

Type Test Report

Report No.: TTR3IC22251A1SL

Test Result Data

Nameplate data

| | | | |
|-------------|-------------|--------------------|--------|
| Type: | HMC3 225M-4 | Protection Class.: | IP55 |
| Voltage: | 400 V | Duty: | S1 |
| Current: | 78,20 A | Frequency: | 50 Hz |
| Output: | 45 kW | Efficiency.: | 94,2 % |
| Connection: | Y | Cos ϕ : | 0,89 |
| Speed: | 1479 rpm | Insulation Class: | F |

No-Load test at rated voltage

| | | | |
|--------------------------|------------|------------------|----------|
| No load loss: | 1093,17 W | No load current: | 23,22 A |
| Machine loss: | 235,44 W | Core loss: | 780,36 W |
| Sound pressure level 1m: | 77,5 dB(A) | Vibration: | 0,6 mm/s |

Temperature rise test

| | | | |
|------------------------------|----------|----------------------|---------|
| Voltage: | 400,0 V | Current: | 78,20 A |
| Power: | 45,00 kW | Temperature - rise: | 70 K |
| Winding hotspot temperature: | 89 °C | Bearing temperature: | 54 °C |
| Frequency: | 50 Hz | Ambient temperature: | 29 °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 | 59,54 | 98,13 | 1473 | 364,59 | 0,88 | 93,20 |
| 100 | 400 | 50 | 48,33 | 78,20 | 1479 | 290,51 | 0,89 | 94,22 |
| 75 | 400 | 50 | 36,31 | 59,85 | 1485 | 217,07 | 0,88 | 94,68 |
| 50 | 400 | 50 | 23,85 | 43,59 | 1490 | 144,22 | 0,79 | 93,53 |
| 25 | 400 | 50 | 12,22 | 30,08 | 1495 | 71,87 | 0,59 | 89,40 |

Locked rotor test at rated voltage

| | | | |
|-------------------------|----------|------------------------|-----------|
| Input power: | 196,7 kW | Cos ϕ : | 0,43 |
| Starting current: | 657,82 A | Starting torque: | 765,14 Nm |
| Starting/Rated current: | 8,41 | Starting/Rated torque: | 2,63 |

05-12-2017

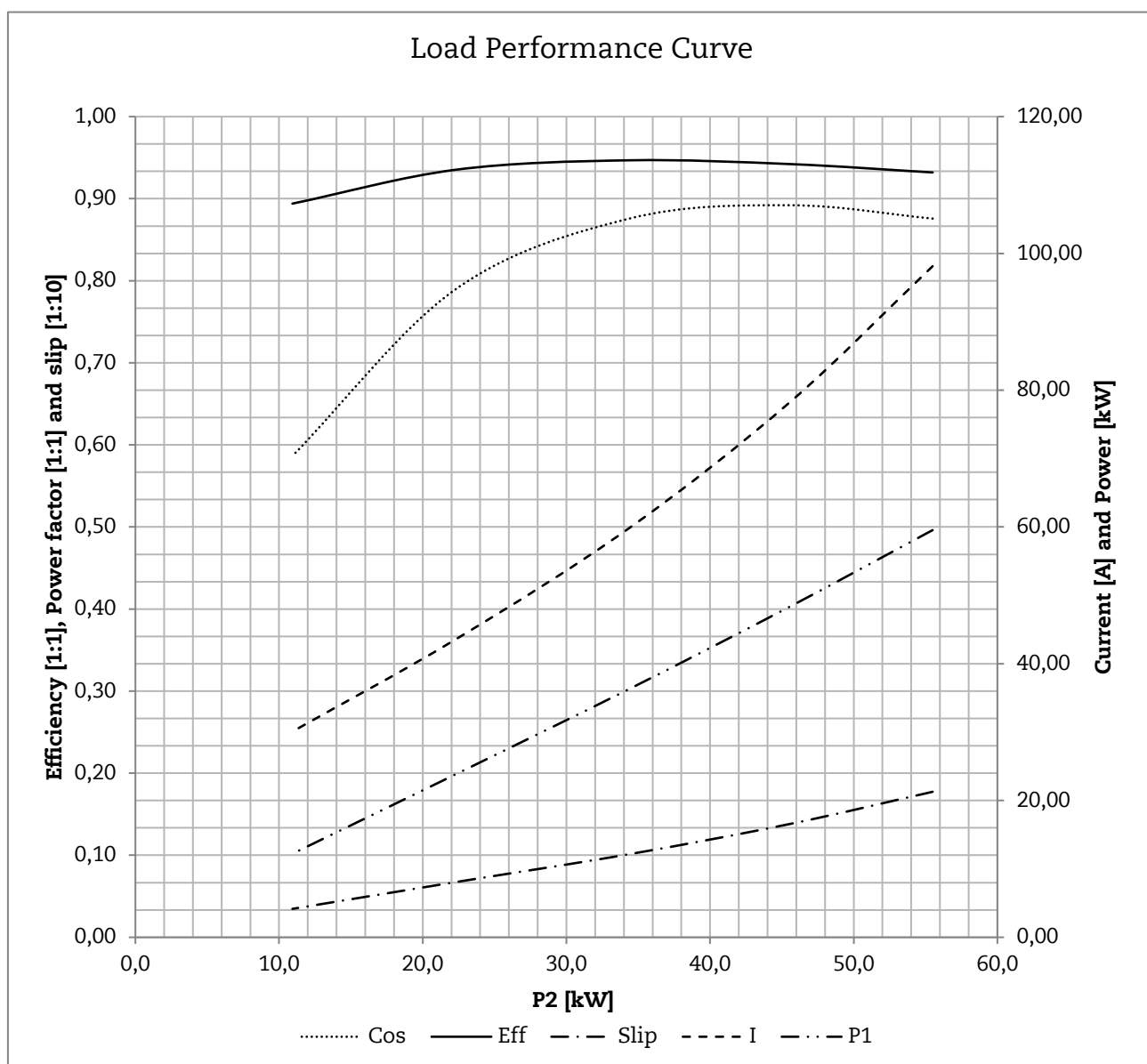
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Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.

Load test data

| P2 kW | P1 kW | Eff (η) P2/P1 | I A | T Nm | Cos ϕ |
|----------|----------|-------------------------|--------|---------|------------|
| 55,5 | 59,5 | 0,932 | 98,13 | 364,6 | 0,88 |
| 45,5 | 48,3 | 0,942 | 78,20 | 290,5 | 0,89 |
| 34,4 | 36,3 | 0,947 | 59,85 | 217,1 | 0,88 |
| 22,3 | 23,9 | 0,935 | 43,59 | 144,2 | 0,79 |
| 10,9 | 12,2 | 0,894 | 30,08 | 71,9 | 0,59 |



No-load test data at rated frequency

| U ₀ V | I ₀ A | P ₀ W | P _{cul.} |
|---------------------|---------------------|---------------------|-------------------|
| 503,1 | 48,84 | 2980,0 | 352,3 |
| 451,9 | 32,00 | 1650,0 | 151,2 |
| 409,3 | 24,13 | 1170,0 | 86,0 |
| 370,6 | 20,41 | 940,0 | 61,5 |
| 329,8 | 17,51 | 780,0 | 45,3 |
| 289,4 | 14,93 | 660,0 | 32,9 |
| 249,7 | 12,57 | 560,0 | 23,3 |
| 219,8 | 10,88 | 490,0 | 17,5 |
| 190,6 | 9,39 | 430,0 | 13,0 |
| 159,9 | 7,66 | 370,0 | 8,7 |

