



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

Date: 4.2.2005

Zelezniki

Code: 491.3.751
 Voltage / fequency: 240/50 V / Hz
 Stator winding:
 Rotor winding:
 Brushes:
 Weight: 2810 g

Working order number:
 Request number:
 Number:
 Absolute pressure: kPa
 Ambient temperature: °C
 Correction factor:

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
	40	7,32	1691,01	21963	2,45	47,69	117,03	6,92	9,84	101,05	
	30	7,42	1715,75	21764	6,82	44,27	301,93	17,60	27,38	93,80	
	23	7,56	1746,59	21492	14,01	36,61	512,86	29,37	56,24	77,57	
	21	7,55	1744,43	21489	16,59	33,00	547,44	31,38	66,60	69,92	
	19	7,51	1735,15	21576	18,99	28,74	545,69	31,45	76,24	60,90	
	16	7,26	1679,71	22017	22,51	22,01	495,50	29,50	90,37	46,64	
	13	6,82	1583,94	22847	25,60	15,42	394,62	24,92	102,77	32,67	
	10	6,25	1459,32	24058	28,50	9,60	273,63	18,75	114,42	20,34	
	6,5	5,63	1322,94	25581	30,88	4,25	131,41	9,93	123,97	9,01	
	0	5,05	1193,14	27369	33,70	0,00	0,00	0,00	135,29	0,00	

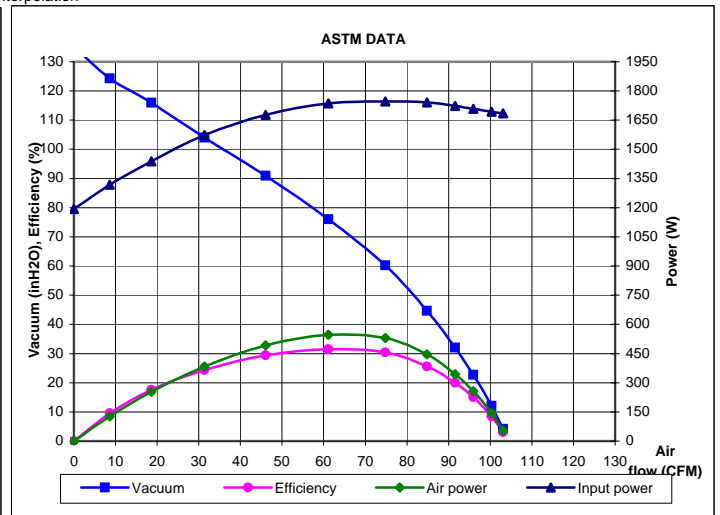
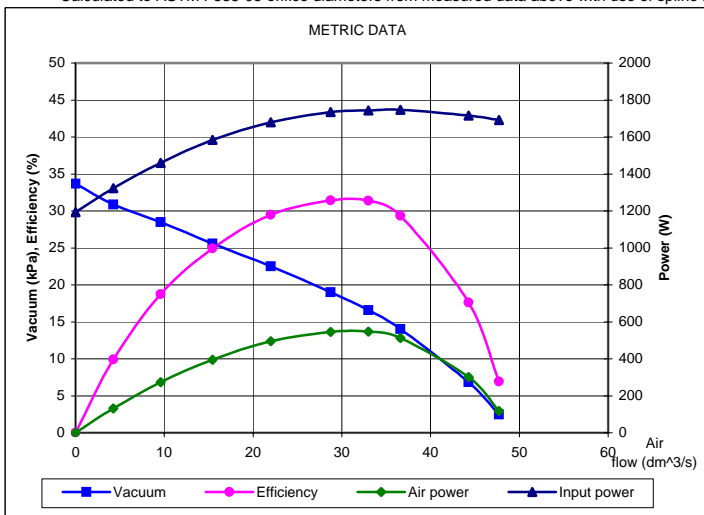
Maximum measured values:

Input power = 1746,59 W, Air power = 547,44 W, Vacuum = 33,7 kPa = 135,29 inH2O, Air Flow = 47,69 L/s = 101,05 CFM, Efficiency = 31,45 %

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 %	Orifice mm	C A L C U L A T E D
	2,000								50,80	
	1,750	7,3	1685	22016	4,2	103,1	52,1	3,1	44,45	
	1,500	7,3	1693	21943	12,0	100,3	143,3	8,5	38,10	
	1,250	7,4	1708	21825	22,7	96,0	256,8	15,1	31,75	
	1,125	7,5	1724	21703	32,0	91,6	344,6	20,0	28,58	
	1,000	7,5	1740	21561	44,7	84,8	446,0	25,6	25,40	
	0,875	7,6	1746	21483	60,3	74,8	529,8	30,3	22,23	
	0,750	7,5	1736	21572	76,0	61,1	546,1	31,5	19,05	
	0,625	7,2	1676	22044	90,9	46,0	492,2	29,4	15,88	
	0,500	6,8	1572	22953	104,0	31,4	383,1	24,4	12,70	
	0,375	6,2	1439	24271	116,0	18,6	253,3	17,6	9,53	
	0,250	5,6	1318	25638	124,3	8,6	126,4	9,6	6,35	
**	0,000	5,1	1193	27369	135,3	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