



Windg. calc. card.:		motor No. <u>1587110015</u>	
type: <u>DM1-90L6</u>	Output: <u>1,1</u> kW	Duty type: <u>S1</u>	
Voltage: <u>400</u> V	conn. <u>Y</u>	frequency: <u>50</u> Hz	cosφ <u>0,73</u> IM <u>B3</u>
current: <u>3</u> A	speed: <u>910</u> rpm	eff. <u>72,0</u> %	M of I <u>kgm<sup>2</sup></u>
remarks: <u>PTC150<sup>0</sup>C inside the motors</u>			

**Statorwinding resistance measurement ( cold ) :**

Connection: <u>Y</u>	$R_{u1-v1} :$ <u>11,66</u> Ω	
Winding temp: <u>7,0</u> °C	$R_{v1-w1} :$ <u>11,66</u> Ω	$R_{av} =$ <u>11,66</u> Ω ;
room temp: <u>7,0</u> °C	$R_{w1-ul} :$ <u>11,66</u> Ω	

**No-load test**

$R_{begin} =$  13,53 Ω  
 $R_{end} =$  13,53 Ω

				Losses		
$U_0$	$I_0$	$P_0$	$\cos\phi_0$	$V_{cu1}$	$V_{fe}$	$V_w$
V	A	W		W	W	W
473	3,5	451	0,157	249	194	8
438	2,7	286	0,140	148	130	8
400	2,1	185	0,127	90	87	8
358	1,7	124	0,118	59	57	8
310	1,3	84	0,120	34	42	8
253	1,0	54	0,123	20	26	8
179	0,7	30	0,138	10	12	8
127	0,5	19	0,173	5	6	8

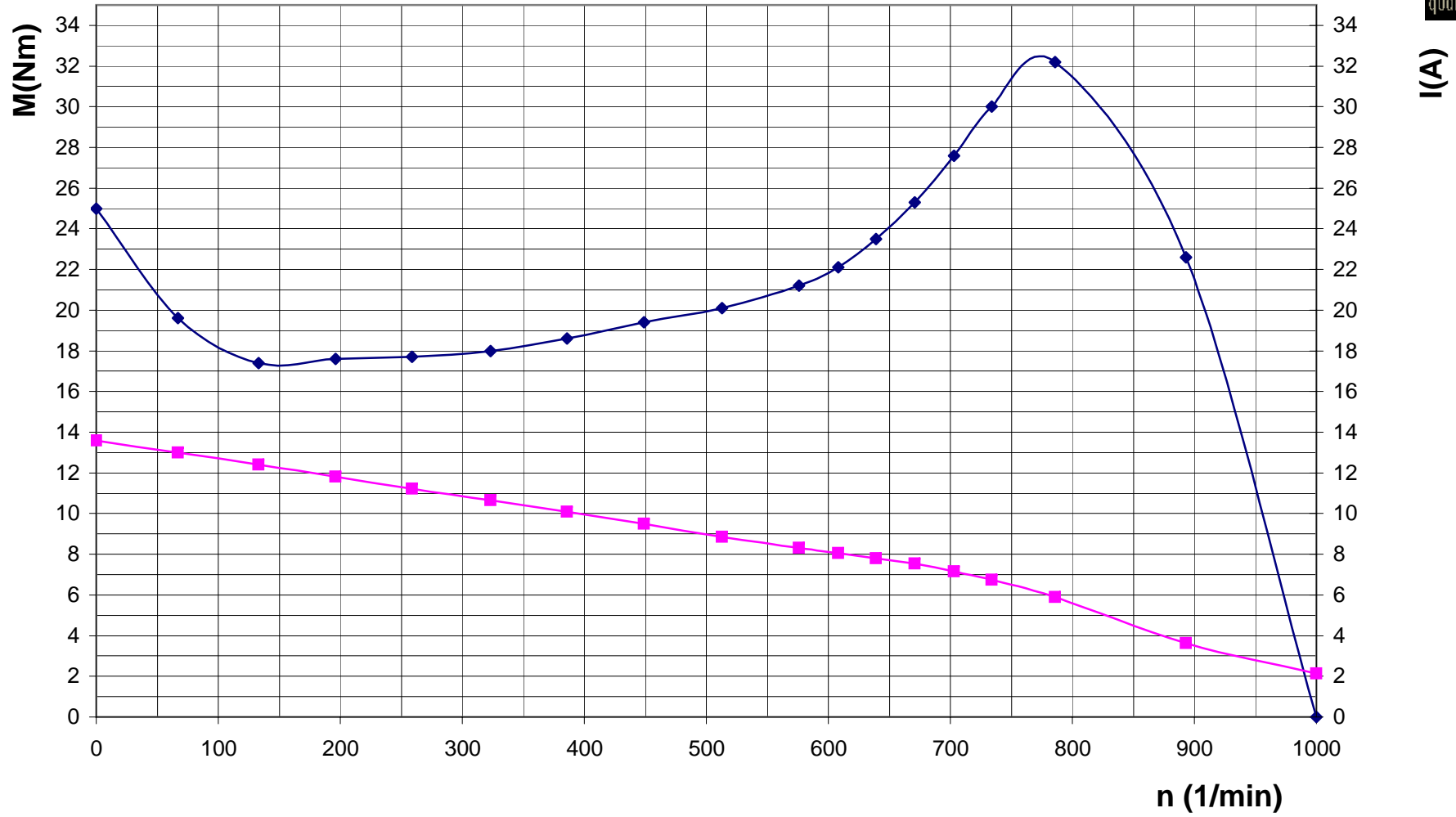
sound pressure level in dB(A) ( at 1m ) : 44,1  
 sound power level in dB(A) : 52,0  
 vibration level (mm/s) : x = 0,4      y = 0,6      z = 0,5

voltage : 400 V frequency: 50 Hz current 3,2 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	16:45	7,0	11,66	7,0				7,0	
	18:15	6,0						49,0	
End	18:45	6,0	14,26	61,0	55,0	59,0	59,0	49,0	

\* ETD = embedded temperature detector

# DM1-90L6 Y400V 50HZ 1,1kW



## Load test

## DM1-90L6

frequency : 50 Hz

connection : Y

$t_{wdg,av} = 60,37$  °C

$R_{av} = 14,23$  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	2,2	0,474	0,311	983	1,70	87	103	4	5	8	207	0,267	56,31
50	400	2,3	0,787	0,494	965	3,50	87	113	4	20	8	233	0,554	70,44
75	400	2,6	1,117	0,620	946	5,40	87	144	5	48	8	292	0,825	73,84
100	400	3,0	1,493	0,718	923	7,70	87	192	7	93	8	387	1,106	74,07
125	400	3,6	1,943	0,779	893	10,70	87	277	9	168	8	550	1,393	71,72
150	400	4,5	2,498	0,801	853	14,7	87	432	15	289	8	831	1,667	66,73
100	440	3,2	1,560	0,640	939	6,10	129	219	7	74	8	437	1,123	72,02
100	420	3,1	1,500	0,665	931	6,90	103	205	7	82	8	405	1,095	73,01
100	380	3,0	1,457	0,738	911	8,90	69	192	7	106	8	382	1,075	73,81
100	360	3,1	1,449	0,750	896	10,40	58	205	7	123	8	401	1,048	72,34

## 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
1000	0,0	2,13	639	23,5	7,8	323	18,0	10,7
893	22,6	3,6	608	22,1	8,1	259	17,7	11,2
786	32,2	5,9	576	21,2	8,3	196	17,6	11,8
734	30,0	6,7	513	20,1	8,9	133	17,4	12,4
703	27,6	7,2	449	19,4	9,5	67	19,6	13,0
671	25,3	7,55	386	18,6	10,1	0	25,0	13,6

## Locked rotor test

wdg. temp. °C	U V	I A	P <sub>1</sub> kW	cosφ	T Nm
7,0	400	13,6	6,282	0,667	25,0
9,5	350	11,4	4,505	0,652	18,3
10,7	300	9,3	3,066	0,634	12,6
15,7	250	7,4	1,942	0,606	8,0
10,8	200	5,6	1,111	0,573	4,5
9,2	100	2,6	0,238	0,528	1,0



Date: 8-1-2002  
Name: HvD  
Signature: 