

Windg. calc. card.: _____	motor No. <u>6</u>			
type: <u>DM1-132MX6</u>	Output: <u>5,5</u> kW	Duty type: <u>S1</u>		
Voltage: <u>400</u> V	conn. <u>Δ</u>	frequency: <u>50</u> Hz	cosφ <u>0,77</u>	IM <u>B5</u>
current: <u>12,3</u> A	speed: <u>975</u> rpm	eff. <u>84,0</u> %	M of I	<u>0,0431</u> kgm <sup>2</sup>
remarks: <u>PTC150°C inside the motors</u>				

### Statorwinding resistance measurement ( cold ) :

Connection: <u>Δ</u>	$R_{u1-v1}$ : <u>1,616</u> Ω	
Winding temp: <u>14,0</u> °C	$R_{v1-w1}$ : <u>1,606</u> Ω	$R_{av}$ = <u>1,609</u> Ω ;
room temp: <u>14,0</u> °C	$R_{w1-u1}$ : <u>1,604</u> Ω	

### No-load test

$$R_{begin} = \underline{\underline{2,026}} \quad \Omega$$

$$R_{end} = \underline{\underline{2,018}} \quad \Omega$$

				Losses		
$U_0$	$I_0$	$P_0$	$\cos\phi_0$	$V_{cu1}$	$V_{fe}$	$V_w$
V	A	W		W	W	W
473	13,4	1201	0,109	544	645	12
438	9,9	743	0,099	297	434	12
400	7,3	450	0,089	161	277	12
358	5,5	281	0,082	92	177	12
310	4,2	191	0,085	53	126	12
253	3,3	134	0,093	33	89	12
179	2,3	70	0,098	16	42	12
127	1,7	44	0,118	9	23	12

sound pressure level in dB(A) ( at 1m ) : 56,4

sound power level in dB(A) : 64,4

vibration level (mm/s) :            x = 1,2                            y = 1,1                            z = 1,2

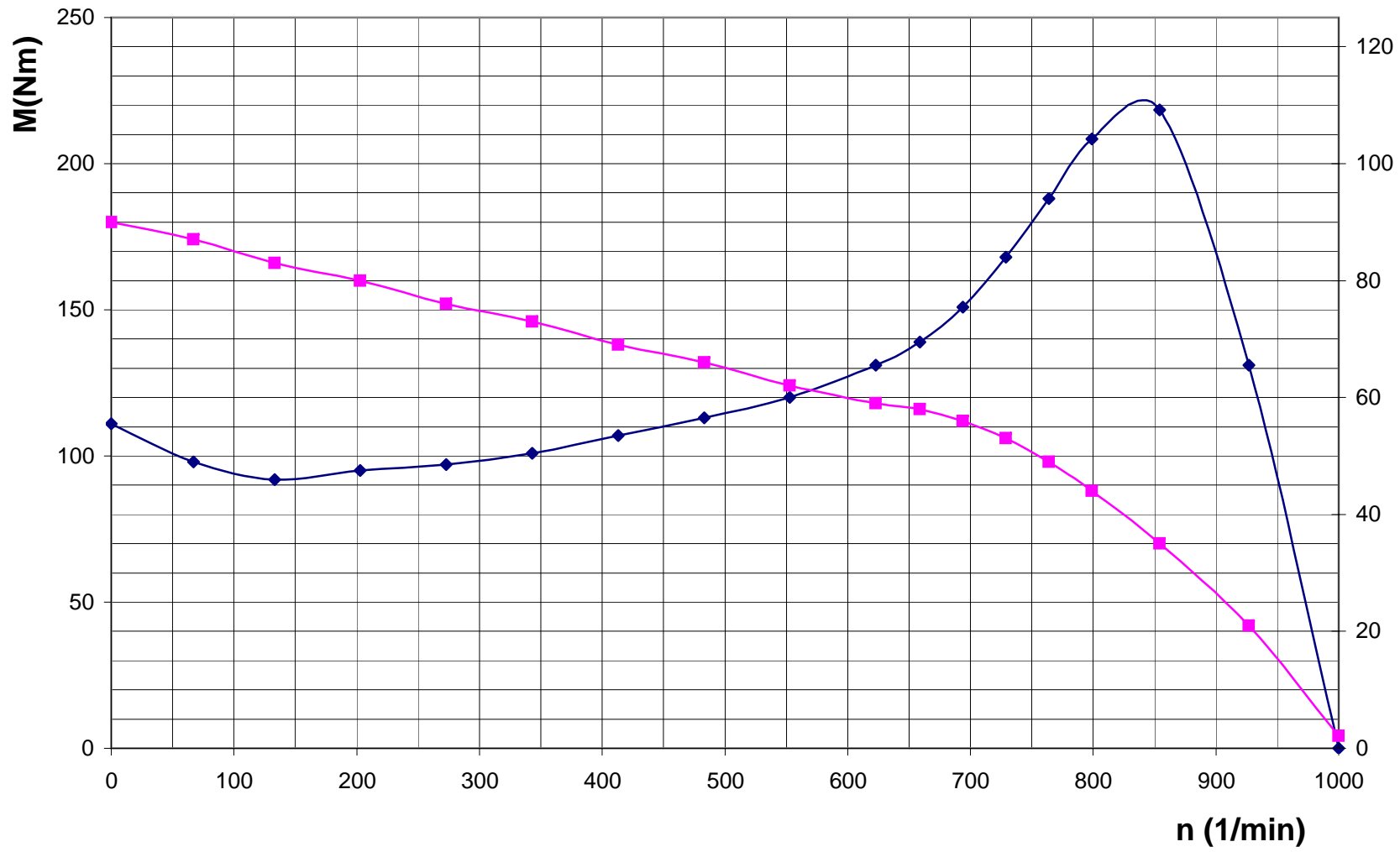
### Temperature rise test

voltage : 400 V frequency: 50 Hz current 12,8 A connection : Δ

		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	10:25	14,0	1,658	21,6				15,9	
	12:45	16,0						55,5	
End	13:15	16,0	2,069	85,2	69,2	70	68,0	55,5	

\* ETD = embedded temperature detector

# DM1-132MX6 DR.400V 50HZ 5,5kW



I(A)

## Load test

## DM1-132MX6

frequency : 50 Hz      connection : Δ       $t_{wdg,av} = 83,1$  °C       $R_{av} = 2,06$  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	7,7	1,87	0,350	998	0,20	277	183	12	3	12	486	1,38	73,99
50	400	8,8	3,89	0,638	988	1,20	277	239	15	40	12	583	3,31	85,01
75	400	10,2	4,84	0,685	979	2,10	277	321	20	89	12	719	4,12	85,16
100	400	12	6,43	0,773	971	2,90	277	444	28	165	12	925	5,50	85,60
125	400	14,3	8,12	0,820	961	3,90	277	630	40	280	12	1239	6,88	84,75
150	400	17	9,97	0,846	946	5,4	277	891	57	472	12	1708	8,26	82,86
100	440	13,1	6,61	0,662	977	2,30	443	529	34	129	12	1147	5,47	82,66
100	420	12,4	6,50	0,720	974	2,60	349	474	30	147	12	1012	5,49	84,43
100	380	11,9	6,40	0,816	968	3,20	221	437	28	183	12	880	5,51	86,24
100	360	12,0	6,42	0,858	963	3,70	182	444	28	213	12	880	5,54	86,31

## Torque/speed and Current/speed test

voltage : 400 V      frequency: 50 Hz      connection : Δ

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
1000	0	2,1	694	151	56	343	101	73
927	131	21	659	139	58	273	97	76
854	218	35	623	131	59	203	95	80
799	209	44	553	120	62	133	92	83
764	188	49	483	113	66	67	98	87
729	168	53	413	107	69	0,01	111	90

## Locked rotor test

wdg. temp. °C	U V	I A	P <sub>1</sub> kW	cosφ	T Nm
14	400	89,9	39,16	0,629	111
39	350	74,9	28,26	0,622	77
50,8	300	61,2	19,43	0,611	50
53,1	250	48,8	12,50	0,592	29
50,3	200	37,4	7,30	0,563	14
45,3	100	16,9	1,362	0,465	4



Date: 10-2-1998  
 Name: HvD  
 Signature: