



Zelezniki

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

Date: 16.3.2006

Code: 491.3.756
Voltage / fequency: 230/50 V / Hz
Stator winding:
Rotor winding:
Brushes:
Weight: 2880 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
	50	7,22	1595,81	20742	1,17	51,59	60,40	3,79	4,70	109,31	
	40	7,23	1595,75	20734	2,75	50,39	138,24	8,66	11,04	106,77	
	30	7,29	1607,11	20646	7,22	45,52	329,00	20,47	28,99	96,45	
	23	7,34	1617,59	20551	14,04	36,65	514,30	31,79	56,37	77,66	
	19	7,22	1591,96	20751	19,00	28,75	546,15	34,31	76,28	60,92	
	16	6,91	1527,60	21263	22,40	21,97	492,06	32,21	89,93	46,55	
	13	6,44	1429,73	22125	25,49	15,39	392,27	27,44	102,33	32,61	
	10	5,94	1323,45	23249	28,10	9,55	268,25	20,27	112,81	20,24	
	6,5	5,32	1193,34	24816	30,45	4,23	128,83	10,80	122,25	8,96	
	0	4,82	1087,71	26287	32,82	0,00	0,00	0,00	131,76	0,00	

Maximum measured values:

Input power = 1617,59 W, Air power = 546,15 W, Vacuum = 32,82 kPa = 131,76 inH2O, Air Flow * = 51,59 L/s = 109,31 CFM, Efficiency = 34,31 %

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	7,2	1596	20742	4,3	109,4	55,8	3,5	50,80	
	1,750	7,2	1595	20740	7,6	108,3	95,6	6,0	44,45	
	1,500	7,2	1597	20729	13,1	105,7	163,3	10,2	38,10	
	1,250	7,3	1604	20676	24,3	99,4	284,4	17,7	31,75	
	1,125	7,3	1611	20616	33,5	93,6	368,9	22,9	28,58	
	1,000	7,3	1617	20557	45,5	85,6	458,5	28,3	25,40	
	0,875	7,3	1616	20562	60,2	74,7	527,9	32,7	22,23	
	0,750	7,2	1593	20746	76,0	61,1	546,5	34,3	19,05	
	0,625	6,9	1524	21293	90,5	46,0	488,6	32,1	15,88	
	0,500	6,4	1419	22225	103,5	31,3	380,6	26,8	12,70	
	0,375	5,9	1305	23460	114,3	18,5	247,8	19,0	9,53	
	0,250	5,3	1189	24873	122,6	8,6	124,0	10,4	6,35	
	0,000	4,8	1088	26287	131,8	0,0	0,0	0,0	0,00	

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

