

**Specification**

The range of HELIOS vertical VC roof cowls are designed to be aerodynamically stable. The cowls provide weather protection to fans, when used and may also be used to screen roof openings or duct terminations. Manufactured from glass reinforced polyester resin (G.R.P), reinforced with coremat to provide additional strength with light weight. Units are finished in a hard gloss, UV stabilised, gel coat, giving an attractive weather proof finish.

**Fans**

Cowls accept any HELIOS plate axial fan and must be ordered separately. **Note:** Cowls are not suitable for use in combination with explosion proof fans. For further specification please see axial fan pages.

**Speed control**

Most models are speed controllable via voltage reduction.

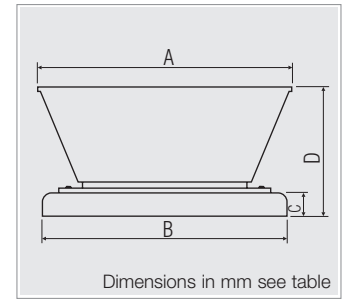
**Delivery**

Cowls and fans are supplied as separate items.

**Reverse operation**

Vertical roof fans are not reversible.

Vertical discharge roof fan



Type	Dimensions in mm			
	A	B	C	D
VC 500/560	950	925	110	700
VC 630/710	1030	1045	110	800

Type	Ref. No.	Nominal weight kg
VC 500/560	7697	21
VC 630/710	7698	27

**Backdraught shutter**

Vertical extract models have backdraught shutters fitted as standard.

**Bird guard**

Bird guards are fitted as standard.

**Electrical connection**

Terminals in motor end cap (IP 55).

**Roof cowls for vertical discharge**

Manufactured from glass reinforced polyester resin (G.R.P) and supplied complete with bird guard, neoprene sealing strip and fixings.

**Colours**

Units may be supplied in any BS or RAL colour. 8 standard colours are available as a no cost option. Other colours may incur a minimal surcharge.

**The following colours are available as standard:**

- BS 00 A 05 (Silver Grey) Standard
- BS 10 A 05 (Goose Wing Grey)
- BS 18 B 25 (Merlin Grey)
- BS 08 B 29 (Dark Brown)
- BS 10 B 19 (Mushroom)
- BS 12 B 27 (Olive Green)
- BS 12 B 21 (Moorland Green)
- HELIOS Bright Red

Information	Pages
Controllers and motor protection units	275-290
The full range of axial fans shown on pages 74-103 may also be used with the cowls.	

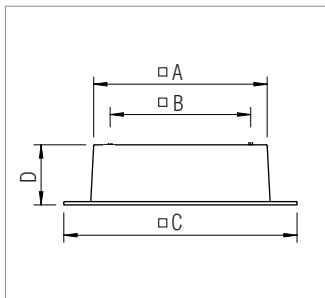
Roof cowl horizontal discharge	Fan Type	Ref. No.	R.P.M.	Air flow volume (FID)	Power	Current	Wiring diagram	Maximum air flow temperature controlled		Nominal fan weight	Controllers				
								full load	+°C		5 step transformer	Electronic controller	Type	Ref. No.	Type
Type	Ref. No.		min <sup>-1</sup>	m <sup>3</sup> /h	kW	Amps	No.	+°C	+°C	kg	Type	Ref. No.	Type	Ref. No.	
<b>1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55</b>															
VC 500/560	7697	HQW 500/6	1112	910	4810	0.14	1.20	475	60	40	17.3	MWS 1.5 <sup>1)</sup>	1947	ESA 3	0239
VC 500/560	7697	HQW 500/4	1113	1410	7500	0.45	2.60	475	60	40	17.3	MWS 3.0 <sup>1)</sup>	1948	ESA 3 i	7806
VC 500/560	7697	HQW 560/6	0385	955	6850	0.25	2.10	475	60	40	22.0	MWS 3.0 <sup>1)</sup>	1948	ESA 3	0239
VC 500/560	7697	HQW 560/4	5054	1405	10670	0.75	5.60	475	40	40	25.0	MWS 7.5 <sup>1)</sup>	1950	ESA 6 i	7807
VC 630/710	7698	HQW 630/6	5037	955	8900	0.45	3.20	475	60	40	25.0	MWS 5.0 <sup>1)</sup>	1949	ESA 6 i	7807
VC 630/710	7698	HQW 630/4	5056	1415	14830	1.50	7.00	475	40	40	35.0	MWS 7.5 <sup>1)</sup>	1950	ESA 10 i	7808
VC 630/710	7698	HQW 710/6/..	5047	925	11930	0.50	2.50/(3.00)	475	25*	40	60.0	MWS 5.0 <sup>1)</sup>	1949	ESA 6 i	7807
<b>3 Phase motor, 400 V / 3 ph. / 50 Hz, protection to IP 55</b>															
Frequency inverter															
VC 500/560	7697	HQD 500/6	1126	910	4810	0.14	0.50	469	60	40	17.2	RDS 1 <sup>1)</sup>	1314	—	—
VC 500/560	7697	HQD 500/4	1127	1320	7010	0.45	1.25	469	40	40	17.2	RDS 2 <sup>1)</sup>	1315	—	—
VC 500/560	7697	HQD 560/6	0386	960	6970	0.25	1.00	469	60	40	22.0	RDS 2 <sup>1)</sup>	1315	FUR 3 <sup>1)</sup>	9485
VC 500/560	7697	HQD 560/4	0387	1380	10480	0.75	1.75	469	40	40	23.0	RDS 2 <sup>1)</sup>	1315	FUR 3 <sup>1)</sup>	9485
VC 630/710	7698	HQD 630/8	5029	735	6890	0.25	1.50	469	60	40	27.0	RDS 2 <sup>1)</sup>	1315	FUR 3 <sup>1)</sup>	9485
VC 630/710	7698	HQD 630/6	5027	970	9100	0.55	1.80	469	60	40	28.0	RDS 2 <sup>1)</sup>	1315	FUR 3 <sup>1)</sup>	9485
VC 630/710	7698	HQD 710/8/..	5599	700	10800	0.37	1.60/(1.60)	469	31*	40	57.0	RDS 2 <sup>1)</sup>	1315	FUR 3 <sup>1)</sup>	9485
VC 630/710	7698	HQD 710/6/6..	5602	920	13500	0.43/0.75	1.2/2.2	520	28*	40	55.0	RDS 4 <sup>1)</sup>	1316	FUR 3 <sup>1)</sup>	9485
VC 630/710	7698	HQD 710/6/6..	5603	930	15630	0.71/1.30	2.10/3.50	520	35*	40	60.0	RDS 4 <sup>1)</sup>	1316	FUR 4 <sup>1)</sup>	9487
VC 630/710	7698	HQD 710/4/4..	5604	1365	17060	0.95/1.55	2.10/3.70	520	20*	40	60.0	RDS 7 <sup>1)</sup>	1578	FUR 4 <sup>1)</sup>	9487
VC 630/710	7698	HQD 710/4/4..	5605	1370	19280	1.5/2.2	3.50/5.90	520	26*	40	75.0	RDS 7 <sup>1)</sup>	1578	FUR 6 <sup>1)</sup>	9489
VC 630/710	7698	HQD 710/4/..	5606	1435	22100	3.00	6.7	776	30*	40	88.0	—	—	FUR 6 <sup>1)</sup>	9489

<sup>1)</sup> Includes full motor protection unit; alternative: TSW/TSD; 5 step transformer controllers without motor protection unit.

\* Max. pitch angle [°]

### ■ Selection chart

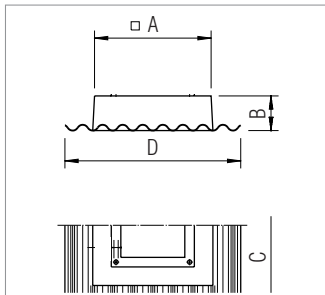
Type	Diameter mm	Max. pitch	Poles	R.P.M. min <sup>-1</sup>	Air flow volume in V m <sup>3</sup> /s in dependence to static pressure = N / m <sup>2</sup> = freely available pressure ( $\Delta p_{stat}$ ) in Pa													
					0	25	50	75	100	125	150	175	200	225	250	275	300	
VC + HQ..	500		6	910	1.336	1.200	1.031											
VC + HQ..	500		4	1410	2.083	2.000	1.914	1.814	1.703	1.547	1.378							
VC + HQ..	560		6	955	1.903	1.678	1.433	1.128										
VC + HQ..	560		4	1405	2.964	2.847	2.725	2.597	2.453	2.294	2.119	1.931						
VC + HQD	630		8	735	1.914	1.653												
VC + HQ..	630		6	955	2.472	2.289	2.078	1.756										
VC + HQW	630		4	1415	4.119	3.994	3.864	3.728	3.586	3.436	3.319	3.081	2.867	2.633				
VC + HQD	710	31°	8	700	3.000	2.672	2.289	1.747										
VC + HQD	710	28°	6	920	3.750	3.503	3.236	2.933	2.575	2.125								
VC + HQD	710	35°	6	930	4.342	4.069	3.758	3.394	3.058									
VC + HQW	710	25°	6	925	3.314	3.022	2.750	2.389										
VC + HQD	710	20°	4	1365	4.739	4.586	4.428	4.264	4.092	3.911	3.719	3.517	3.303	3.064	2.756	2.250	1.764	
VC + HQD	710	26°	4	1370	5.356	5.192	5.025	4.850	4.675	4.486	4.289	4.072	3.836	3.567	3.319	3.000		
VC + HQD	710	30°	4	1435	6.139	5.978	5.819	5.656	5.486	5.311	5.128	4.936	4.733	4.511	4.292	4.042	3.722	



### ■ Purlin box for vertical roof cowls

Manufactured from glass reinforced polyester resin (G.R.P). Corrosion resistant and thermally efficient, finished in goose wing grey to match most building applications. The units are designed to give load bearing support to the range of HELIOS fans and cowls and may be fitted in pitched or flat roof applications.

Type	Ref. No.	Dimensions in mm				Nominal weight kg
		A	B	C	D	
PB 500/560	7660	865	620	1050	250	8.0
PB 630/710	7661	900	780	1080	260	10

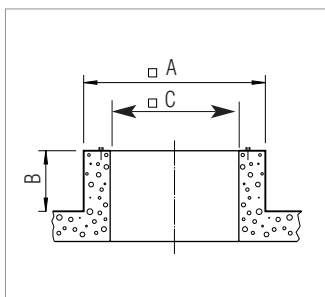


### ■ Soaker sheets

Available in an extensive range of profiles and colours to match HELIOS roof cowls. Standard colour is grey. Manufactured from glass reinforced polyester resin (G.R.P) with chamfered profiles around the upstand to stop water build-up.

Type	Ref. No.	Dimensions in mm			
		A	B	C	D
SS 500/560	7666	870	150	1800	<sup>1)</sup>
SS 630/710	7667	1000	150	1800	<sup>1)</sup>

<sup>1)</sup> Dimension D and weight vary for different profiles.



### ■ Curb dimensions

Curbs should be manufactured from hardwood, treated softwood or a similar material. All dimensions include any flashing covering the curb. On some models the fan guard is close to the edge of the fan plate, so on it may be necessary on site to make provision for this in the curb.

Cowl size	A	B	C
	Max.	Min.	Min.
500/560	865	150	550/630
630/710	900	150	700/810