AERODYNAMIC TEST

Object of inspection :

Fan Type :	R18P-080MPS-ET090B-03A01, 0318-4-1035
Motor specification :	3~ 380-480V 50-60Hz 3000W 5,0-4,2A 1140RPM max.amb.60°C
Fan manufacturer :	Hidria
Aplication specification :	Aksialni ventilator brez mreže, PT100 v navitju

Performed by :

HIDRIA d.o.o. Nazorjeva ulica 6A 1000 Ljubljana — Performer : Matej Podgornik
PE HIDRIA Movent , Spodnja Kanomlja 23 , 5281 Spodnja Idrija

Test rig, type of inlet nozzle, type of instalation, test equipment :

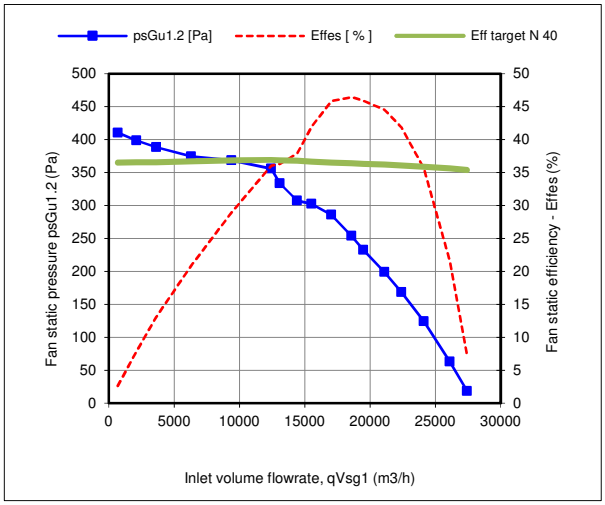
Dps=1600Pa , Q=5m3/s , P=10kW — Quadrant inlet nozzle: 0,600 — Type of installation: A
Power meter: Zimmer LMG 500 — Diferencial pressure meter: Sciltknecht Manoair 500 — Rpm meter: Sick W12
Humidity, temperature and barometric pressure meter: Vaisala PTU 303

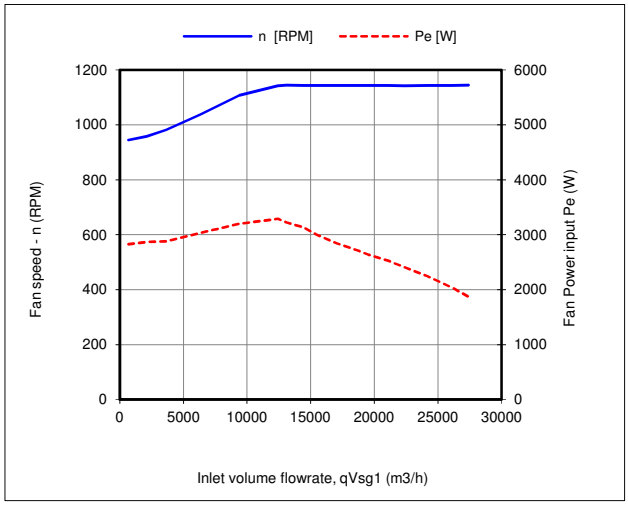
Test conditions :

Date of testing :	23.02.2022			
Testing Voltage / Frequency :	400V/50Hz			
Testing Capacitor / Connection :	0			
Direction of rotation :	CCW from cable side			
According to standards :	ISO 5801 - 2017			
Ambient temperature :	24	°C	Inlet:	0300-6-7314
Ambient humidity :	0,205	/	Guard gril:	brez mreže
Barometric pressure :	98870	Pa	Fan position in inlet:	70
Ambient air density :	1,156617	kg/m³	Sample No:	7986

Aerodynamic test :

q_{Vsg1}	$p_{sGu1.2}$	$p_{FGu1.2}$	p_5	p_3	n	Eff_{es}	U	f	I_{avg}	P_e	time
[m³/h]	[Pa]	[Pa]	[Pa]	[Pa]	[RPM]	[%]	[V]	[Hz]	[A]	[W]	[hh:mm]
679	410,4	410,5	0,3	395,6	945	2,64	399,3815	49,9992	4,367	2830,1	12:08:30
2113	398,5	399,4	2,6	384,1	958	7,86	400,406	49,9763	4,413	2868,6	12:05:25
3628	388,3	390,7	7,5	374,2	982	13,11	401,5425	49,9381	4,421	2877,9	12:02:03
6305	374,5	381,8	22,5	361,0	1038	20,87	399,502	49,9874	4,667	3028,9	11:58:37
9397	368,6	384,8	49,9	355,3	1108	28,95	400,5365	50,0135	4,904	3203,2	11:55:07
12426	356,1	384,4	87,1	343,3	1143	36,02	397,7335	50,0021	5,070	3289,1	11:51:21
13098	333,7	365,2	96,7	321,7	1145	36,33	397,8885	50,0326	4,964	3221,6	11:47:59
14426	307,2	345,4	117,3	296,1	1144	37,86	396,73	50,0188	4,840	3134,0	11:44:32
15516	302,4	346,5	135,7	291,5	1144	41,95	398,6455	50,0316	4,609	2994,3	11:40:59
17036	286,2	339,4	163,6	275,9	1144	45,86	398,089	50,023	4,392	2847,1	11:37:30
18590	254,0	317,3	194,7	244,8	1144	46,45	400,5955	50,0064	4,191	2721,3	11:32:51
19493	232,5	302,1	214,1	224,1	1144	45,90	399,0585	50,0338	4,081	2643,8	11:29:27
21099	199,1	280,6	250,9	191,9	1144	44,53	399,8945	50,0288	3,890	2525,6	11:26:03
22392	168,4	260,2	282,6	162,3	1143	41,88	400,3885	50,0231	3,716	2409,9	11:22:41
24130	124,1	230,8	328,2	119,6	1144	35,63	404,316	49,9885	3,445	2250,5	11:19:21
26096	63,0	187,8	384,0	60,7	1144	21,59	402,6545	49,9954	3,137	2038,4	11:16:01
27419	18,5	156,3	424,0	17,8	1145	7,26	399,3275	49,9931	2,913	1870,7	11:12:44





Remarks :

Approved :