



Windg. calc. card.:	motor No. <u>1</u>			
type: <u>DM1-132S6</u>	Output: <u>3</u> kW	Duty type: <u>S1</u>		
Voltage: <u>400</u> V	conn. <u>Δ</u>	frequency: <u>50</u> Hz	cosφ <u>0,76</u>	IM <u>B3</u>
current: <u>7,0</u> A	speed: <u>970</u> rpm	eff. <u>81,0</u> %	M of I	<u>0,0274</u> kgm ²
remarks: <u>PTC150°C inside the motors</u>				

Statorwinding resistance measurement (cold) :

Connection: <u>Δ</u>	$R_{u1-v1} :$ <u>3,721</u> Ω	
Winding temp: <u>19,0</u> °C	$R_{v1-w1} :$ <u>3,730</u> Ω	$R_{av} =$ <u>3,725</u> Ω ;
room temp: <u>19,0</u> °C	$R_{w1-u1} :$ <u>3,722</u> Ω	

No-load test

$R_{begin} =$ 3,931 Ω
 $R_{end} =$ 3,998 Ω

				Losses		
U_0	I_0	P_0	$\cos\phi_0$	V_{cu1}	V_{fe}	V_w
V	A	W		W	W	W
473	8,7	1054	0,148	454	576	24
438	6,5	657	0,133	253	380	24
400	4,8	402	0,121	138	240	24
358	3,7	254	0,111	82	148	24
310	2,8	173	0,115	47	102	24
253	2,2	122	0,127	29	69	24
179	1,5	68	0,146	13	31	24
127	1,1	50	0,207	7	19	24

sound pressure level in dB(A) (at 1m) : 59
 sound power level in dB(A) : 67
 vibration level (mm/s) : x = 0,8 y = 1,2 z = 0,6

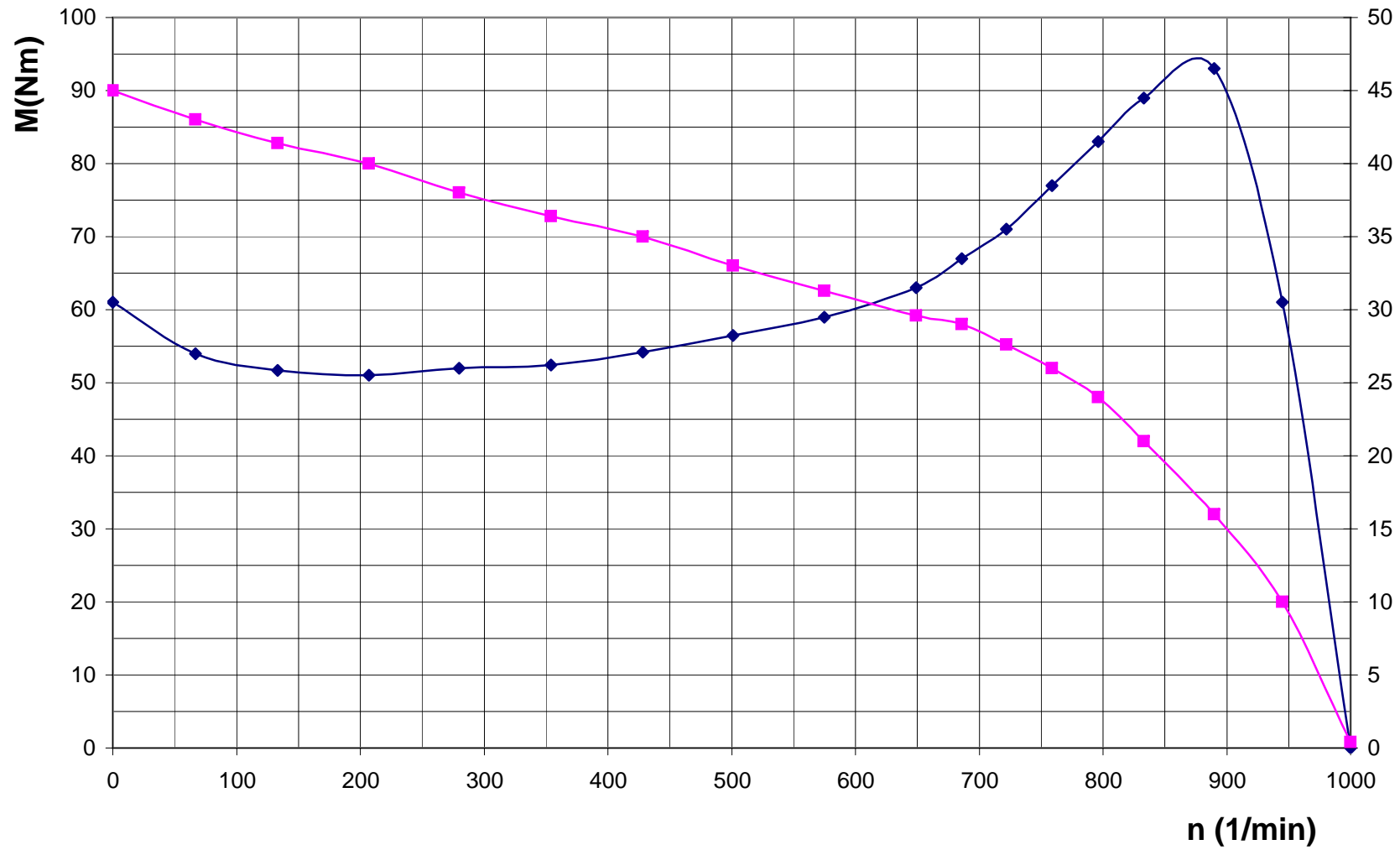
Temperature rise test

voltage : 400 V frequency: 50 Hz current 6,8 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	10:15	19,0	3,723	18,9					19,0
	12:45	21,0							50,0
End	13:15	21,0	4,613	79,6	58,6	75	72,0		50,0

* ETD = embedded temperature detector

DM1-132S6 DR.400V 50HZ 3kW



I(A)

Load test

DM1-132S6

frequency : 50 Hz

connection : Δ

$t_{wdg,av} = 70,6$ °C

$R_{av} = 4,48$ 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	5,1	1,20	0,340	994	0,60	240	175	10	5	24	454	0,75	62,25
50	400	5,5	2,00	0,524	988	1,20	240	203	12	18	24	498	1,50	75,06
75	400	6,1	2,83	0,668	980	2,00	240	250	15	46	24	575	2,25	79,64
100	400	7	3,70	0,764	971	2,90	240	329	20	90	24	703	3,00	81,01
125	400	8,2	4,64	0,817	961	3,90	240	452	27	153	24	896	3,74	80,69
150	400	9,6	5,65	0,849	950	5,0	240	620	37	238	24	1158	4,49	79,50
100	440	8	3,93	0,645	975	2,50	388	430	26	77	24	945	2,99	75,98
100	420	7,4	3,80	0,705	973	2,70	303	368	22	84	24	801	2,99	78,90
100	380	6,8	3,70	0,826	967	3,30	189	311	19	105	24	647	3,05	82,48
100	360	6,8	3,65	0,861	963	3,70	154	311	19	117	24	624	3,02	82,89

Torque/speed and Current/speed test

voltage : 400 V

frequency: 50 Hz

connection : Δ

n min ⁻¹	T Nm	I A	n min ⁻¹	T Nm	I A	n min ⁻¹	T Nm	I A
1000	0	0,4	722	71	28	354	52	36
945	61	10	686	67	29	280	52	38
890	93	16	649	63	29,6	207	51	40
833	89	21	575	59	31,3	133	52	41
796	83	24	501	57	33	67	54	43
759	77	26	428	54	35	0,01	61	45

Locked rotor test

wdg. temp. °C	U V	I A	P ₁ kW	cosφ	T Nm
19	400	44,8	19,91	0,641	61
37,7	350	37,6	14,39	0,631	43
45,4	300	30,9	9,91	0,617	29
47,8	250	24,7	6,39	0,597	19
46,1	200	19,1	3,74	0,566	11
43,5	100	9,2	0,744	0,467	2



Date: 10-2-1998

Name: HvD

Signature: