

Vacuum cleaner / Bodenstaubsauger		HF6	HF6	HF6
Nozzle (cleaning head) / Düse (Saugvorsatz)		M28R / PB12e	M28R / -	M28R / PB12e soft
Floor covering (carpet) / Bodenbelag (Teppich)		BIC3	BIC3	BIC3
Code / Schlüsselnummer		354-14-2 act	354-14-2 h	4-14-2 act
1. Energy label test according to EU Comm. Del. Reg. 665/2013 Energie-Label-Prüfung nach EU Del. Verordnung 665/2013				
1.1 Dust removal from hard floors with crevices / Staubaufnahme von harten Böden mit Ritze				
power consumption P_{hf} , mean value / Leistungsaufnahme P_{hf} , Mittelwert	[W]	686,50	686,50	686,50
test interval / Prüfdauer t_{hf}	[h]	0,0039	0,0039	0,0039
test area / Prüffläche A_{hf}	[m ²]	1,974	1,974	1,974
average specific energy consumption ASE_{hf} / durchschnittlicher spezifischer Energieverbrauch ASE_{hf}	[Wh/m ²]	1,352	1,352	1,352
dust pick-up dpu_{hf} , mean value / Staubaufnahme dpu_{hf} , Mittelwert	[%]	105,6	105,6	105,6
cleaning performance class / Staubaufnahmeklasse		C	C	C
annual energy consumption AE_{hf} , hard floor with crevice / jährlicher Energieverbrauch AE_{hf} , Hartboden mit Ritze	[kWh/a]	22,0	22,0	22,0
1.2 Dust removal from carpet / Staubaufnahme vom Teppich				
power consumption P_c , mean value / Leistungsaufnahme P_c , Mittelwert	[W]	820,33	-	816,00
test interval / Prüfdauer t_c	[h]	0,0039	-	0,0039
test area / Prüffläche A_c	[m ²]	2,114	-	2,114
average specific energy consumption ASE_c / durchschnittlicher spezifischer Energieverbrauch ASE_c	[Wh/m ²]	1,509	-	1,501
corrected dust pick-up dpu_c , mean value / korrigierte Staubaufnahme dpu_c , Mittelwert	[%]	79,8	-	75,3
cleaning performance class / Staubaufnahmeklasse		D		E*
annual energy consumption AE_c , carpet / jährlicher Energieverbrauch AE_c , Teppich	[kWh/a]	35,1	-	37,8
1.3 Annual energy consumption AE_{gp}, final result / Jährlicher Energieverbrauch AE_{gp}, Endergebnis				
energy efficiency class / Energieeffizienzklasse		B	A (Sep. '17 A+)	B*

The calculations are based on the Commission Delegated Regulation (EU) No 665/2013 of 3 May 2013 supplementing Directive 2010/30/EU. All procedures not accurately described in this directive were conducted according to EN 60312-1:2013.

*) Measurements marked by * were not completed. Results not suitable for Energy Labelling.

Die Berechnungen basieren auf der Delegierten Verordnung (EU) Nr. 665/2013 der Kommission vom 3. Mai 2013 zur Ergänzung der Richtlinie 2010/30/EU. Alle in dieser Anweisung nicht genauer beschriebenen Verfahren wurden auf Basis der DIN EN 60312-1:2014 ausgeführt.

*) Mit * markierte Messungen sind unvollständig. Ergebnisse nicht für Energy Labelling geeignet.



Test protocol dust pick-up
Prüfprotokoll Staubaufnahme

Code / Schlüsselnummer: 1354-14-2 pas

Test device / Testgerät: HF6

Cleaning head / Reinigungskopf (nozzle): M28R

Pos.	No. / Nr. (cleaning cycles / calc.)	#16	#17	#18	#19
p1	date / Datum	Mittelwert	Mittelwert	Mittelwert	Mittelwert
p2	cleaning cycle description Reinigungszyklus-Bezeichnung	mean value Name: RSB 00	mean value Name: carpet	mean value Name: hard floor	mean value Name: carpet+hf
p3	configuration / Anordnung	Nr. / No. A: #1	Nr. / No. A: #2	Nr. / No. A: #10	Nr. / No. A: #17
p4	cleaning head kind / Düsenart	Nr. / No. B: #3	Nr. / No. B: #4	Nr. / No. B: #11	Nr. / No. B: #18
p5	floor covering Bodenbelag	Nr. / No. C: #5	Nr. / No. C: #6	Nr. / No. C:	Nr. / No. C:
p6	floor specific value / Bodenkenwert	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:
p7	DPU calibr. (RSB 00, MC, day 0)	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:
p8	dirt type / Verunreinigung	value type: test values	value type: test values	value type: test values	value type: test values
p9	dust bag / Staubbbeutel	Start / start:	Start / start:	Start / start:	Start / start:
p10	dust load / Staubbefüllung	Ende / end:	Ende / end:	Ende / end:	Ende / end:
p11	cleaning head / Reinigungskopf				
p12	cleaning head width / Düsenbreite	315mm	282mm	282mm	0mm
p13	width deduction / Breitenabzug	20mm	20mm	0mm	0mm
p14	test width / Testbreite	295mm	262mm	282mm	0mm
p17	dust amount / Staubmenge	25,80g	22,90g	0,00g	
p18	test length / Leistungsmesslänge	700mm	700mm	700mm	0mm
p21	test interval / Prüfdauer	14,0s	14,0s	14,0s	0,0s
p22	temperature / Temperatur	24,4°C	24,4°C	24,1°C	24,2°C
p23	rel. air humidity / rel. Luftfeuchte	52,5%	52,5%	52,7%	52,6%
p24	air pressure / Luftdruck	743Torr	743Torr	743Torr	743Torr
p25	power consumption	1,264,5W	19,5W	690,0W	690,0W
	Leistungsaufnahme	1,54%	0,00%		0,00%
p29	remaining dust / Staubrestmenge				
p30	dust pick-up / Staubaufnahme	19,54g	13,07g		
p31	F forward / F vorwärts	40N	32N		32N
p32	F backward / F rückwärts	16N	6N		6N
p33	relative dust pick-up	75,7%	57,1%		57,1%
	relative Staubaufnahme	1,10%	0,00%		0,00%
p34	correction factor / Korrekturfaktor	1,0090 calculated	1,0090 applied		1,0202 calculated
p35	corrected relative dust pick-up	76,4%	58,2%		58,2%
	korrigierte rel. Staubaufnahme	0,00%	0,00%		0,00%
p36	test area (max. 320mm wide)	2,205m²	1,974m²	1,974m²	0,000m²
	Prüffläche (max. 320mm breit)	0,00%	0,00%	0,00%	0,00%
p37	energy consumption	4,92Wh	2,68Wh		2,68Wh
	Energieaufnahme	1,54%	0,00%		0,00%
p38	spec. energy consumption	2,230	1,359		1,359
	Spec. Energieverbrauch	Wh/m²	Wh/m²		Wh/m²
p39	comments / Bemerkungen				



Test protocol dust pick-up
Prüfprotokoll Staubaufnahme

Code / Schlüsselnummer: 1354-14-2 act

Test device / Testgerät: HF6

Cleaning head / Reinigungskopf (nozzle): PB12e

M28R

Pos.	No. / Nr. (cleaning cycles / calc.)	#16	#17	#18	#19
p1	date / Datum	Mittelwert mean value	Mittelwert mean value	Mittelwert mean value	Mittelwert mean value
p2	cleaning cycle description Reinigungszyklus-Bezeichnung	Abw. deviation	Abw. deviation	Abw. deviation	Abw. deviation
p3	configuration / Anordnung	Name: RSB 00	Name: carpet	Name: hard floor	Name: carpet+hf
p4	cleaning head kind / Düsenart	Nr. / No. A: #1	Nr. / No. A: #2	Nr. / No. A: #10	Nr. / No. A: #17
p5	floor covering Bodenbelag	Nr. / No. B: #3	Nr. / No. B: #4	Nr. / No. B: #11	Nr. / No. B: #18
p6	floor specific value / Bodenkenwert	Nr. / No. C: #5	Nr. / No. C: #6	Nr. / No. C:	Nr. / No. C:
p7	DPU calibr. (RSB 00, MC, day 0)	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:
p8	dirt type / Verunreinigung	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:
p9	dust bag / Staubeutel	value type: test values	value type: test values	value type: test values	value type: test values
p10	dust load / Staubbefüllung	Start / start: 10.09.14	Start / start: 10.09.14	Start / start: 10.09.14	Start / start: 10.09.14
p11	cleaning head / Reinigungskopf	Ende / end: 10.09.14	Ende / end: 10.09.14	Ende / end: 10.09.14	Ende / end: 10.09.14
p12	cleaning head width / Düsenbreite	297mm	302mm	282mm	0mm
p13	width deduction / Breitenabzug	20mm	20mm	0mm	0mm
p14	test width / Testbreite	277mm	282mm	282mm	0mm
p17	dust amount / Staubmenge	24,20g	24,70g	20,17g	0,06g
p18	test length / Leistungsmesslänge	700mm	700mm	700mm	0mm
p21	test interval / Prüfdauer	14,0s	14,0s	14,0s	0,0s
p22	temperature / Temperatur	24,0°C	24,0°C	23,8°C	0,0°C
p23	rel. air humidity / rel. Luftfeuchte	52,8%	52,5%	52,3%	0,0%
p24	air pressure / Luftdruck	743Torr	743Torr	743Torr	0Torr
p25	power consumption	830,3W	820,3W	686,5W	1,5W
	Leistungsaufnahme	0,54%	0,05%	0,22%	0,13%
p29	remaining dust / Staubrestmenge			6,01g	0,07g
p30	dust pick-up / Staubaufnahme	19,01g	20,11g	14,16g	0,00g
p31	F forward / F vorwärts	17N	5N	13N	9N
p32	F backward / F rückwärts	12N	9N	7N	8N
p33	relative dust pick-up relative Staubaufnahme	78,6%	81,4%	105,6%	93,5%
p34	correction factor / Korrekturfaktor	0,9802 calculated	0,9802 applied	1,0000 calculated	0,9914 calculated
p35	corrected relative dust pick-up korrigierte rel. Staubaufnahme	77,0%	79,8%	105,6%	92,7%
p36	test area (max. 320mm wide) Prüffläche (max. 320mm breit)	2,079m²	2,114m²	1,974m²	0,000m²
p37	energy consumption Energieaufnahme	3,23Wh	3,19Wh	2,67Wh	2,93Wh
p38	spec. energy consumption Spez. Energieverbrauch	1,553 Wh/m²	1,509 Wh/m²	1,352 Wh/m²	1,431 Wh/m²
p39	comments / Bemerkungen				



Test protocol dust pick-up
Prüfprotokoll Staubaufnahme

Code / Schlüsselnummer: 1354-14-2 hf

Test device / Testgerät: HF6

Cleaning head / Reinigungskopf (nozzle): -

M28R

Pos.	No. / Nr. (cleaning cycles / calc.)	#16	#17	#18	#19
p1	date / Datum	Mittelwert	Mittelwert	Mittelwert	Mittelwert
p2	cleaning cycle description Reinigungszyklus-Bezeichnung	mean value Name: RSB 00	mean value Name: carpet	mean value Name: hard floor	mean value Name: carpet+hf
p3	configuration / Anordnung	Nr. / No. A: #1	Nr. / No. A: #2	Nr. / No. A: #10	Nr. / No. A: #17
p4	cleaning head kind / Düsenart	Nr. / No. B: #3	Nr. / No. B: #4	Nr. / No. B: #11	Nr. / No. B: #18
p5	floor covering Bodenbelag	Nr. / No. C: #5	Nr. / No. C: #6	Nr. / No. C:	Nr. / No. C:
p6	floor specific value / Bodenkenwert	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:
p7	DPUs calibr. (RSB 00, MC, day 0)	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:
p8	dirt type / Verunreinigung	value type:	value type:	value type:	value type:
p9	dust bag / Staubbeutel	Start / start:	Start / start:	Start / start:	Start / start:
p10	dust load / Staubbefüllung	Ende / end:	Ende / end:	Ende / end:	Ende / end:
p11	cleaning head / Reinigungskopf				
p12	cleaning head width / Düsenbreite	297mm	20mm	282mm	0mm
p13	width deduction / Breitenabzug	20mm	0mm	0mm	0mm
p14	test width / Testbreite	277mm	0mm	282mm	0mm
p17	dust amount / Staubmenge	24,20g	700mm	20,17g	0,06g
p18	test length / Leistungsmesslänge	700mm	700mm	700mm	0mm
p21	test interval / Prüfdauer	14,0s	14,0s	14,0s	0,0s
p22	temperature / Temperatur			23,9°C	0,0°C
p23	rel. air humidity / rel. Luftfeuchte			52,3%	0,0%
p24	air pressure / Luftdruck			743Torr	0Torr
p25	power consumption			686,5W	1,5W
	Leistungsaufnahme			0,22%	0,22%
p29	remaining dust / Staubrestmenge			6,01g	0,07g
p30	dust pick-up / Staubaufnahme			14,16g	0,00g
p31	F forward / F vorwärts			13N	0,5N
p32	F backward / F rückwärts			7N	0,5N
p33	relative dust pick-up			105,6%	0,4%
	relative Staubaufnahme			0,36%	0,36%
p34	correction factor / Korrekturfaktor			1,0000 calculated	1,0000 calculated
p35	corrected relative dust pick-up			105,6%	105,6%
	korrigierte rel. Staubaufnahme			0,4%	0,4%
p36	test area (max. 320mm wide)	2,079m²		1,974m²	
	Prüffläche (max. 320mm breit)	0,00%		0,00%	
p37	energy consumption			2,67Wh	0,01Wh
	Energieaufnahme			0,22%	0,22%
p38	spec. energy consumption			1,352	1,352
	Spec. Energieverbrauch			Wh/m²	Wh/m²
p39	comments / Bemerkungen				

**Test protocol dust pick-up
Prüfprotokoll Staubaufnahme**

Code / Schlüsselnummer: 1354-14-2 act soft

Test device / Testgerät: HF6

Cleaning head / Reinigungskopf (nozzle): PB12e soft brush

Pos.	No. / Nr. (cleaning cycles / calc.)	#1	#2	#3	#4	#5	#6	#10	#11	#12
p1	date / Datum	10.09.14	10.09.14	10.09.14	10.09.14	10.09.14	10.09.14	10.09.14	10.09.14	10.09.14
p2	cleaning cycle description Reinigungszyklus-Bezeichnung	calibrated DPU RSB 00 SLG	carpet cleaning cycle	calibrated DPU RSB 00 SLG	carpet cleaning cycle	calibrated DPU RSB 00 SLG	carpet cleaning cycle	carpet cleaning cycle	carpet cleaning cycle	3rd floor cleaning cycle
p3	configuration / Anordnung	WG3 test rig active brush	WG3 test rig active brush	WG3 test rig active brush	WG3 test rig active brush	WG3 test rig active brush	WG3 test rig active brush	WG3 test rig passive nozzle	WG3 test rig passive nozzle	WG3 test rig passive nozzle
p4	cleaning head kind / Düsenart	Wilton carpet W204 act BIC3	Wilton carpet W204 act BIC3	Wilton carpet W204 act BIC3	Wilton carpet W204 act BIC3	Wilton carpet W204 act BIC3	Wilton carpet W204 act BIC3	hard floor with alum. crevice	hard floor with alum. crevice	hard floor with alum. crevice
p5	floor covering									
p6	floor specific value / Bodenkennwert	75,3%	75,3%	75,3%	75,3%	75,3%	75,3%	600mm	600mm	600mm
p7	DPU callbr. (RSB 00, MC, day 0)	77,0%	77,0%	77,0%	77,0%	77,0%	77,0%			
p8	dirt type / Verunreinigung	test dust WG3 0,09~0,2 st GN HY Clean	WG3 0,09~0,2 st standard	WG3 0,09~0,2 st GN HY Clean	WG3 0,09~0,2 st standard	WG3 0,09~0,2 st GN HY Clean	WG3 0,09~0,2 st standard	white sand 0,02~2 mite sand GN HY Clean	white sand 0,02~2 mite sand GN HY Clean	white sand 0,02~2 mite sand GN HY Clean
p9	dust bag / Staubbeutel									
p10	dust load / Staubbefüllung	0g	0g	0g	0g	0g	0g	0g	0g	0g
p11	cleaning head / Reinigungskopf	RSB act 3B12e soft brush 297mm	RSB act 3B12e soft brush 302mm	RSB act 3B12e soft brush 297mm	RSB act 3B12e soft brush 302mm	RSB act 3B12e soft brush 297mm	RSB act 3B12e soft brush 302mm	M28R 282mm	M28R 282mm	M28R 282mm
p12	cleaning head width / Düsenbreite	297mm	302mm	297mm	302mm	297mm	302mm	282mm	282mm	282mm
p13	width deduction / Breitenabzug	20mm	20mm	20mm	20mm	20mm	20mm	0mm	0mm	0mm
p14	test width / Testbreite	277mm	282mm	277mm	282mm	277mm	282mm	282mm	282mm	282mm
p17	test amount / Staubmenge	24,20g	24,70g	24,20g	24,70g	24,20g	24,70g	20,10g	20,23g	19,93g
p18	test length / Leistungsmesslänge	700mm	700mm	700mm	700mm	700mm	700mm	700mm	700mm	700mm
p21	test interval / Prüfdauer	14,0s	14,0s	14,0s	14,0s	14,0s	14,0s	14,0s	14,0s	14,0s
p22	temperature / Temperatur	24,0°C	24,0°C	24,1°C	24,1°C	23,9°C	23,9°C	23,8°C	23,8°C	23,8°C
p23	rel. air humidity / rel. Luftfeuchte	52,7%	52,7%	52,7%	52,7%	53,1%	53,1%	52,3%	52,3%	52,3%
p24	air pressure / Luftdruck	743Torr	743Torr	743Torr	743Torr	743Torr	743Torr	743Torr	743Torr	743Torr
p25	power consumption Leistungsaufnahme	837,0W	825,0W	816,0W	829,0W	829,0W	829,0W	685,0W	688,0W	681,0W
p29	remaining dust / Staubrestmenge	-	-	-	-	-	-	5,94g	6,08g	5,94g
p30	dust pick-up / Staubaufnahme	18,80g	19,15g	19,05g	19,05g	19,05g	19,05g	14,16g	14,15g	13,99g
p31	F forward / F vorwärts	17N	18N	17N	17N	17N	17N	12N	13N	13N
p32	F backward / F rückwärts	12N	12N	11N	8N	12N	12N	6N	7N	6N
p33	relative dust pick-up relative Staubaufnahme	77,7%	79,3%	79,3%	77,5%	78,7%		106,0%	105,2%	105,6%
p34	correction factor / Korrekturfaktor	0,9912	0,9912	0,9715	0,9715	0,9782	0,9782	1,0000	1,0000	1,0000
p35	corrected relative dust pick-up korrigierte rel. Staubaufnahme	77,0% (verified)	77,0% (verified)	77,0% (verified)	75,3% (factor applied)	77,0% (verified)	77,0%	106,0% (unchanged)	105,2% (unchanged)	105,6% (unchanged)
p36	test area (max. 320mm wide) Prüffläche (max. 320mm breit)	2,079m^2	2,114m^2	2,079m^2	2,114m^2	2,079m^2	2,114m^2	1,974m^2	1,974m^2	1,974m^2
p37	energy consumption Energieaufnahme	3,26Wh	3,21Wh	3,21Wh	3,17Wh	3,22Wh		2,66Wh	2,68Wh	2,65Wh
p38	spec. energy consumption Spec. Energieverbrauch	1,566Wh/m^2	1,543Wh/m^2	1,543Wh/m^2	1,501Wh/m^2	1,551Wh/m^2		1,349Wh/m^2	1,355Wh/m^2	1,342Wh/m^2
p39	comments / Bemerkungen				soft brush					



Test protocol dust pick-up
Prüfprotokoll Staubaufnahme

Code / Schlüsselnummer: 1354-14-2 act soft

Test device / Testgerät: HF6

Cleaning head / Reinigungskopf (nozzle): PB12e soft brush M28R

Pos.	No. / Nr. (cleaning cycles / calc.)	#16	#17	#18	#19
p1	date / Datum	Mittelwert mean value	Mittelwert mean value	Mittelwert mean value	Mittelwert mean value
p2	cleaning cycle description Reinigungszyklus-Bezeichnung	Abw. deviation	Abw. deviation	Abw. deviation	Abw. deviation
p3	configuration / Anordnung	Name: RSB 00	Name: carpet	Name: hard floor	Name: carpet+hf
p4	cleaning head kind / Düsenart	Nr. / No. A: #1	Nr. / No. A: #2	Nr. / No. A: #10	Nr. / No. A: #17
p5	floor covering Bodenbelag	Nr. / No. B: #3	Nr. / No. B: #4	Nr. / No. B: #11	Nr. / No. B: #18
p6	floor specific value / Bodenkenwert	Nr. / No. C: #5	Nr. / No. C: #6	Nr. / No. C:	Nr. / No. C:
p7	DPU calibr. (RSB 00, MC, day 0)	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:	Nr. / No. D:
p8	dirt type / Verunreinigung	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:	Nr. / No. E:
p9	dust bag / Staubbeutel	value type:	value type:	value type:	value type:
p10	dust load / Staubbefüllung	Start / start:	Start / start:	Start / start:	Start / start:
p11	cleaning head / Reinigungskopf	Ende / end:	Ende / end:	Ende / end:	Ende / end:
p12	cleaning head width / Düsenbreite				
p13	width deduction / Breitenabzug	297mm	302mm	282mm	0mm
p14	test width / Testbreite	20mm	20mm	0mm	0mm
p17	dust amount / Staubmenge	277mm	282mm	282mm	0mm
p18	test length / Leistungsmesslänge	24,20g	24,70g	20,17g	0,06g
p21	test interval / Prüfdauer	700mm	700mm	700mm	0mm
p22	temperature / Temperatur	14,0s	14,0s	14,0s	0,0s
p23	rel. air humidity / rel. Luftfeuchte	24,0°C	24,0°C	23,8°C	0,0°C
p24	air pressure / Luftdruck	52,8%	52,8%	52,3%	0,0%
p25	power consumption	743Torr	743Torr	743Torr	0Torr
	Leistungsaufnahme	830,3W	816,0W	686,5W	751,3W
p29	remaining dust / Staubrestmenge	0,54%	0,00%	0,22%	0,10%
p30	dust pick-up / Staubaufnahme	19,01g	19,15g	6,01g	0,07g
p31	F forward / F vorwärts	17N	13N	13N	0,00g
p32	F backward / F rückwärts	12N	11N	7N	0,5N
p33	relative dust pick-up relative Staubaufnahme	78,6%	77,5%	105,6%	91,6%
p34	correction factor / Korrekturfaktor	0,9802 calculated	0,9802 applied	1,0000 calculated	0,9879 calculated
p35	corrected relative dust pick-up korrigierte rel. Staubaufnahme	77,0%	75,3%	105,6%	90,5%
p36	test area (max. 320mm wide) Prüffläche (max. 320mm breit)	0,00%	0,00%	0,36%	0,21%
p37	energy consumption Energieaufnahme	2,079m²	2,114m²	1,974m²	0,00m²
		3,23Wh	3,17Wh	2,67Wh	2,92Wh
p38	spec. energy consumption Spec. Energieverbrauch	0,008	0,000	0,022%	0,00Wh
p39	comments / Bemerkungen	1,553	1,501	1,352	1,427
		Wh/m²	Wh/m²	Wh/m²	Wh/m²
		0,54%	0,00%	0,22%	0,10%