



Windg. calc. card.: _____	motor No. <u>01</u>			
type: <u>DM1-100L6</u>	Output: <u>1,5</u> kW	Duty type: <u>S1</u>		
Voltage: <u>400</u> V	conn. <u>Y</u>	frequency: <u>50</u> Hz	cosφ <u>0,75</u>	IM <u>B3</u>
current: <u>3,8</u> A	speed: <u>920</u> rpm	eff. <u>76,0</u> %	M of I <u>0,0069</u> kgm ²	
remarks: <u>PTC150°C inside the motors</u>				

Statorwinding resistance measurement (cold) :

Connection: <u>Y</u>	R _{u1-v1} : <u>8,084</u> Ω	
Winding temp: <u>20,0</u> °C	R _{v1-w1} : <u>8,066</u> Ω	R _{av} = <u>8,073</u> Ω ;
room temp: <u>20,0</u> °C	R _{w1-u1} : <u>8,070</u> Ω	

No-load test

R_{begin} = 9,442 Ω
 R_{end} = 9,300 Ω

				Losses		
U ₀	I ₀	P ₀	cosφ ₀	V _{cu1}	V _{fe}	V _w
V	A	W		W	W	W
473	4,9	703	0,175	335	351	17
438	3,8	474	0,164	201	256	17
400	2,9	307	0,153	117	173	17
358	2,2	191	0,140	68	106	17
310	1,6	117	0,136	36	64	17
253	1,2	74	0,141	20	37	17
179	0,8	45	0,181	9	19	17
127	0,7	33	0,214	7	9	17

sound pressure level in dB(A) (at 1m) : 52,2
 sound power level in dB(A) : 60,2
 vibration level (mm/s) : x = 0,3 y = 0,1 z = 0,2

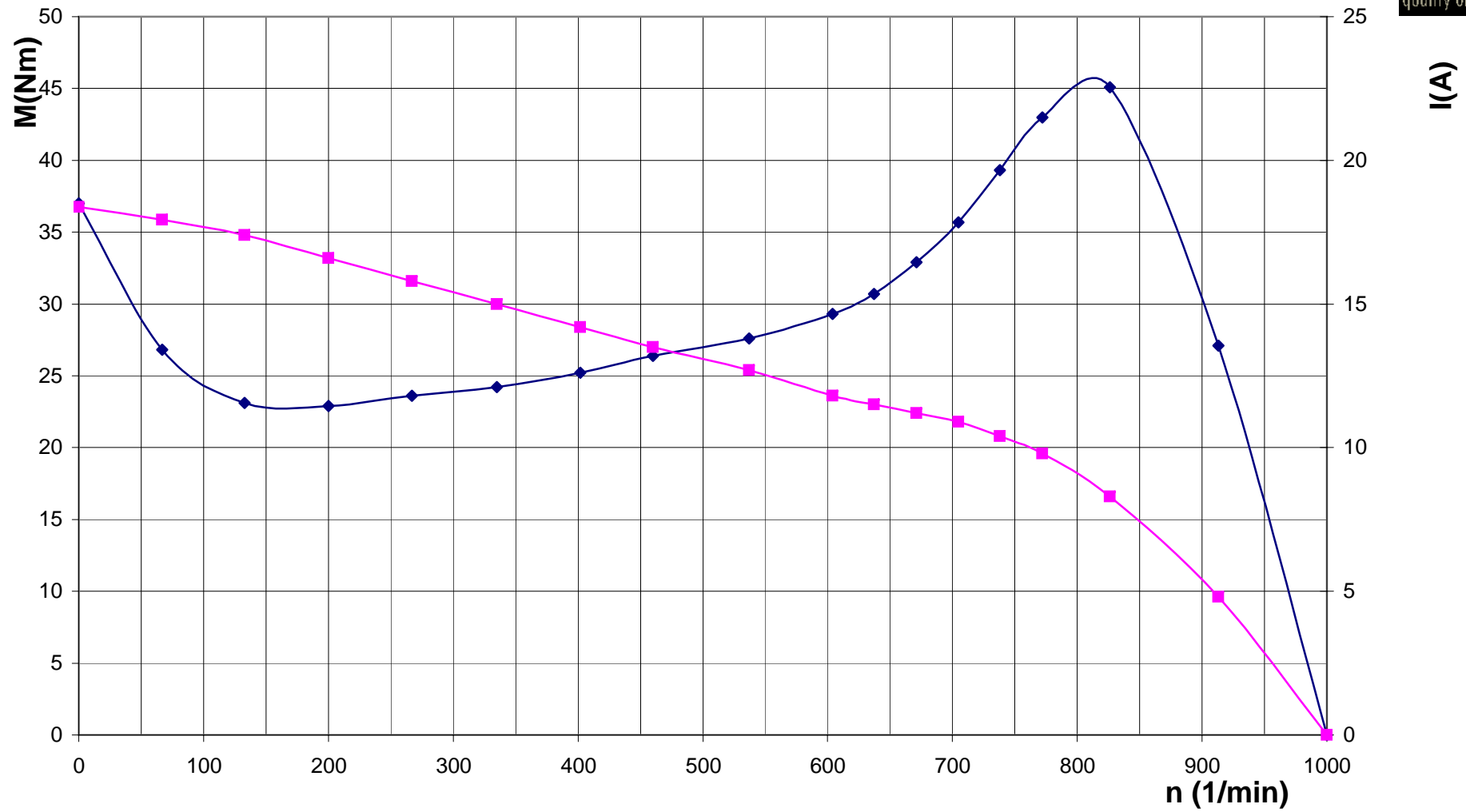
Temperature rise test

voltage : 400 V frequency: 50 Hz current 3,7 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	13:25	20,0	8,084	20,2					21,0
	15:45	21,0							61,0
End	16:15	21,0	9,643	69,4	48,4		66,0	65,0	61,0

* ETD = embedded temperature detector

DM1-100L6 ST.400V 50HZ 1,5kW



Load test

DM1-100L6

frequency : 50 Hz

connection : Y

$t_{wdg,av} = 66,7$ °C

$R_{av} = 9,55$ 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	2,9	0,69	0,341	986	1,40	173	120	6	5	17	322	0,36	53,09
50	400	3,1	1,10	0,513	970	3,00	173	138	7	24	17	358	0,74	67,48
75	400	3,4	1,55	0,656	952	4,80	173	166	9	58	17	421	1,12	72,73
100	400	4	2,04	0,738	931	6,90	173	229	12	112	17	543	1,50	73,42
125	400	4,9	2,62	0,772	909	9,10	173	344	18	190	17	741	1,88	71,72
150	400	6,1	3,31	0,782	887	11,3	173	533	28	291	17	1041	2,26	68,50
100	440	4,6	2,18	0,623	942	5,80	261	303	16	93	17	690	1,49	68,41
100	420	4,2	2,10	0,688	936	6,40	212	253	13	104	17	599	1,50	71,51
100	380	3,9	1,98	0,771	925	7,50	136	218	11	121	17	503	1,47	74,56
100	360	3,8	1,94	0,818	917	8,30	108	207	11	134	17	476	1,46	75,42

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
1000	0	0,001	671	33	11	335	24	15
913	27	4,8	637	31	11,5	267	24	16
826	45	8,3	604	29	11,8	200	23	17
772	43	9,8	537	28	12,7	133	23	17
738	39	10,4	460	26	13,5	67	27	18
705	36	10,9	402	25	14,2	0	37	18

Locked rotor test

wdg. temp. °C	U V	I A	P ₁ kW	cosφ	T Nm
19	400	18,9	8,99	0,686	37
49	350	16,0	6,39	0,659	27
52,8	300	13,2	4,31	0,629	18
50,3	250	10,6	2,72	0,592	12
47,4	200	8,0	1,55	0,559	7
42,4	100	2,8	0,324	0,668	2



Date: 22-7-1998

Name: HvD

Signature: 