

DSM/R

- Roof Extract Unit
- Side Discharge
- Mixed Flow Fan

SPECIFICATION

Sizes

200, 250, 330, 400, 500, 630, 760mm diameter

Fan Performance

The DSM/DSMR is a direct drive, Mixed Flow Roof Extract Fan unit of proven performance. The impeller is designed to give excellent performance characteristic with high static pressure development and high airflow without stall

Impellers

The impeller is of Woods patented design with integral inlet fairing spun to close tolerances for optimum performance. The impellers are manufactured from aluminium and balanced according to ISO1940.

Motors

Motor are totally enclosed airstream rated, squirrel cage induction type. Motor enclosure to feature IP55 protection. Motor winding insulation are to incorporate thermal class 155 as standard. Motor bearings are to be of maintenance free ball bearing design.

Cowls

Cowl and base of the fans are of UV stabilised fibreglass or Rovel. Impeller/motor assembly to be supported by a galvanised steel. Bird mesh to be fit as standard.

Test Procedures

Performance Date – Established from tests in accordance with ISO5801:1997

Sound levels – Established from tests in accordance with ISO3745

Woods DSM Mixed Flow Roof Fan



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-200/4/1



Impeller

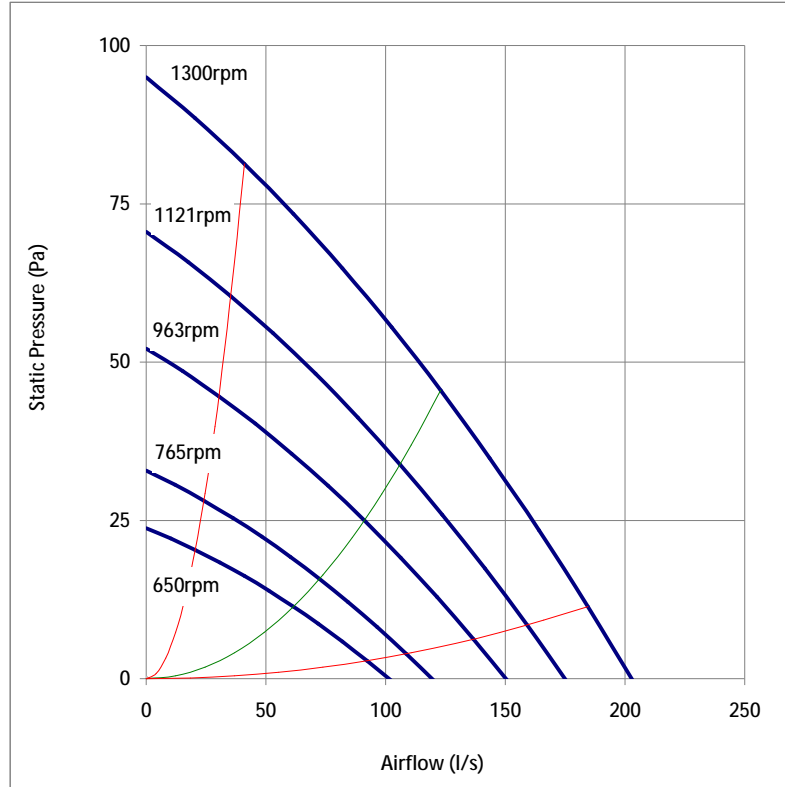
Size 200 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

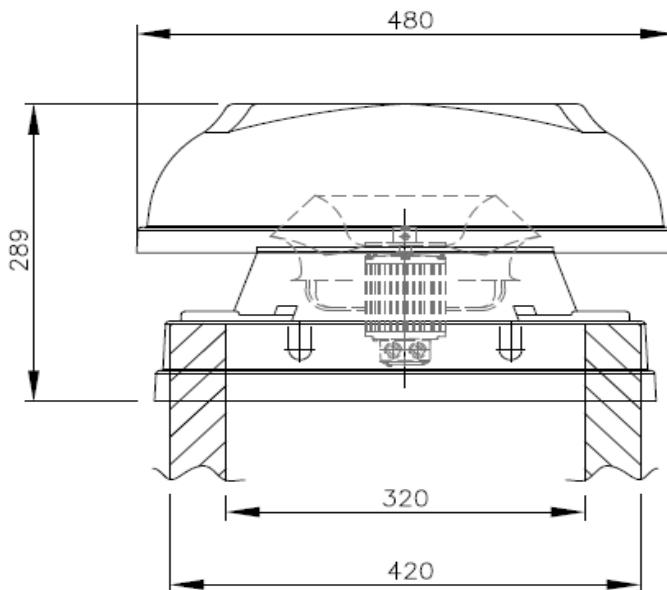
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.07 Kw
 Power Supply 230V/1PH/50Hz
 Speed 1300 rpm
 FLC 0.50 A
 Capacitor
 Control RE1.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 15 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1300	95	0.07	230	67	73	62	64	58	57	51	42	44
1121	71	0.04	200	64	70	59	61	55	54	48	39	41
963	52	0.03	170	60	66	55	57	51	50	44	35	37
765	33	0.01	130	55	61	50	52	46	45	39	30	32
650	24	0.01	110	52	58	47	49	43	42	36	27	29



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-250/4/1



Impeller

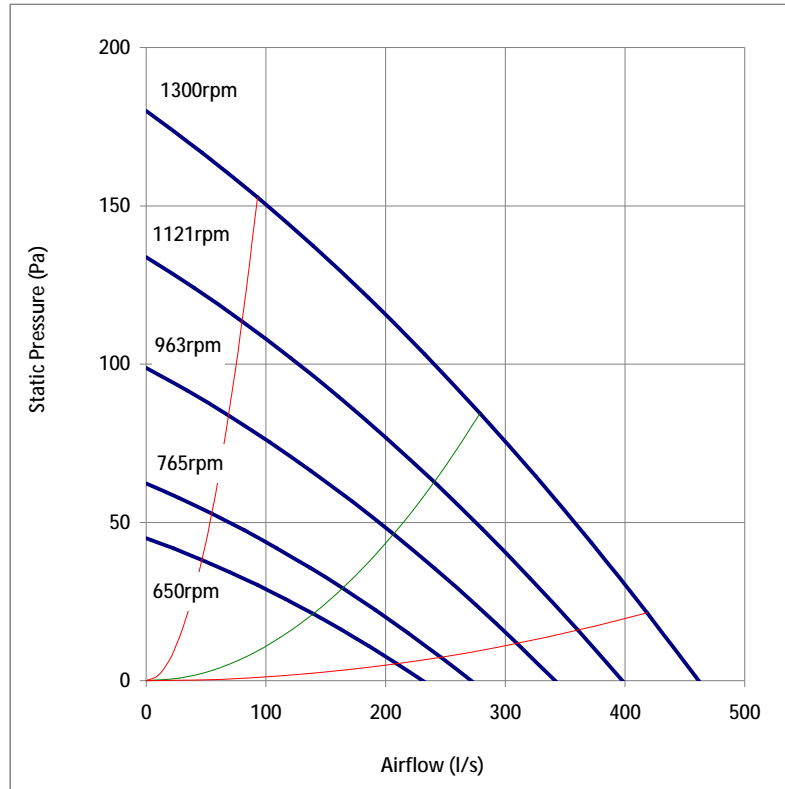
Size 250 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

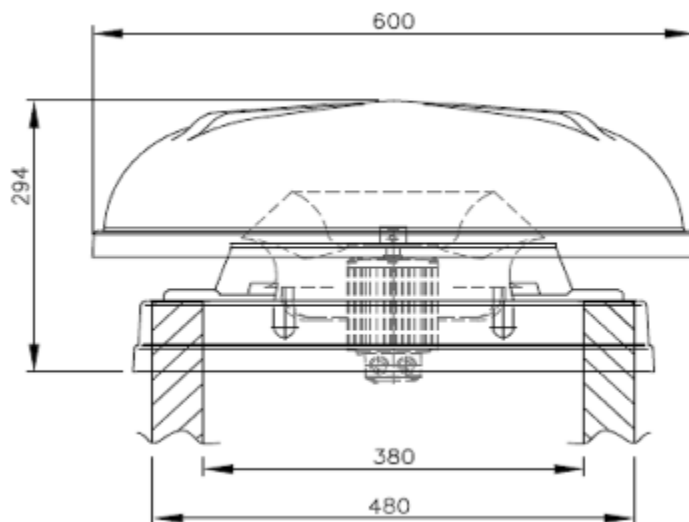
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.10 Kw
 Power Supply 230V/1PH/50Hz
 Speed 1300 rpm
 FLC 0.80 A
 Capacitor
 Control RE1.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 22 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1300	180	0.10	230	73	76	69	65	67	65	61	57	50
1121	134	0.06	200	70	73	66	62	64	62	58	54	47
963	99	0.04	170	66	69	62	58	60	58	54	50	43
765	62	0.02	130	61	64	57	53	55	53	49	45	38
650	45	0.01	110	58	61	54	50	52	50	46	42	35



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-250/6/1



Impeller

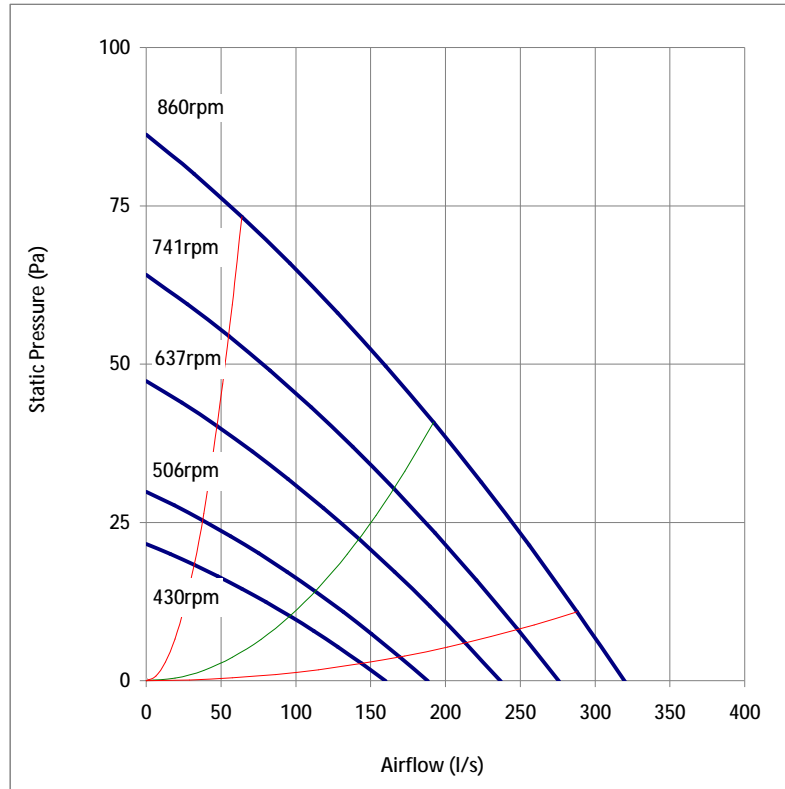
Size 250 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

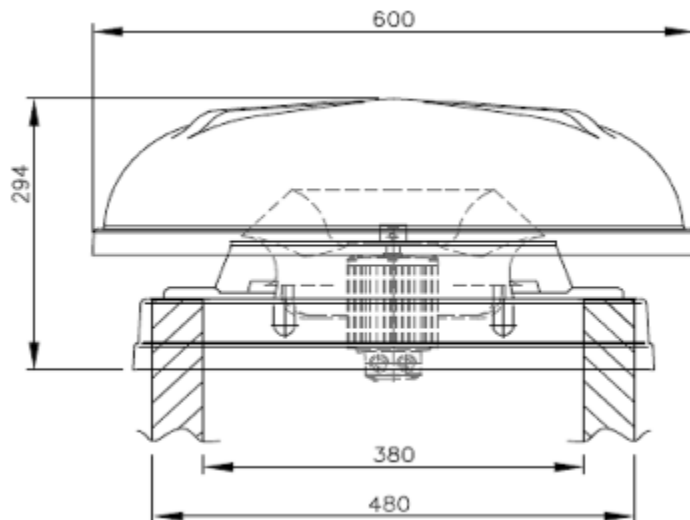
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.04 Kw
 Power Supply 230V/1PH/50Hz
 Speed 860 rpm
 FLC 0.35 A
 Capacitor
 Control RE1.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 22 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
860	86	0.04	230	66	67	58	54	56	54	50	46	39
741	64	0.03	200	63	64	55	51	53	51	47	43	36
637	47	0.02	170	59	60	51	47	49	47	43	39	32
506	30	0.01	130	54	55	46	42	44	42	38	34	27
430	22	0.01	110	51	52	43	39	41	39	35	31	24



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-330/4/1



Impeller

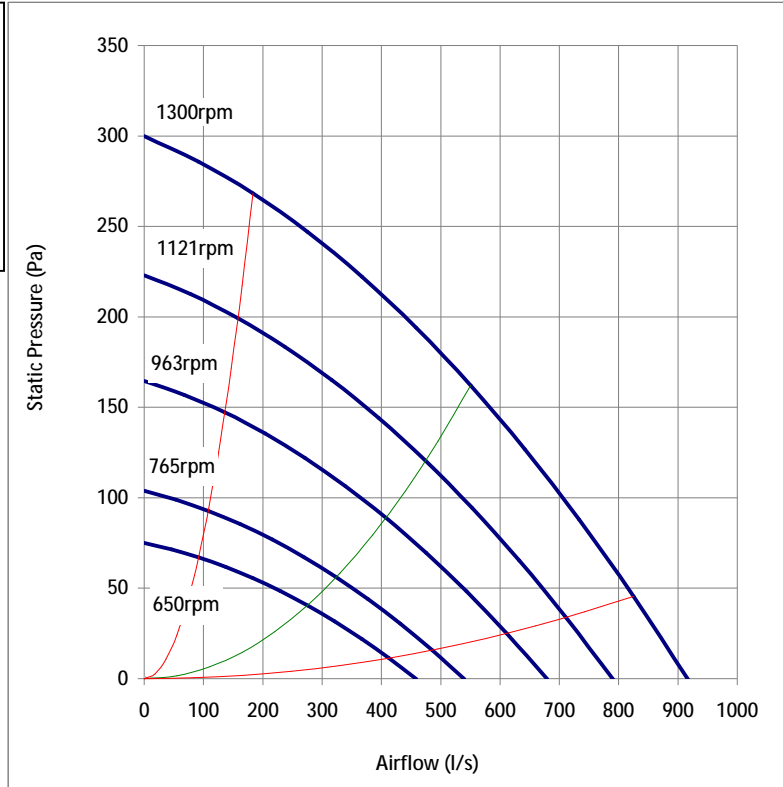
Size 330 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

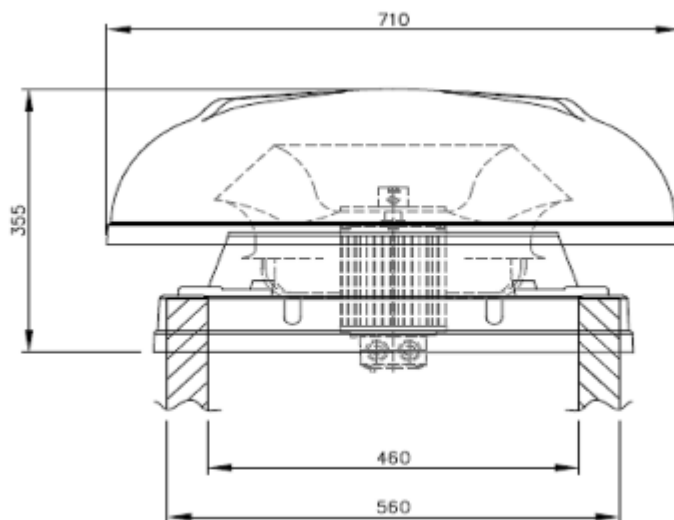
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.22 Kw
 Power Supply 230V/1PH/50Hz
 Speed 1300 rpm
 FLC 1.80 A
 Capacitor
 Control RE3.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 26 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1300	300	0.22	230	78	83	78	71	71	69	64	57	57
1121	223	0.14	200	75	80	75	68	68	66	61	54	54
963	165	0.09	170	71	76	71	64	64	62	57	50	50
765	104	0.04	130	66	71	66	59	59	57	52	45	45
650	75	0.03	110	63	68	63	56	56	54	49	42	42



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-330/6/1



Impeller

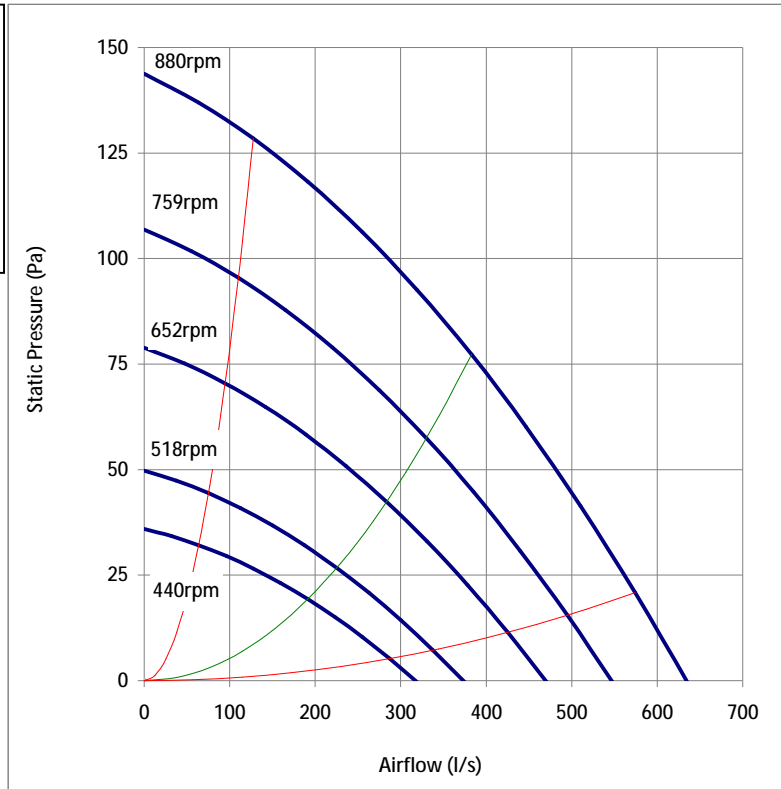
Size 330 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

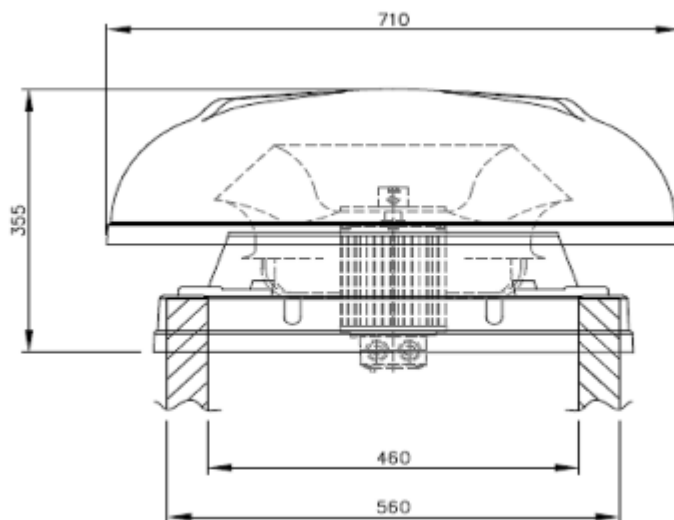
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.08 Kw
 Power Supply 230V/1PH/50Hz
 Speed 880 rpm
 FLC 1.00 A
 Capacitor
 Control RE3.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 26 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
880	144	0.08	230	73	74	68	61	60	57	54	46	46
759	107	0.05	200	70	71	65	58	57	54	51	43	43
652	79	0.03	170	66	67	61	54	53	50	47	39	39
518	50	0.02	130	61	62	56	49	48	45	42	34	34
440	36	0.01	110	58	59	53	46	45	42	39	31	31



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-330/4/3



Impeller

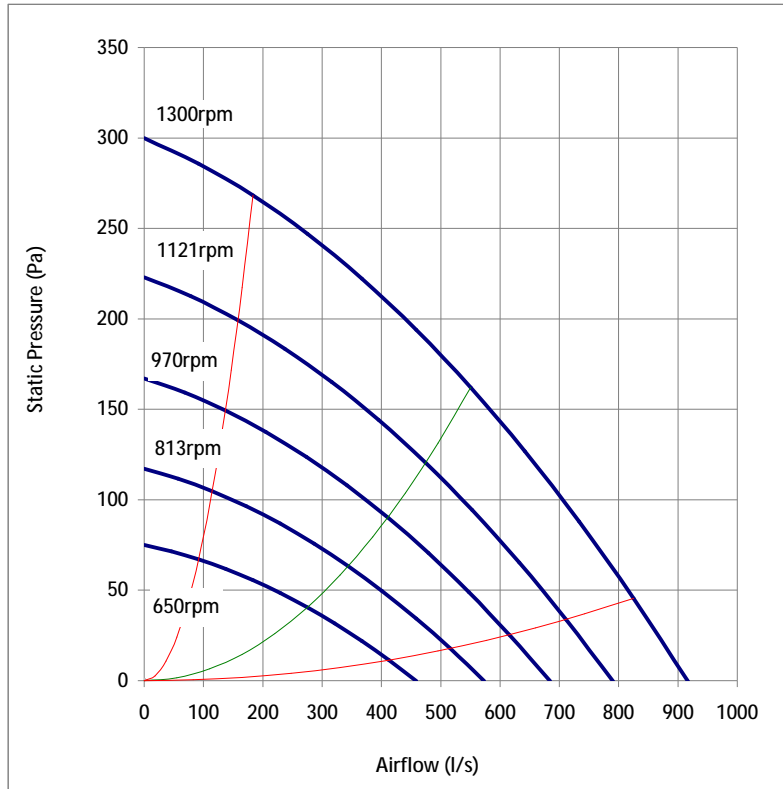
Size 330 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

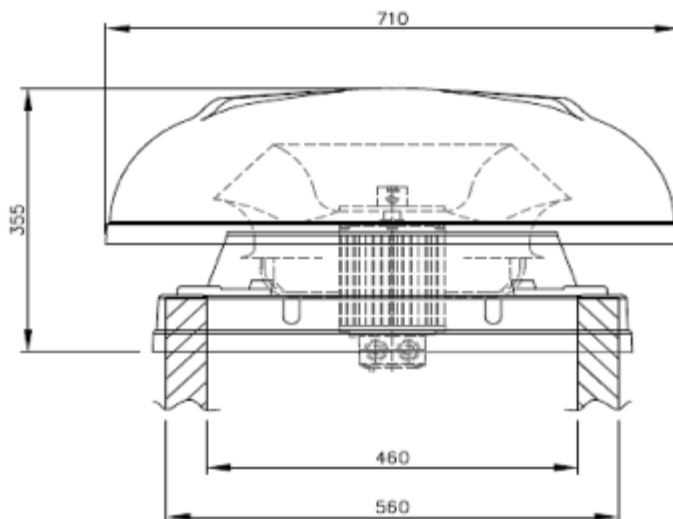
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.22 Kw
 Power Supply 400V/3PH/50Hz
 Speed 1300 rpm
 FLC 0.70 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 26 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1300	300	0.22	50	78	83	78	71	71	69	64	57	57
1121	223	0.14	43	75	80	75	68	68	66	61	54	54
970	167	0.09	37	72	77	72	65	65	63	58	51	51
813	117	0.05	31	68	73	68	61	61	59	54	47	47
650	75	0.03	25	63	68	63	56	56	54	49	42	42



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-400/4/1



Impeller

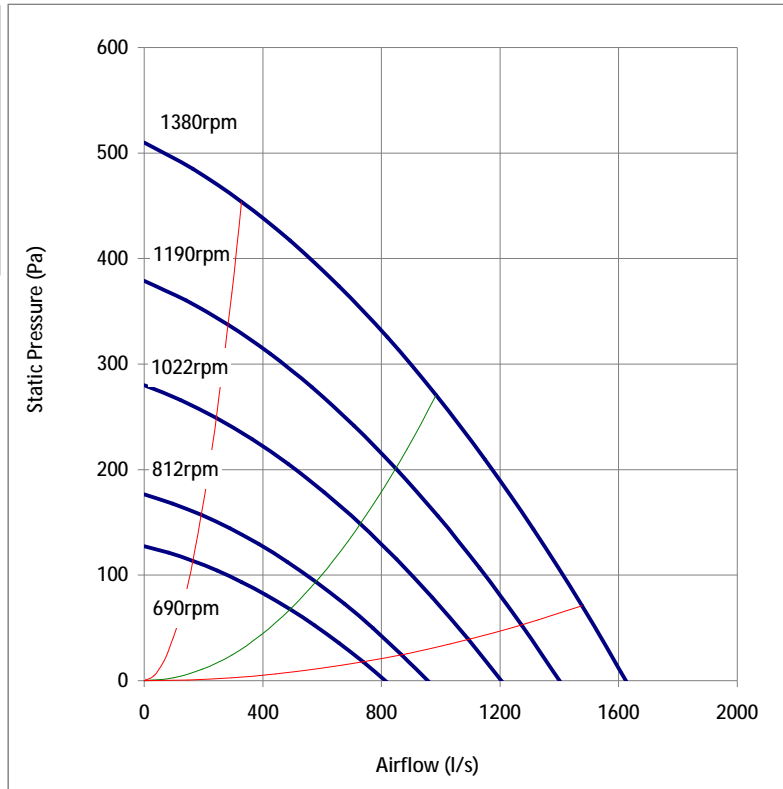
Size 400 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

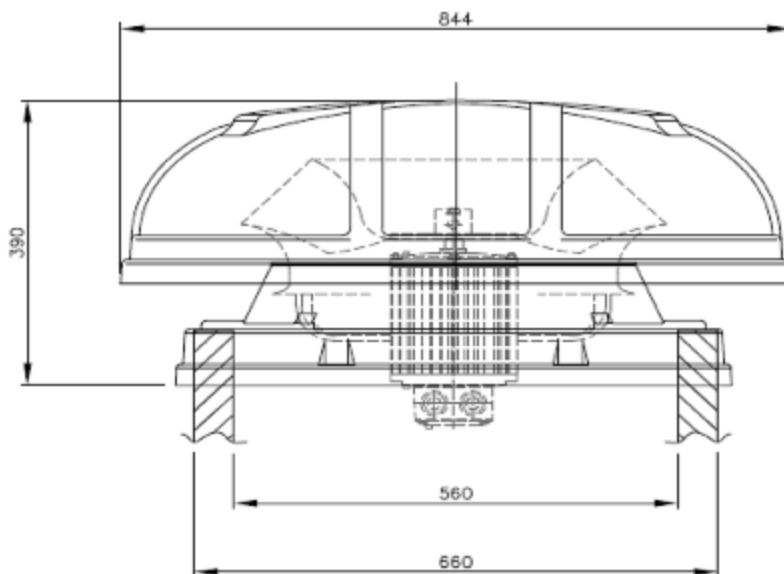
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.50 Kw
 Power Supply 230V/1PH/50Hz
 Speed 1380 rpm
 FLC 3.40 A
 Capacitor
 Control RE3.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 37 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1380	510	0.50	230	81	84	83	77	77	74	70	65	61
1190	379	0.32	200	78	81	80	74	74	71	67	62	58
1022	280	0.20	170	74	77	76	70	70	67	63	58	54
812	176	0.10	130	69	72	71	65	65	62	58	53	49
690	128	0.06	110	66	69	68	62	62	59	55	50	46



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-400/4/3



Impeller

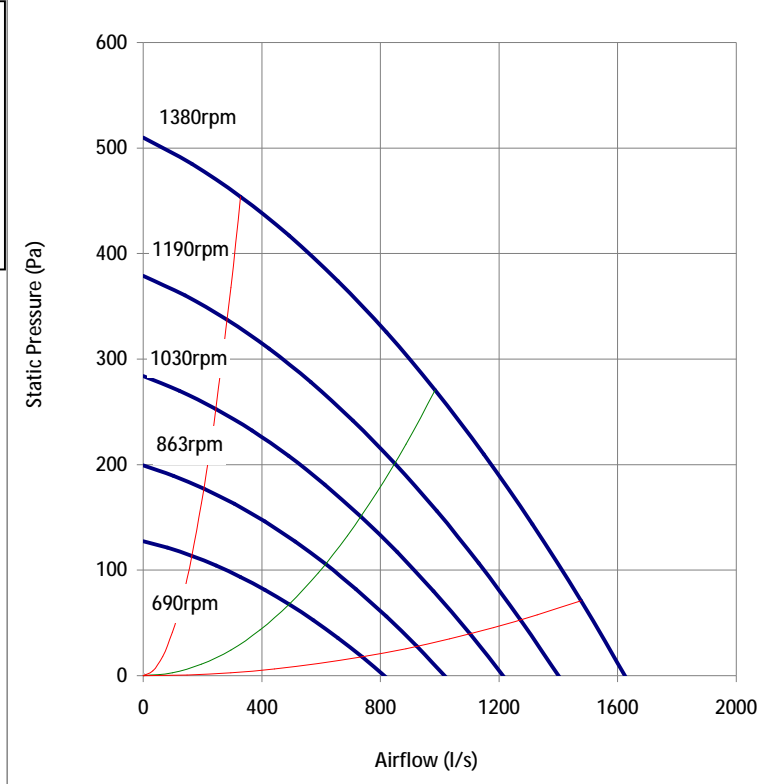
Size 400 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

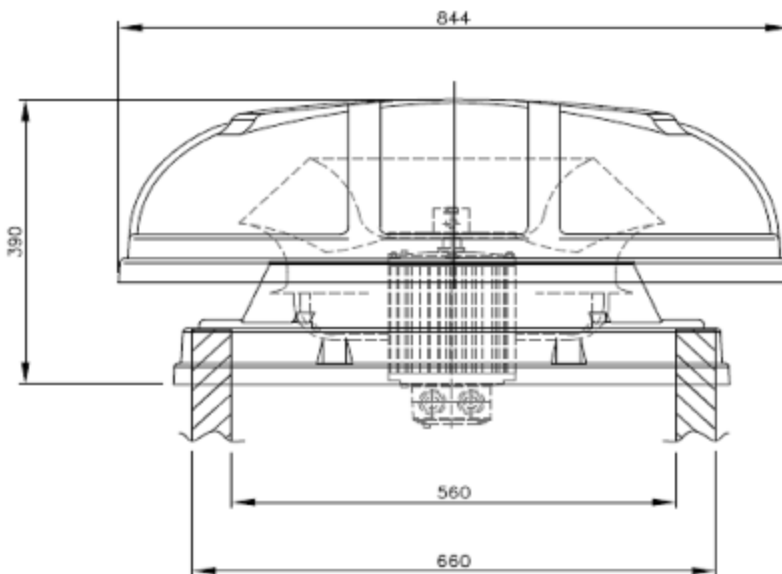
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.50 Kw
 Power Supply 400V/3PH/50Hz
 Speed 1380 rpm
 FLC 1.30 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 37 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1380	510	0.50	50	81	84	83	77	77	74	70	65	61
1190	379	0.32	43	78	81	80	74	74	71	67	62	58
1030	284	0.21	37	75	78	77	71	71	68	64	59	55
863	199	0.12	31	71	74	73	67	67	64	60	55	51
690	128	0.06	25	66	69	68	62	62	59	55	50	46



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-400/6/1



Impeller

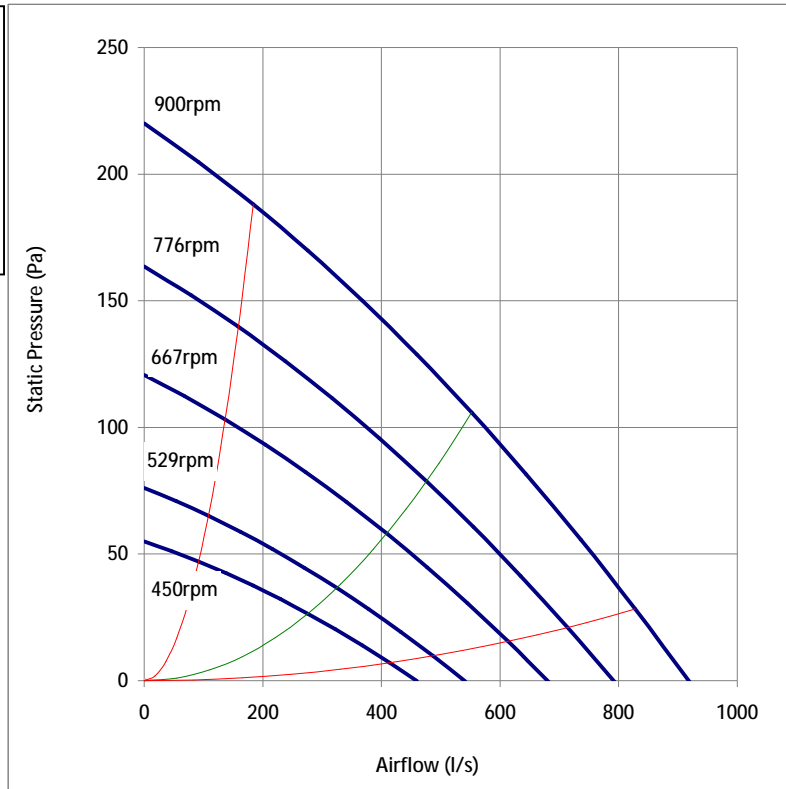
Size 400 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

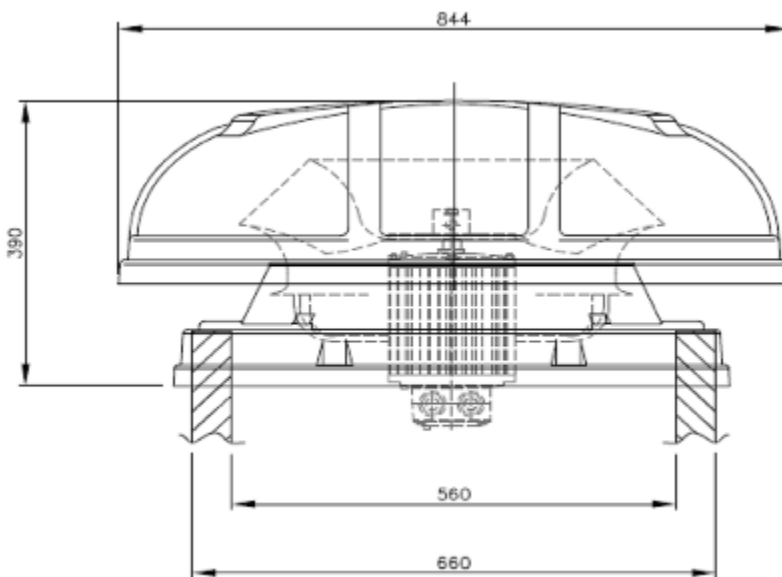
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.14 Kw
 Power Supply 230V/1PH/50Hz
 Speed 900 rpm
 FLC 1.25 A
 Capacitor
 Control RE1.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 33 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
900	220	0.14	230	73	74	71	66	66	63	60	51	51
776	163	0.09	200	70	71	68	63	63	60	57	48	48
667	121	0.06	170	66	67	64	59	59	56	53	44	44
529	76	0.03	130	61	62	59	54	54	51	48	39	39
450	55	0.02	110	58	59	56	51	51	48	45	36	36



Roof Mixed Flow Extract Fan - Down Discharge

DSMR-400/6/3



Impeller

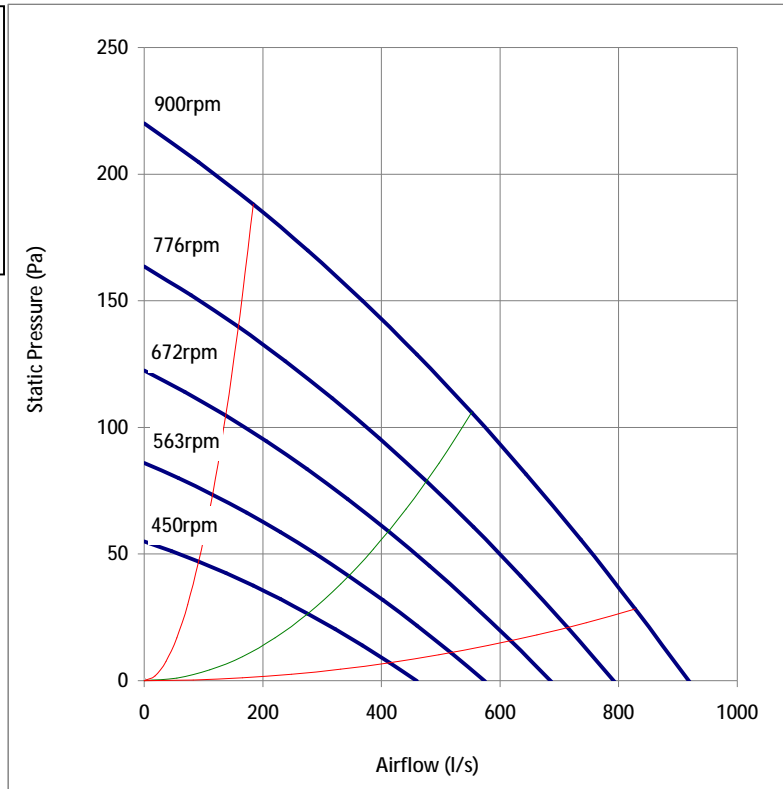
Size 400 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

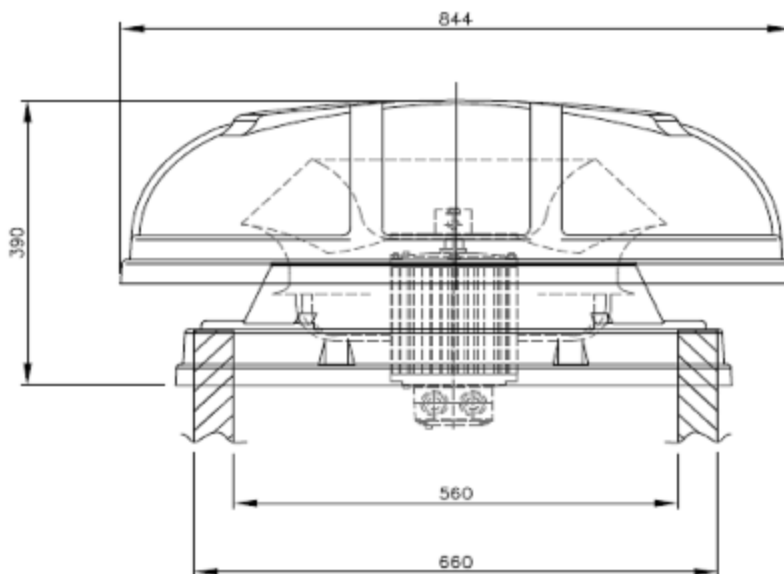
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.18 Kw
 Power Supply 400V/3PH/50Hz
 Speed 900 rpm
 FLC 0.80 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Case Rovel UV Stabilised
 Weight 33 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
900	220	0.18	50	73	74	71	66	66	63	60	51	51
776	163	0.12	43	70	71	68	63	63	60	57	48	48
672	123	0.07	37	67	68	65	60	60	57	54	45	45
563	86	0.04	31	63	64	61	56	56	53	50	41	41
450	55	0.02	25	58	59	56	51	51	48	45	36	36



Roof Mixed Flow Extract Fan - Down Discharge

DSM-500/4/3



Impeller

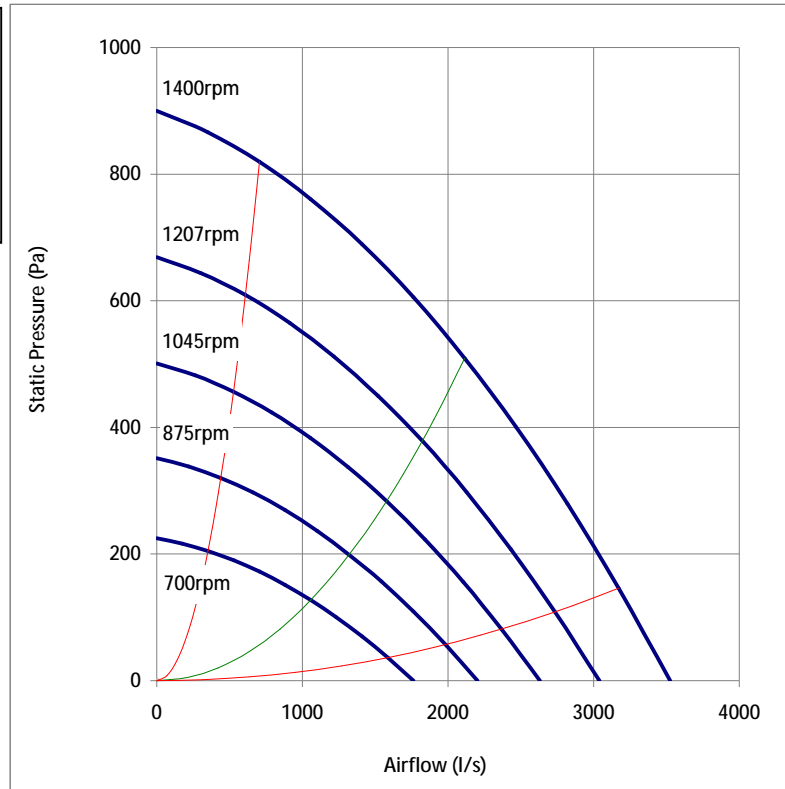
Size 500 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

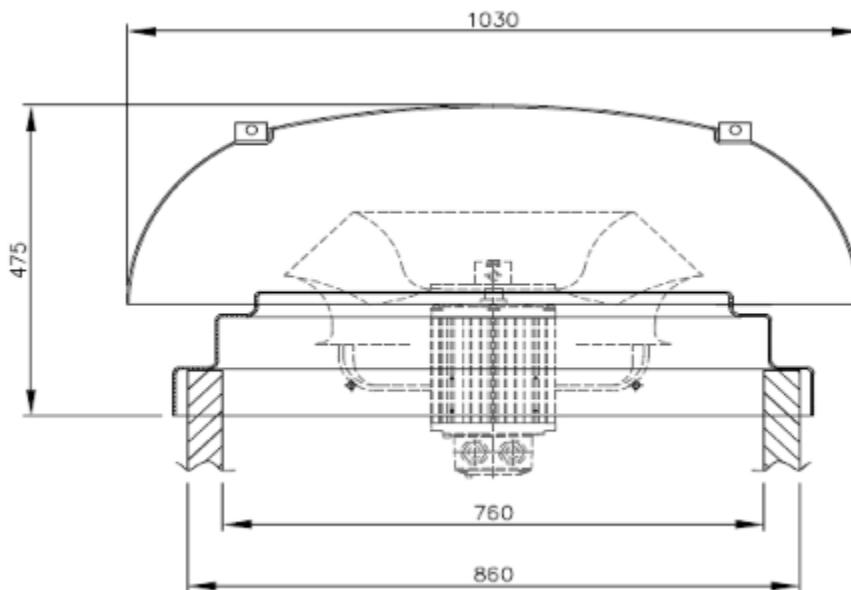
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 2.30 Kw
 Power Supply 400V/3PH/50Hz
 Speed 1400 rpm
 FLC 5.50 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 64 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
1400	900	2.30	50	91	93	92	88	86	83	79	74	71
1207	669	1.47	43	88	90	89	85	83	80	76	71	68
1045	501	0.96	37	85	87	86	82	80	77	73	68	65
875	352	0.56	31	81	83	82	78	76	73	69	64	61
700	225	0.29	25	76	78	77	73	71	68	64	59	56



Roof Mixed Flow Extract Fan - Down Discharge

DSM-500/6/1



Impeller

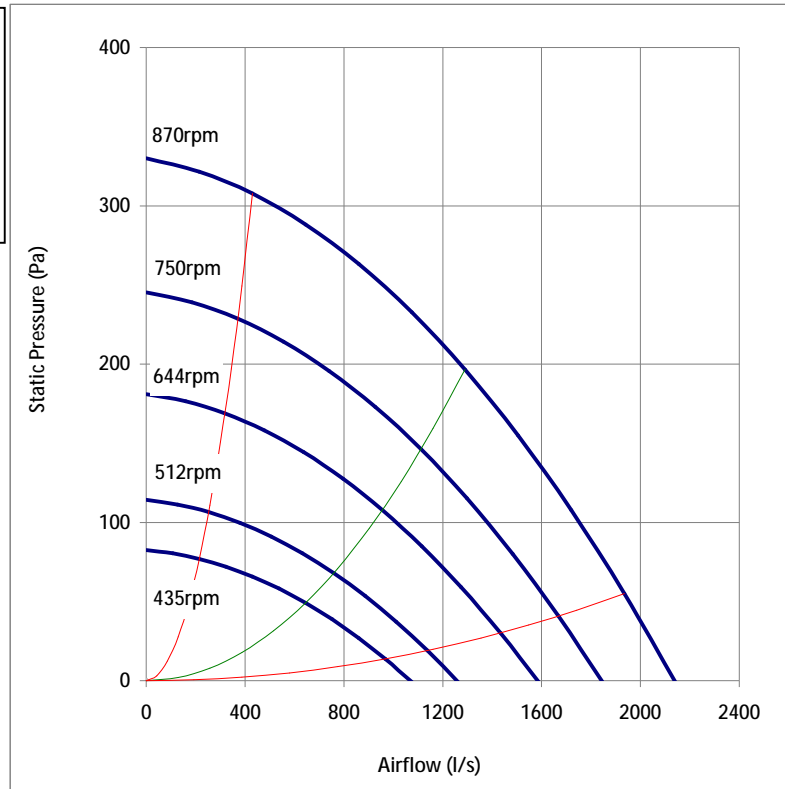
Size 500 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

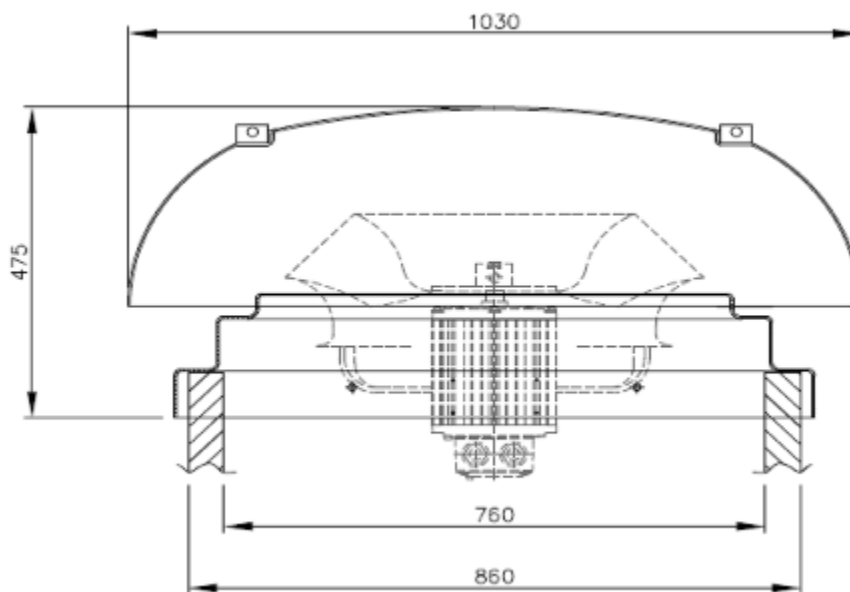
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.43 Kw
 Power Supply 230V/1PH/50Hz
 Speed 870 rpm
 FLC 3.30 A
 Capacitor
 Control RE3.5, 5 Step Controller
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 58 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Motor Running Voltage (V)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
870	330	0.43	230	82	81	80	74	72	69	64	59	58
750	245	0.28	200	79	78	77	71	69	66	61	56	55
644	181	0.17	170	75	74	73	67	65	62	57	52	51
512	114	0.09	130	70	69	68	62	60	57	52	47	46
435	83	0.05	110	67	66	65	59	57	54	49	44	43



Roof Mixed Flow Extract Fan - Down Discharge

DSM-500/6/3



Impeller

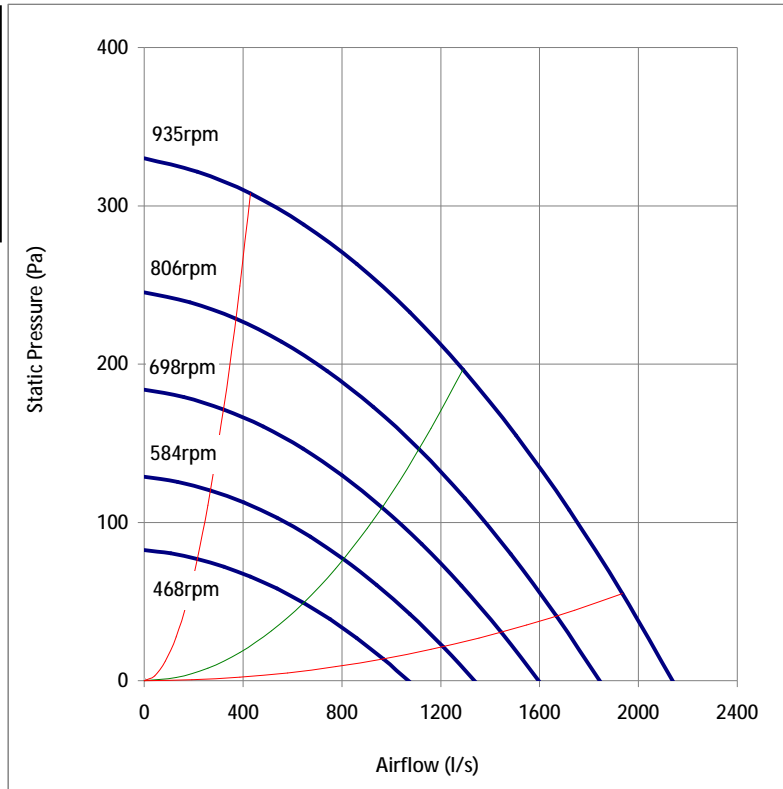
Size 500 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

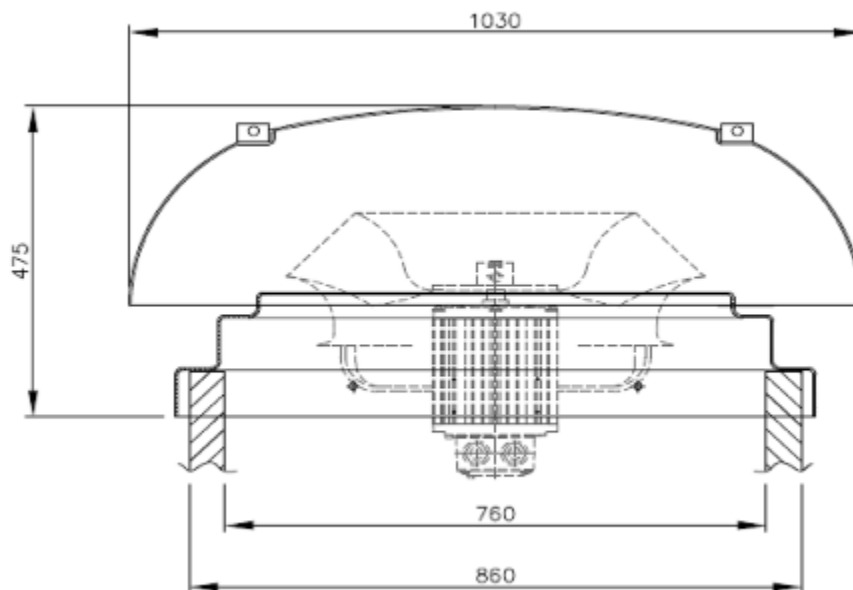
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.55 Kw
 Power Supply 400V/3PH/50Hz
 Speed 935 rpm
 FLC 1.80 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 58 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
935	330	0.55	50	82	81	80	74	72	69	64	59	58
806	245	0.35	43	79	78	77	71	69	66	61	56	55
698	184	0.23	37	76	75	74	68	66	63	58	53	52
584	129	0.13	31	72	71	70	64	62	59	54	49	48
468	83	0.07	25	67	66	65	59	57	54	49	44	43



Roof Mixed Flow Extract Fan - Down Discharge

DSM-500/8/3



Impeller

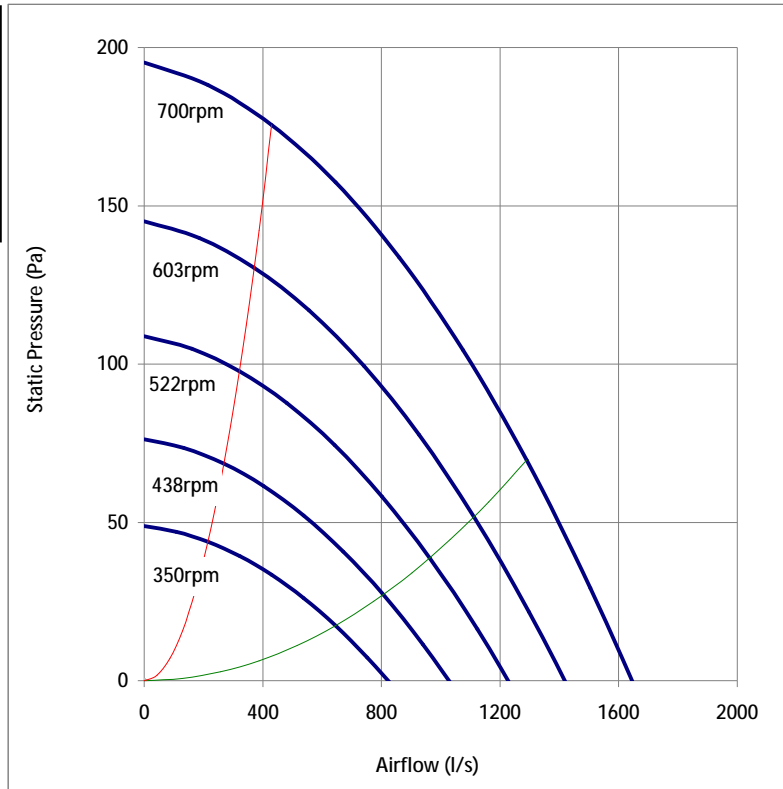
Size 500 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

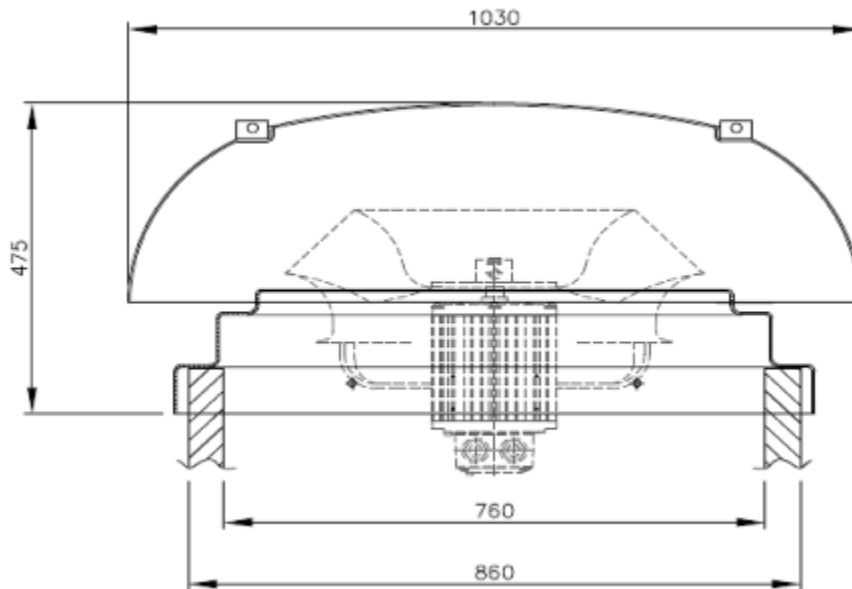
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.25 Kw
 Power Supply 400V/3PH/50Hz
 Speed 700 rpm
 FLC 1.20 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 58 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
700	195	0.25	50	77	77	76	69	68	64	59	54	53
603	145	0.16	43	74	74	73	66	65	61	56	51	50
522	109	0.10	37	71	71	70	63	62	58	53	48	47
438	76	0.06	31	67	67	66	59	58	54	49	44	43
350	49	0.03	25	62	62	61	54	53	49	44	39	38



Roof Mixed Flow Extract Fan - Down Discharge

DSM-630/6/3



Impeller

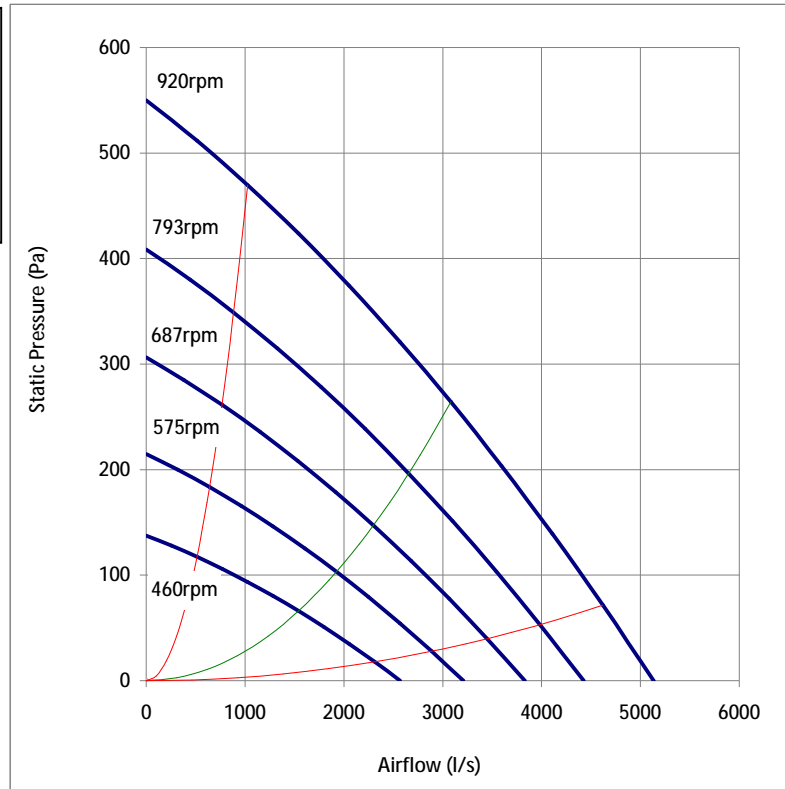
Size 630 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

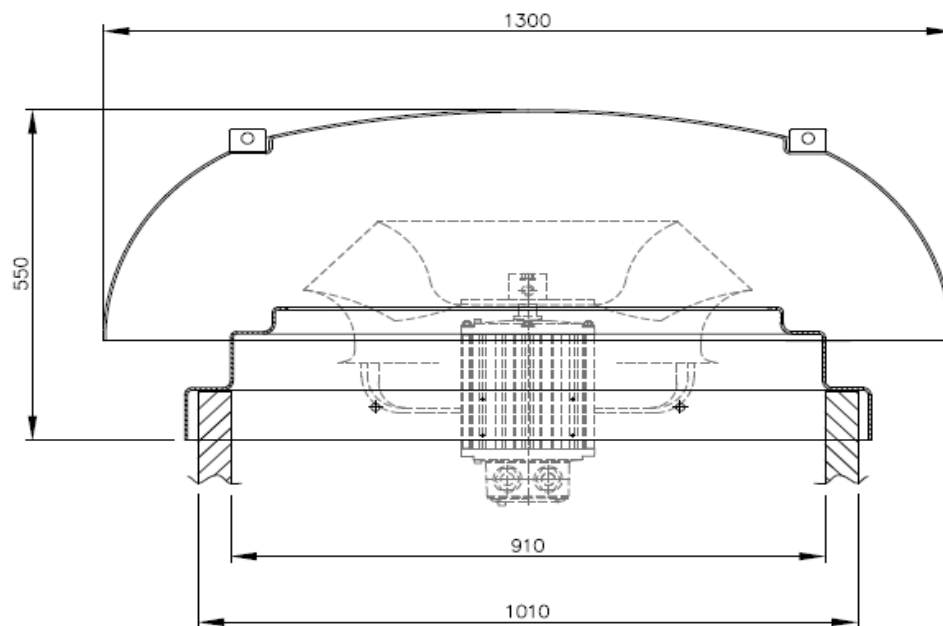
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 2.20 Kw
 Power Supply 400V/3PH/50Hz
 Speed 920 rpm
 FLC 4.50 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 85 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
920	550	2.20	50	90	89	89	84	81	78	74	69	67
793	409	1.41	43	87	86	86	81	78	75	71	66	64
687	306	0.91	37	84	83	83	78	75	72	68	63	61
575	215	0.54	31	80	79	79	74	71	68	64	59	57
460	138	0.28	25	75	74	74	69	66	63	59	54	52



Roof Mixed Flow Extract Fan - Down Discharge

DSM-630/8/3



Impeller

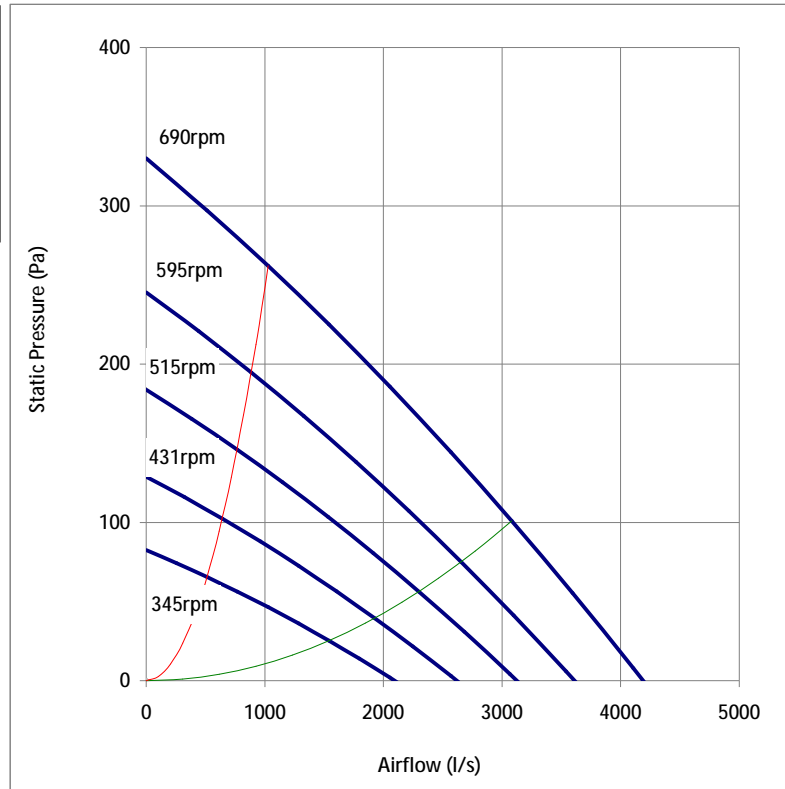
Size 630 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

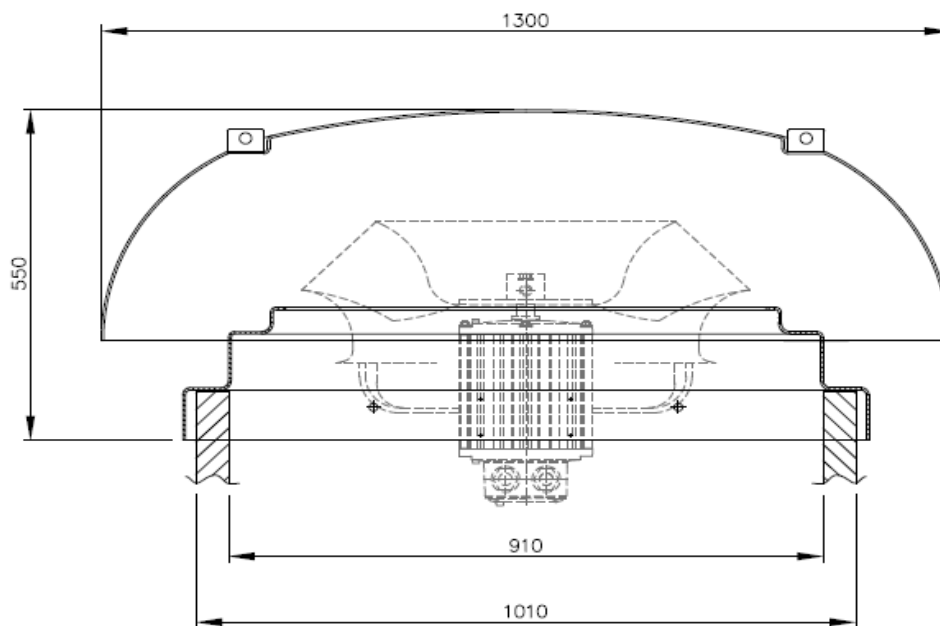
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 0.75 Kw
 Power Supply 400V/3PH/50Hz
 Speed 690 rpm
 FLC 2.50 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 75 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
690	330	0.75	50	85	84	83	76	75	71	66	62	60
595	245	0.48	43	82	81	80	73	72	68	63	59	57
515	184	0.31	37	79	78	77	70	69	65	60	56	54
431	129	0.18	31	75	74	73	66	65	61	56	52	50
345	83	0.09	25	70	69	68	61	60	56	51	47	45



Roof Mixed Flow Extract Fan - Down Discharge

DSM-760/6/3



Impeller

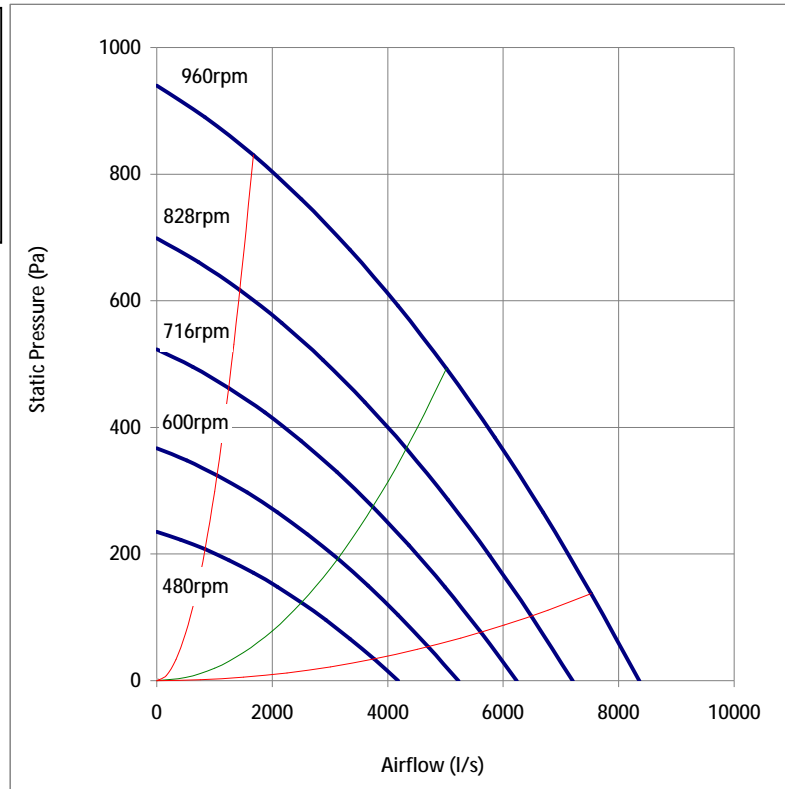
Size 760 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

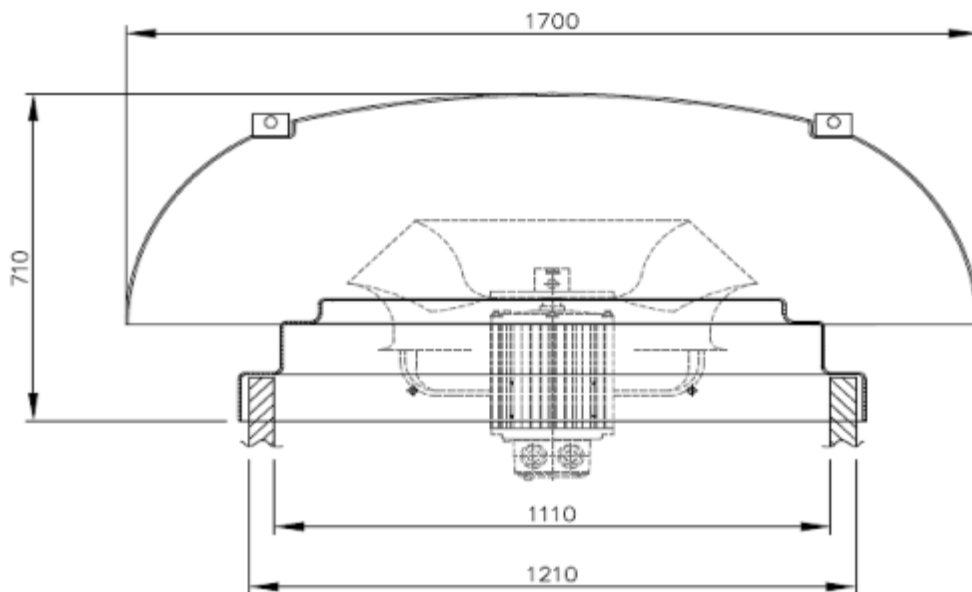
Type IE2
 IP Rating 55
 Insulation Class 155
 Power 6.30 Kw
 Power Supply 400V/3PH/50Hz
 Speed 960 rpm
 FLC 15.00 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 161 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL (dB re 1pw)								Sound Pressure Level (dBA at 3 meters)
				63	125	250	500	1k	2k	4k	8k	
960	940	6.30	50	98	95	95	94	91	88	81	76	76
828	699	4.04	43	95	92	92	91	88	85	78	73	73
716	524	2.62	37	92	89	89	88	85	82	75	70	70
600	367	1.54	31	88	85	85	84	81	78	71	66	66
480	235	0.79	25	83	80	80	79	76	73	66	61	61



Roof Mixed Flow Extract Fan - Down Discharge

DSM-760/8/3



Impeller

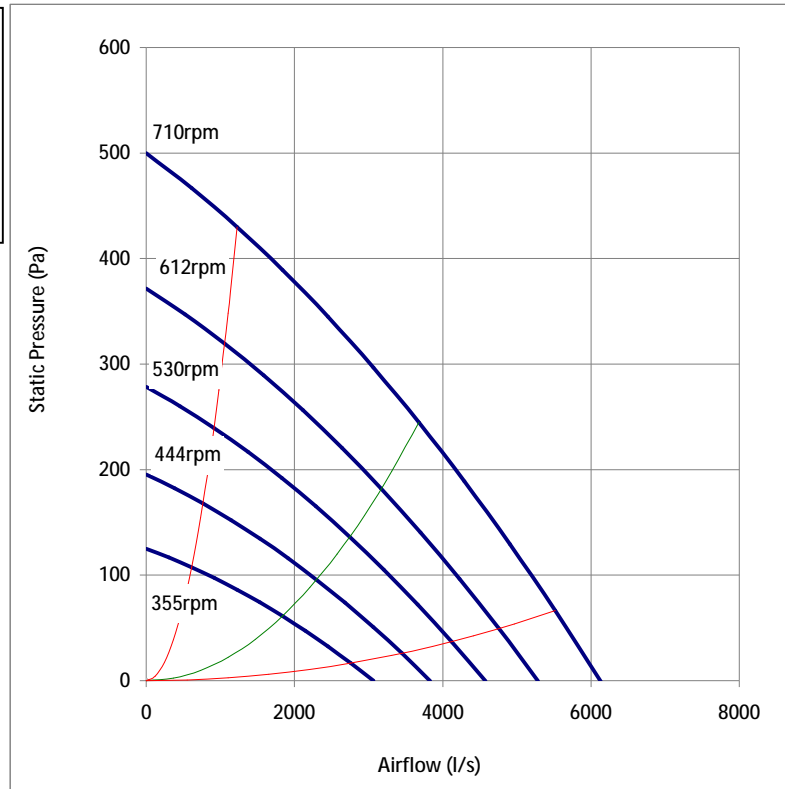
Size 760 mm
 Type Mixed Flow
 Material Aluminium
 Motor finish Powder Coating RAL7032

Motor

Type IE2
 IP Rating 55
 Insulation Class 155
 Power 3.00 Kw
 Power Supply 400V/3PH/50Hz
 Speed 710 rpm
 FLC 8.60 A
 Capacitor
 Control Variable Frequency Drive
 Protection Thermal Contacts

Fan

Cowl Fibreglass UV Stabilised
 Weight 130 Kg
 Max. Temp 50 °C



Speed (rpm)	Peak Pressure (Pa)	Peak Power (kw)	Running Frequency	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3 meters
				63	125	250	500	1k	2k	4k	8k	
710	500	3.00	50	94	90	90	86	83	80	73	69	67
612	372	1.92	43	91	87	87	83	80	77	70	66	64
530	278	1.25	37	88	84	84	80	77	74	67	63	61
444	195	0.73	31	84	80	80	76	73	70	63	59	57
355	125	0.38	25	79	75	75	71	68	65	58	54	52

