



Windg. calc. card.:	motor No. 1501005008
type: <u>DM1-132SX2</u>	Output: <u>7,5</u> kW
Duty type: <u>S1</u>	
Voltage: <u>400</u> V	conn. <u>Δ</u> frequency: <u>50</u> Hz
cosφ <u>0,88</u> IM <u>B3</u>	
current: <u>14,2</u> A	speed: <u>2905</u> rpm
eff. <u>87,0</u> % M of I <u>0,0121</u> kgm <sup>2</sup>	
remarks: <u>PTC150°C inside the motors</u>	

**Statorwinding resistance measurement ( cold ) :**

Connection: <u>Δ</u>	R <sub>u1-v1</sub> : <u>1,105</u> Ω
Winding temp: <u>15,0</u> °C	R <sub>v1-w1</sub> : <u>1,104</u> Ω
room temp: <u>15,0</u> °C	R <sub>w1-u1</sub> : <u>1,104</u> Ω
R <sub>av</sub> = <u>1,104</u> Ω ;	

**No-load test**

R<sub>begin</sub> = 1,214 Ω  
 R<sub>end</sub> = 1,212 Ω

				Losses		
U <sub>0</sub>	I <sub>0</sub>	P <sub>0</sub>	cosφ <sub>0</sub>	V <sub>cu1</sub>	V <sub>fe</sub>	V <sub>w</sub>
V	A	W		W	W	W
473	7,6	659	0,106	105	436	118
438	5,8	502	0,114	61	323	118
400	4,4	377	0,124	35	224	118
358	3,4	300	0,142	21	161	118
310	2,8	248	0,165	14	116	118
253	2,2	204	0,212	9	77	118
179	1,6	162	0,327	5	39	118
127	1,3	142	0,497	3	21	118

sound pressure level in dB(A) ( at 1m ) : 71,6  
 sound power level in dB(A) : 79,5  
 vibration level (mm/s) : x = 1,0      y = 1,1      z = 1,0

**Temperature rise test**

voltage : 400 V frequency: 50 Hz current 14,0 A connection : Δ

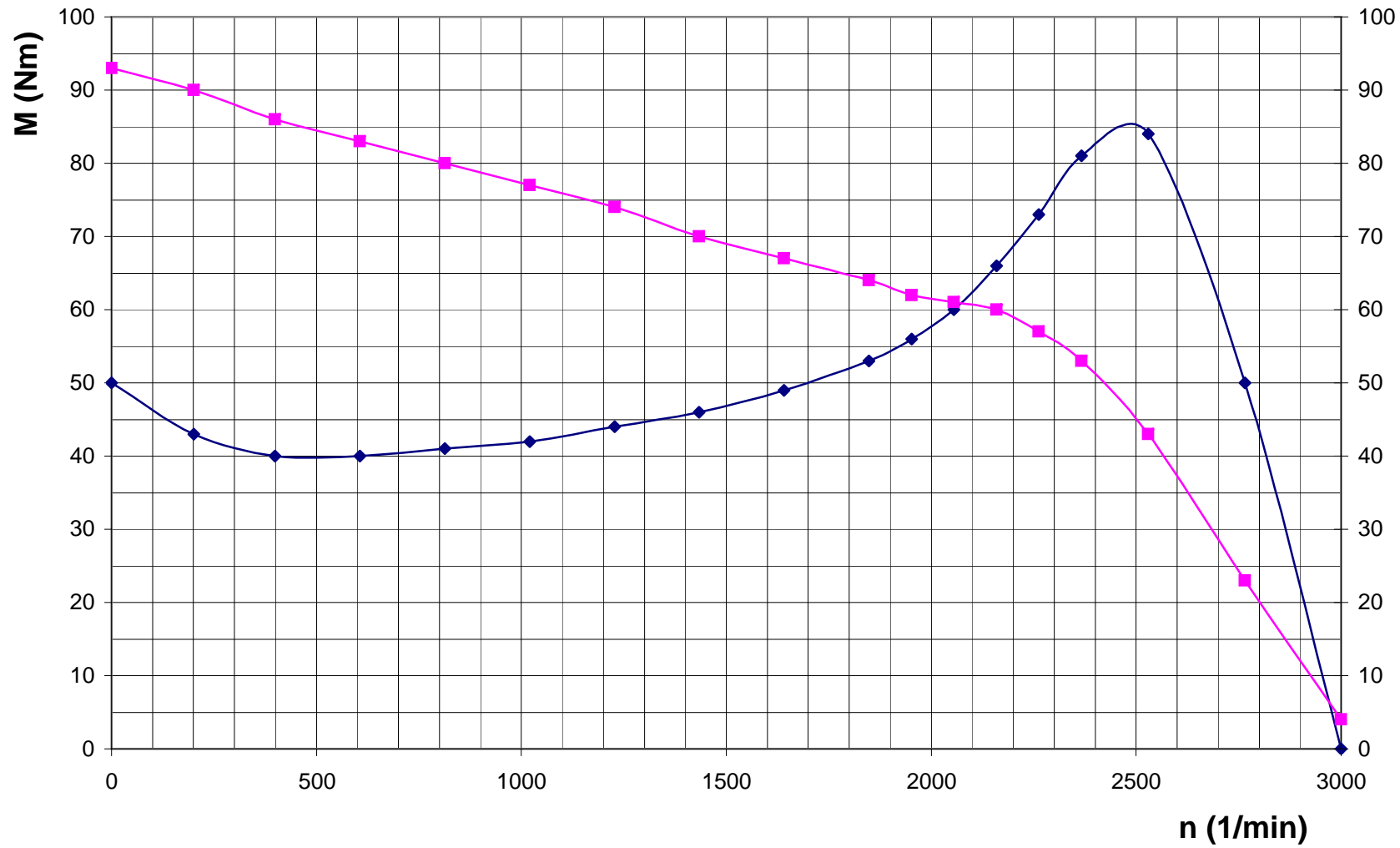
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		Room Temp. °C	R <sub>wdg.</sub> Ω	wdg. Temp. by R <sub>wdg.</sub>	wdg. temp. rise (K)	measured Temperature (°C) with ETD*			
According to IEC 34 -1	time					wdg.	bearing DE	bearing NDE	frame
begin	12.00	15,0	1,105	15,2				15,0	
	14.15	16,0						45,5	
End	14.45	16,0	1,397	81,3	65,3	55,0	55,0	45,5	

\* ETD = embedded temperature detector



# DM1-132SX2 $\Delta$ 400V 50HZ 7,5kW



I (A)

**Load test****DM1-132SX2**frequency : 50 Hzconnection : Δ $t_{\text{wdg,av}} = \underline{79,9} \text{ } ^\circ\text{C}$  $R_{\text{av}} = \underline{1,391} \text{ } \Omega$ 

							Losses							
$P_2$ approx. %	U V	I A	$P_1$ kW	$\cos\varphi$	n $\text{min}^{-1}$	s %	$V_{\text{fe}}$ W	$V_{\text{cu,1}}$ W	$V_e$ W	$V_{\text{cu,2}}$ W	$V_w$ W	$V_v$ W	$P_2$ kW	$\eta$ %
25	400	5,2	2,294	0,637	2971	0,97	224	56	6	19	118	423	1,871	81,5
50	400	7,7	4,308	0,808	2940	2,00	224	124	13	79	118	557	3,751	87,1
75	400	10,5	6,394	0,879	2911	2,97	224	230	23	176	118	771	5,623	87,9
100	400	13,7	8,594	0,905	2878	4,07	224	392	40	323	118	1096	7,498	87,2
125	400	17,2	10,950	0,919	2837	5,43	224	617	63	546	118	1568	9,382	85,7
150	400	21,0	13,504	0,928	2783	7,2	224	920	94	887	118	2243	11,261	83,4
100	440	13,2	8,789	0,874	2890	3,67	331	364	37	295	118	1145	7,644	87,0
100	420	13,5	8,709	1,105	2888	3,73	271	380	39	299	118	1107	7,602	87,3
100	380	14,6	8,729	1,104	2859	4,70	189	445	45	378	118	1175	7,554	86,5
100	380	15,3	8,699	1,104	2838	5,40	163	488	50	432	118	1251	7,448	85,62

**Torque/speed and Current/speed test**voltage : 1,21 400 V  
1,21frequency: 50 Hzconnection : Δ

n $\text{min}^{-1}$	T Nm	I A	n $\text{min}^{-1}$	T Nm	I A	n $\text{min}^{-1}$	T Nm	I A
3000	0	4	2055	60	61	1020	42	77
2765	8	659	1952	56	62	813	41	80
2529	6	502	1848	53	64	606	40	83
2366	4	377	1641	49	67	399	40	86
2262	3	300	1434	46	70	201	43	90
2159	3	248	1227	44	74	0	50	93

**Locked rotor test**

wdg. temp. $^\circ\text{C}$	U V	I A	$P_1$ kW	$\cos\varphi$ 71,6 79,5	T Nm
15,0	400	92,8	35,729	0,556	50,5
36,6	350	79,4	26,321	0,547	36,9
38,0	300	66,3	18,591	0,540	25,9
38,7	250	53,5	12,392	0,535	17,2
39,1	200	41,3	7,577	0,530	10,5
37,4	100	18,3	1,515	0,478	2,0

Date: 9-11-2000Name: HvD

Signature: