



Winding. calc. card.:		motor No. <u>1548611008</u>	
type: <u>DMA2-100L4</u>	Output: <u>2,2</u> kW	Duty type: <u>S1</u>	
Voltage: <u>400</u> V	conn. <u>Y</u>	frequency: <u>50</u> Hz	cosφ <u>0,81</u> IM <u>B3</u>
current: <u>4,85</u> A	speed: <u>1425</u> rpm	eff. <u>81,0</u> %	M of I <u>0,00461</u> kgm <sup>2</sup>
remarks:			

**Statorwinding resistance measurement ( cold ) :**

Connection: <u>Y</u>	$R_{u1-v1} :$ <u>5,78</u> Ω	
Winding temp: <u>22,5</u> °C	$R_{v1-w1} :$ <u>5,74</u> Ω	$R_{av} =$ <u>5,75</u> Ω ;
room temp: <u>22,5</u> °C	$R_{w1-u1} :$ <u>5,74</u> Ω	

**No-load test**

$R_{begin} =$  6,75 Ω  
 $R_{end} =$  6,74 Ω

				Losses		
$U_0$	$I_0$	$P_0$	$\cos\phi_0$	$V_{cu1}$	$V_{fe}$	$V_w$
V	A	W		W	W	W
473	7,12	781	0,134	513	253	15
438	4,70	415	0,116	223	177	15
400	3,17	242	0,110	102	125	15
358	2,25	158	0,113	51	92	15
310	1,67	110	0,123	28	67	15
253	1,22	75	0,140	15	45	15
179	0,80	45	0,181	6	24	15
127	0,62	30	0,220	4	11	15

sound pressure level in dB(A) ( at 1m ) : 53,7  
 sound power level in dB(A) : 61,7  
 vibration level (mm/s) :                       $x =$  0,8                       $y =$  0,8                       $z =$  0,9

**Temperature rise test**

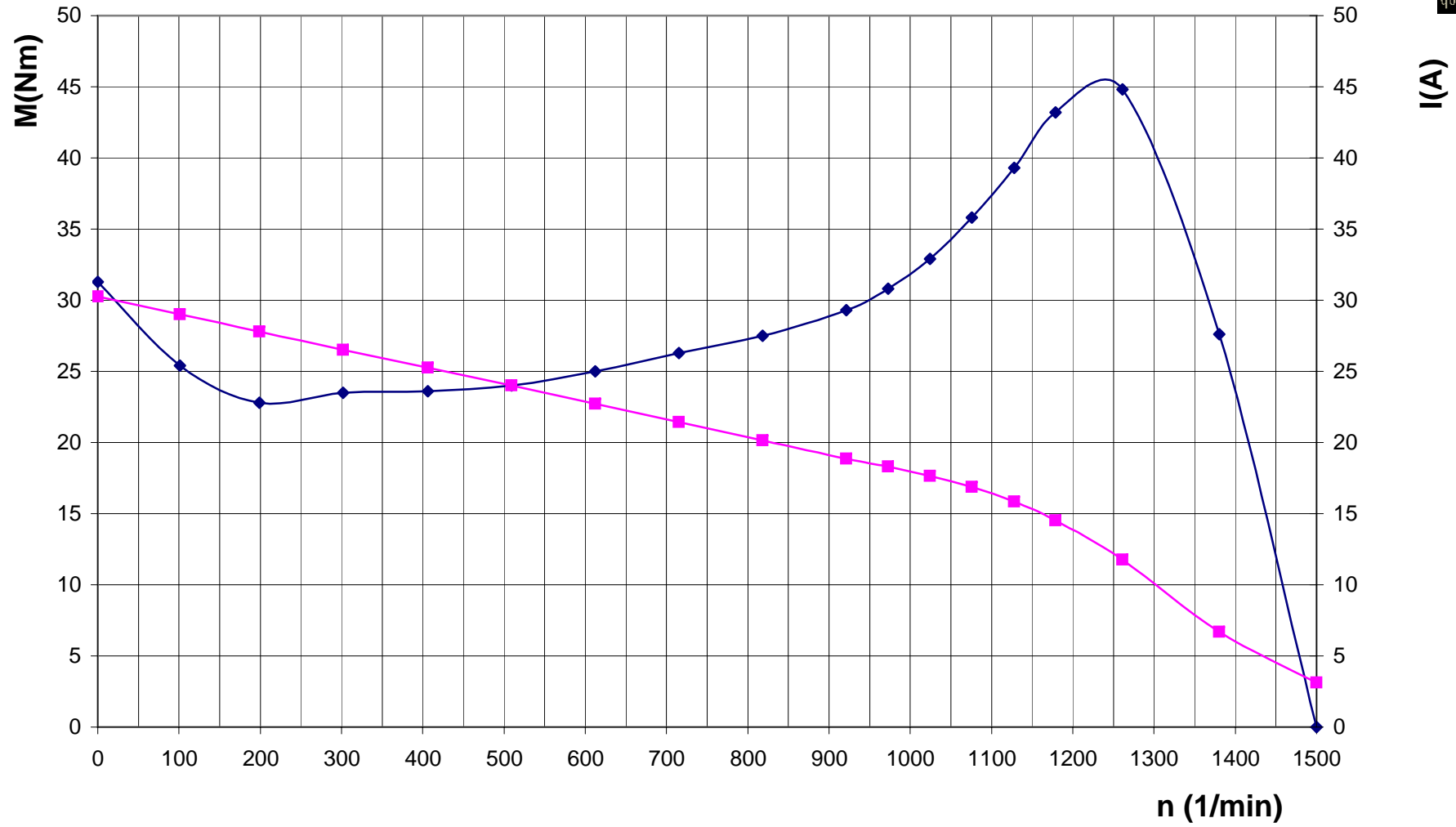
voltage : 400 V frequency: 50 Hz current 4,89 A connection : Y

		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.	bearing DE	bearing NDE	frame
begin	10:15	22,5	5,78	23,7				22,8	
	12:50	23,0						52,0	
End	13:20	23,5	7,14	84,4	60,9	62	62	52,5	

\* ETD = embedded temperature detector



# DMA2-100L4 Y400V 50HZ 2,2kW





## Load test

## DMA2-100L4

frequency : 50 Hz

connection : Y

$t_{wdg,av} = 75,0$  °C

$R_{av} = 6,93$  Ω

P <sub>2</sub> approx. %	U V	I A	P <sub>1</sub> kW	cosφ	n min <sup>-1</sup>	s %	Losses						P <sub>2</sub> kW	η %
							V <sub>fe</sub> W	V <sub>cu,1</sub> W	V <sub>e</sub> W	V <sub>cu,2</sub> W	V <sub>w</sub> W	V <sub>v</sub> W		
25	400	3,19	0,802	0,363	1487	0,87	125	106	6	5	15	257	0,545	68,0
50	400	3,54	1,396	0,569	1469	2,07	125	130	7	23	15	301	1,095	78,4
75	400	4,09	2,032	0,717	1449	3,40	125	174	10	59	15	382	1,650	81,2
100	400	4,87	2,716	0,805	1426	4,93	125	247	13	115	15	515	2,201	81,0
125	400	5,93	3,486	0,849	1399	6,73	125	366	20	200	15	726	2,760	79,2
150	400	7,36	4,384	0,860	1364	9,1	125	563	31	332	15	1066	3,318	75,7
100	440	5,39	2,736	0,666	1442	3,87	181	302	16	86	15	601	2,135	78,0
100	420	5,01	2,694	0,739	1436	4,27	149	261	14	97	15	536	2,158	80,1
100	380	4,79	2,624	0,832	1417	5,53	107	239	13	125	15	499	2,125	81,0
100	360	4,92	2,626	0,856	1403	6,47	93	252	14	147	15	520	2,106	80,2

## Torque/speed and Current/speed test

voltage : 400 V

frequency: 50 Hz

connection : Y

n min <sup>-1</sup>	T Nm	I A	n min <sup>-1</sup>	T Nm	I A	n min <sup>-1</sup>	T Nm	I A
1500	0,0	3,12	1024	32,9	17,7	509	24,0	24,0
1380	27,6	6,7	973	30,8	18,3	406	23,6	25,3
1261	44,8	11,8	921	29,3	18,9	302	23,5	26,5
1179	43,2	14,5	818	27,5	20,1	199	22,8	27,8
1128	39,3	15,9	715	26,3	21,5	101	25,4	29,0
1076	35,8	16,88	612	25,0	22,7	0	31,3	30,2

## Locked rotor test

wdg. temp. °C	U V	I A	P <sub>1</sub> kW	cosφ	T Nm
37,2	400	30,24	14,640	0,699	31,3
44,7	350	25,36	10,833	0,705	22,8
46,1	300	20,87	7,607	0,701	15,3
45,6	250	16,72	4,968	0,686	9,0
31,6	200	12,85	2,921	0,656	4,4
30,2	100	5,68	0,630	0,64	1,1



Date: 12-5-2001

Name: HvD

Signature: