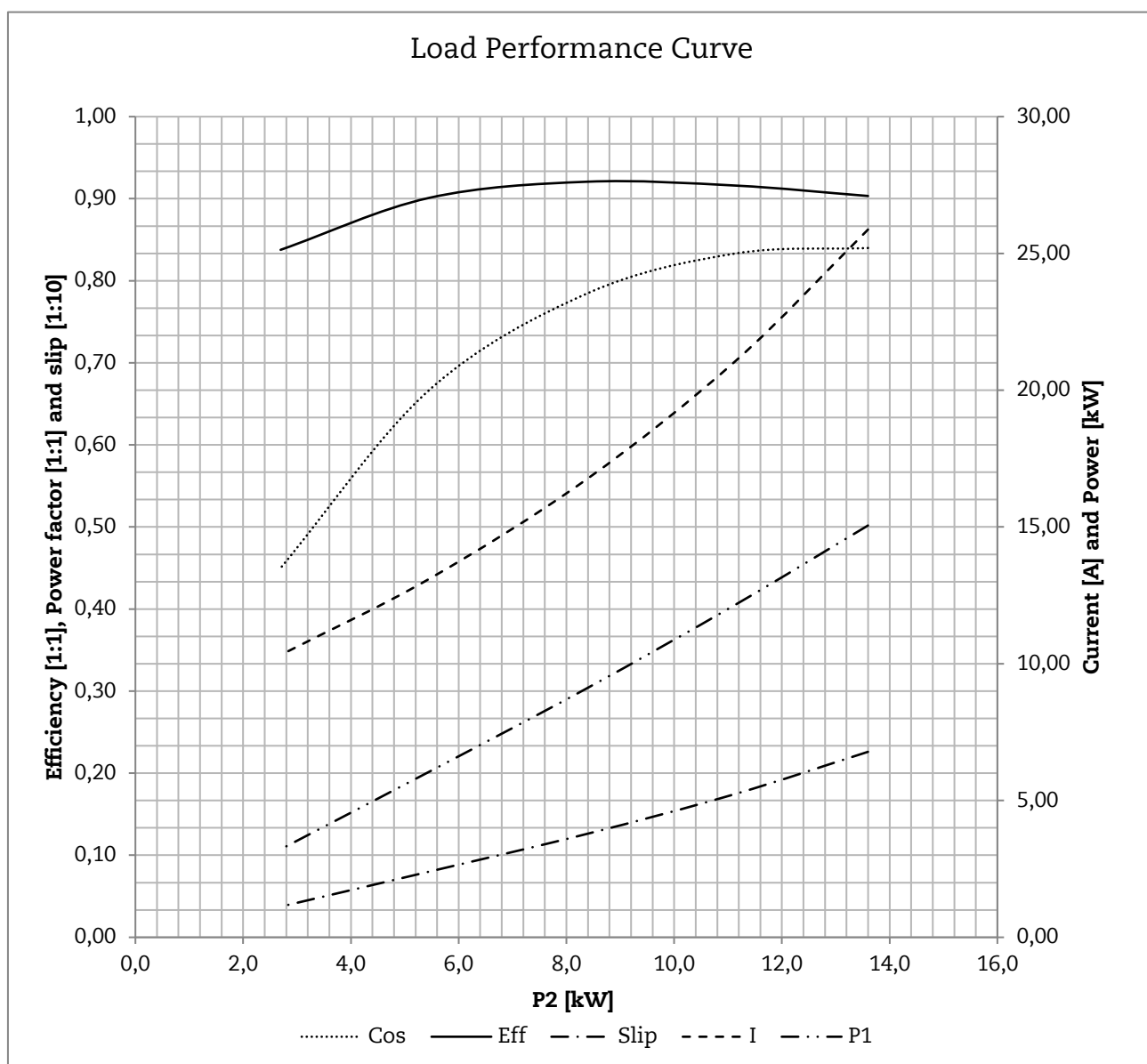
HOYER
EXCEEDING EXPECTATIONS

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 (η) P2/P1 | I A | T Nm | Cos ϕ |
|----------|----------|-------------------------|--------|---------|------------|
| 13,6 | 15,1 | 0,903 | 25,87 | 89,6 | 0,84 |
| 11,1 | 12,2 | 0,916 | 21,06 | 71,3 | 0,83 |
| 8,4 | 9,1 | 0,921 | 16,75 | 53,2 | 0,78 |
| 5,5 | 6,1 | 0,901 | 13,10 | 35,3 | 0,67 |
| 2,7 | 3,2 | 0,838 | 10,32 | 17,6 | 0,45 |



No-load test data at rated frequency

| U ₀ V | I ₀ A | P ₀ W | P _{cul.} |
|---------------------|---------------------|---------------------|-------------------|
| 495,5 | 17,75 | 1230,0 | 267,0 |
| 454,3 | 12,86 | 730,0 | 140,1 |
| 413,7 | 9,83 | 500,0 | 81,9 |
| 372,8 | 8,01 | 380,0 | 54,4 |
| 333,1 | 6,84 | 320,0 | 39,6 |
| 292,6 | 5,83 | 260,0 | 28,8 |
| 252,1 | 4,89 | 220,0 | 20,3 |
| 221,9 | 4,24 | 190,0 | 15,2 |
| 191,4 | 3,61 | 160,0 | 11,0 |
| 161,5 | 3,03 | 140,0 | 7,8 |

