



VACUUM CLEANER MOTOR PERFORMANCE  
CALCULATED FROM METRIC TO IMPERIAL UNITS & ASTM ORIFICE

Date: 18.1.2006

Zelezniki

Code: 496.3.330-5  
Voltage / fequency: 240/50 V / Hz  
Stator winding: 180/0,63  
Rotor winding: 24/0,40  
Brushes: L83F13  
Weight: 1970 g

Working order number: 128449  
Request number: 00690106  
Number: 2  
Absolute pressure: 95,28 kPa  
Ambient temperature: 21,9 °C  
Correction factor: 1,0464

Pf = 1184,30 W, Pi = 704,80 W, Pm = 944,55 W

M E T R I C	Orifice mm	Current A	Input Pow. W	Speed /min	Vacuum kPa	Air flow dm3/s	Air Power W	Efficiency %	Vac (inH2O)	Flow (CFM)	M E A S U R E D
	50	5,28	1185,22	19434	1,28	53,92	68,96	5,82	5,14	114,25	
	40	5,31	1190,10	19433	2,93	52,06	152,56	12,82	11,76	110,31	
	30	5,31	1189,98	19362	6,94	44,65	310,05	26,06	27,86	94,61	
	23	5,04	1131,40	19868	11,43	33,33	381,01	33,68	45,89	70,62	
	21	4,88	1099,20	20144	12,67	29,18	369,83	33,65	50,87	61,83	
	19	4,71	1061,18	20463	13,92	24,97	347,55	32,75	55,88	52,91	
	16	4,36	986,42	21192	15,77	18,80	296,48	30,06	63,31	39,83	
	13	4,00	909,70	22079	17,37	13,01	226,07	24,85	69,73	27,57	
	10	3,61	826,08	23090	18,75	8,02	150,39	18,21	75,27	16,99	
	6,5	3,18	732,60	24478	20,00	3,54	70,73	9,65	80,29	7,50	
	0	2,87	664,84	25736	21,40	0,00	0,00	0,00	85,91	0,00	

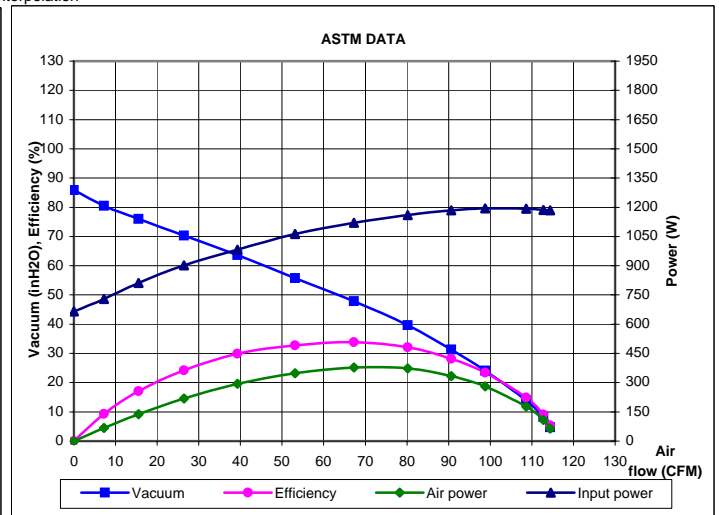
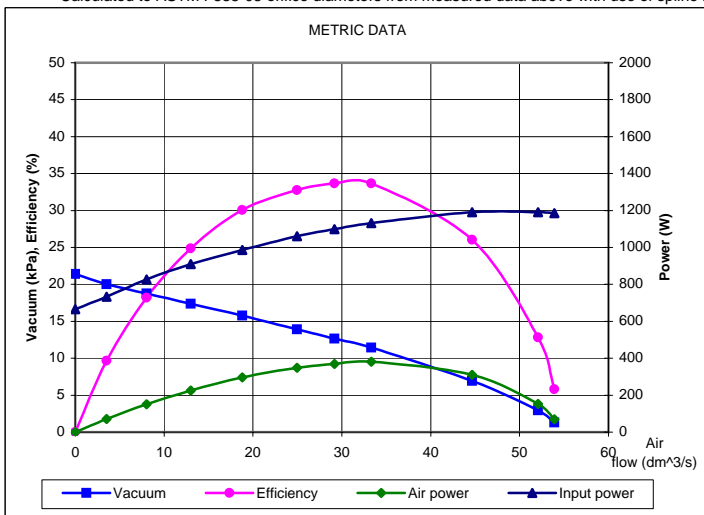
Maximum measured values:

Input power = 1190,1 W, Air power = 381,01 W, Vacuum = 21,4 kPa = 85,91 inH2O, Air Flow \* = 53,92 L/s = 114,25 CFM, Efficiency = 33,68 %

Note for units conversion: 1 inH2O = 0.2490889 kPa, 1 CFM = 0.4719474 l/s, 1 in = 25.4 mm (NIST Special Publication 811,1995)

I M P E R I A L	Orifice in	Current A	Input Power W	Speed RPM	Vacuum inH2O	Air Flow CFM	Air Power W	Efficiency %	Oriffice mm	C A L C U L A T E D
	2,000	5,3	1185	19429	4,7	114,4	63,9	5,4	50,80	
	1,750	5,3	1187	19459	8,2	112,8	107,7	9,1	44,45	
	1,500	5,3	1193	19402	13,9	108,6	178,0	14,9	38,10	
	1,250	5,3	1194	19335	24,1	98,8	280,6	23,5	31,75	
	1,125	5,3	1184	19410	31,3	90,7	333,0	28,2	28,58	
	1,000	5,2	1161	19613	39,6	80,1	372,3	32,1	25,40	
	0,875	5,0	1120	19970	47,8	67,3	378,4	33,8	22,23	
	0,750	4,7	1062	20454	55,8	53,1	348,2	32,8	19,05	
	0,625	4,3	983	21227	63,6	39,3	293,9	29,9	15,88	
	0,500	4,0	902	22172	70,3	26,4	218,5	24,2	12,70	
	0,375	3,5	812	23277	76,1	15,5	138,5	17,0	9,53	
	0,250	3,2	729	24529	80,5	7,2	68,0	9,3	6,35	
**	0,000	2,9	665	25736	85,9	0,0	0,0	0,0	0,00	

\*\* Calculated to ASTM F588-03 orifice diameters from measured data above with use of spline interpolation



Measured in accordance with: IEC 60312

Measured by: Ivan Krmelj