



| | | | |
|-----------------------------|------------------------|----------------------------|-------------------------------|
| Winding. calc. card.: _____ | | motor No. <u>108836001</u> | |
| type: <u>DMA2-100L8</u> | Output: <u>0,75</u> kW | Duty type: <u>S1</u> | |
| Voltage: <u>400</u> V | conn. <u>Y</u> | frequency: <u>50</u> Hz | cosφ <u>0,67</u> IM <u>B3</u> |
| current: <u>2,3</u> A | speed: <u>685</u> rpm | eff. <u>67,1</u> % | M of I <u>kgm²</u> |
| remarks: _____ | | | |
| _____ | | | |

Statorwinding resistance measurement (cold) :

| | | |
|------------------------------|------------------------------|-----------------------------|
| Connection: <u>Y</u> | $R_{u1-v1} :$ <u>17,88</u> Ω | |
| Winding temp: <u>22,0</u> °C | $R_{v1-w1} :$ <u>17,88</u> Ω | $R_{av} =$ <u>17,87</u> Ω ; |
| room temp: <u>22,0</u> °C | $R_{w1-u1} :$ <u>17,86</u> Ω | |

No-load test

$R_{begin} =$ 20,70 Ω
 $R_{end} =$ 20,64 Ω

| | | | | Losses | | |
|-------|-------|-------|--------------|-----------|----------|-------|
| U_0 | I_0 | P_0 | $\cos\phi_0$ | V_{cu1} | V_{fe} | V_w |
| V | A | W | | W | W | W |
| 473 | 4,6 | 826 | 0,222 | 641 | 181 | 4 |
| 438 | 3,3 | 457 | 0,185 | 329 | 124 | 4 |
| 400 | 2,4 | 266 | 0,161 | 175 | 87 | 4 |
| 358 | 1,8 | 166 | 0,150 | 99 | 63 | 4 |
| 310 | 1,4 | 109 | 0,149 | 57 | 48 | 4 |
| 253 | 1,0 | 68 | 0,155 | 31 | 33 | 4 |
| 179 | 0,7 | 33 | 0,161 | 13 | 16 | 4 |
| 127 | 0,5 | 20 | 0,189 | 7 | 9 | 4 |

sound pressure level in dB(A) (at 1m) : 61,3
 sound power level in dB(A) : 69,3
 vibration level (mm/s) : $x =$ 0,6 $y =$ 0,5 $z =$ 0,6

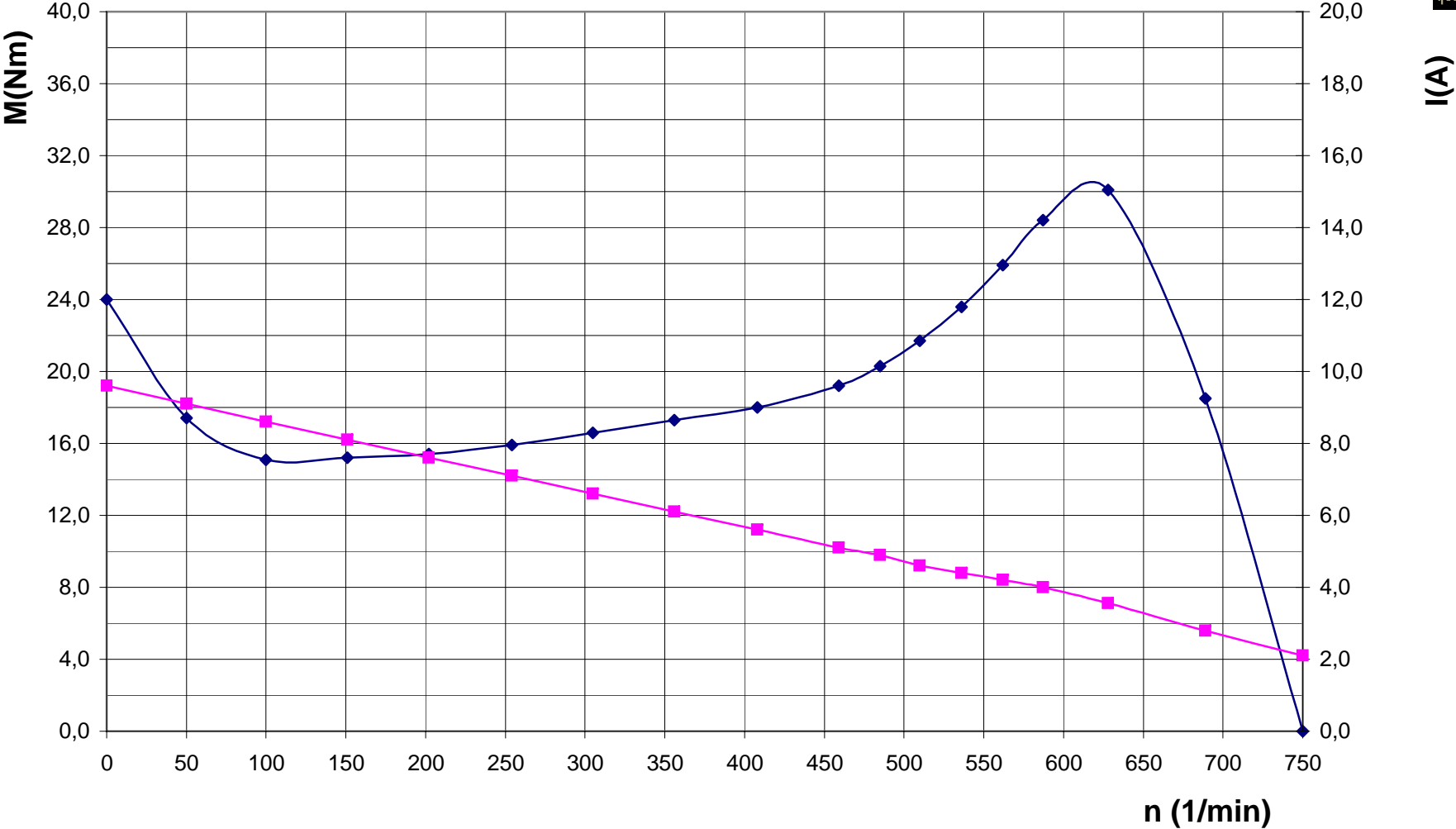
Temperature rise test

voltage : 400 V frequency: 50 Hz current 2,62 A connection : Y

| | | Room Temp. °C | $R_{wdg.}$ Ω | wdg. Temp. by $R_{wdg.}$ | wdg. temp. rise (K) | measured Temperature (°C) with ETD* | | | |
|------------------------|-------|---------------|--------------|--------------------------|---------------------|-------------------------------------|-------------|---------|-------|
| According to IEC 34 -1 | time | | | | | wdg. DE | bearing NDE | bearing | frame |
| begin | 16:00 | 23,0 | 17,94 | 23,0 | | | | | 23,0 |
| | 17:35 | 23,0 | | | | | | | 57,0 |
| End | 18:05 | 23,0 | 21,56 | 75,1 | 52,1 | 67 | 67,0 | | 57,0 |

* ETD = embedded temperature detector

DMA2-100L8 Y400V 50HZ 0,75kW



Load test

DMA2-100L8

frequency : 50 Hz

connection : Y

$t_{wdg,av} = 73,9$ °C

$R_{av} = 21,00$ Ω

| P ₂ approx. % | U V | I A | P ₁ kW | cosφ | n min ⁻¹ | s % | Losses | | | | | | P ₂ kW | η % |
|--------------------------------|--------|--------|----------------------|-------|------------------------|--------|----------------------|------------------------|---------------------|------------------------|---------------------|---------------------|----------------------|--------|
| | | | | | | | V _{fe} W | V _{cu,1} W | V _e W | V _{cu,2} W | V _w W | V _v W | | |
| | | | | | | | 25 | 400 | 2,39 | 0,466 | 0,281 | 739 | | |
| 50 | 400 | 2,41 | 0,670 | 0,401 | 723 | 3,60 | 87 | 183 | 5 | 14 | 4 | 293 | 0,377 | 56,33 |
| 75 | 400 | 2,47 | 0,881 | 0,515 | 710 | 5,33 | 87 | 192 | 5 | 32 | 4 | 320 | 0,561 | 63,72 |
| 100 | 400 | 2,61 | 1,115 | 0,617 | 698 | 6,93 | 87 | 215 | 6 | 56 | 4 | 367 | 0,748 | 67,10 |
| 125 | 400 | 2,86 | 1,386 | 0,699 | 685 | 8,67 | 87 | 258 | 7 | 90 | 4 | 445 | 0,941 | 67,92 |
| 150 | 400 | 3,28 | 1,706 | 0,751 | 668 | 10,9 | 87 | 339 | 9 | 139 | 4 | 577 | 1,129 | 66,16 |
| 100 | 440 | 3,16 | 1,273 | 0,529 | 708 | 5,60 | 127 | 315 | 8 | 46 | 4 | 500 | 0,773 | 60,74 |
| 100 | 420 | 2,80 | 1,171 | 0,575 | 703 | 6,27 | 103 | 247 | 6 | 51 | 4 | 411 | 0,760 | 64,87 |
| 100 | 380 | 2,42 | 1,080 | 0,678 | 684 | 8,80 | 73 | 185 | 5 | 72 | 4 | 338 | 0,742 | 68,68 |
| 100 | 360 | 2,35 | 1,059 | 0,723 | 679 | 9,47 | 64 | 174 | 4 | 77 | 4 | 324 | 0,735 | 69,43 |

Torque/speed and Current/speed test

voltage : 400 V

frequency: 50 Hz

connection : Y

| n min ⁻¹ | T Nm | I A | n min ⁻¹ | T Nm | I A | n min ⁻¹ | T Nm | I A |
|------------------------|---------|--------|------------------------|---------|--------|------------------------|---------|--------|
| 750 | 0,0 | 2,1 | 510 | 21,7 | 4,6 | 254 | 15,9 | 7,1 |
| 689 | 18,5 | 2,8 | 485 | 20,3 | 4,9 | 202 | 15,4 | 7,6 |
| 628 | 30,1 | 3,6 | 459 | 19,2 | 5,1 | 151 | 15,2 | 8,1 |
| 587 | 28,4 | 4,0 | 408 | 18,0 | 5,6 | 100 | 15,1 | 8,6 |
| 562 | 25,9 | 4,2 | 356 | 17,3 | 6,1 | 50 | 17,4 | 9,1 |
| 536 | 23,6 | 4,4 | 305 | 16,6 | 6,6 | 0 | 24,0 | 9,6 |

Locked rotor test

| wdg. temp. °C | U V | I A | P ₁ kW | cosφ | T Nm |
|---------------------|--------|--------|----------------------|-------|---------|
| 33,1 | 400 | 9,56 | 4,426 | 0,668 | 24 |
| 34,3 | 350 | 8,0 | 3,232 | 0,664 | 18,1 |
| 34,3 | 300 | 6,62 | 2,261 | 0,657 | 12,9 |
| 32,8 | 250 | 5,34 | 1,494 | 0,646 | 8,6 |
| 30,8 | 200 | 4,15 | 0,912 | 0,634 | 5,1 |
| 29,5 | 100 | 2,06 | 0,228 | 0,639 | 1,3 |



Date: 18-4-2001
 Name: HvD
 Signature: