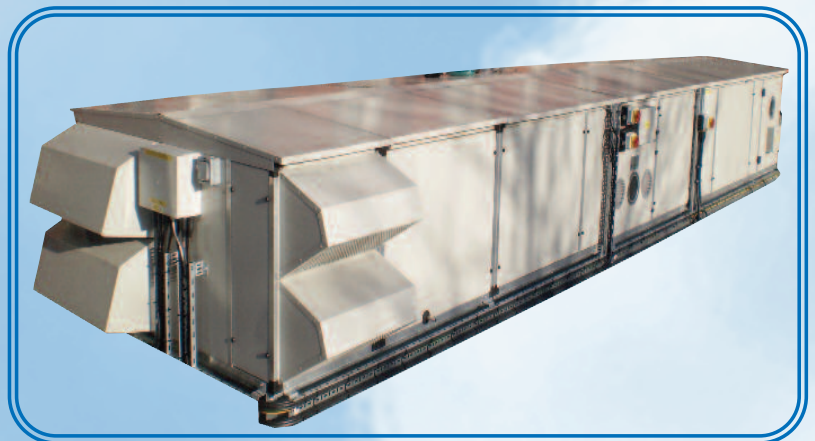


for fresher air  
**STP - STR**



**DIRECT DRIVE - AIR HANDLING & HEAT RECOVERY**



Certificate No: GB9455



**Air Handling Units - Page 4**

- Straight through supply units



**Heat Recovery - Side by Side - Page 19**

- Ideal for applications where height is at a premium



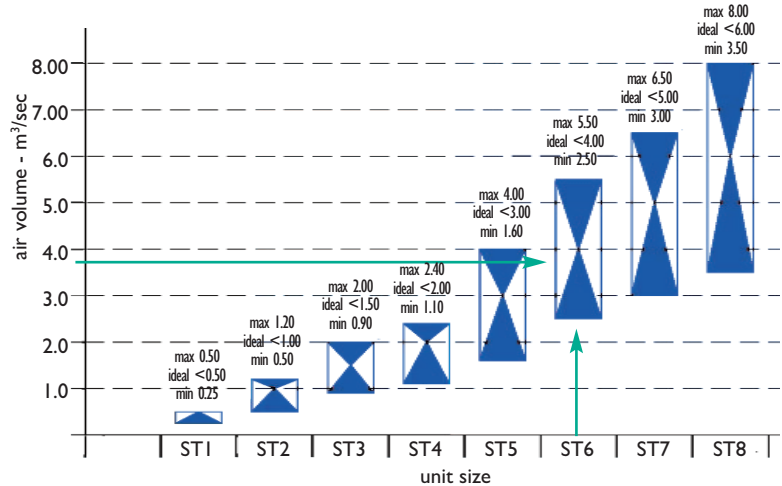
**Heat Recovery - Stacked - Page 36**

- Ideal for applications where footprint area is at a premium

## General Specification

- Suitable for internal or external mounting
- Internal units galvanized finish
- External units Plastisol finish (BS10A05) with fitted double pitched
- 30x30 tubular frame construction with 25mm double skinned mineral wool filled panels
- Fitted 100mm high pressed steel channel base
- Backward curved direct driven plug fans with IE2 motors pre-wired to isolator and inverter
- Plastic plate heat exchangers with fitted motorised face and by-pass damper

## Selection Example - Air Handling Unit



### Unit Required:

- Roof mounted - STR
- LPHW heater - W
- Air Duty - 3.75m³/sec - size 06

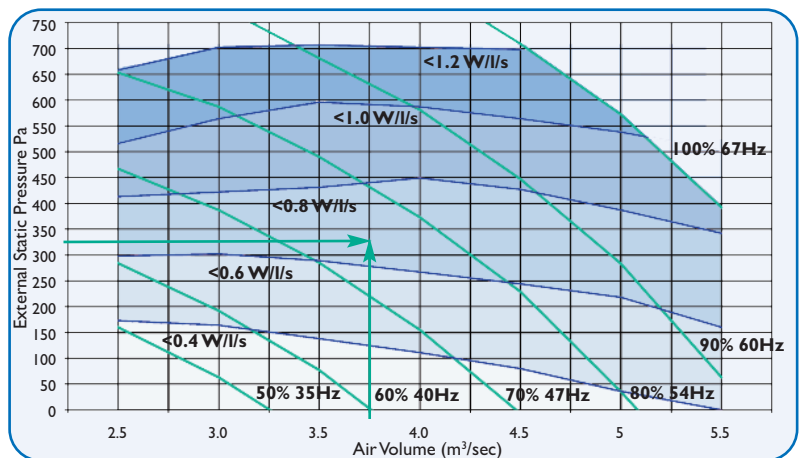
### Unit required - STRW-6

## Technical Details

- external static = 325 Pa
- fan speed <80%
- fan SPF <0.8 W/l/s

### Electrical Data

| Models | Fan Power kW | Supply    | FLC amps |
|--------|--------------|-----------|----------|
| Size 6 | 5.5          | 415V, 3Ph | 11.8     |



| Motor Speed | Size 6            | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|-------------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|             |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 80%         | Inlet in duct dB  | 74                             | 82  | 82  | 77  | 77 | 79 | 69 | 72 | 88            | 84    | 61            | >50 | 51            | 50 |
|             | Outlet in duct dB | 77                             | 84  | 86  | 87  | 84 | 84 | 73 | 73 | 93            | 90    |               |     |               |    |

## STP - STR (EHB and LPHW)

### Features

- larger sizes for plant and external installation
- can be with electric or LPHW heater batteries
- 11 standard sizes, airflow to 16 m<sup>3</sup>/sec
- wide selection of control panels available

### Cases - Plant Models

- robust 30 x 30 (30 x 50 on larger units) extruded aluminium frame
- black plastic corner joints
- finished in galvanised, double skinned steel with 25mm thick mineral wool slab insulation of 45 kg/m<sup>3</sup> density (providing high degree of acoustic insulation) (50mm panels with high density mineral wool and plaster board also available for lower sound levels)
- steel channel base running full length of unit with cross members at suitable locations
- flush fitting panels
- filter and access section panels fitted with easy access fasteners - other removable panels retained via roofing bolts

### Cases - Weatherproof Models

CASE CONSTRUCTION AS PLANT MODELS, EXCEPT:

- outer skin with plastic coated finish (grey to BS10A05 as standard)
- weatherproof lid fitted
- air intake via weather cowl with birdmesh guard

### Specification

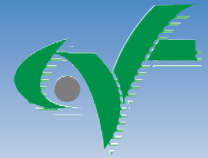
- backward curved direct drive plug style impellers.
- fan impellers are statically and dynamically balanced in accordance with ISO 14694 and ISO 1940/1. Supplied as standard with pre-greased sealed for life bearings having L10 life of 20,000 hours at peak performance
- fan motors pre-wired to inverter and isolator
- standard motors of squirrel cage induction type, totally enclosed, fan cooled, suitable for 3ph, 50Hz electricity supply, IE2
- motors with IP55 protection and Class F rating
- high efficiency EC motors available as an option, depending on duty requirement
- fan and motor are mounted on a common chassis frame isolated from casing via rubber anti-vibration mounts and flexible connector fitted to fan inlet. Transit bolt fitted to prevent damage during transport
- LPHW batteries are constructed from copper tubes mechanically bonded onto aluminium fins supplied with standard BSP male connectors. Option of vinyl coating (copper and electro-tinned copper also available). The coil casing is in galvanised sheet steel
- drain tray and moisture eliminator plates manufactured from polypropylene fitted as standard to cooling coils. Coils are mounted on slide-in channels to aid removal
- electric heater batteries for single and 3 phase operation are manufactured from sheathed rod elements with an integral manual reset thermal cut-out for wiring into control unit. It is recommended that fan run-on timer is incorporated in controls to prevent possible heat damage
- panel filters to G4 grade mounted in slide-in channels. Bag filters of F6 and above are mounted in purpose made front withdrawal holding frames and retained by spring loaded clips



- intake dampers of opposed blade, multi-leaf type fitted aerofoil section blades. Extended shaft for fitting of suitable motor is provided as standard
- attenuators manufactured with galvanised sheet steel case fitted with "Mez" type flange at each end.
- **manufactured in UK to ISO 9001**

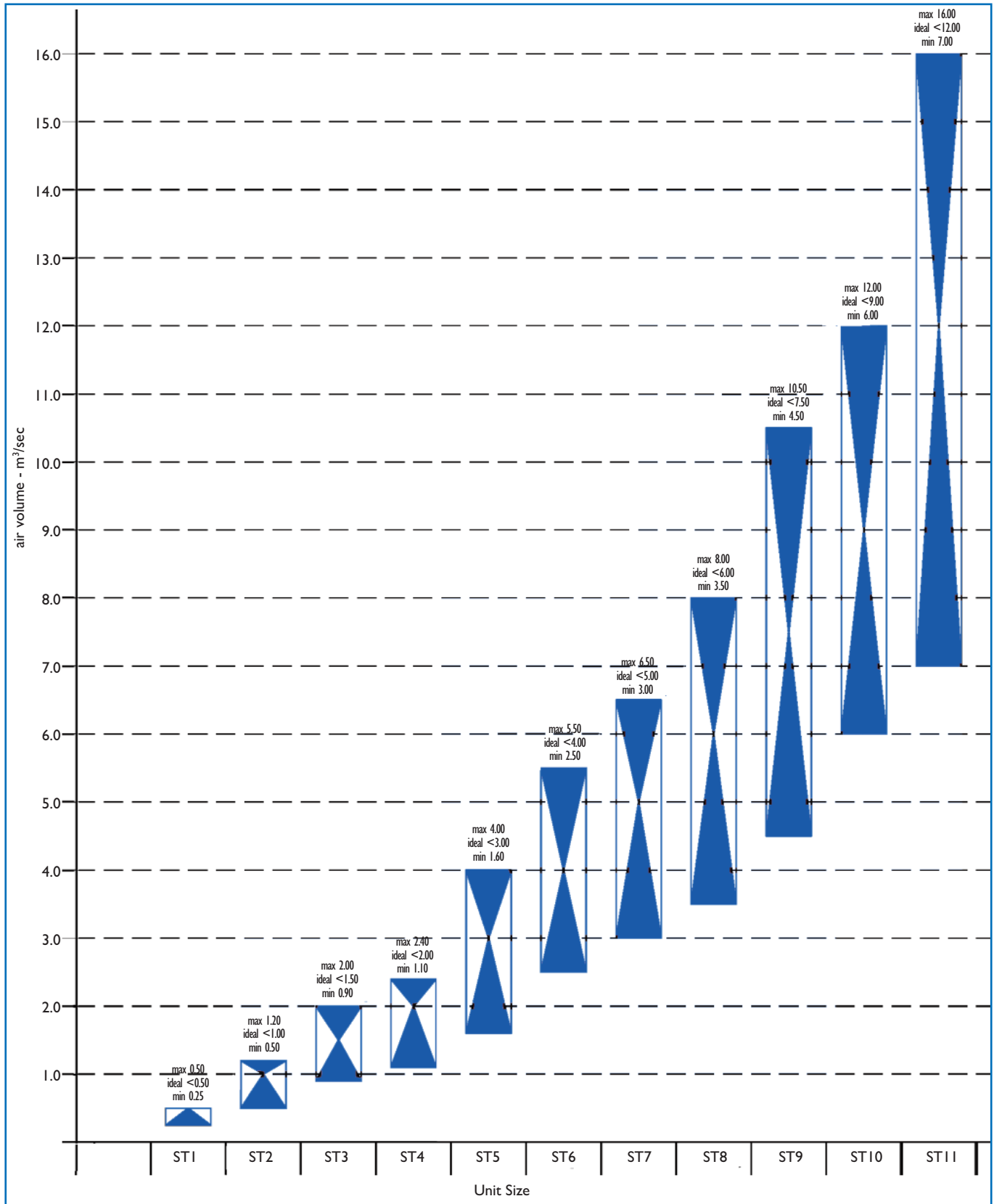


# Direct Drive - Air Handling Units



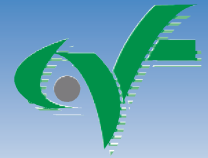
## STP - STR (EHB and LPHW)

### Selection Chart



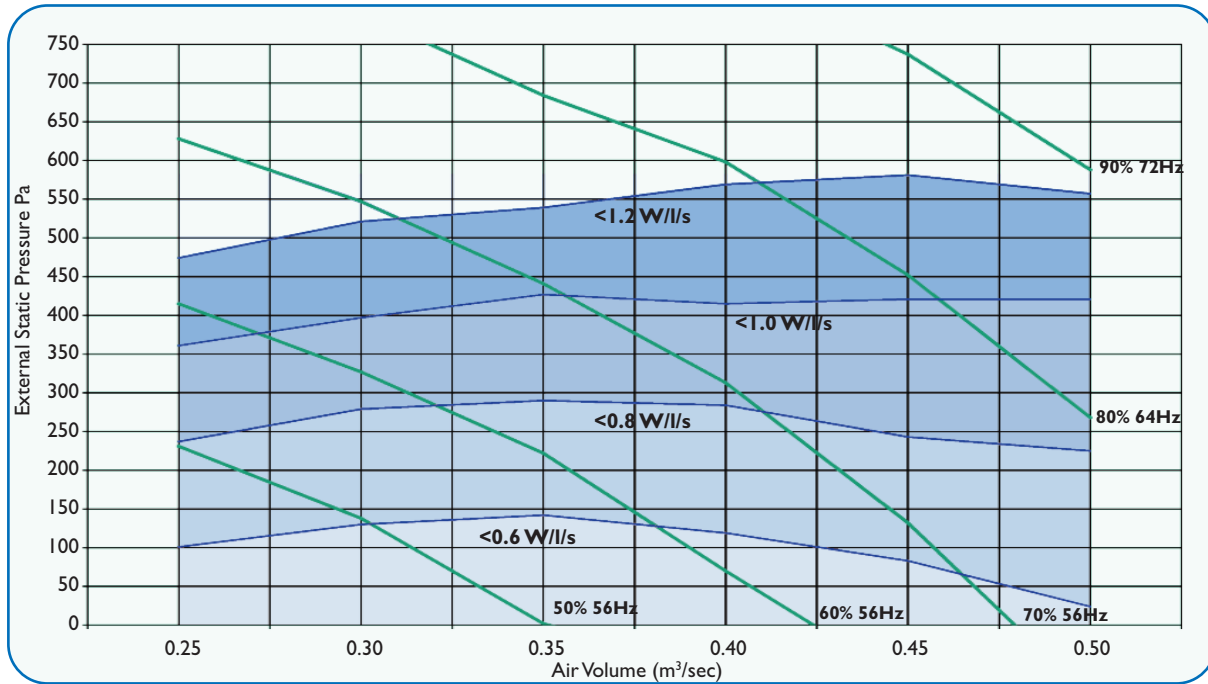


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

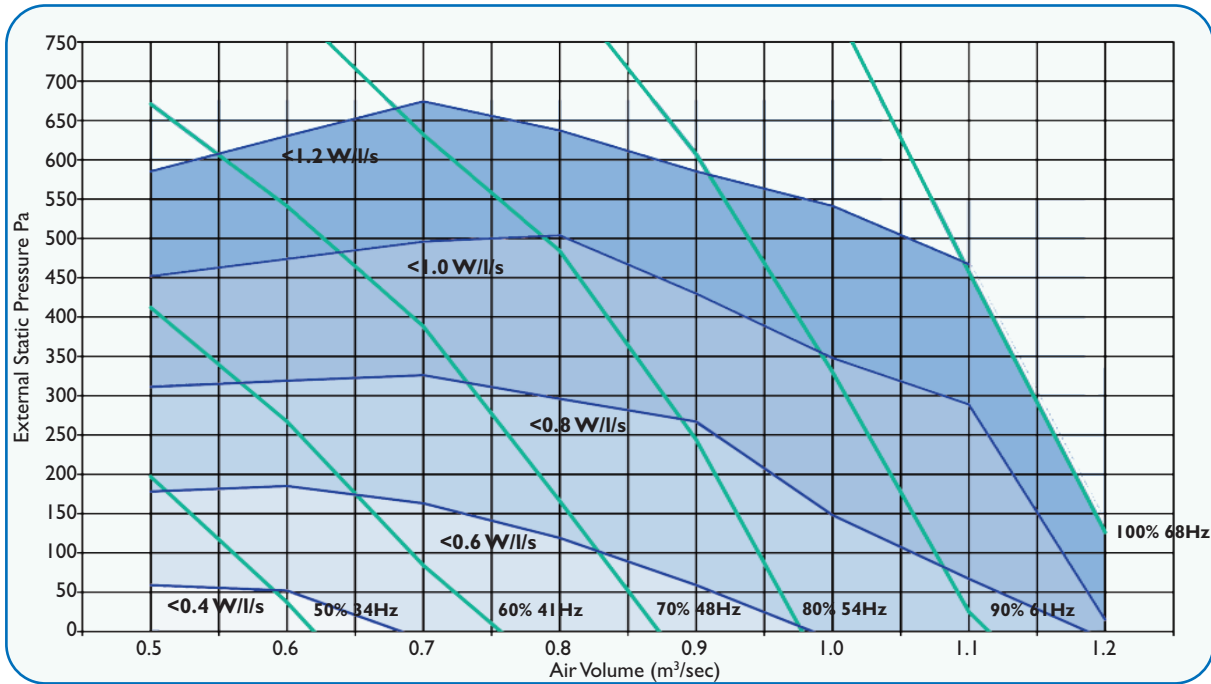
### Technical Data - Size I - "STPE/STPW - STRE/STRW"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size I          | 0.75         | 415V, 3Ph | 1.62     |

| Size I |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 82                             | 80  | 77  | 83  | 76 | 73 | 72 | 69 | 88            | 83    | 59            | >50 | 49            | 50 |
|        | Outlet in duct dB | 82                             | 83  | 82  | 87  | 82 | 87 | 79 | 75 | 93            | 91    |               |     |               |    |
| 90%    | Inlet in duct dB  | 78                             | 75  | 76  | 79  | 74 | 69 | 69 | 67 | 85            | 80    | 55            | >50 | 45            | 45 |
|        | Outlet in duct dB | 77                             | 78  | 79  | 83  | 82 | 81 | 76 | 72 | 89            | 87    |               |     |               |    |
| 80%    | Inlet in duct dB  | 65                             | 62  | 64  | 72  | 72 | 69 | 69 | 66 | 79            | 77    | 48            | 45  | 38            | 35 |
|        | Outlet in duct dB | 66                             | 65  | 69  | 76  | 79 | 81 | 76 | 72 | 86            | 86    |               |     |               |    |
| 70%    | Inlet in duct dB  | 63                             | 61  | 66  | 70  | 70 | 66 | 67 | 63 | 75            | 77    | 45            | 45  | 36            | 35 |
|        | Outlet in duct dB | 63                             | 63  | 70  | 74  | 77 | 78 | 74 | 68 | 83            | 83    |               |     |               |    |
| 60%    | Inlet in duct dB  | 60                             | 58  | 66  | 68  | 66 | 63 | 64 | 62 | 74            | 72    | 45            | 45  | 35            | 35 |
|        | Outlet in duct dB | 60                             | 61  | 69  | 71  | 73 | 74 | 71 | 65 | 80            | 79    |               |     |               |    |
| 50%    | Inlet in duct dB  | 58                             | 58  | 65  | 64  | 61 | 61 | 60 | 61 | 71            | 69    | 42            | 40  | 33            | 30 |
|        | Outlet in duct dB | 58                             | 61  | 67  | 67  | 70 | 69 | 67 | 64 | 76            | 76    |               |     |               |    |

### Technical Data - Size 2 - "STPE/STPW - STRE/STRW"

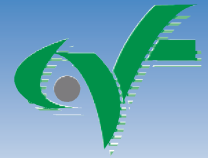


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 2          | 1.5          | 415V, 3Ph | 3.06     |

| Size 2 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 76                             | 72  | 75  | 86  | 80 | 79 | 78 | 78 | 90            | 88    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 76                             | 76  | 81  | 89  | 91 | 90 | 84 | 84 | 96            | 96    |               |     |               |    |
| 90%    | Inlet in duct dB  | 73                             | 70  | 75  | 83  | 78 | 76 | 76 | 75 | 88            | 85    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 73                             | 74  | 80  | 87  | 88 | 87 | 82 | 81 | 94            | 93    |               |     |               |    |
| 80%    | Inlet in duct dB  | 68                             | 67  | 73  | 79  | 75 | 72 | 71 | 69 | 83            | 81    | 53            | >50 | 44            | 45 |
|        | Outlet in duct dB | 69                             | 70  | 77  | 82  | 84 | 83 | 77 | 75 | 89            | 89    |               |     |               |    |
| 70%    | Inlet in duct dB  | 65                             | 64  | 73  | 75  | 71 | 68 | 69 | 65 | 80            | 78    | 53            | >50 | 43            | 45 |
|        | Outlet in duct dB | 65                             | 67  | 78  | 79  | 81 | 79 | 76 | 71 | 86            | 86    |               |     |               |    |
| 60%    | Inlet in duct dB  | 61                             | 62  | 72  | 71  | 67 | 66 | 66 | 64 | 77            | 74    | 50            | 50  | 40            | 40 |
|        | Outlet in duct dB | 62                             | 66  | 75  | 75  | 77 | 74 | 74 | 67 | 83            | 82    |               |     |               |    |
| 50%    | Inlet in duct dB  | 59                             | 62  | 69  | 66  | 63 | 62 | 62 | 61 | 74            | 70    | 46            | 45  | 36            | 35 |
|        | Outlet in duct dB | 60                             | 65  | 71  | 71  | 72 | 70 | 70 | 64 | 79            | 78    |               |     |               |    |

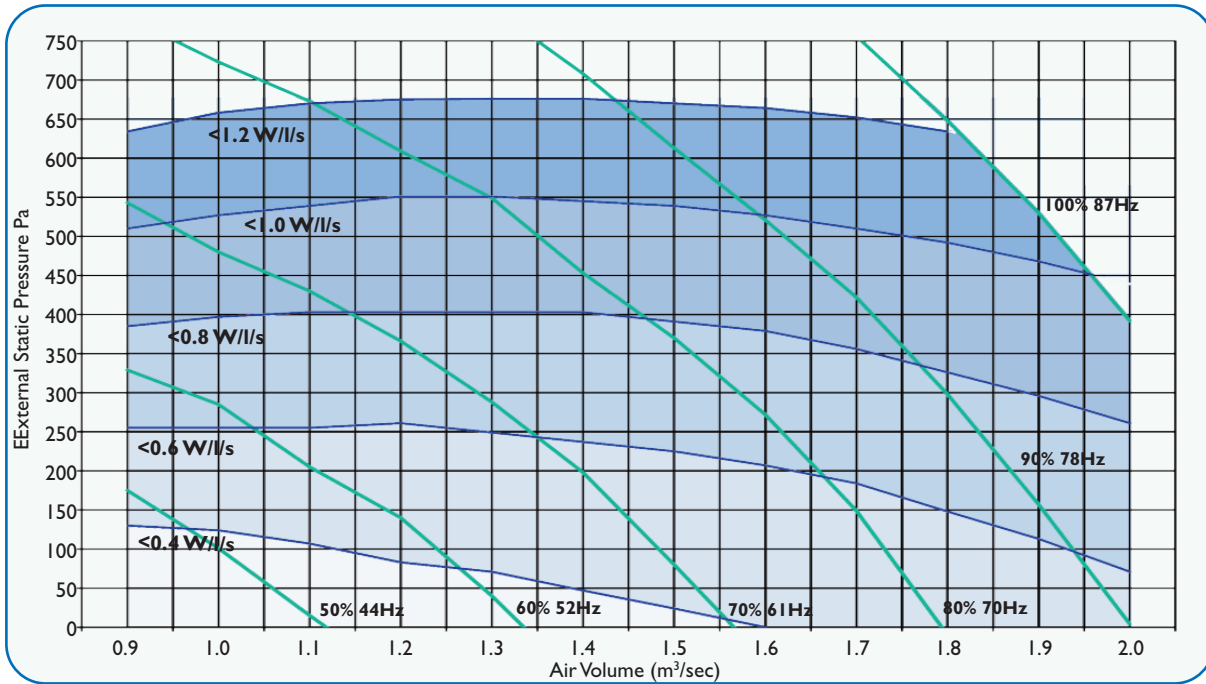


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 3 - "STPE/STPW - STRE/STRW"

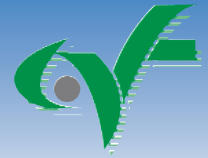


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 3          | 2.2          | 415V, 3Ph | 4.53     |

| Size 3 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 84                             | 79  | 85  | 80  | 75 | 75 | 73 | 69 | 90            | 83    | 64            | >50 | 55            | >50 |
|        | Outlet in duct dB | 87                             | 86  | 90  | 85  | 87 | 81 | 78 | 73 | 95            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 70                             | 70  | 82  | 80  | 75 | 75 | 75 | 78 | 87            | 84    | 60            | >50 | 51            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 86  | 85  | 87 | 82 | 81 | 81 | 93            | 91    |               |     |               |     |
| 80%    | Inlet in duct dB  | 68                             | 69  | 80  | 79  | 72 | 72 | 72 | 75 | 85            | 82    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 71                             | 72  | 84  | 82  | 84 | 78 | 78 | 77 | 90            | 88    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 76  | 75  | 69 | 69 | 69 | 71 | 81            | 78    | 54            | >50 | 44            | 45  |
|        | Outlet in duct dB | 69                             | 73  | 79  | 79  | 80 | 75 | 75 | 73 | 87            | 85    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 72  | 72  | 71  | 66 | 66 | 67 | 67 | 79            | 75    | 50            | 50  | 41            | 40  |
|        | Outlet in duct dB | 66                             | 75  | 75  | 75  | 77 | 72 | 72 | 69 | 83            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 66                             | 70  | 69  | 65  | 62 | 64 | 63 | 58 | 71            | 75    | 47            | 45  | 37            | 35  |
|        | Outlet in duct dB | 66                             | 72  | 71  | 71  | 71 | 70 | 68 | 60 | 79            | 77    |               |     |               |     |

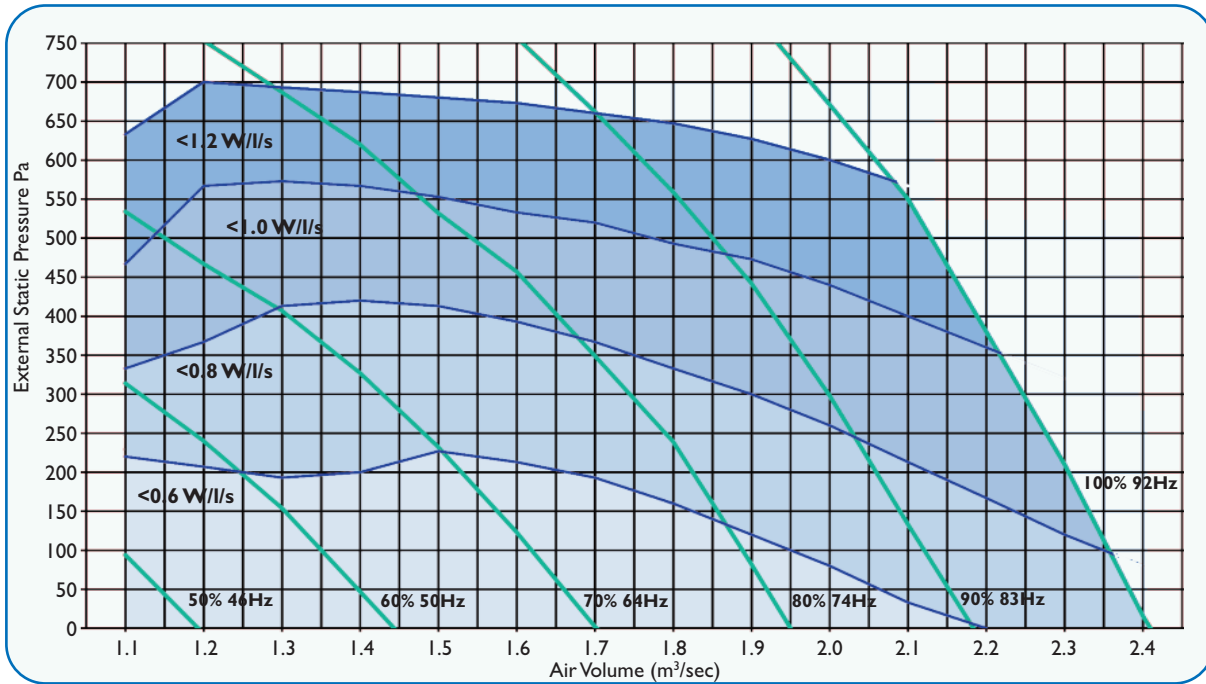


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

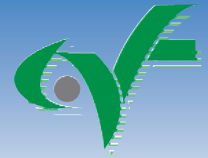
### Technical Data - Size 4 - "STPE/STPW - STRE/STRW"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 4          | 3.0          | 415V, 3Ph | 4.87     |

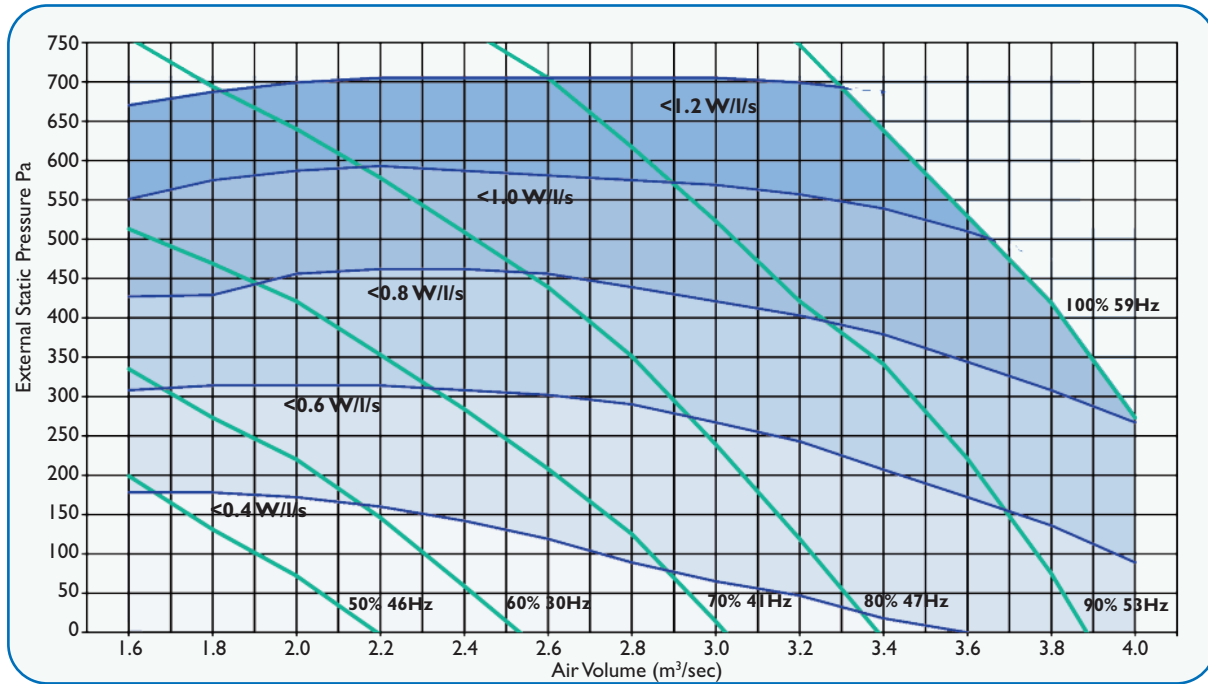
| Size 4 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 75                             | 75  | 87  | 86  | 81 | 81 | 83 | 84 | 95            | 91    | 65            | >50 | 56            | >50 |
|        | Outlet in duct dB | 78                             | 80  | 91  | 90  | 93 | 88 | 88 | 88 | 99            | 97    |               |     |               |     |
| 90%    | Inlet in duct dB  | 72                             | 72  | 85  | 82  | 78 | 78 | 79 | 83 | 91            | 88    | 63            | >50 | 54            | >50 |
|        | Outlet in duct dB | 75                             | 77  | 89  | 87  | 90 | 84 | 85 | 85 | 96            | 94    |               |     |               |     |
| 80%    | Inlet in duct dB  | 70                             | 72  | 81  | 80  | 74 | 75 | 76 | 80 | 87            | 84    | 59            | >50 | 50            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 85  | 84  | 86 | 81 | 82 | 82 | 92            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 77  | 77  | 71 | 70 | 71 | 73 | 83            | 80    | 56            | >50 | 46            | 45  |
|        | Outlet in duct dB | 70                             | 73  | 81  | 81  | 82 | 77 | 77 | 75 | 88            | 86    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 69  | 74  | 74  | 68 | 67 | 67 | 68 | 80            | 76    | 52            | >50 | 42            | 45  |
|        | Outlet in duct dB | 67                             | 72  | 77  | 78  | 79 | 74 | 73 | 71 | 85            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 67                             | 71  | 70  | 67  | 63 | 65 | 66 | 63 | 77            | 73    | 48            | 50  | 38            | 35  |
|        | Outlet in duct dB | 67                             | 73  | 72  | 73  | 73 | 71 | 71 | 65 | 81            | 79    |               |     |               |     |





## STP - STR (EHB and LPHW)

### Technical Data - Size 5 - "STPE/STPW - STRE/STRW"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 5          | 4.0          | 415V, 3Ph | 7.96     |

| Size 5 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 82  | 89  | 84  | 80 | 81 | 82 | 81 | 93            | 89    | 67            | >50 | 58            | >50 |
|        | Outlet in duct dB | 81                             | 85  | 93  | 92  | 91 | 86 | 88 | 82 | 99            | 96    |               |     |               |     |
| 90%    | Inlet in duct dB  | 74                             | 85  | 86  | 82  | 79 | 82 | 80 | 81 | 92            | 89    | 65            | >50 | 55            | >50 |
|        | Outlet in duct dB | 80                             | 88  | 90  | 90  | 89 | 88 | 87 | 82 | 97            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 71                             | 82  | 82  | 78  | 75 | 78 | 72 | 73 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 76                             | 86  | 85  | 86  | 85 | 84 | 78 | 75 | 93            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 81  | 80  | 74  | 71 | 74 | 67 | 69 | 85            | 80    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 84  | 83  | 83  | 81 | 81 | 71 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 73                             | 79  | 77  | 70  | 68 | 71 | 66 | 62 | 83            | 77    | 55            | >50 | 45            | 45  |
|        | Outlet in duct dB | 75                             | 81  | 79  | 79  | 75 | 78 | 69 | 64 | 87            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 75  | 72  | 66  | 64 | 64 | 61 | 53 | 80            | 71    | 51            | 50  | 41            | 40  |
|        | Outlet in duct dB | 76                             | 77  | 75  | 74  | 71 | 72 | 64 | 56 | 83            | 78    |               |     |               |     |

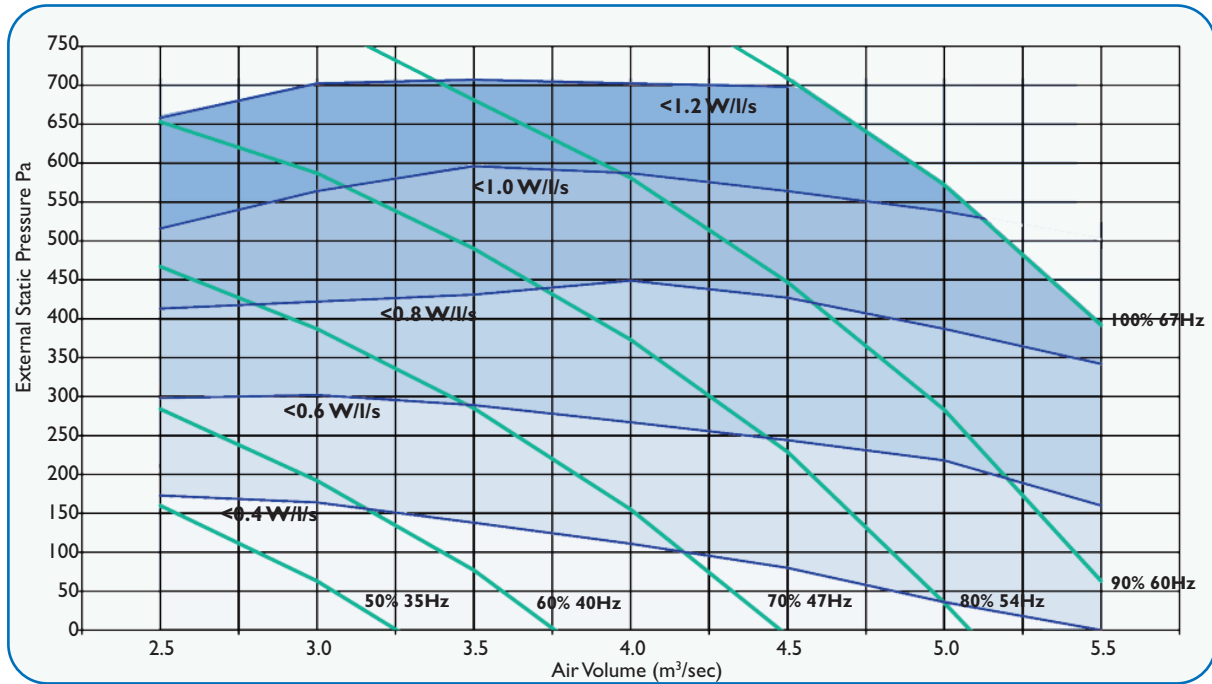


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 6 - "STPE/STPW - STRE/STRW"

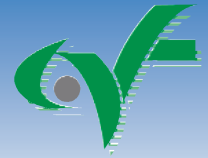


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 6          | 5.5          | 415V, 3Ph | 11.8     |

| Size 6 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 86                             | 89  | 86  | 78  | 78 | 76 | 72 | 68 | 93            | 84    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 91                             | 93  | 90  | 88  | 85 | 81 | 76 | 70 | 98            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 77 | 75 | 96            | 93    |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 82  | 82  | 77  | 77 | 79 | 69 | 72 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 77                             | 84  | 86  | 87  | 84 | 84 | 73 | 73 | 93            | 90    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 78  | 76  | 72  | 72 | 71 | 64 | 64 | 83            | 78    | 55            | >50 | 46            | 45  |
|        | Outlet in duct dB | 73                             | 80  | 80  | 82  | 78 | 76 | 67 | 66 | 87            | 84    |               |     |               |     |
| 60%    | Inlet in duct dB  | 77                             | 77  | 73  | 69  | 71 | 67 | 61 | 62 | 62            | 61    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 79                             | 78  | 77  | 78  | 76 | 72 | 64 | 63 | 86            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 77                             | 74  | 68  | 65  | 68 | 61 | 59 | 55 | 80            | 70    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 78                             | 76  | 74  | 73  | 73 | 67 | 62 | 57 | 83            | 77    |               |     |               |     |

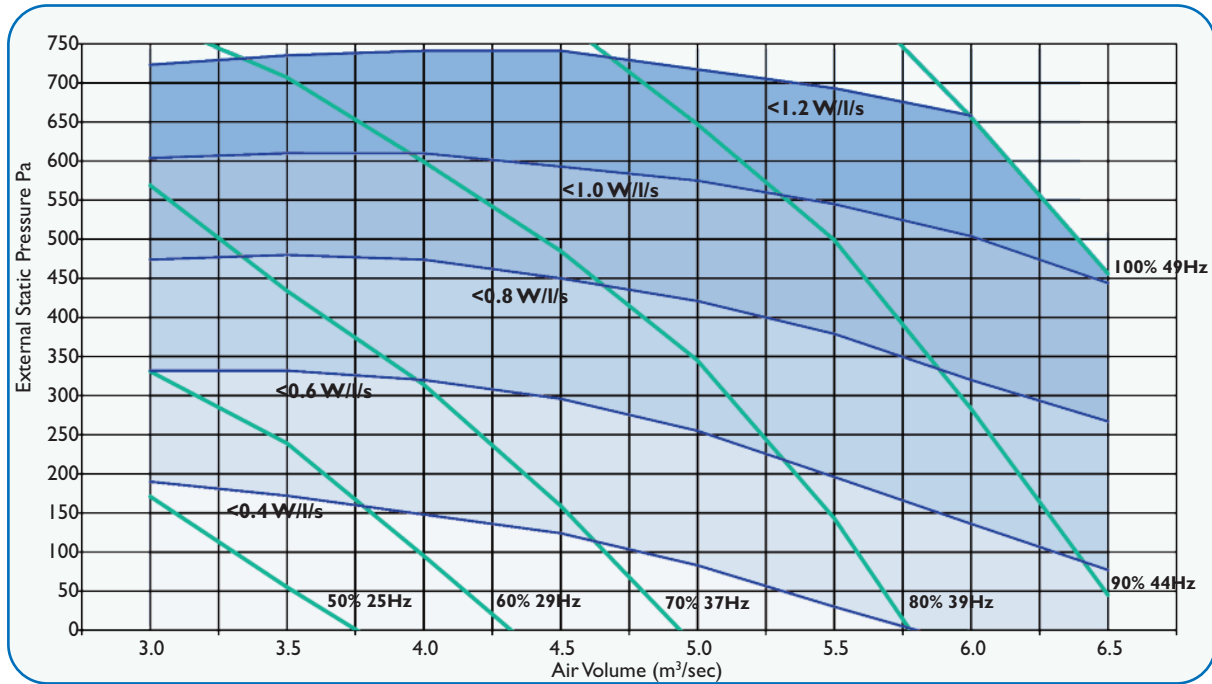


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 7 - "STPE/STPW - STRE/STRW"

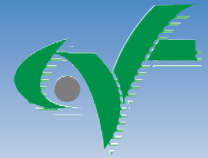


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 7          | 7.5          | 415V, 3Ph | 14.3     |

| Size 7 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 88  | 87  | 83  | 83 | 85 | 80 | 79 | 94            | 91    | 67            | >50 | 57            | >50 |
|        | Outlet in duct dB | 80                             | 89  | 91  | 95  | 91 | 91 | 86 | 81 | 100           | 98    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 87  | 87  | 82  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 88  | 91  | 93  | 89 | 88 | 81 | 78 | 98            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 87 | 77 | 75 | 96            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 75 | 76 | 66 | 70 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 70 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 76                             | 79  | 77  | 71  | 73 | 72 | 63 | 65 | 84            | 78    | 56            | >50 | 46            | 45  |
|        | Outlet in duct dB | 78                             | 80  | 81  | 81  | 79 | 77 | 66 | 66 | 88            | 84    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 74  | 68  | 66  | 67 | 62 | 59 | 57 | 79            | 71    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 77                             | 75  | 74  | 75  | 72 | 68 | 62 | 58 | 82            | 77    |               |     |               |     |

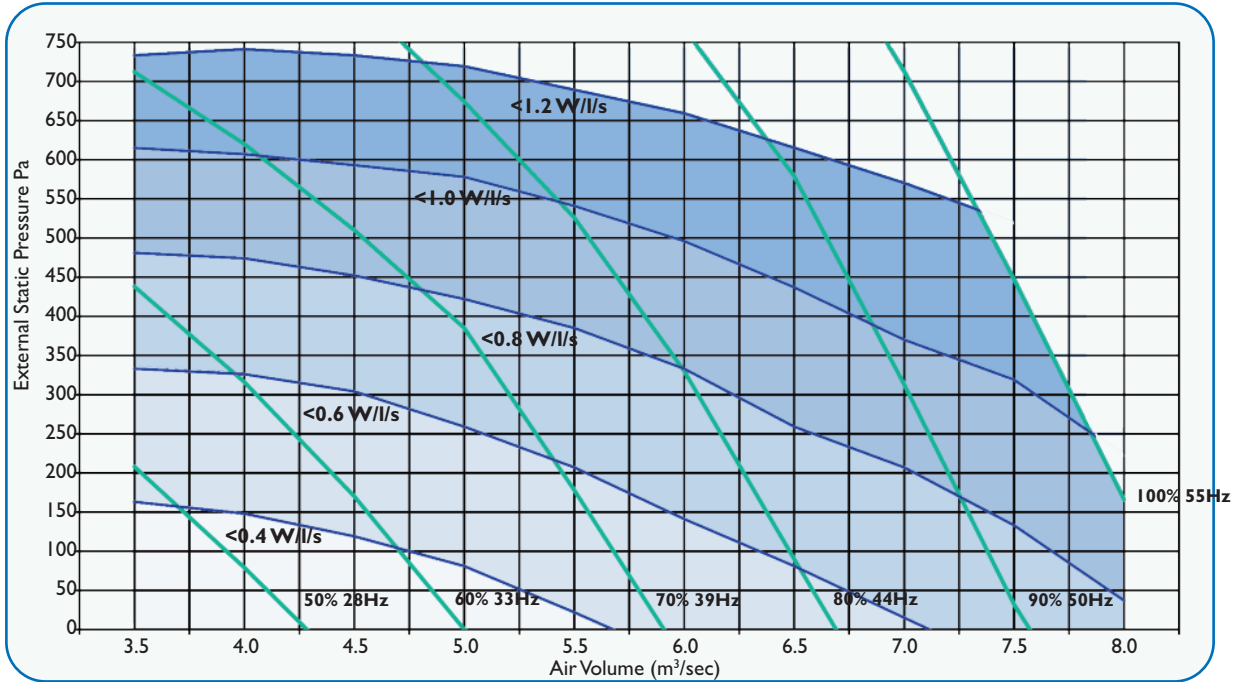


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 8 - "STPE/STPW - STRE/STRW"

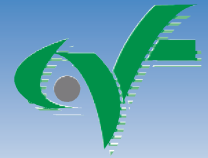


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 8          | 11.0         | 415V, 3Ph | 21.0     |

| Size 8 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 79                             | 89  | 94  | 88  | 88 | 90 | 90 | 81 | 99            | 97    | 72            | >50 | 62            | >50 |
|        | Outlet in duct dB | 84                             | 92  | 97  | 99  | 96 | 96 | 95 | 84 | 105           | 103   |               |     |               |     |
| 90%    | Inlet in duct dB  | 76                             | 90  | 89  | 85  | 85 | 87 | 83 | 83 | 96            | 93    | 68            | >50 | 59            | >50 |
|        | Outlet in duct dB | 81                             | 92  | 92  | 97  | 93 | 92 | 89 | 85 | 102           | 100   |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 86  | 87  | 81  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 87  | 91  | 93  | 89 | 88 | 81 | 77 | 98            | 95    |               |     |               |     |
| 70%    | Inlet in duct dB  | 74                             | 85  | 85  | 79  | 78 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 76 | 75 | 96            | 93    |               |     |               |     |
| 60%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 74 | 76 | 66 | 69 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 69 | 70 | 90            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 73                             | 76  | 73  | 69  | 70 | 67 | 61 | 60 | 81            | 74    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 75                             | 78  | 77  | 78  | 75 | 72 | 65 | 62 | 85            | 80    |               |     |               |     |

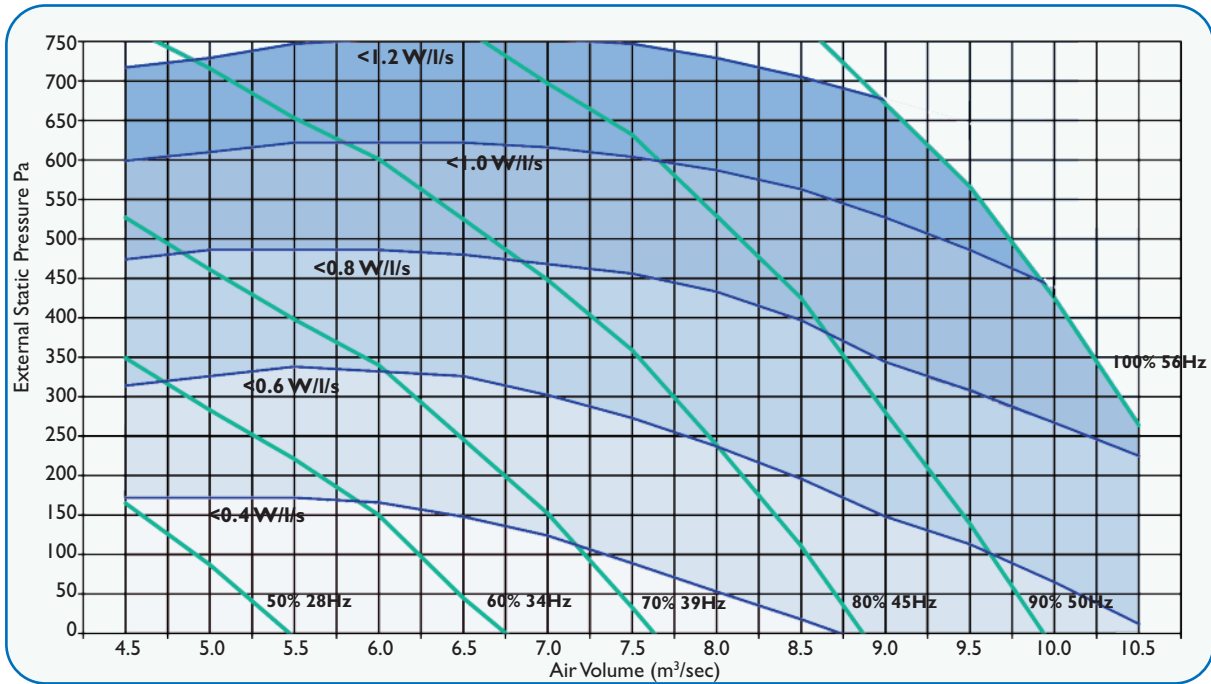


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 9 - "STPE/STPW - STRE/STRW"

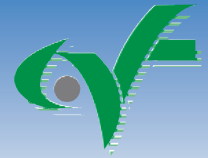


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 9          | 11.0         | 415V, 3Ph | 22.6     |

| Size 9 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 81                             | 93  | 89  | 86  | 87 | 89 | 84 | 86 | 98            | 94    | 71            | >50 | 62            | >50 |
|        | Outlet in duct dB | 86                             | 95  | 96  | 97  | 93 | 94 | 85 | 86 | 103           | 100   |               |     |               |     |
| 90%    | Inlet in duct dB  | 79                             | 90  | 87  | 82  | 84 | 85 | 83 | 79 | 94            | 91    | 68            | >50 | 58            | >50 |
|        | Outlet in duct dB | 83                             | 92  | 93  | 93  | 89 | 90 | 82 | 79 | 99            | 96    |               |     |               |     |
| 80%    | Inlet in duct dB  | 79                             | 86  | 84  | 80  | 82 | 81 | 76 | 75 | 91            | 87    | 65            | >50 | 55            | >50 |
|        | Outlet in duct dB | 82                             | 88  | 90  | 91  | 87 | 86 | 78 | 76 | 97            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 80                             | 82  | 81  | 79  | 80 | 76 | 71 | 74 | 89            | 85    | 61            | >50 | 52            | 50  |
|        | Outlet in duct dB | 84                             | 85  | 86  | 89  | 85 | 82 | 73 | 75 | 94            | 91    |               |     |               |     |
| 60%    | Inlet in duct dB  | 79                             | 79  | 76  | 76  | 77 | 70 | 69 | 67 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 82                             | 82  | 83  | 85  | 82 | 76 | 71 | 68 | 91            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 76                             | 74  | 70  | 72  | 70 | 65 | 64 | 56 | 81            | 75    | 53            | >50 | 44            | 45  |
|        | Outlet in duct dB | 77                             | 76  | 78  | 81  | 76 | 69 | 65 | 58 | 85            | 81    |               |     |               |     |

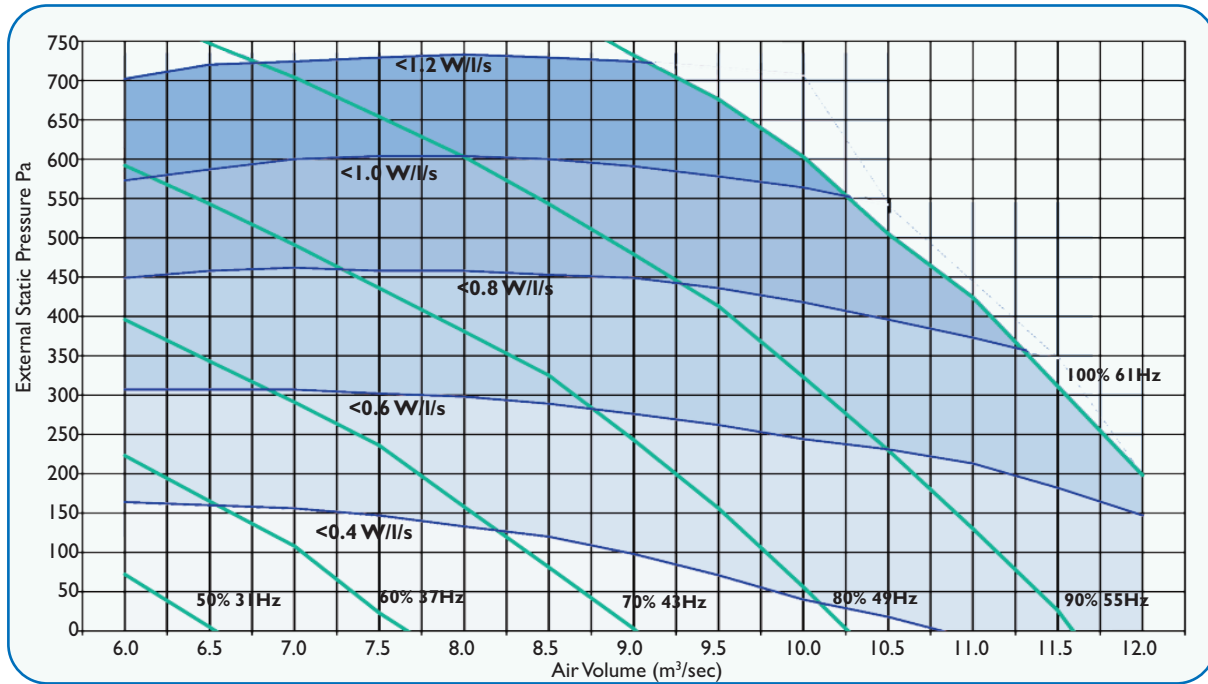


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size 10 - "STPE/STPW - STRE/STRW"

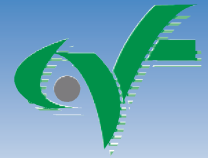


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 10         | 11.0         | 415V, 3Ph | 23.5     |

| Size 10 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 83                             | 92  | 89  | 85  | 87 | 84 | 75 | 73 | 96            | 92    | 71            | >50 | 61            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 96  | 95  | 94 | 92 | 78 | 83 | 102           | 99    |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 89  | 86  | 83  | 84 | 79 | 71 | 78 | 94            | 88    | 59            | >50 | 49            | 50  |
|         | Outlet in duct dB | 87                             | 83  | 83  | 83  | 81 | 86 | 74 | 79 | 100           | 95    |               |     |               |     |
| 80%     | Inlet in duct dB  | 85                             | 84  | 80  | 80  | 81 | 73 | 69 | 73 | 85            | 90    | 63            | >50 | 54            | >50 |
|         | Outlet in duct dB | 88                             | 87  | 88  | 89  | 87 | 79 | 71 | 74 | 96            | 91    |               |     |               |     |
| 70%     | Inlet in duct dB  | 78                             | 79  | 77  | 78  | 77 | 69 | 67 | 65 | 86            | 81    | 60            | >50 | 50            | 50  |
|         | Outlet in duct dB | 81                             | 83  | 85  | 85  | 83 | 74 | 70 | 66 | 91            | 87    |               |     |               |     |
| 60%     | Inlet in duct dB  | 73                             | 78  | 74  | 76  | 72 | 65 | 63 | 59 | 83            | 77    | 57            | >50 | 47            | 50  |
|         | Outlet in duct dB | 76                             | 81  | 82  | 83  | 79 | 70 | 65 | 61 | 88            | 84    |               |     |               |     |
| 50%     | Inlet in duct dB  | 73                             | 78  | 73  | 75  | 70 | 61 | 64 | 54 | 82            | 76    | 56            | >50 | 47            | 45  |
|         | Outlet in duct dB | 75                             | 82  | 81  | 82  | 79 | 66 | 66 | 55 | 88            | 83    |               |     |               |     |

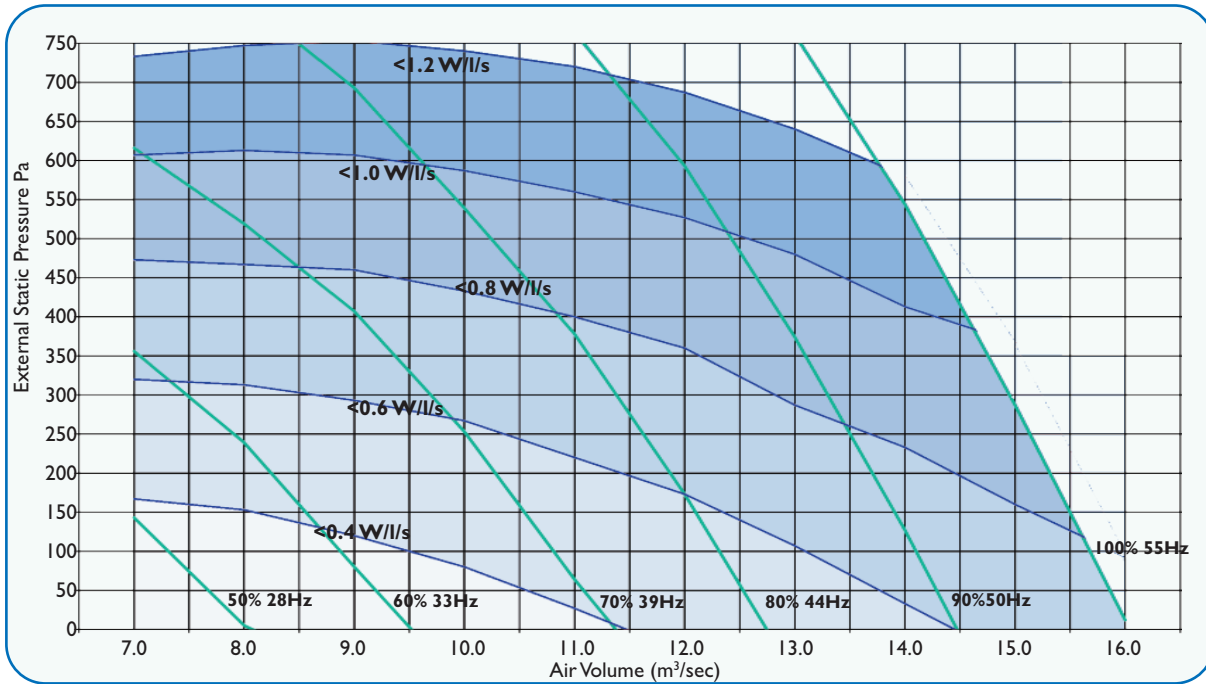


# Direct Drive - Air Handling Units



## STP - STR (EHB and LPHW)

### Technical Data - Size II - "STPE/STPW - STRE/STRW"

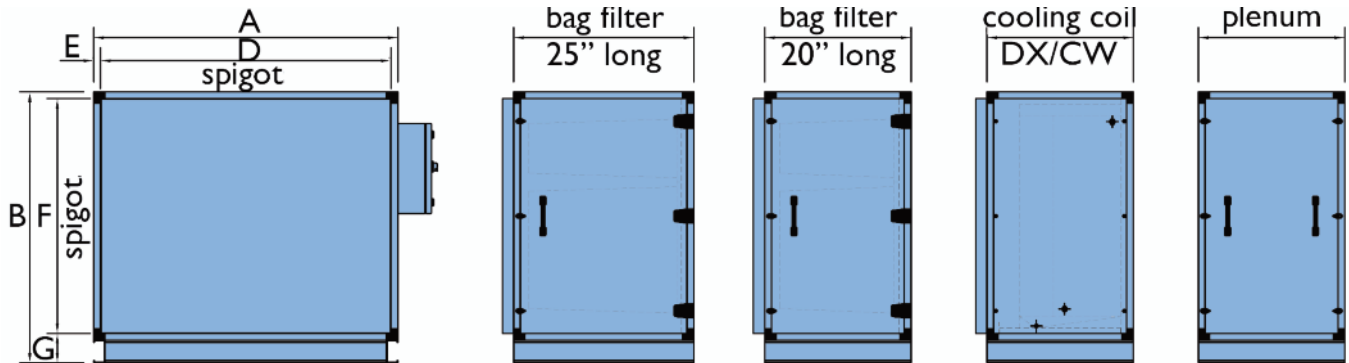


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size II         | 18.5         | 415V, 3Ph | 36.5     |

| Size II |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 85                             | 98  | 92  | 90  | 91 | 91 | 81 | 90 | 102           | 97    | 75            | >50 | 66            | >50 |
|         | Outlet in duct dB | 90                             | 100 | 100 | 101 | 97 | 99 | 85 | 90 | 107           | 104   |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 93  | 89  | 87  | 88 | 87 | 77 | 84 | 98            | 93    | 72            | >50 | 62            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 97  | 97  | 95 | 94 | 81 | 85 | 103           | 100   |               |     |               |     |
| 80%     | Inlet in duct dB  | 82                             | 90  | 86  | 84  | 85 | 81 | 73 | 78 | 94            | 89    | 69            | >50 | 59            | >50 |
|         | Outlet in duct dB | 86                             | 92  | 94  | 93  | 91 | 88 | 76 | 79 | 100           | 96    |               |     |               |     |
| 70%     | Inlet in duct dB  | 85                             | 87  | 83  | 82  | 83 | 76 | 70 | 76 | 92            | 87    | 65            | >50 | 56            | >50 |
|         | Outlet in duct dB | 88                             | 89  | 90  | 91  | 89 | 83 | 73 | 77 | 98            | 94    |               |     |               |     |
| 60%     | Inlet in duct dB  | 79                             | 81  | 78  | 79  | 78 | 70 | 68 | 67 | 87            | 82    | 61            | >50 | 51            | 50  |
|         | Outlet in duct dB | 82                             | 84  | 86  | 86  | 85 | 75 | 71 | 68 | 93            | 88    |               |     |               |     |
| 50%     | Inlet in duct dB  | 76                             | 80  | 76  | 77  | 74 | 66 | 67 | 60 | 85            | 79    | 58            | >50 | 49            | 50  |
|         | Outlet in duct dB | 78                             | 83  | 83  | 84  | 82 | 70 | 69 | 61 | 90            | 86    |               |     |               |     |

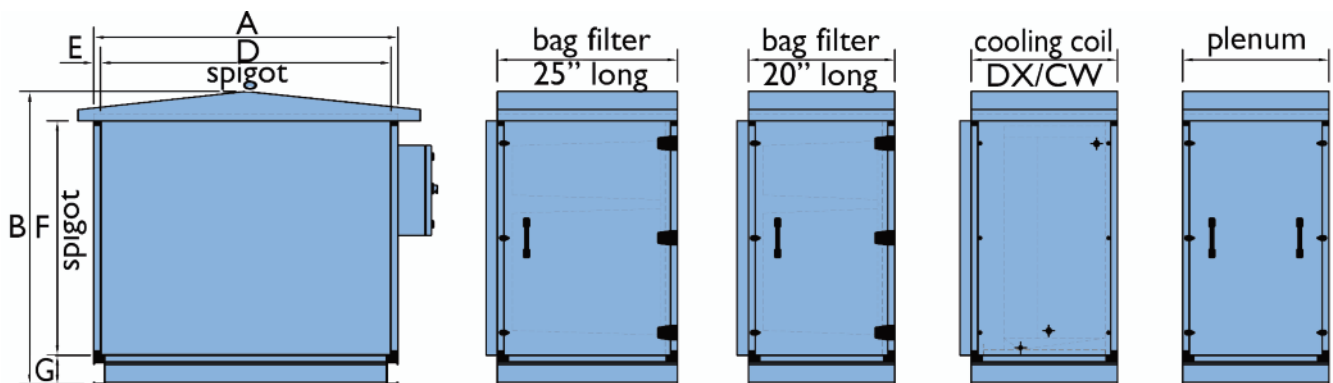
## STP - STR (EHB and LPHW)

### Dimensions - Plant



| Model Plant | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Unit Weight kg | Inlet Damper HxW - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |     |     |     |     |     |     |     |
|-------------|--------------|---------------|---------------|---------------|--------|---------------|--------|----------------|------------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|
| STP1        | 800          | 600           | 1700          | 740           | 30     | 440           | 130    | 164            | 300x600                | 3                | 650               | 65            | 350                 | 54                    | 650                   | 62  | 650 | 100 | 650 | 72  | 800 | 83  |
| STP2        | 800          | 900           | 1850          | 740           | 30     | 740           | 130    | 249            | 600x600                | 5                | 650               | 74            | 350                 | 64                    | 650                   | 70  | 650 | 127 | 650 | 83  | 800 | 96  |
| STP3        | 1075         | 900           | 2100          | 1015          | 30     | 740           | 130    | 363            | 600x900                | 8                | 650               | 88            | 350                 | 79                    | 650                   | 84  | 650 | 157 | 650 | 99  | 800 | 113 |
| STP4        | 1350         | 900           | 2100          | 1290          | 30     | 740           | 130    | 409            | 600x1200               | 10               | 650               | 102           | 350                 | 93                    | 650                   | 97  | 650 | 188 | 650 | 116 | 800 | 132 |
| STP5        | 1350         | 1200          | 2250          | 1290          | 30     | 1040          | 130    | 513            | 900x1200               | 15               | 650               | 110           | 350                 | 107                   | 650                   | 105 | 650 | 253 | 650 | 128 | 800 | 146 |
| STP6        | 1400         | 1550          | 2550          | 1340          | 30     | 1390          | 130    | 690            | 1200x1200              | 20               | 650               | 124           | 350                 | 126                   | 650                   | 118 | 650 | 298 | 650 | 145 | 800 | 166 |
| STP7        | 1675         | 1550          | 2550          | 1615          | 30     | 1390          | 130    | 750            | 1200x1500              | 25               | 650               | 138           | 350                 | 144                   | 650                   | 131 | 650 | 343 | 650 | 164 | 800 | 186 |
| STP8        | 1950         | 1550          | 2550          | 1890          | 30     | 1390          | 130    | 813            | 1200x1800              | 30               | 650               | 151           | 350                 | 161                   | 650                   | 144 | 650 | 380 | 650 | 182 | 800 | 207 |
| STP9        | 1950         | 1850          | 3250          | 1850          | 50     | 1650          | 150    | 1122           | 1500x1800              | 38               | 700               | 184           | 400                 | 177                   | 700                   | 158 | 700 | 418 | 700 | 195 | 850 | 211 |
| STP10       | 1950         | 2200          | 3400          | 1850          | 50     | 2000          | 150    | 1283           | 1800x1800              | 45               | 700               | 197           | 400                 | 195                   | 700                   | 169 | 700 | 470 | 700 | 211 | 850 | 239 |
| STP11       | 2550         | 2200          | 3400          | 2450          | 50     | 2000          | 150    | 1499           | 1800x2100              | 53               | 700               | 231           | 400                 | 240                   | 700                   | 199 | 700 | 569 | 700 | 252 | 850 | 284 |

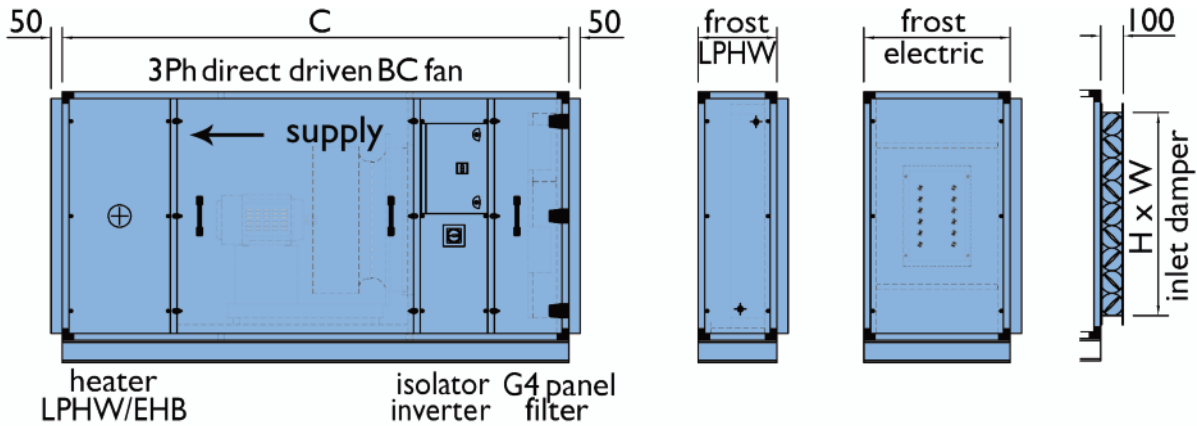
### Dimensions - Roof





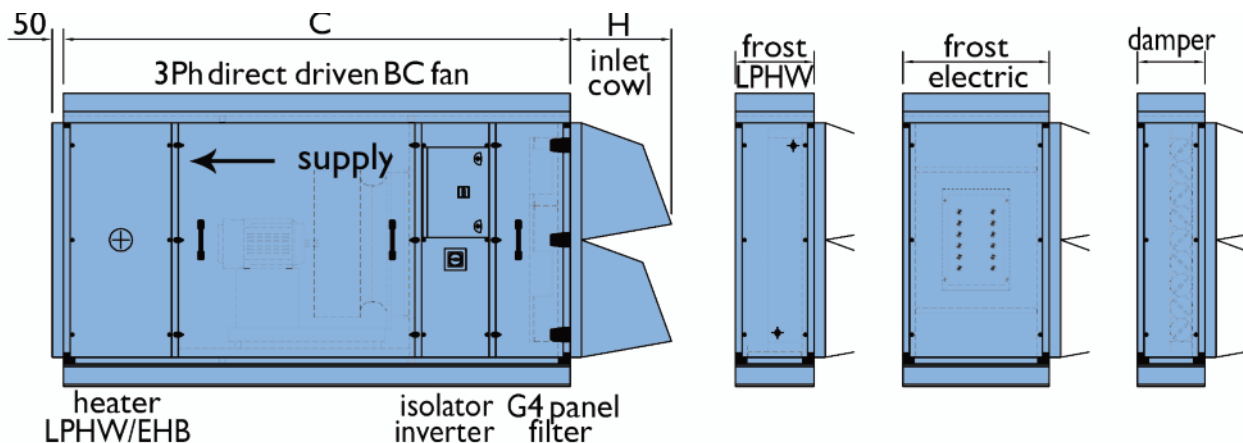
## STP - STR (EHB and LPHW)

### Dimensions - Plant



| Model Roof | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Cowl "H" mm | Unit Weight kg | Inlet Damper mm - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |
|------------|--------------|---------------|---------------|---------------|--------|---------------|--------|-------------|----------------|-----------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|
| STR1       | 800          | 700           | 1700          | 740           | 30     | 440           | 130    | 300         | 188            | 300 49                | 650 71           | 350 57            | 650 68        | 650 106             | 650 78                | 800 91                |
| STR2       | 800          | 1000          | 1850          | 740           | 30     | 740           | 130    | 450         | 270            | 300 58                | 650 81           | 350 68            | 650 77        | 650 133             | 650 89                | 800 103               |
| STR3       | 1075         | 1000          | 2100          | 1015          | 30     | 740           | 130    | 450         | 399            | 300 74                | 650 97           | 350 83            | 650 92        | 650 165             | 650 107               | 800 123               |
| STR4       | 1350         | 1000          | 2100          | 1290          | 30     | 740           | 130    | 450         | 454            | 300 81                | 650 112          | 350 98            | 650 107       | 650 199             | 650 126               | 800 145               |
| STR5       | 1350         | 1300          | 2250          | 1290          | 30     | 1040          | 130    | 450         | 565            | 300 89                | 650 122          | 350 112           | 650 116       | 650 246             | 650 138               | 800 158               |
| STR6       | 1400         | 1650          | 2550          | 1340          | 30     | 1390          | 130    | 450         | 755            | 300 95                | 650 134          | 350 132           | 650 128       | 650 308             | 650 156               | 800 179               |
| STR7       | 1675         | 1650          | 2550          | 1615          | 30     | 1390          | 130    | 450         | 829            | 300 107               | 650 150          | 350 151           | 650 143       | 650 356             | 650 176               | 800 202               |
| STR8       | 1950         | 1650          | 2550          | 1890          | 30     | 1390          | 130    | 450         | 905            | 300 122               | 650 167          | 350 169           | 650 159       | 650 400             | 650 197               | 800 225               |
| STR9       | 1950         | 2000          | 3250          | 1850          | 50     | 1650          | 150    | 450         | 1236           | 350 128               | 700 213          | 400 186           | 700 174       | 700 434             | 700 211               | 850 240               |
| STR10      | 1950         | 2350          | 3400          | 1850          | 50     | 2000          | 150    | 450         | 1399           | 350 138               | 700 227          | 400 204           | 700 184       | 700 486             | 700 227               | 850 259               |
| STR11      | 2550         | 2350          | 3400          | 2450          | 50     | 2000          | 150    | 450         | 1654           | 350 173               | 700 238          | 400 247           | 700 219       | 700 589             | 700 273               | 850 309               |

### Dimensions - Roof



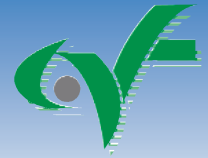


# Direct Drive Air Handling & Heat Recovery





# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Features

- larger sizes for plant and external installation
- can be with electric or LPHW heater batteries
- 11 standard sizes, airflow to 12 m<sup>3</sup>/sec
- wide selection of control panels available

### Cases - Plant Models

- robust 30 x 30 (30 x 50 on larger units) extruded aluminium frame
- black plastic corner joints
- finished in galvanised, double skinned steel with 25mm thick mineral wool slab insulation of 45 kg/m<sup>3</sup> density (providing high degree of acoustic insulation) (50mm panels with high density mineral wool and plasterboard also available for lower sound levels)
- steel channel base running full length of unit with cross members at suitable locations
- flush fitting panels
- filter and access section panels fitted with easy access fasteners
- other removable panels retained via roofing bolts

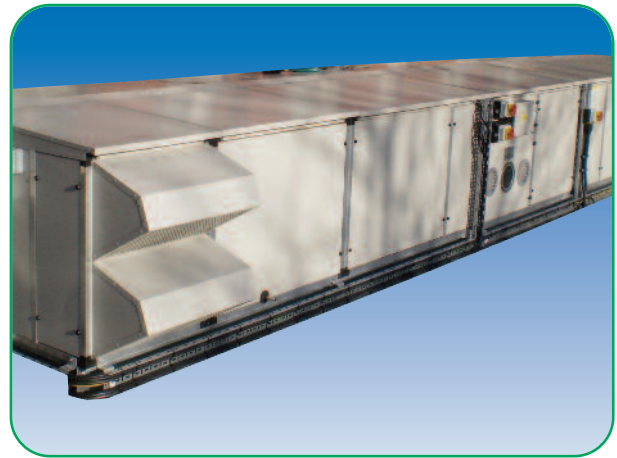
### Cases - Weatherproof Models

CASE CONSTRUCTION AS PLANT MODELS, EXCEPT:

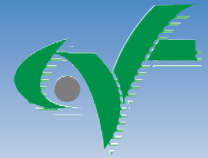
- outer skin with plastic coated finish (grey to BS10A05 as standard)
- weatherproof lid fitted
- air intake and discharge via weather cowl or louvre fitted with birdmesh guard

### Specification

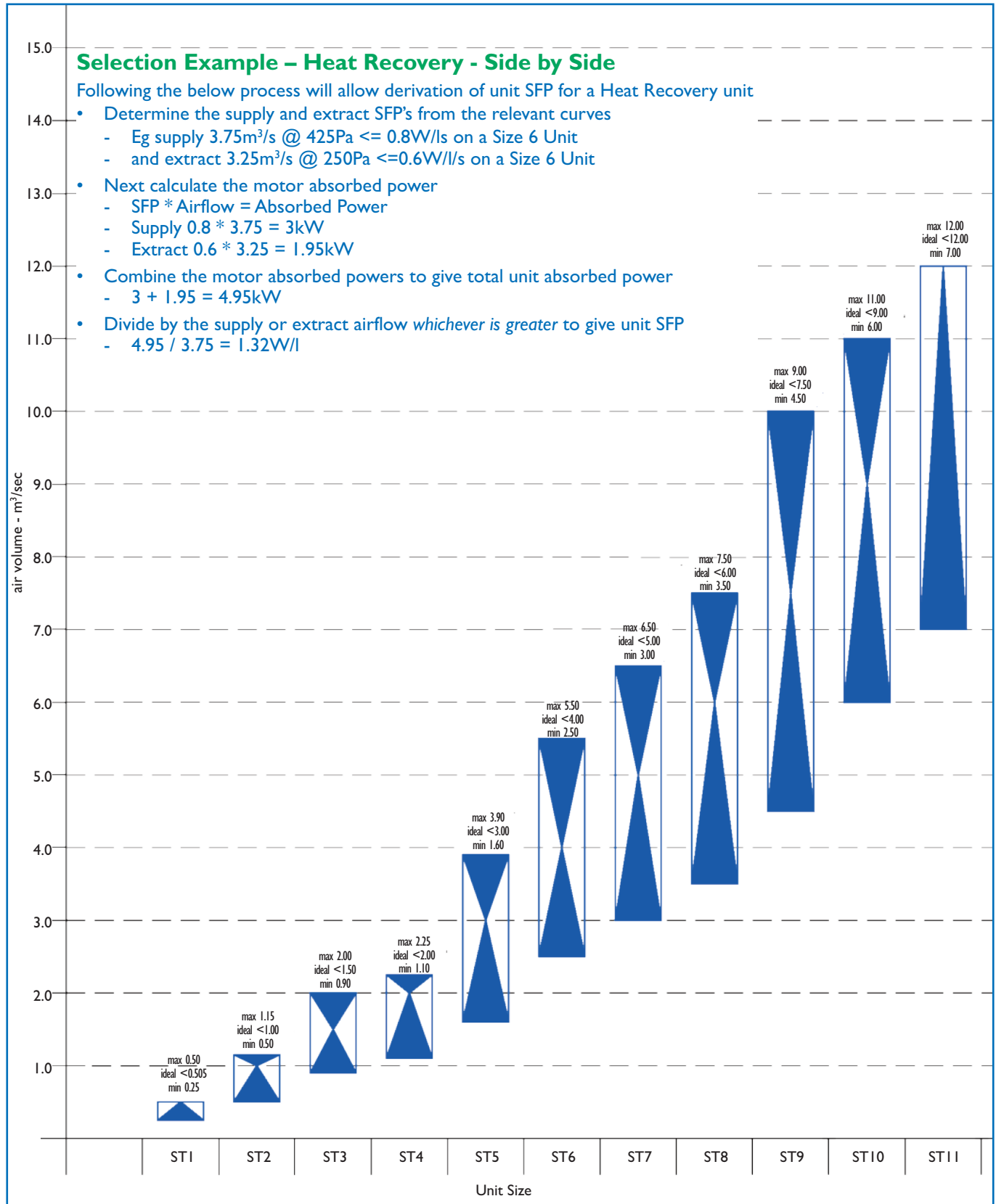
- backward curved direct drive plug style impellers.
- fan impellers are statically and dynamically balanced in accordance with ISO 14694 and ISO 1940/1. Supplied as standard with pre-greased sealed for life bearings having L10 life of 20,000 hours at peak performance
- fan and motors pre-wired to inverter and isolator
- standard motors of squirrel cage induction type, totally enclosed, fan cooled, suitable for 3ph, 50Hz electricity supply, IE2
- motors with IP55 protection and Class F rating
- high efficiency EC motors available as an option, depending on duty requirement
- fan and motor are mounted on a common chassis frame isolated from casing via rubber anti-vibration mounts and flexible connector fitted to fan inlet. Transit bolt fitted to prevent damage during transport
- LPHW batteries are constructed from copper tubes mechanically bonded onto aluminium fins supplied with standard BSP male connectors. Option of vinyl coating (copper and electro-tinned copper also available). The coil casing is in galvanised sheet steel
- drain tray and moisture eliminator plates manufactured from polypropylene fitted as standard to cooling coils. Coils are mounted on slide-in channels to aid removal
- electric heater batteries for single and 3 phase operation are manufactured from sheathed rod elements with an integral manual reset thermal cut-out for wiring into control unit. It is recommended that fan run-on timer is incorporated in controls to prevent possible heat damage
- panel filters to G4 grade mounted in slide-in channels. Bag filters of F6 and above are mounted in purpose made front withdrawal holding frames and retained by spring loaded clips
- intake and discharge dampers of opposed blade, multi-leaf type fitted aerofoil section blades. Extended shaft for fitting of suitable motors is provided as standard

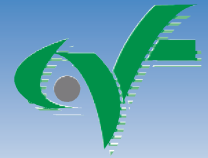


- the cross flow type heat exchangers have UPVC exchange plate, UPVC casework with maximum pressure differential of 1000 Pa and operating envelope of 20-60°C. Provides winter heating and summer cooling. Motorised bypass damper fitted as standard. Stainless steel drain pan provided on the exhaust side
- attenuators manufactured with galvanised sheet steel case fitted with "Mez" type flange at each end.
- **manufactured in UK to ISO 9001**



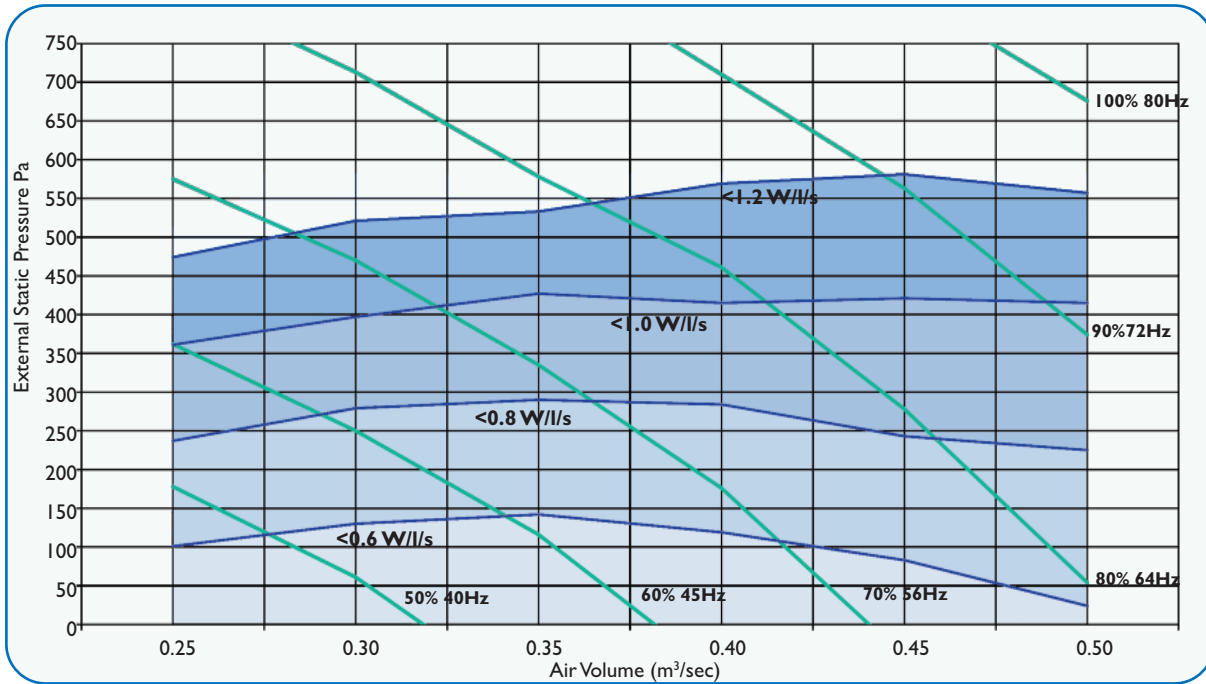
### Selection Chart





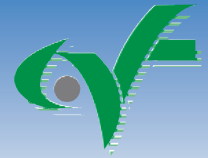
### Technical Data - Size I

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



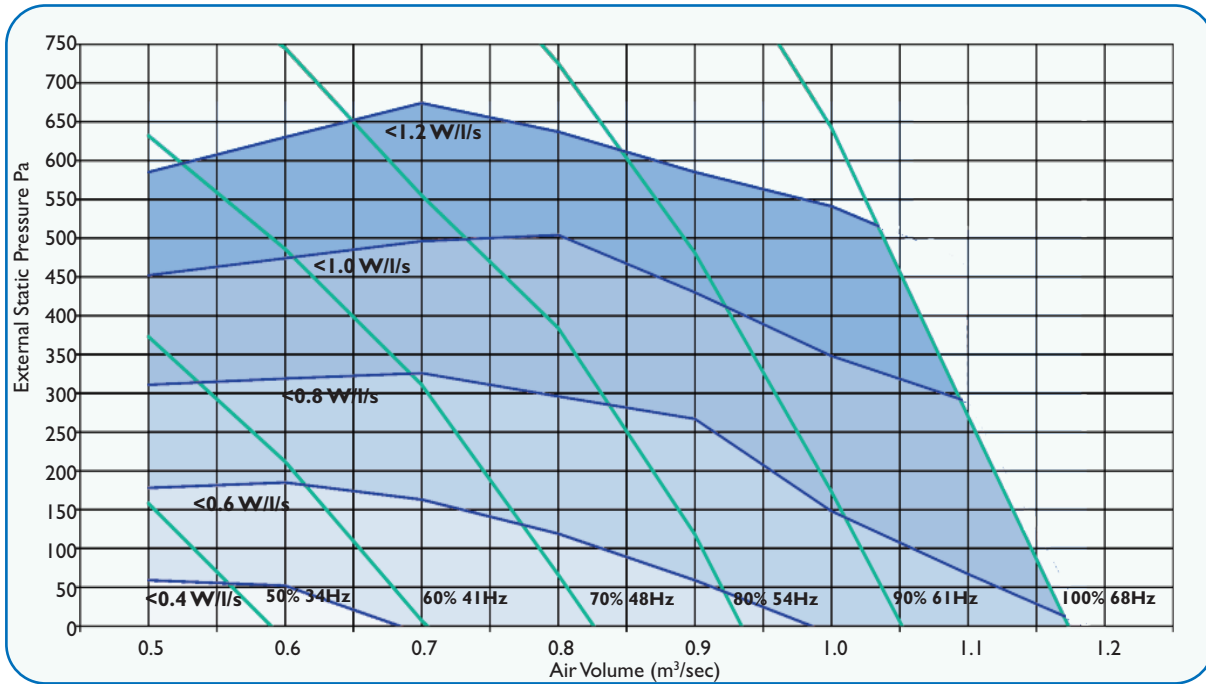
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size I          | 0.75         | 415V, 3Ph | 1.62     |

| Size I |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 82                             | 80  | 77  | 83  | 76 | 73 | 72 | 69 | 88            | 83    | 59            | >50 | 49            | 50 |
|        | Outlet in duct dB | 82                             | 83  | 82  | 87  | 82 | 87 | 79 | 75 | 93            | 91    |               |     |               |    |
| 90%    | Inlet in duct dB  | 78                             | 75  | 76  | 79  | 74 | 69 | 69 | 67 | 85            | 80    | 55            | >50 | 45            | 45 |
|        | Outlet in duct dB | 77                             | 78  | 79  | 83  | 82 | 81 | 76 | 72 | 89            | 87    |               |     |               |    |
| 80%    | Inlet in duct dB  | 65                             | 62  | 64  | 72  | 72 | 69 | 69 | 66 | 79            | 77    | 48            | 45  | 38            | 35 |
|        | Outlet in duct dB | 66                             | 65  | 69  | 76  | 79 | 81 | 76 | 72 | 86            | 86    |               |     |               |    |
| 70%    | Inlet in duct dB  | 63                             | 61  | 66  | 70  | 70 | 66 | 67 | 63 | 75            | 77    | 47            | 45  | 37            | 35 |
|        | Outlet in duct dB | 63                             | 63  | 70  | 74  | 77 | 78 | 74 | 68 | 83            | 83    |               |     |               |    |
| 60%    | Inlet in duct dB  | 60                             | 58  | 66  | 68  | 66 | 63 | 64 | 62 | 74            | 72    | 45            | 45  | 35            | 35 |
|        | Outlet in duct dB | 60                             | 61  | 69  | 71  | 73 | 74 | 71 | 65 | 80            | 79    |               |     |               |    |
| 50%    | Inlet in duct dB  | 58                             | 58  | 65  | 64  | 61 | 61 | 60 | 61 | 71            | 69    | 42            | 40  | 33            | 30 |
|        | Outlet in duct dB | 58                             | 61  | 67  | 67  | 70 | 69 | 67 | 64 | 76            | 76    |               |     |               |    |



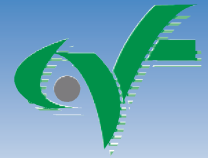
### Technical Data - Size 2

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



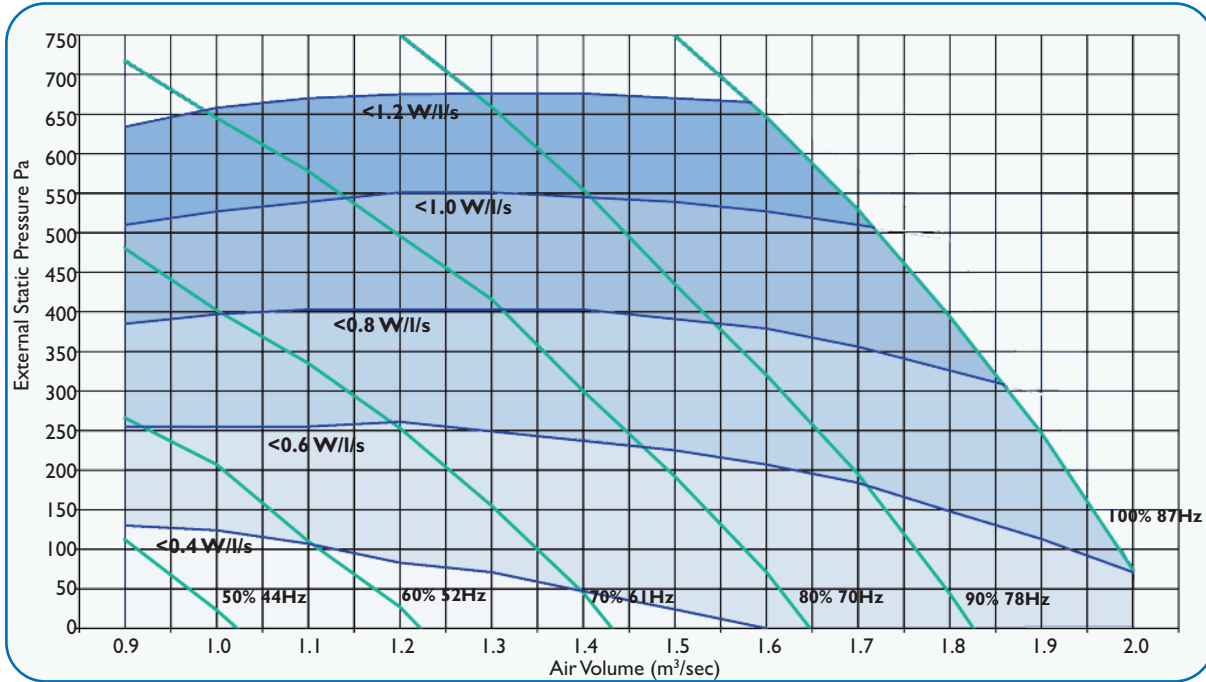
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 2          | 1.5          | 415V, 3Ph | 3.06     |

| Size 2 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 76                             | 72  | 75  | 86  | 80 | 79 | 78 | 78 | 90            | 88    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 76                             | 76  | 81  | 89  | 91 | 90 | 84 | 84 | 96            | 96    |               |     |               |    |
| 90%    | Inlet in duct dB  | 73                             | 70  | 75  | 83  | 78 | 76 | 76 | 75 | 88            | 85    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 73                             | 74  | 80  | 87  | 88 | 87 | 82 | 81 | 94            | 93    |               |     |               |    |
| 80%    | Inlet in duct dB  | 68                             | 67  | 73  | 79  | 75 | 72 | 71 | 69 | 83            | 81    | 53            | >50 | 44            | 45 |
|        | Outlet in duct dB | 69                             | 70  | 77  | 82  | 84 | 83 | 77 | 75 | 89            | 89    |               |     |               |    |
| 70%    | Inlet in duct dB  | 65                             | 64  | 73  | 75  | 71 | 68 | 69 | 65 | 80            | 78    | 53            | >50 | 43            | 45 |
|        | Outlet in duct dB | 65                             | 67  | 78  | 79  | 81 | 79 | 76 | 71 | 86            | 86    |               |     |               |    |
| 60%    | Inlet in duct dB  | 61                             | 62  | 72  | 71  | 67 | 66 | 66 | 64 | 77            | 74    | 50            | 50  | 40            | 40 |
|        | Outlet in duct dB | 62                             | 66  | 75  | 75  | 77 | 74 | 74 | 67 | 83            | 82    |               |     |               |    |
| 50%    | Inlet in duct dB  | 59                             | 62  | 69  | 66  | 63 | 62 | 62 | 61 | 74            | 70    | 46            | 45  | 36            | 35 |
|        | Outlet in duct dB | 60                             | 65  | 71  | 71  | 72 | 70 | 70 | 64 | 79            | 78    |               |     |               |    |



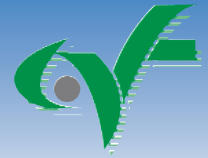
### Technical Data - Size 3

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



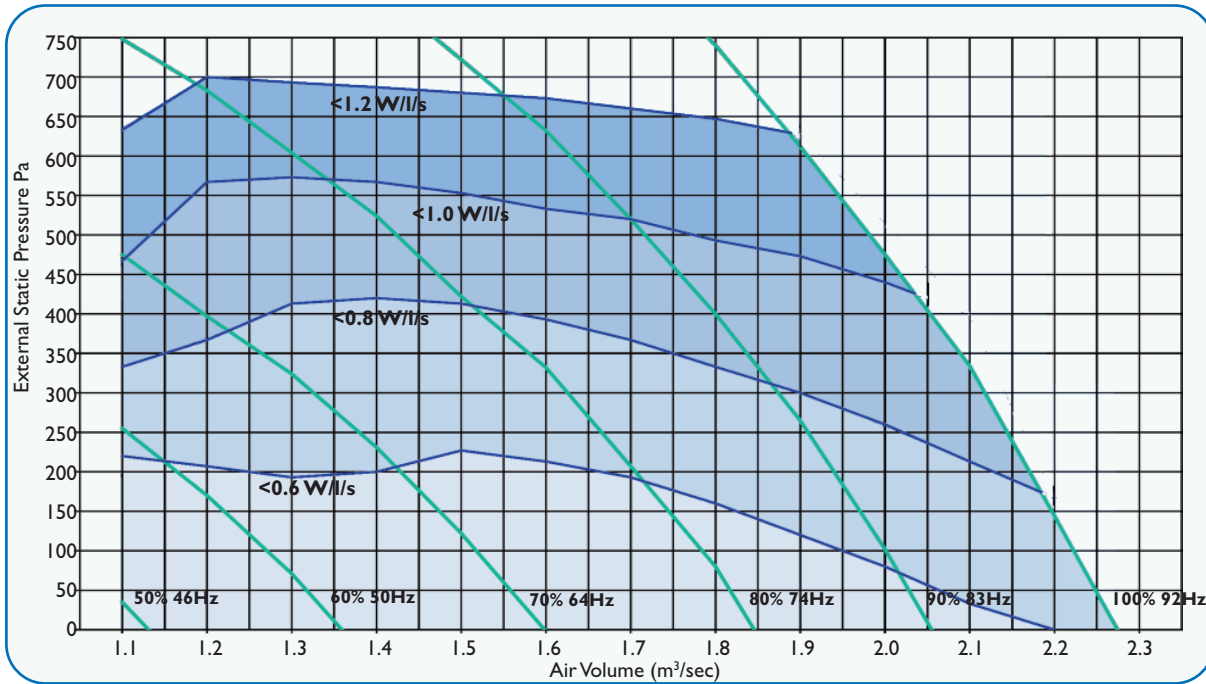
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 3          | 2.2          | 415V, 3Ph | 4.53     |

| Size 3 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 84                             | 79  | 85  | 80  | 75 | 75 | 73 | 69 | 90            | 83    | 64            | >50 | 55            | >50 |
|        | Outlet in duct dB | 87                             | 86  | 90  | 85  | 87 | 81 | 78 | 73 | 95            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 70                             | 70  | 82  | 80  | 75 | 75 | 75 | 78 | 87            | 84    | 60            | >50 | 51            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 86  | 85  | 87 | 82 | 81 | 81 | 93            | 91    |               |     |               |     |
| 80%    | Inlet in duct dB  | 68                             | 69  | 80  | 79  | 72 | 72 | 72 | 75 | 85            | 82    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 71                             | 72  | 84  | 82  | 84 | 78 | 78 | 77 | 90            | 88    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 76  | 75  | 69 | 69 | 69 | 71 | 81            | 78    | 51            | >50 | 44            | 45  |
|        | Outlet in duct dB | 69                             | 73  | 79  | 79  | 80 | 75 | 75 | 73 | 87            | 85    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 72  | 72  | 71  | 66 | 66 | 67 | 67 | 79            | 75    | 50            | 50  | 41            | 40  |
|        | Outlet in duct dB | 66                             | 75  | 75  | 75  | 77 | 72 | 72 | 69 | 83            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 66                             | 70  | 69  | 65  | 62 | 64 | 63 | 58 | 71            | 75    | 47            | 45  | 37            | 35  |
|        | Outlet in duct dB | 66                             | 72  | 71  | 71  | 71 | 70 | 68 | 60 | 79            | 77    |               |     |               |     |



### Technical Data - Size 4

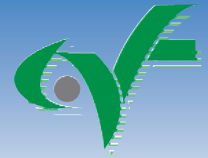
### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 4          | 3.0          | 415V, 3Ph | 4.87     |

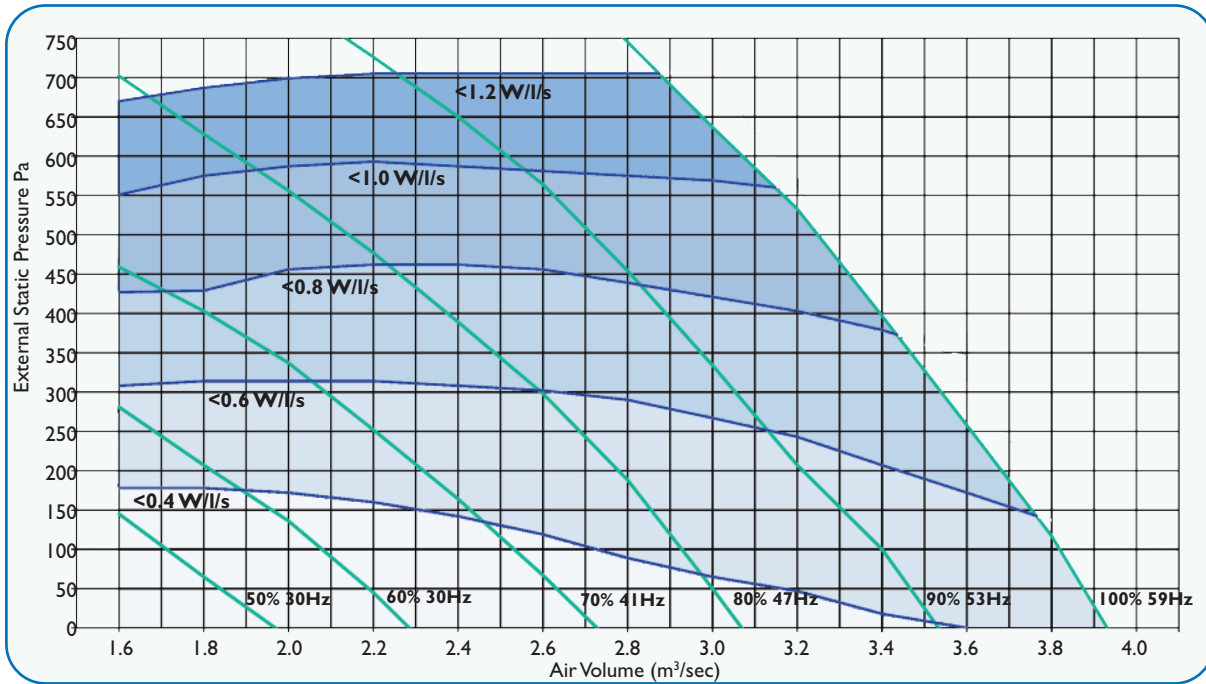
| Size 4 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 75                             | 75  | 87  | 86  | 81 | 81 | 83 | 84 | 95            | 91    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 78                             | 80  | 91  | 90  | 93 | 88 | 88 | 88 | 99            | 97    |               |     |               |     |
| 90%    | Inlet in duct dB  | 72                             | 72  | 85  | 82  | 78 | 78 | 79 | 83 | 91            | 88    | 63            | >50 | 54            | >50 |
|        | Outlet in duct dB | 75                             | 77  | 89  | 87  | 90 | 84 | 85 | 85 | 96            | 94    |               |     |               |     |
| 80%    | Inlet in duct dB  | 70                             | 72  | 81  | 80  | 74 | 75 | 76 | 80 | 87            | 84    | 60            | >50 | 50            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 85  | 84  | 86 | 81 | 82 | 82 | 92            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 77  | 77  | 71 | 70 | 71 | 73 | 83            | 80    | 56            | >50 | 46            | 45  |
|        | Outlet in duct dB | 70                             | 73  | 81  | 81  | 82 | 77 | 77 | 75 | 88            | 86    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 69  | 74  | 74  | 68 | 67 | 67 | 68 | 80            | 76    | 52            | >50 | 42            | 45  |
|        | Outlet in duct dB | 67                             | 72  | 77  | 78  | 79 | 74 | 73 | 71 | 85            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 67                             | 71  | 70  | 67  | 63 | 65 | 66 | 63 | 77            | 73    | 48            | 50  | 38            | 35  |
|        | Outlet in duct dB | 67                             | 73  | 72  | 73  | 73 | 71 | 71 | 65 | 81            | 79    |               |     |               |     |





### Technical Data - Size 5

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"

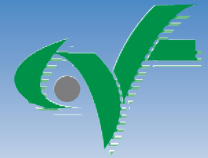


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 5          | 4.0          | 415V, 3Ph | 7.96     |

| Size 5 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 82  | 89  | 84  | 80 | 81 | 82 | 81 | 93            | 89    | 67            | >50 | 58            | >50 |
|        | Outlet in duct dB | 81                             | 85  | 93  | 92  | 91 | 86 | 88 | 82 | 99            | 96    |               |     |               |     |
| 90%    | Inlet in duct dB  | 74                             | 85  | 86  | 82  | 79 | 82 | 80 | 81 | 92            | 89    | 65            | >50 | 56            | >50 |
|        | Outlet in duct dB | 80                             | 88  | 90  | 90  | 89 | 88 | 87 | 82 | 97            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 71                             | 82  | 82  | 78  | 75 | 78 | 72 | 73 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 76                             | 86  | 85  | 86  | 85 | 84 | 78 | 75 | 93            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 81  | 80  | 74  | 71 | 74 | 67 | 69 | 85            | 80    | 59            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 84  | 83  | 83  | 81 | 81 | 71 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 73                             | 79  | 77  | 70  | 68 | 71 | 66 | 62 | 83            | 77    | 55            | >50 | 45            | 45  |
|        | Outlet in duct dB | 75                             | 81  | 79  | 79  | 75 | 78 | 69 | 64 | 87            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 75  | 72  | 66  | 64 | 64 | 61 | 53 | 80            | 71    | 51            | 50  | 41            | 40  |
|        | Outlet in duct dB | 76                             | 77  | 75  | 74  | 71 | 72 | 64 | 56 | 83            | 78    |               |     |               |     |



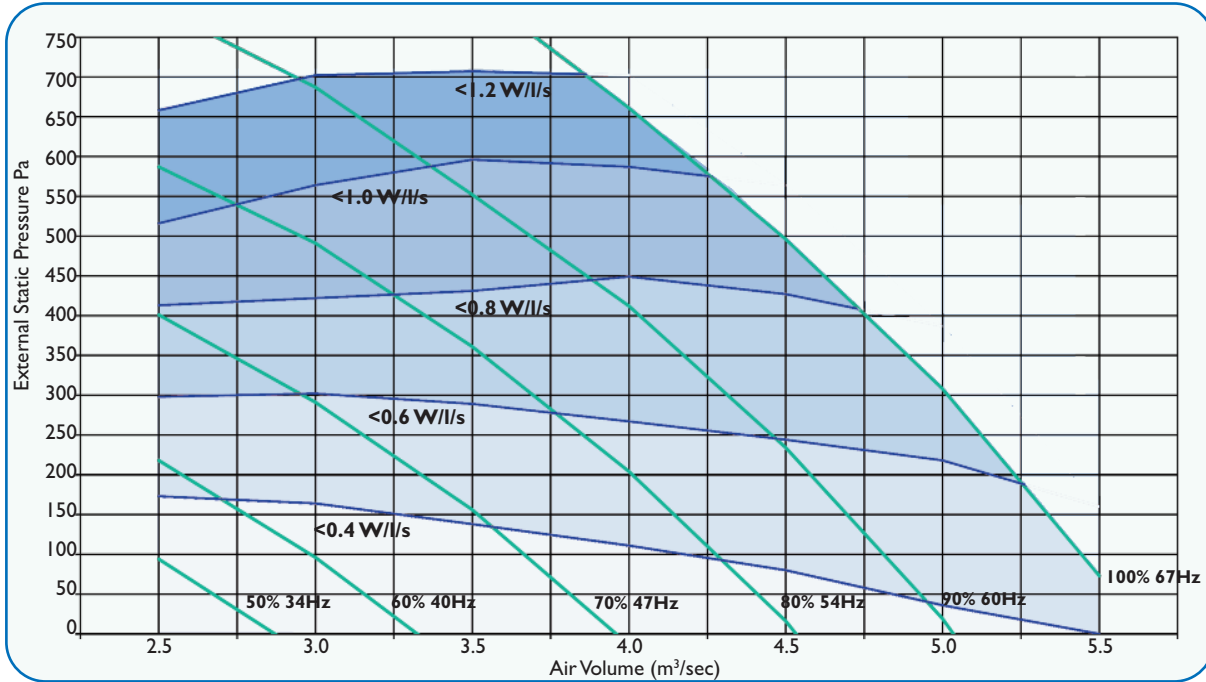
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Technical Data - Size 6

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"

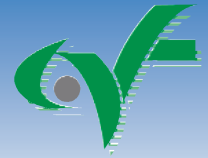


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 6          | 5.5          | 415V, 3Ph | 11.8     |

| Size 6 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 86                             | 89  | 86  | 78  | 78 | 76 | 72 | 68 | 93            | 84    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 91                             | 93  | 90  | 88  | 85 | 81 | 76 | 70 | 98            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 77 | 75 | 96            | 93    |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 82  | 82  | 77  | 77 | 79 | 69 | 72 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 77                             | 84  | 86  | 87  | 84 | 84 | 73 | 73 | 93            | 90    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 78  | 76  | 72  | 72 | 71 | 64 | 64 | 83            | 78    | 55            | >50 | 46            | 45  |
|        | Outlet in duct dB | 73                             | 80  | 80  | 82  | 78 | 76 | 67 | 66 | 87            | 84    |               |     |               |     |
| 60%    | Inlet in duct dB  | 77                             | 77  | 73  | 69  | 71 | 67 | 61 | 62 | 62            | 61    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 79                             | 78  | 77  | 78  | 76 | 72 | 64 | 63 | 86            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 77                             | 74  | 68  | 65  | 68 | 61 | 59 | 55 | 80            | 70    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 78                             | 76  | 74  | 73  | 73 | 67 | 62 | 57 | 83            | 77    |               |     |               |     |



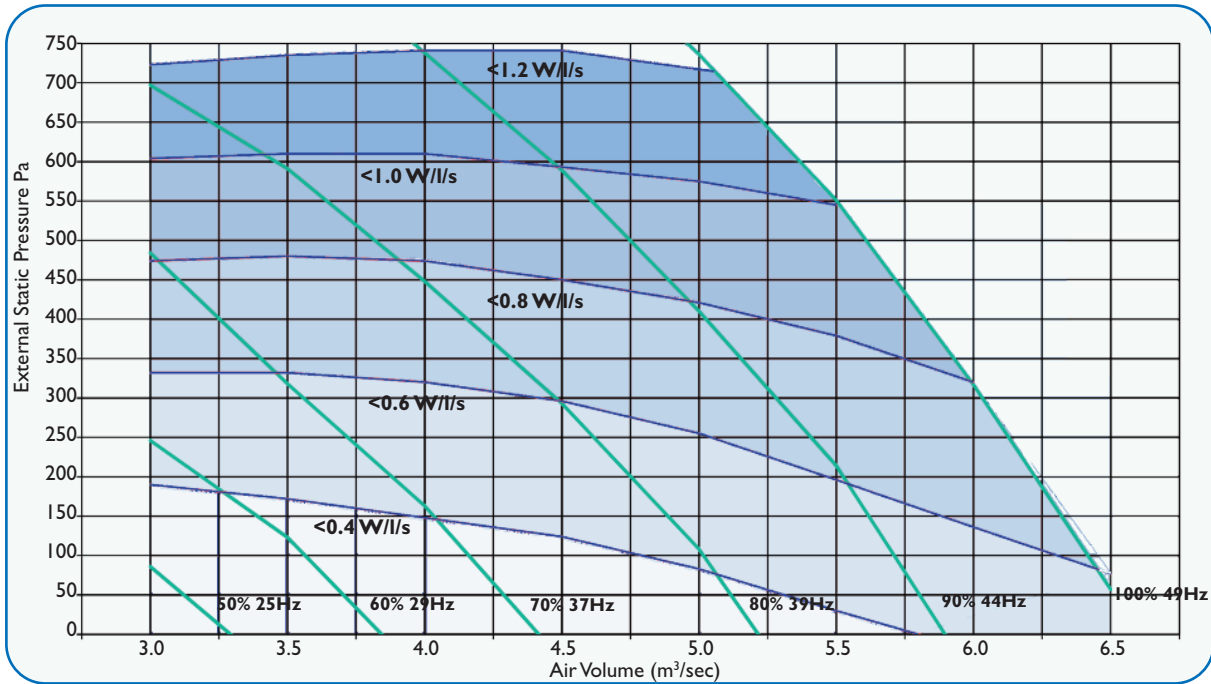
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Technical Data - Size 7

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"

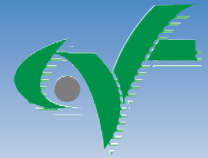


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 7          | 7.5          | 415V, 3Ph | 14.3     |

| Size 7 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 88  | 87  | 83  | 83 | 85 | 80 | 79 | 94            | 91    | 67            | >50 | 57            | >50 |
|        | Outlet in duct dB | 80                             | 89  | 91  | 95  | 91 | 91 | 86 | 81 | 100           | 98    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 87  | 87  | 82  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 88  | 91  | 93  | 89 | 88 | 81 | 78 | 98            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 87 | 77 | 75 | 96            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 75 | 76 | 66 | 70 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 70 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 76                             | 79  | 77  | 71  | 73 | 72 | 63 | 65 | 84            | 78    | 56            | >50 | 47            | 45  |
|        | Outlet in duct dB | 78                             | 80  | 81  | 81  | 79 | 77 | 66 | 66 | 88            | 84    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 74  | 68  | 66  | 67 | 62 | 59 | 57 | 79            | 71    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 77                             | 75  | 74  | 75  | 72 | 68 | 62 | 58 | 82            | 77    |               |     |               |     |



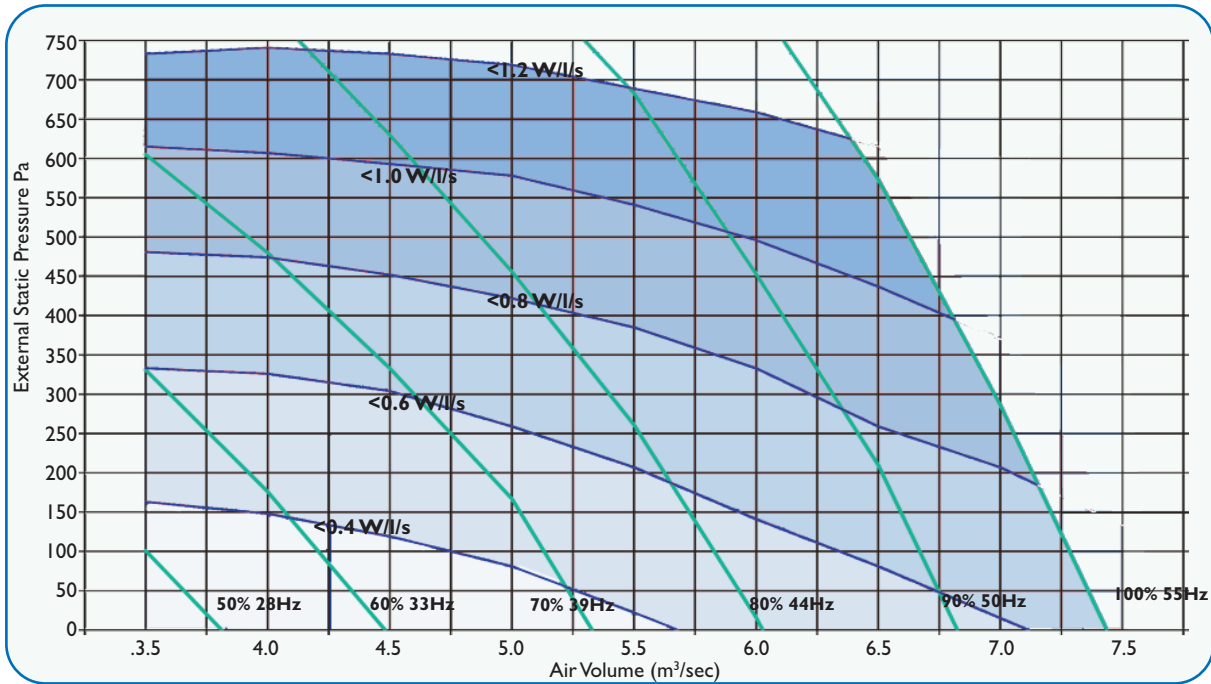
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Technical Data - Size 8

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"

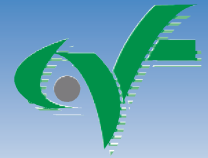


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 8          | 11.0         | 415V, 3Ph | 21.0     |

| Size 8 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 79                             | 89  | 94  | 88  | 88 | 90 | 90 | 81 | 99            | 97    | 72            | >50 | 62            | >50 |
|        | Outlet in duct dB | 84                             | 92  | 97  | 99  | 96 | 96 | 95 | 84 | 105           | 103   |               |     |               |     |
| 90%    | Inlet in duct dB  | 76                             | 90  | 89  | 85  | 85 | 87 | 83 | 83 | 96            | 93    | 68            | >50 | 59            | >50 |
|        | Outlet in duct dB | 81                             | 92  | 92  | 97  | 93 | 92 | 89 | 85 | 102           | 100   |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 86  | 87  | 81  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 87  | 91  | 93  | 89 | 88 | 81 | 77 | 98            | 95    |               |     |               |     |
| 70%    | Inlet in duct dB  | 74                             | 85  | 85  | 79  | 78 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 76 | 75 | 96            | 93    |               |     |               |     |
| 60%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 74 | 76 | 66 | 69 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 69 | 70 | 90            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 73                             | 76  | 73  | 69  | 70 | 67 | 61 | 60 | 81            | 74    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 75                             | 78  | 77  | 78  | 75 | 72 | 65 | 62 | 85            | 80    |               |     |               |     |



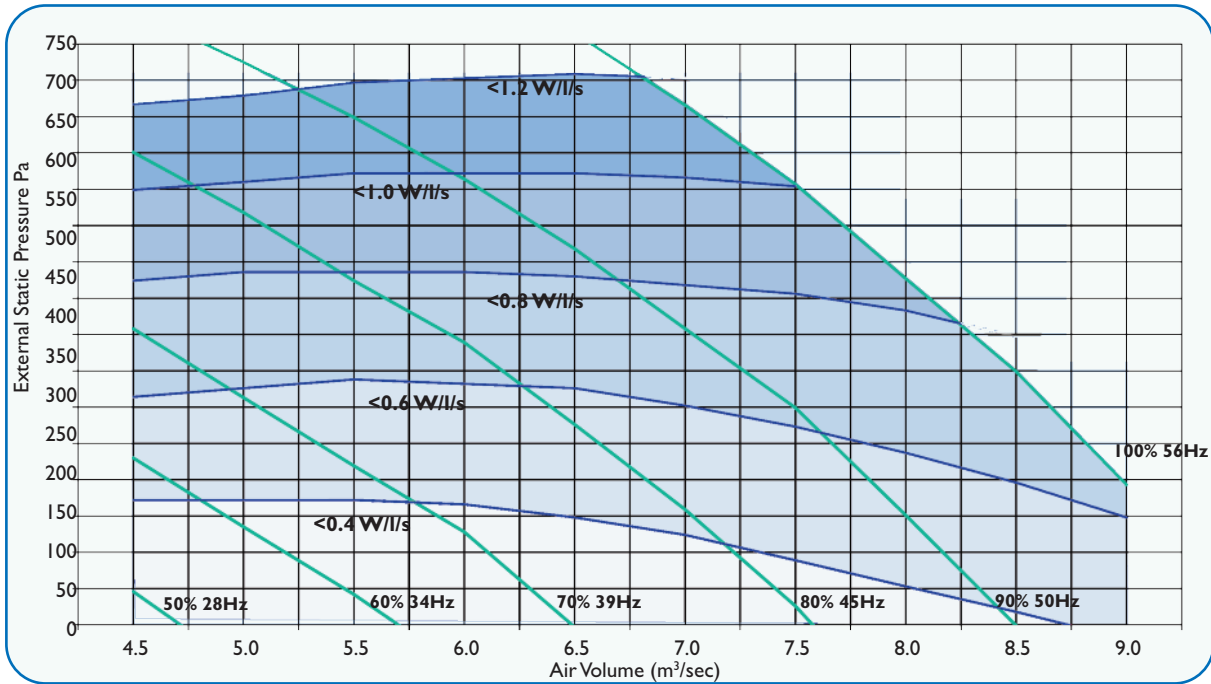
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Technical Data - Size 9

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 9          | 11.0         | 415V, 3Ph | 22.6     |

| Size 9 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 81                             | 93  | 89  | 86  | 87 | 89 | 84 | 86 | 98            | 94    | 71            | >50 | 62            | >50 |
|        | Outlet in duct dB | 86                             | 95  | 96  | 97  | 93 | 94 | 85 | 86 | 103           | 100   |               |     |               |     |
| 90%    | Inlet in duct dB  | 79                             | 90  | 87  | 82  | 84 | 85 | 83 | 79 | 94            | 91    | 68            | >50 | 58            | >50 |
|        | Outlet in duct dB | 83                             | 92  | 93  | 93  | 89 | 90 | 82 | 79 | 99            | 96    |               |     |               |     |
| 80%    | Inlet in duct dB  | 79                             | 86  | 84  | 80  | 82 | 81 | 76 | 75 | 91            | 87    | 65            | >50 | 55            | >50 |
|        | Outlet in duct dB | 82                             | 88  | 90  | 91  | 87 | 86 | 78 | 76 | 97            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 80                             | 82  | 81  | 79  | 80 | 76 | 71 | 74 | 89            | 85    | 61            | >50 | 52            | 50  |
|        | Outlet in duct dB | 84                             | 85  | 86  | 89  | 85 | 82 | 73 | 75 | 94            | 91    |               |     |               |     |
| 60%    | Inlet in duct dB  | 79                             | 79  | 76  | 76  | 77 | 70 | 69 | 67 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 82                             | 82  | 83  | 85  | 82 | 76 | 71 | 68 | 91            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 76                             | 74  | 70  | 72  | 70 | 65 | 64 | 56 | 81            | 75    | 53            | >50 | 44            | 45  |
|        | Outlet in duct dB | 77                             | 76  | 78  | 81  | 76 | 69 | 65 | 58 | 85            | 81    |               |     |               |     |



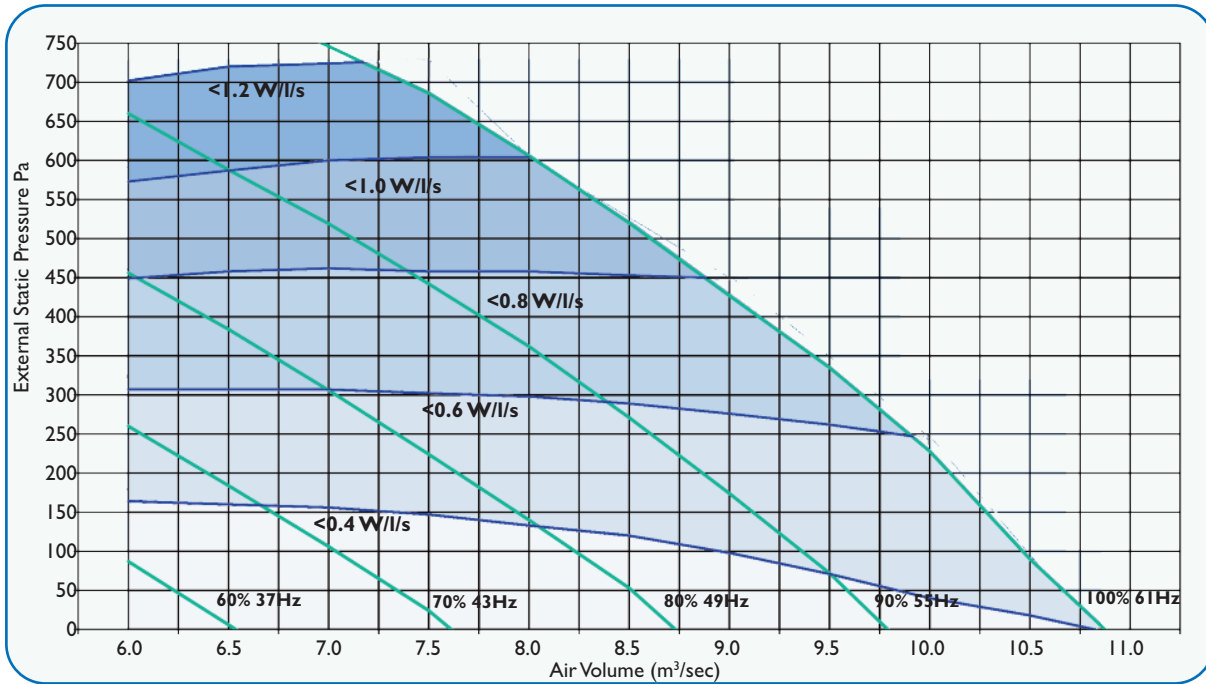
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Side by Side

### Technical Data - Size 10

### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



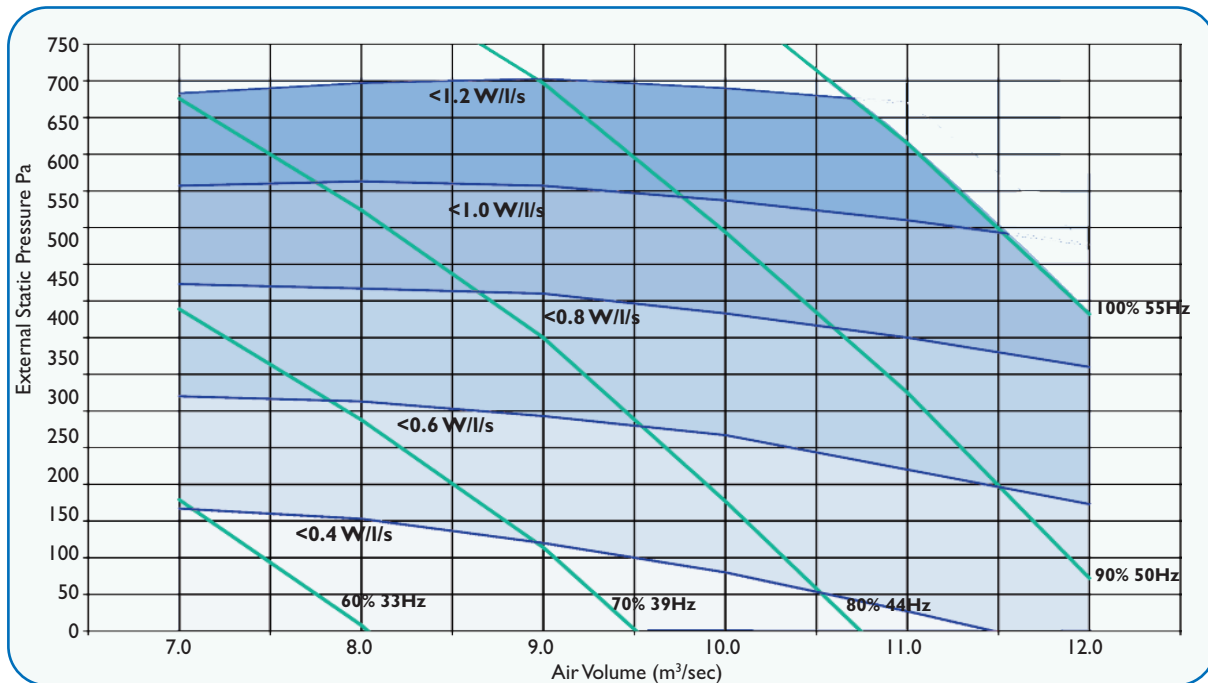
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 10         | 11.0         | 415V, 3Ph | 23.5     |

| Size 10 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 83                             | 92  | 89  | 85  | 87 | 84 | 75 | 73 | 96            | 92    | 71            | >50 | 61            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 96  | 95  | 94 | 92 | 78 | 83 | 102           | 99    |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 89  | 86  | 83  | 84 | 79 | 71 | 78 | 94            | 88    | 59            | 50  | 49            | 50  |
|         | Outlet in duct dB | 87                             | 83  | 83  | 83  | 81 | 86 | 74 | 79 | 100           | 95    |               |     |               |     |
| 80%     | Inlet in duct dB  | 85                             | 84  | 80  | 80  | 81 | 73 | 69 | 73 | 85            | 90    | 63            | >50 | 54            | >50 |
|         | Outlet in duct dB | 88                             | 87  | 88  | 89  | 87 | 79 | 71 | 74 | 96            | 91    |               |     |               |     |
| 70%     | Inlet in duct dB  | 78                             | 79  | 77  | 78  | 77 | 69 | 67 | 65 | 86            | 81    | 60            | >50 | 50            | 50  |
|         | Outlet in duct dB | 81                             | 83  | 85  | 85  | 83 | 74 | 70 | 66 | 91            | 87    |               |     |               |     |
| 60%     | Inlet in duct dB  | 73                             | 78  | 74  | 76  | 72 | 65 | 63 | 59 | 83            | 77    | 57            | >50 | 48            | 50  |
|         | Outlet in duct dB | 76                             | 81  | 82  | 83  | 79 | 70 | 65 | 61 | 88            | 84    |               |     |               |     |
| 50%     | Inlet in duct dB  | 73                             | 78  | 73  | 75  | 70 | 61 | 64 | 54 | 82            | 76    | 56            | >50 | 47            | 45  |
|         | Outlet in duct dB | 75                             | 82  | 81  | 82  | 79 | 66 | 66 | 55 | 88            | 83    |               |     |               |     |



### Technical Data - Size II

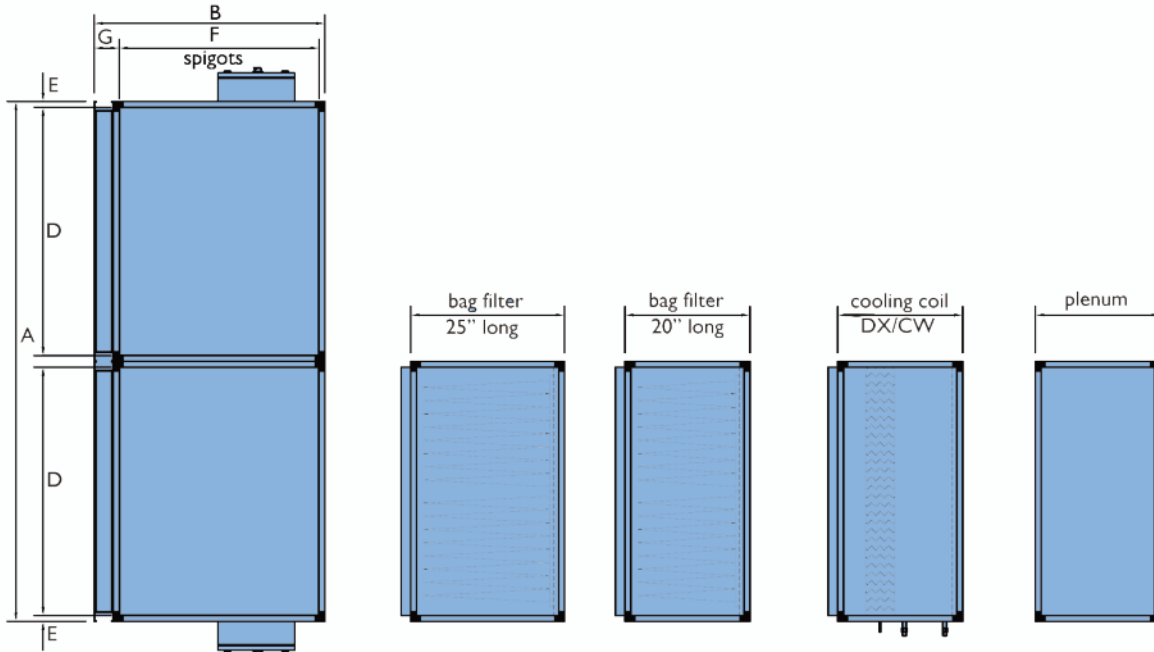
### "STPE-HR/STPW-HR - STRE-HR/STRW-HR"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size II         | 18.5         | 415V, 3Ph | 36.5     |

| Size II |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 85                             | 98  | 92  | 90  | 91 | 91 | 81 | 90 | 102           | 97    | 75            | >50 | 66            | >50 |
|         | Outlet in duct dB | 90                             | 100 | 100 | 101 | 97 | 99 | 85 | 90 | 107           | 104   |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 93  | 89  | 87  | 88 | 87 | 77 | 84 | 98            | 93    | 72            | >50 | 60            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 97  | 97  | 95 | 94 | 81 | 85 | 103           | 100   |               |     |               |     |
| 80%     | Inlet in duct dB  | 82                             | 90  | 86  | 84  | 85 | 81 | 73 | 78 | 94            | 89    | 69            | >50 | 59            | >50 |
|         | Outlet in duct dB | 86                             | 92  | 94  | 93  | 91 | 88 | 76 | 79 | 100           | 96    |               |     |               |     |
| 70%     | Inlet in duct dB  | 85                             | 87  | 83  | 82  | 83 | 76 | 70 | 76 | 92            | 87    | 65            | >50 | 56            | >50 |
|         | Outlet in duct dB | 88                             | 89  | 90  | 91  | 89 | 83 | 73 | 77 | 98            | 94    |               |     |               |     |
| 60%     | Inlet in duct dB  | 79                             | 81  | 78  | 79  | 78 | 70 | 68 | 67 | 87            | 82    | 61            | >50 | 51            | 50  |
|         | Outlet in duct dB | 82                             | 84  | 86  | 86  | 85 | 75 | 71 | 68 | 93            | 88    |               |     |               |     |
| 50%     | Inlet in duct dB  | 76                             | 80  | 76  | 77  | 74 | 66 | 67 | 60 | 85            | 79    | 58            | >50 | 49            | 50  |
|         | Outlet in duct dB | 78                             | 83  | 83  | 84  | 82 | 70 | 69 | 61 | 90            | 86    |               |     |               |     |

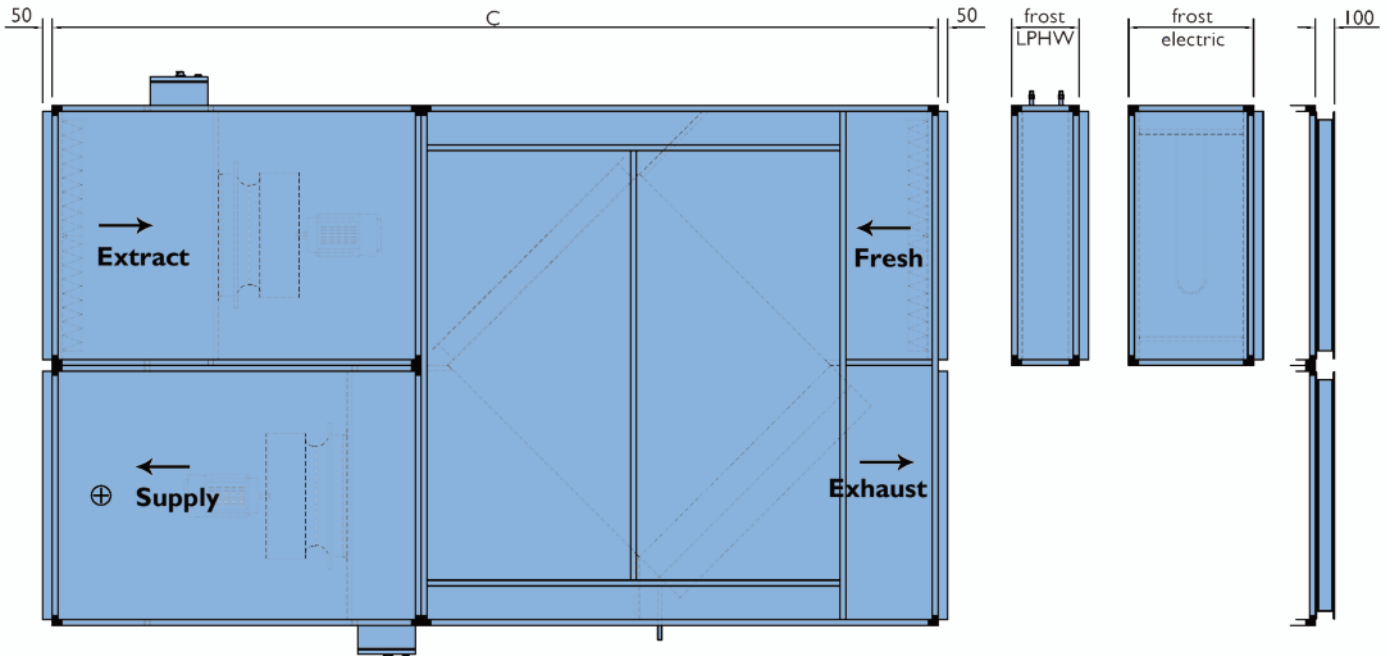
### Dimensions - Plant



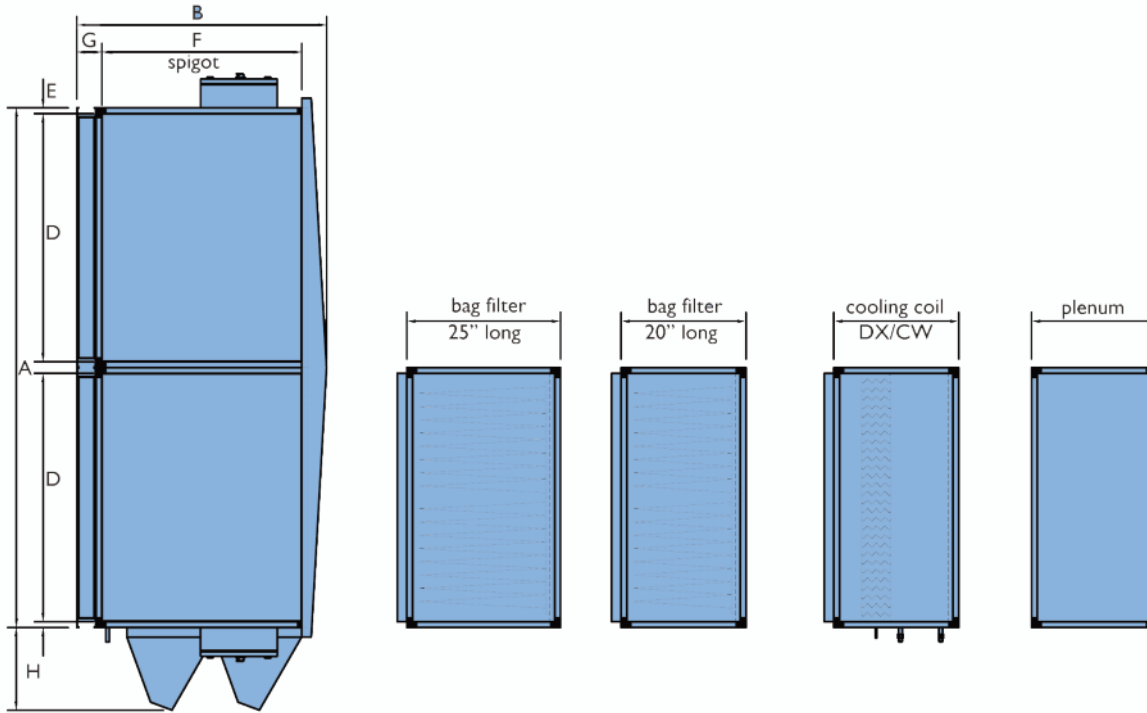
| Model Plant | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Unit Weight kg | Inlet Damper HxW - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |
|-------------|--------------|---------------|---------------|---------------|--------|---------------|--------|----------------|------------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|
| STP-HR1     | 1600         | 600           | 3050          | 740           | 30     | 440           | 130    | 550            | 300x600 6              | 650 65           | 350 54            | 650 62        | 650 100             | 650 72                | 800 83                |
| STP-HR2     | 1600         | 900           | 2900          | 740           | 30     | 740           | 130    | 727            | 600x600 10             | 650 74           | 350 64            | 650 70        | 650 127             | 650 83                | 800 96                |
| STP-HR3     | 2150         | 900           | 3900          | 1015          | 30     | 740           | 130    | 1105           | 600x900 16             | 650 88           | 350 79            | 650 84        | 650 157             | 650 99                | 800 113               |
| STP-HR4     | 2700         | 900           | 4450          | 1290          | 30     | 740           | 130    | 1389           | 600x1200 20            | 650 102          | 350 93            | 650 97        | 650 188             | 650 116               | 800 132               |
| STP-HR5     | 2700         | 1200          | 4600          | 1290          | 30     | 1040          | 130    | 1652           | 900x1200 30            | 650 110          | 350 107           | 650 105       | 650 235             | 650 128               | 800 146               |
| STP-HR6     | 2800         | 1550          | 4900          | 1340          | 30     | 1390          | 130    | 2077           | 1200x1200 40           | 650 124          | 350 126           | 650 118       | 650 298             | 650 145               | 800 166               |
| STP-HR7     | 3500         | 1550          | 5200          | 1615          | 30     | 1390          | 130    | 2385           | 1200x1500 50           | 650 138          | 350 144           | 650 131       | 650 343             | 650 164               | 800 186               |
| STP-HR8     | 3900         | 1550          | 5200          | 1890          | 30     | 1390          | 130    | 2611           | 1200x1800 60           | 650 151          | 350 161           | 650 144       | 650 380             | 650 182               | 800 207               |
| STP-HR9     | 3900         | 1850          | 6000          | 1850          | 50     | 1650          | 150    | 3251           | 1500x1800 76           | 700 184          | 400 177           | 700 158       | 700 418             | 700 195               | 850 211               |
| STP-HR10    | 3900         | 2200          | 6150          | 1850          | 50     | 2000          | 150    | 3623           | 1800x1800 90           | 700 197          | 400 195           | 700 169       | 700 470             | 700 211               | 850 239               |
| STP-HR11    | 5100         | 2200          | 6150          | 2450          | 50     | 2000          | 150    | 4227           | 1800x2100 106          | 700 231          | 400 240           | 700 199       | 700 569             | 700 252               | 850 284               |



### Dimensions - Plant

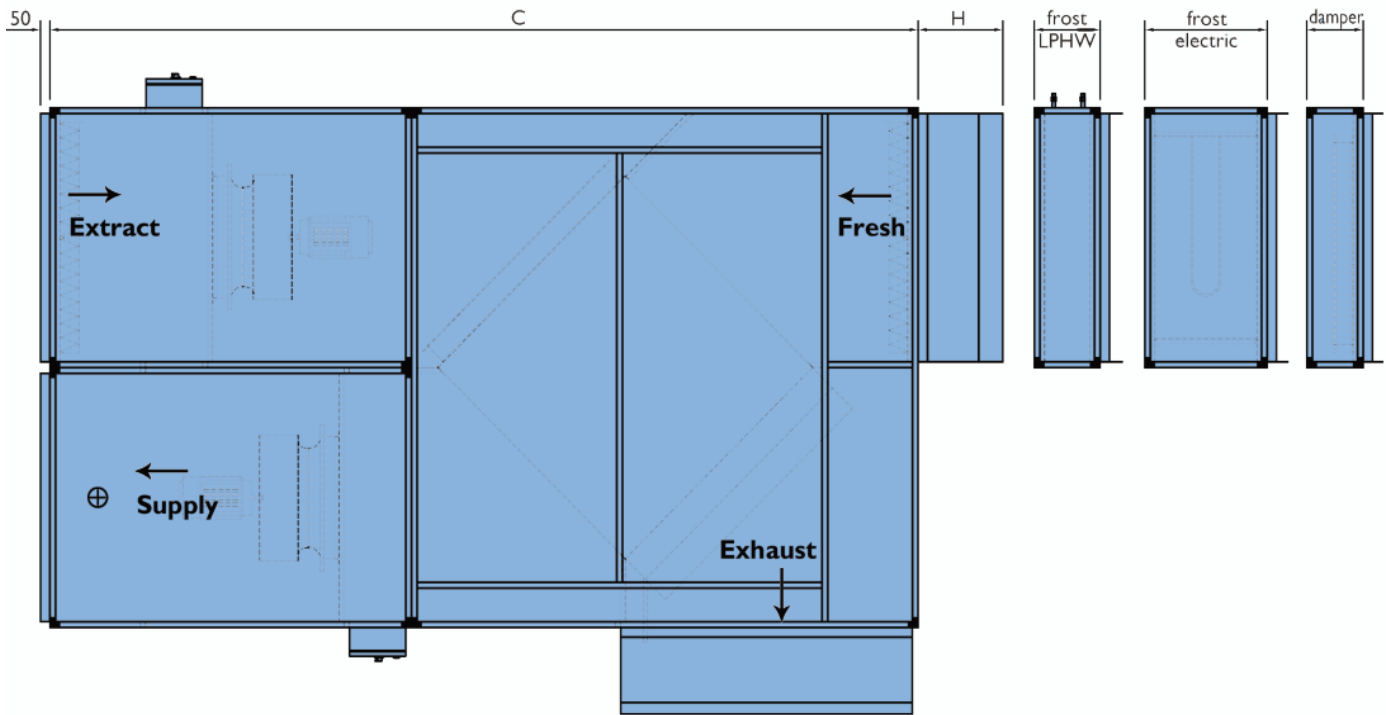


### Dimensions - Roof



| Model Roof | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Cowl "H" mm | Unit Weight kg | Inlet Damper mm - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |
|------------|--------------|---------------|---------------|---------------|--------|---------------|--------|-------------|----------------|-----------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|
| STR-HR1    | 1600         | 700           | 3050          | 740           | 30     | 440           | 130    | 300         | 651            | 300 49                | 650 71           | 350 57            | 650 68        | 650 106             | 650 78                | 800 91                |
| STR-HR2    | 1600         | 1000          | 2900          | 740           | 30     | 740           | 130    | 450         | 802            | 300 58                | 650 81           | 350 68            | 650 77        | 650 133             | 650 89                | 800 103               |
| STR-HR3    | 2150         | 1000          | 3900          | 1015          | 30     | 740           | 130    | 450         | 1230           | 300 74                | 650 97           | 350 83            | 650 92        | 650 165             | 650 107               | 800 123               |
| STR-HR4    | 2700         | 1000          | 4450          | 1290          | 30     | 740           | 130    | 450         | 1567           | 300 81                | 650 112          | 350 98            | 650 107       | 650 199             | 650 126               | 800 145               |
| STR-HR5    | 2700         | 1300          | 4600          | 1290          | 30     | 1040          | 130    | 450         | 1849           | 300 89                | 650 122          | 350 112           | 650 116       | 650 246             | 650 138               | 800 158               |
| STR-HR6    | 2800         | 1650          | 4900          | 1340          | 30     | 1390          | 130    | 450         | 2309           | 300 95                | 650 134          | 350 132           | 650 128       | 650 308             | 650 156               | 800 179               |
| STR-HR7    | 3350         | 1650          | 5200          | 1615          | 30     | 1390          | 130    | 450         | 2664           | 300 107               | 650 150          | 350 151           | 650 143       | 650 356             | 650 176               | 800 202               |
| STR-HR8    | 3900         | 1650          | 5200          | 1890          | 30     | 1390          | 130    | 450         | 2939           | 300 122               | 650 167          | 350 169           | 650 159       | 650 400             | 650 197               | 800 225               |
| STR-HR9    | 3900         | 2000          | 6000          | 1850          | 50     | 1650          | 150    | 450         | 3591           | 350 128               | 700 213          | 400 186           | 700 174       | 700 434             | 700 211               | 850 240               |
| STR-HR10   | 3900         | 2350          | 6150          | 1850          | 50     | 2000          | 150    | 450         | 4053           | 350 138               | 700 227          | 400 204           | 700 184       | 700 486             | 700 227               | 850 259               |
| STR-HR11   | 5100         | 2350          | 6150          | 2450          | 50     | 2000          | 150    | 450         | 4793           | 350 173               | 700 238          | 400 247           | 700 219       | 700 589             | 700 273               | 850 309               |

### Dimensions - Roof



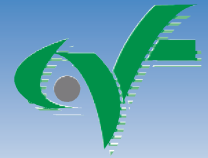


# Direct Drive Air Handling & Heat Recovery





# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

### Features

- larger sizes for plant and external installation
- can be with electric or LPHW heater batteries
- 11 standard sizes, airflow to 14 m<sup>3</sup>/sec
- wide selection of control panels available

### Cases - Plant Models

- robust 30 x 30 (30 x 50 on larger units) extruded aluminium frame
- black plastic corner joints
- finished in galvanised, double skinned steel with 25mm thick mineral wool slab insulation of 45 kg/m<sup>3</sup> density (providing high degree of acoustic insulation) (50mm panels with high density mineral wool and plasterboard also available for lower sound levels)
- steel channel base running full length of unit with cross members at suitable locations
- flush fitting panels
- filter and access section panels fitted with easy access fasteners
- other removable panels retained via roofing bolts

### Cases - Weatherproof Models

CASE CONSTRUCTION AS PLANT MODELS, EXCEPT:

- outer skin with plastic coated finish (grey to BS10A05 as standard)
- weatherproof lid fitted
- air intake and discharge via weather cowl or louvre fitted with birdmesh guard

### Specification

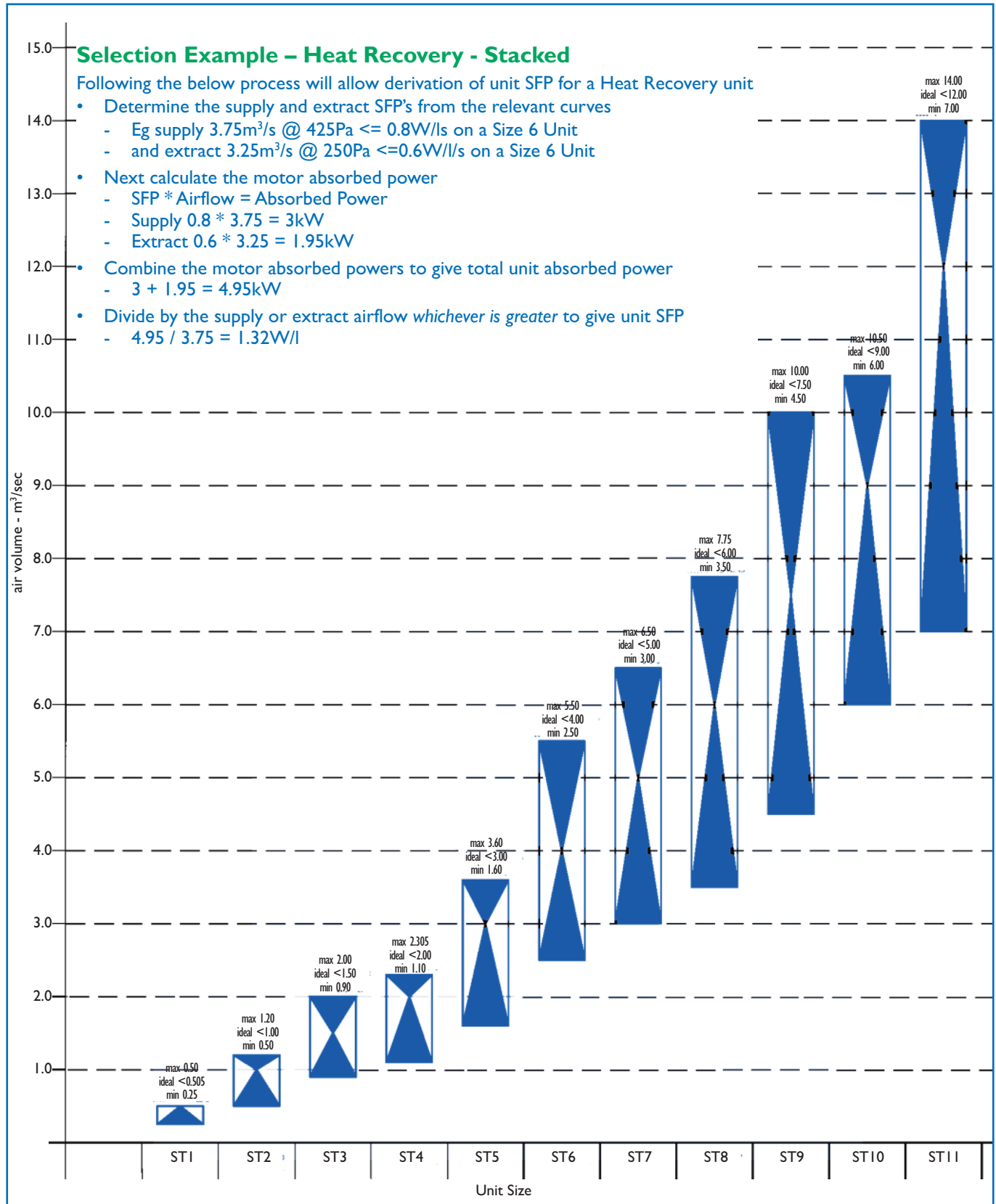
- backward curved direct drive plug style impellers.
- fan impellers are statically and dynamically balanced in accordance with ISO 14694 and ISO 1940/1. Supplied as standard with pre-greased sealed for life bearings having L10 life of 20,000 hours at peak performance
- fan motors pre-wired to inverter and isolator
- standard motors of squirrel cage induction type, totally enclosed, fan cooled, suitable for 3ph, 50Hz electricity supply, IE2
- motors with IP55 protection and Class F rating
- high efficiency EC motors available as an option, depending on duty requirement
- fan and motor are mounted on a common chassis frame isolated from casing via open rubber anti-vibration mounts and flexible connector fitted to fan inlet. Transit bolt fitted to prevent damage during transport
- LPHW batteries are constructed from copper tubes mechanically bonded onto aluminium fins supplied with standard BSP male connectors. Option of vinyl coating (copper and electro-tinned copper also available). The coil casing is in galvanised sheet steel
- drain tray and moisture eliminator plates manufactured from polypropylene fitted as standard to cooling coils. Coils are mounted on slide-in channels to aid removal
- electric heater batteries for single and 3 phase operation are manufactured from sheathed rod elements with an integral manual reset thermal cut-out for wiring into control unit. It is recommended that fan run-on timer is incorporated in controls to prevent possible heat damage
- panel filters to G4 grade mounted in slide-in channels. Bag filters of F6 and above are mounted in purpose made front withdrawal holding frames and retained by spring loaded clips
- intake and discharge dampers of opposed blade, multi-leaf type fitted aerofoil section blades. Extended shaft for fitting of suitable motor is provided as standard



- the cross flow type heat exchangers have UPVC exchange plate, UPVC casework with maximum pressure differential of 1000 Pa and operating envelope of 20-60°C. Provides winter heating and summer cooling. Motorised bypass damper fitted as standard. Stainless steel drain pan provided on the exhaust side
- attenuators manufactured with galvanised sheet steel case fitted with "Mez" type flange at each end.
- **manufactured in UK to ISO 9001**

## STP - STR (EHB and LPHW): Stacked

### Selection Chart





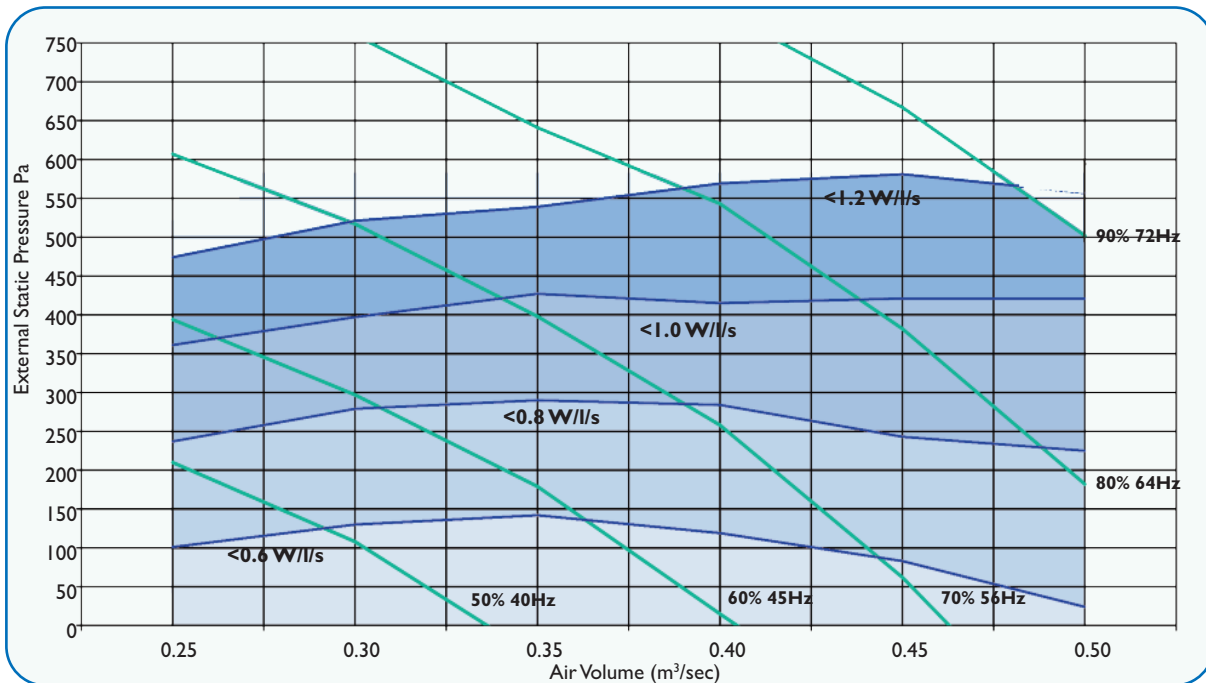
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

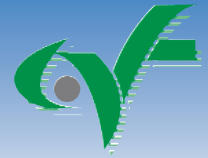
### Technical Data - Size I

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



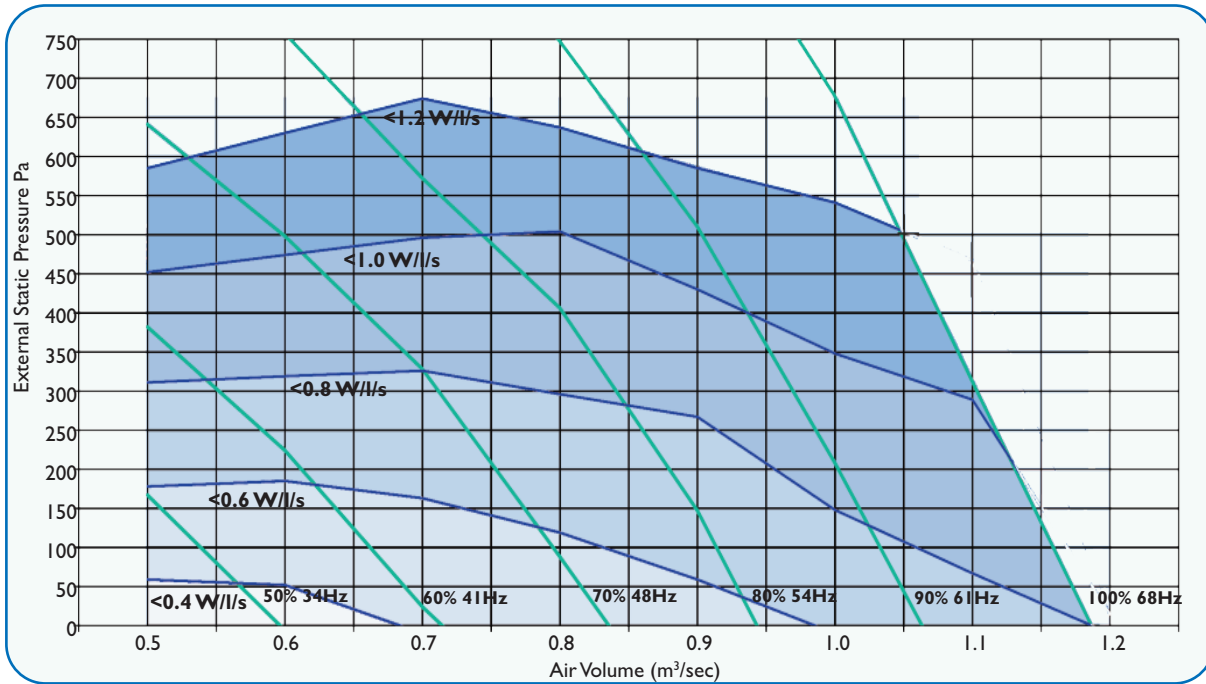
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size I          | 0.75         | 415V, 3Ph | 1.62     |

| Size I |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 82                             | 80  | 77  | 83  | 76 | 73 | 72 | 69 | 88            | 83    | 59            | >50 | 49            | 50 |
|        | Outlet in duct dB | 82                             | 83  | 82  | 87  | 82 | 87 | 79 | 75 | 93            | 91    |               |     |               |    |
| 90%    | Inlet in duct dB  | 78                             | 75  | 76  | 79  | 74 | 69 | 69 | 67 | 85            | 80    | 55            | >50 | 45            | 45 |
|        | Outlet in duct dB | 77                             | 78  | 79  | 83  | 82 | 81 | 76 | 72 | 89            | 87    |               |     |               |    |
| 80%    | Inlet in duct dB  | 65                             | 62  | 64  | 72  | 72 | 69 | 69 | 66 | 79            | 77    | 48            | 45  | 38            | 35 |
|        | Outlet in duct dB | 66                             | 65  | 69  | 76  | 79 | 81 | 76 | 72 | 86            | 86    |               |     |               |    |
| 70%    | Inlet in duct dB  | 63                             | 61  | 66  | 70  | 70 | 66 | 67 | 63 | 75            | 77    | 47            | 45  | 37            | 35 |
|        | Outlet in duct dB | 63                             | 63  | 70  | 74  | 77 | 78 | 74 | 68 | 83            | 83    |               |     |               |    |
| 60%    | Inlet in duct dB  | 60                             | 58  | 66  | 68  | 66 | 63 | 64 | 62 | 74            | 72    | 45            | 45  | 35            | 35 |
|        | Outlet in duct dB | 60                             | 61  | 69  | 71  | 73 | 74 | 71 | 65 | 80            | 79    |               |     |               |    |
| 50%    | Inlet in duct dB  | 58                             | 58  | 65  | 64  | 61 | 61 | 60 | 61 | 71            | 69    | 42            | 40  | 33            | 30 |
|        | Outlet in duct dB | 58                             | 61  | 67  | 67  | 70 | 69 | 67 | 64 | 76            | 76    |               |     |               |    |



### Technical Data - Size 2

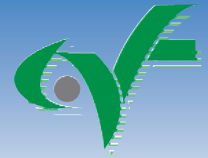
### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 2          | 1.5          | 415V, 3Ph | 3.06     |

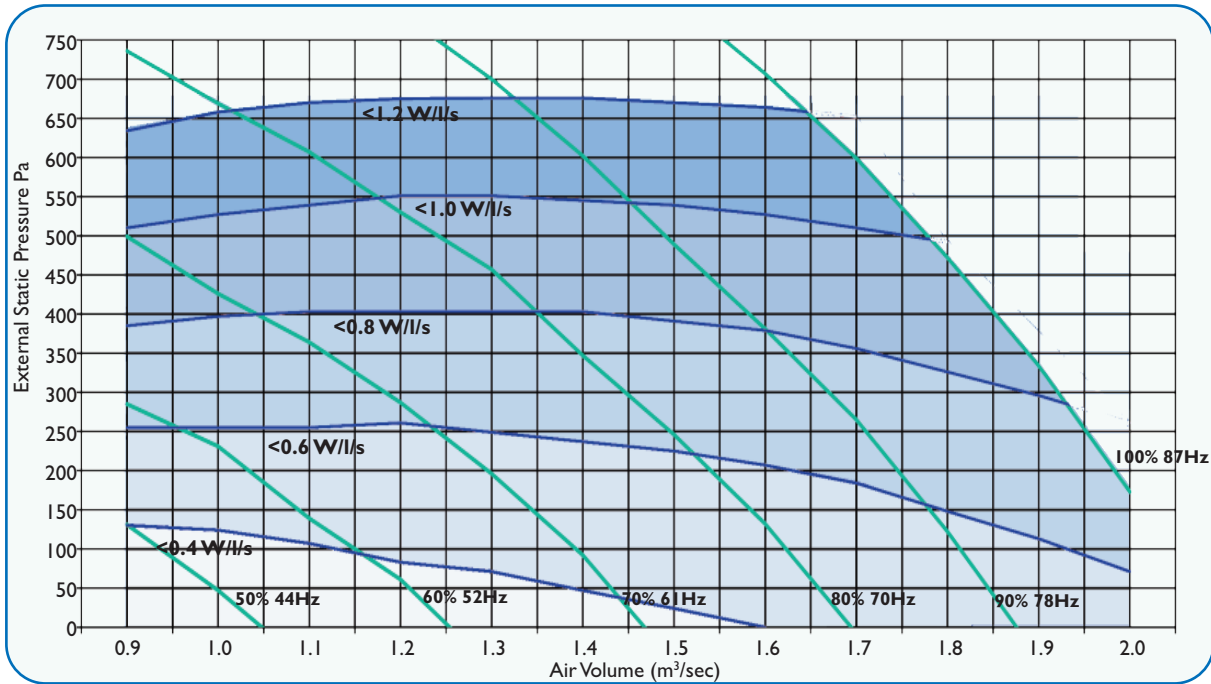
| Size 2 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |    |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR |
| 100%   | Inlet in duct dB  | 76                             | 72  | 75  | 86  | 80 | 79 | 78 | 78 | 90            | 88    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 76                             | 76  | 81  | 89  | 91 | 90 | 84 | 84 | 96            | 96    |               |     |               |    |
| 90%    | Inlet in duct dB  | 73                             | 70  | 75  | 83  | 78 | 76 | 76 | 75 | 88            | 85    | 57            | >50 | 48            | 45 |
|        | Outlet in duct dB | 73                             | 74  | 80  | 87  | 88 | 87 | 82 | 81 | 94            | 93    |               |     |               |    |
| 80%    | Inlet in duct dB  | 68                             | 67  | 73  | 79  | 75 | 72 | 71 | 69 | 83            | 81    | 53            | >50 | 44            | 45 |
|        | Outlet in duct dB | 69                             | 70  | 77  | 82  | 84 | 83 | 77 | 75 | 89            | 89    |               |     |               |    |
| 70%    | Inlet in duct dB  | 65                             | 64  | 73  | 75  | 71 | 68 | 69 | 65 | 80            | 78    | 53            | >50 | 43            | 45 |
|        | Outlet in duct dB | 65                             | 67  | 78  | 79  | 81 | 79 | 76 | 71 | 86            | 86    |               |     |               |    |
| 60%    | Inlet in duct dB  | 61                             | 62  | 72  | 71  | 67 | 66 | 66 | 64 | 77            | 74    | 50            | 50  | 40            | 40 |
|        | Outlet in duct dB | 62                             | 66  | 75  | 75  | 77 | 74 | 74 | 67 | 83            | 82    |               |     |               |    |
| 50%    | Inlet in duct dB  | 59                             | 62  | 69  | 66  | 63 | 62 | 62 | 61 | 74            | 70    | 46            | 45  | 36            | 35 |
|        | Outlet in duct dB | 60                             | 65  | 71  | 71  | 72 | 70 | 70 | 64 | 79            | 78    |               |     |               |    |





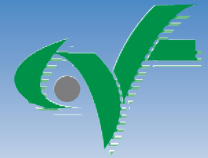
### Technical Data - Size 3

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



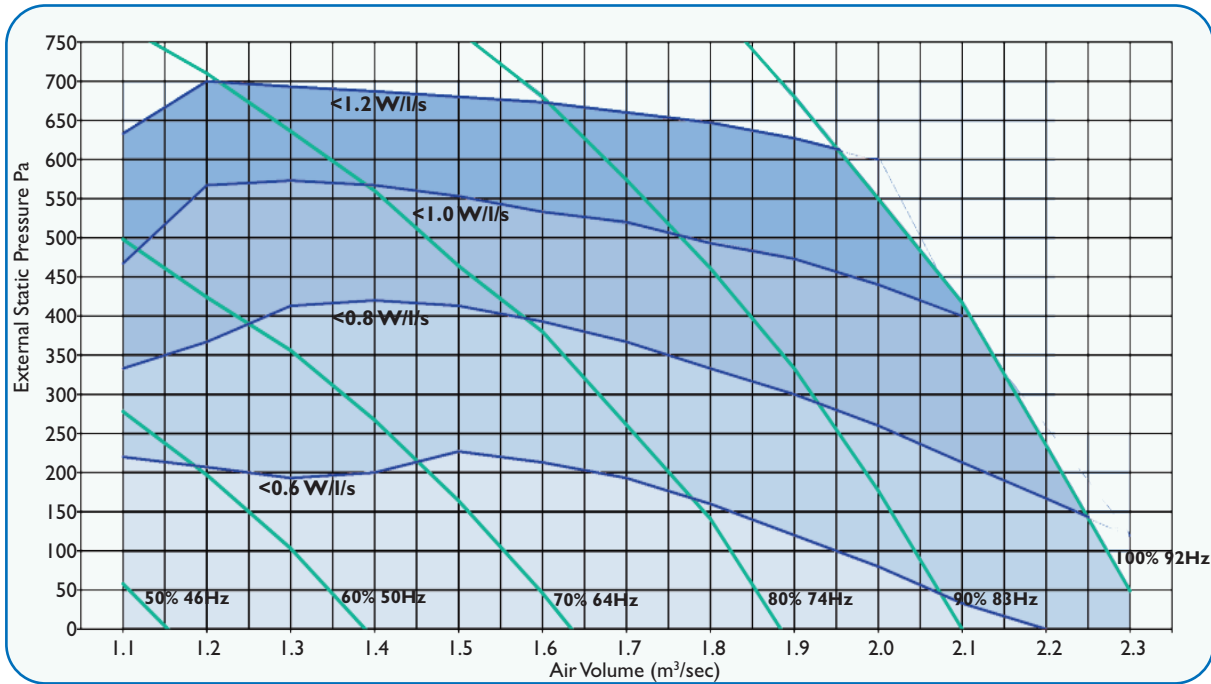
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 3          | 2.2          | 415V, 3Ph | 4.53     |

| Size 3 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 84                             | 79  | 85  | 80  | 75 | 75 | 73 | 69 | 90            | 83    | 64            | >50 | 55            | >50 |
|        | Outlet in duct dB | 87                             | 86  | 90  | 85  | 87 | 81 | 78 | 73 | 95            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 70                             | 70  | 82  | 80  | 75 | 75 | 75 | 78 | 87            | 84    | 60            | >50 | 51            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 86  | 85  | 87 | 82 | 81 | 81 | 93            | 91    |               |     |               |     |
| 80%    | Inlet in duct dB  | 68                             | 69  | 80  | 79  | 72 | 72 | 72 | 75 | 85            | 82    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 71                             | 72  | 84  | 82  | 84 | 78 | 78 | 77 | 90            | 88    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 76  | 75  | 69 | 69 | 69 | 71 | 81            | 78    | 51            | >50 | 44            | 45  |
|        | Outlet in duct dB | 69                             | 73  | 79  | 79  | 80 | 75 | 75 | 73 | 87            | 85    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 72  | 72  | 71  | 66 | 66 | 67 | 67 | 79            | 75    | 50            | 50  | 41            | 40  |
|        | Outlet in duct dB | 66                             | 75  | 75  | 75  | 77 | 72 | 72 | 69 | 83            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 66                             | 70  | 69  | 65  | 62 | 64 | 63 | 58 | 71            | 75    | 47            | 45  | 37            | 35  |
|        | Outlet in duct dB | 66                             | 72  | 71  | 71  | 71 | 70 | 68 | 60 | 79            | 77    |               |     |               |     |



### Technical Data - Size 4

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"

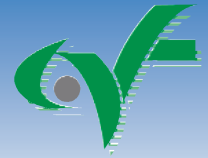


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 4          | 3.0          | 415V, 3Ph | 4.87     |

| Size 4 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 75                             | 75  | 87  | 86  | 81 | 81 | 83 | 84 | 95            | 91    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 78                             | 80  | 91  | 90  | 93 | 88 | 88 | 88 | 99            | 97    |               |     |               |     |
| 90%    | Inlet in duct dB  | 72                             | 72  | 85  | 82  | 78 | 78 | 79 | 83 | 91            | 88    | 63            | >50 | 54            | >50 |
|        | Outlet in duct dB | 75                             | 77  | 89  | 87  | 90 | 84 | 85 | 85 | 96            | 94    |               |     |               |     |
| 80%    | Inlet in duct dB  | 70                             | 72  | 81  | 80  | 74 | 75 | 76 | 80 | 87            | 84    | 60            | >50 | 50            | 50  |
|        | Outlet in duct dB | 73                             | 75  | 85  | 84  | 86 | 81 | 82 | 82 | 92            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 67                             | 70  | 77  | 77  | 71 | 70 | 71 | 73 | 83            | 80    | 56            | >50 | 46            | 45  |
|        | Outlet in duct dB | 70                             | 73  | 81  | 81  | 82 | 77 | 77 | 75 | 88            | 86    |               |     |               |     |
| 60%    | Inlet in duct dB  | 66                             | 69  | 74  | 74  | 68 | 67 | 67 | 68 | 80            | 76    | 52            | >50 | 42            | 45  |
|        | Outlet in duct dB | 67                             | 72  | 77  | 78  | 79 | 74 | 73 | 71 | 85            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 67                             | 71  | 70  | 67  | 63 | 65 | 66 | 63 | 77            | 73    | 48            | 50  | 38            | 35  |
|        | Outlet in duct dB | 67                             | 73  | 72  | 73  | 73 | 71 | 71 | 65 | 81            | 79    |               |     |               |     |



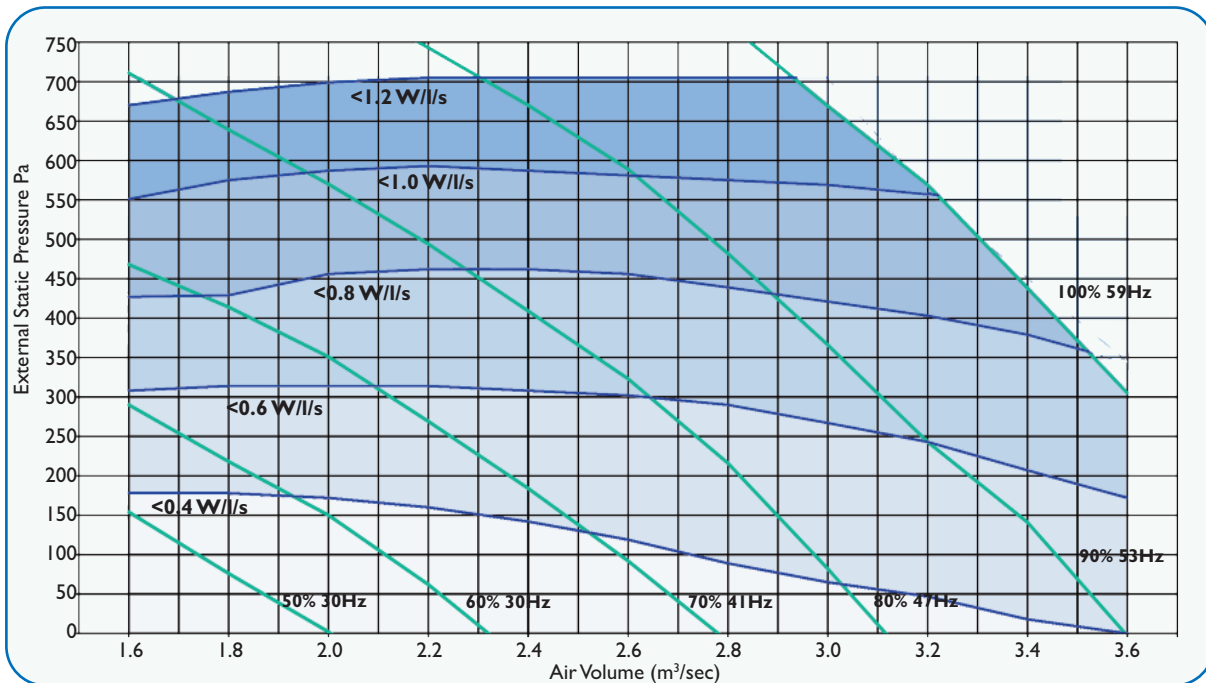
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

### Technical Data - Size 5

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 5          | 4.0          | 415V, 3Ph | 7.96     |

| Size 5 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 82  | 89  | 84  | 80 | 81 | 82 | 81 | 93            | 89    | 67            | >50 | 58            | >50 |
|        | Outlet in duct dB | 81                             | 85  | 93  | 92  | 91 | 86 | 88 | 82 | 99            | 96    |               |     |               |     |
| 90%    | Inlet in duct dB  | 74                             | 85  | 86  | 82  | 79 | 82 | 80 | 81 | 92            | 89    | 65            | >50 | 56            | >50 |
|        | Outlet in duct dB | 80                             | 88  | 90  | 90  | 89 | 88 | 87 | 82 | 97            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 71                             | 82  | 82  | 78  | 75 | 78 | 72 | 73 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 76                             | 86  | 85  | 86  | 85 | 84 | 78 | 75 | 93            | 91    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 81  | 80  | 74  | 71 | 74 | 67 | 69 | 85            | 80    | 59            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 84  | 83  | 83  | 81 | 81 | 71 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 73                             | 79  | 77  | 70  | 68 | 71 | 66 | 62 | 83            | 77    | 55            | >50 | 45            | 45  |
|        | Outlet in duct dB | 75                             | 81  | 79  | 79  | 75 | 78 | 69 | 64 | 87            | 83    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 75  | 72  | 66  | 64 | 64 | 61 | 53 | 80            | 71    | 51            | 50  | 41            | 40  |
|        | Outlet in duct dB | 76                             | 77  | 75  | 74  | 71 | 72 | 64 | 56 | 83            | 78    |               |     |               |     |



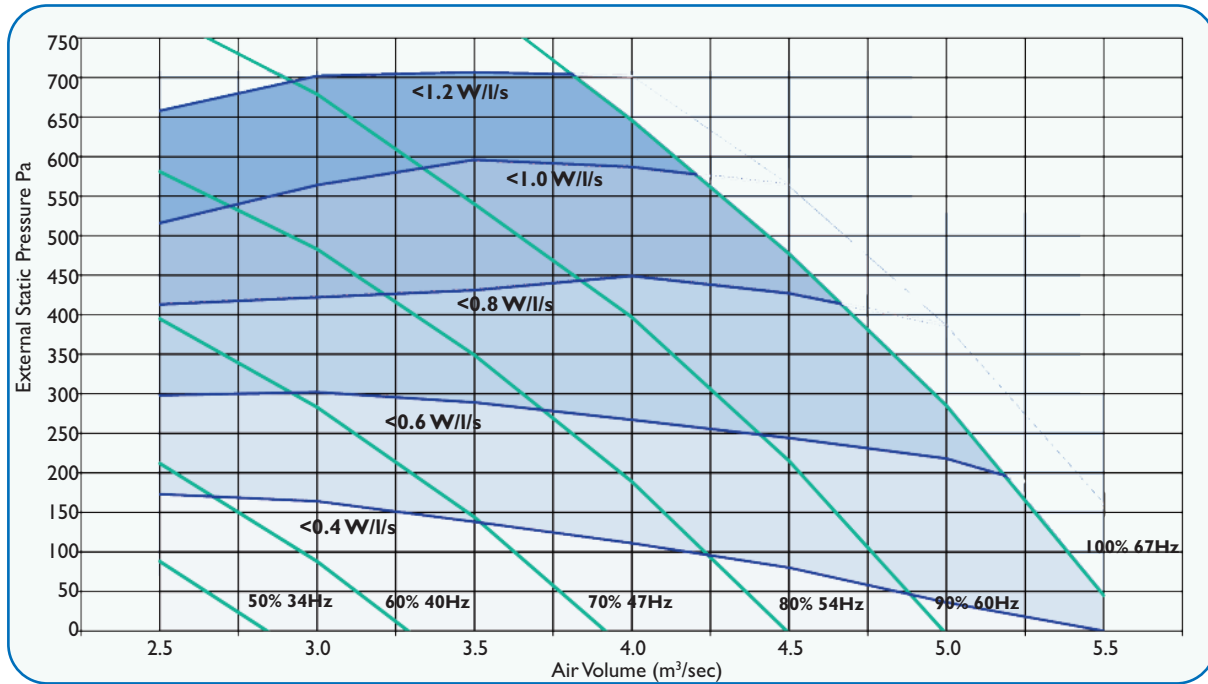
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

### Technical Data - Size 6

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"

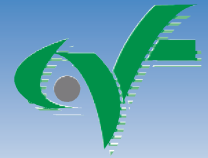


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 6          | 5.5          | 415V, 3Ph | 11.8     |

| Size 6 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 86                             | 89  | 86  | 78  | 78 | 76 | 72 | 68 | 93            | 84    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 91                             | 93  | 90  | 88  | 85 | 81 | 76 | 70 | 98            | 91    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 77 | 75 | 96            | 93    |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 82  | 82  | 77  | 77 | 79 | 69 | 72 | 88            | 84    | 61            | >50 | 51            | 50  |
|        | Outlet in duct dB | 77                             | 84  | 86  | 87  | 84 | 84 | 73 | 73 | 93            | 90    |               |     |               |     |
| 70%    | Inlet in duct dB  | 70                             | 78  | 76  | 72  | 72 | 71 | 64 | 64 | 83            | 78    | 55            | >50 | 46            | 45  |
|        | Outlet in duct dB | 73                             | 80  | 80  | 82  | 78 | 76 | 67 | 66 | 87            | 84    |               |     |               |     |
| 60%    | Inlet in duct dB  | 77                             | 77  | 73  | 69  | 71 | 67 | 61 | 62 | 62            | 61    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 79                             | 78  | 77  | 78  | 76 | 72 | 64 | 63 | 86            | 81    |               |     |               |     |
| 50%    | Inlet in duct dB  | 77                             | 74  | 68  | 65  | 68 | 61 | 59 | 55 | 80            | 70    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 78                             | 76  | 74  | 73  | 73 | 67 | 62 | 57 | 83            | 77    |               |     |               |     |



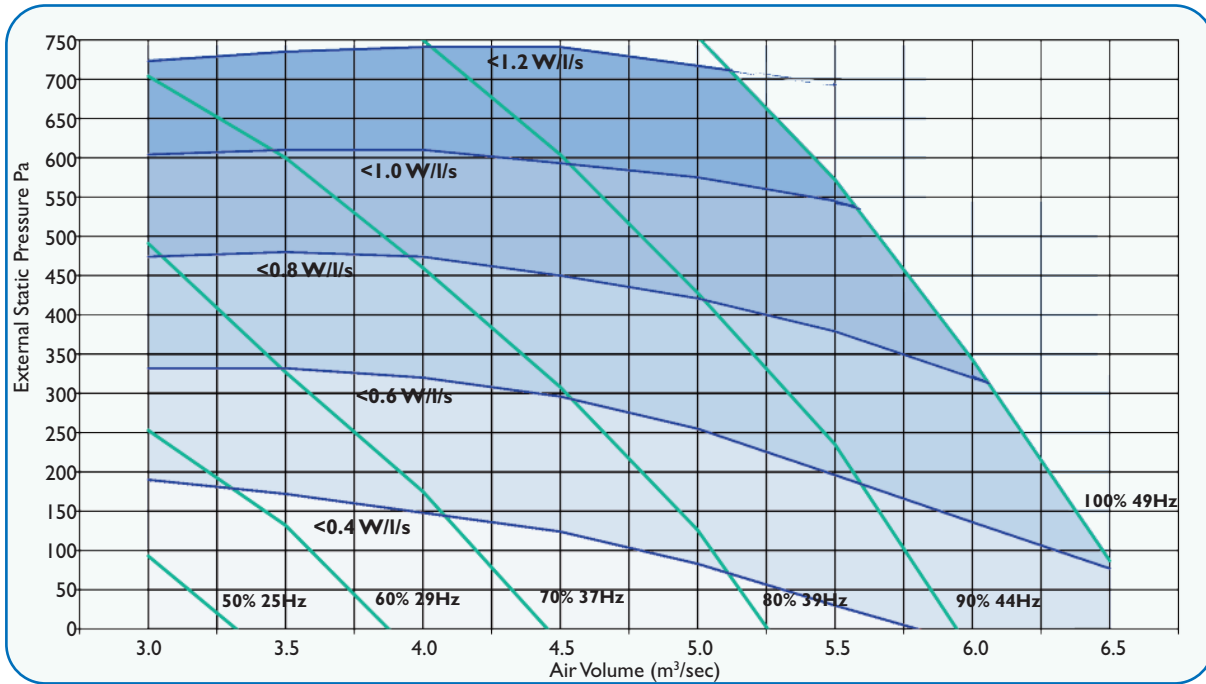
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

### Technical Data - Size 7

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"

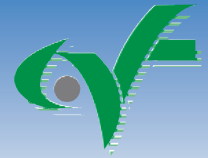


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 7          | 7.5          | 415V, 3Ph | 14.3     |

| Size 7 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 74                             | 88  | 87  | 83  | 83 | 85 | 80 | 79 | 94            | 91    | 67            | >50 | 57            | >50 |
|        | Outlet in duct dB | 80                             | 89  | 91  | 95  | 91 | 91 | 86 | 81 | 100           | 98    |               |     |               |     |
| 90%    | Inlet in duct dB  | 75                             | 87  | 87  | 82  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 88  | 91  | 93  | 89 | 88 | 81 | 78 | 98            | 95    |               |     |               |     |
| 80%    | Inlet in duct dB  | 75                             | 85  | 85  | 79  | 79 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 87 | 77 | 75 | 96            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 75 | 76 | 66 | 70 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 70 | 71 | 90            | 87    |               |     |               |     |
| 60%    | Inlet in duct dB  | 76                             | 79  | 77  | 71  | 73 | 72 | 63 | 65 | 84            | 78    | 56            | >50 | 47            | 45  |
|        | Outlet in duct dB | 78                             | 80  | 81  | 81  | 79 | 77 | 66 | 66 | 88            | 84    |               |     |               |     |
| 50%    | Inlet in duct dB  | 75                             | 74  | 68  | 66  | 67 | 62 | 59 | 57 | 79            | 71    | 50            | 50  | 40            | 40  |
|        | Outlet in duct dB | 77                             | 75  | 74  | 75  | 72 | 68 | 62 | 58 | 82            | 77    |               |     |               |     |



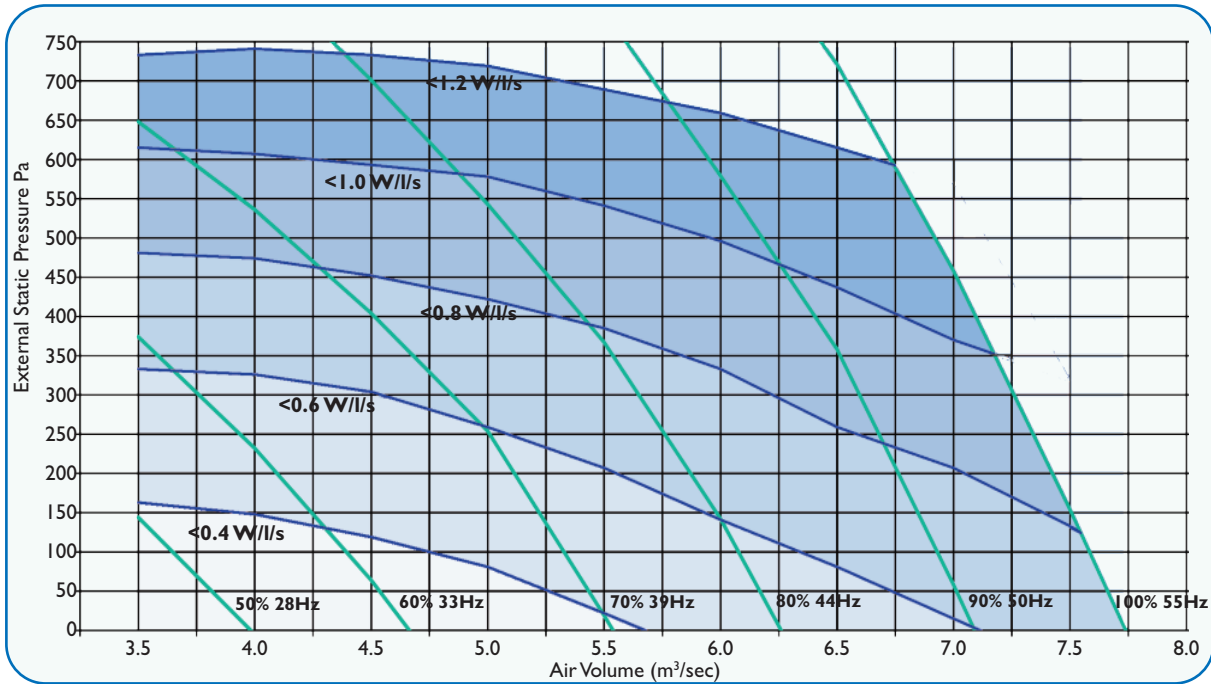
# Direct Drive - Heat Recovery Units



## STP - STR (EHB and LPHW): Stacked

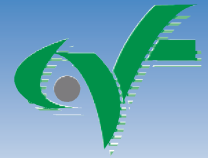
### Technical Data - Size 8

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



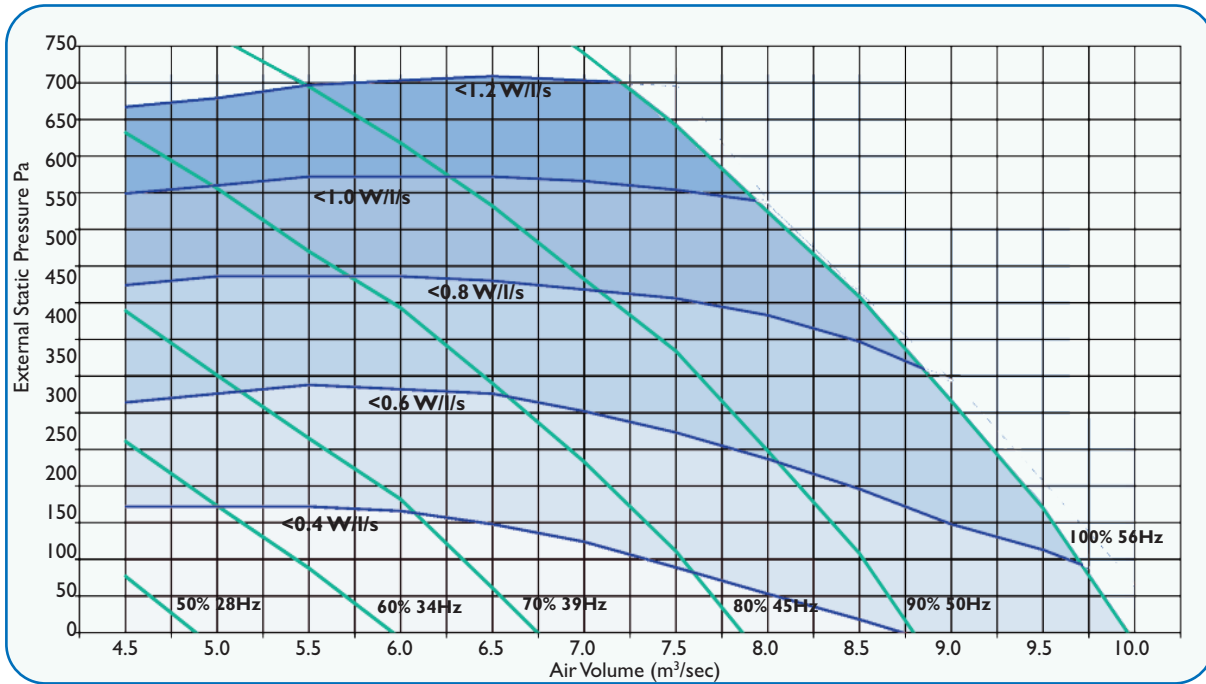
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 8          | 11.0         | 415V, 3Ph | 21.0     |

| Size 8 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 79                             | 89  | 94  | 88  | 88 | 90 | 90 | 81 | 99            | 97    | 72            | >50 | 62            | >50 |
|        | Outlet in duct dB | 84                             | 92  | 97  | 99  | 96 | 96 | 95 | 84 | 105           | 103   |               |     |               |     |
| 90%    | Inlet in duct dB  | 76                             | 90  | 89  | 85  | 85 | 87 | 83 | 83 | 96            | 93    | 68            | >50 | 59            | >50 |
|        | Outlet in duct dB | 81                             | 92  | 92  | 97  | 93 | 92 | 89 | 85 | 102           | 100   |               |     |               |     |
| 80%    | Inlet in duct dB  | 74                             | 86  | 87  | 81  | 81 | 82 | 76 | 76 | 92            | 88    | 66            | >50 | 56            | >50 |
|        | Outlet in duct dB | 79                             | 87  | 91  | 93  | 89 | 88 | 81 | 77 | 98            | 95    |               |     |               |     |
| 70%    | Inlet in duct dB  | 74                             | 85  | 85  | 79  | 78 | 81 | 72 | 74 | 91            | 86    | 64            | >50 | 54            | >50 |
|        | Outlet in duct dB | 78                             | 87  | 89  | 90  | 86 | 86 | 76 | 75 | 96            | 93    |               |     |               |     |
| 60%    | Inlet in duct dB  | 71                             | 79  | 79  | 74  | 74 | 76 | 66 | 69 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 74                             | 82  | 83  | 85  | 81 | 81 | 69 | 70 | 90            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 73                             | 76  | 73  | 69  | 70 | 67 | 61 | 60 | 81            | 74    | 53            | >50 | 43            | 45  |
|        | Outlet in duct dB | 75                             | 78  | 77  | 78  | 75 | 72 | 65 | 62 | 85            | 80    |               |     |               |     |



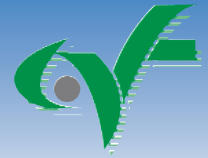
### Technical Data - Size 9

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



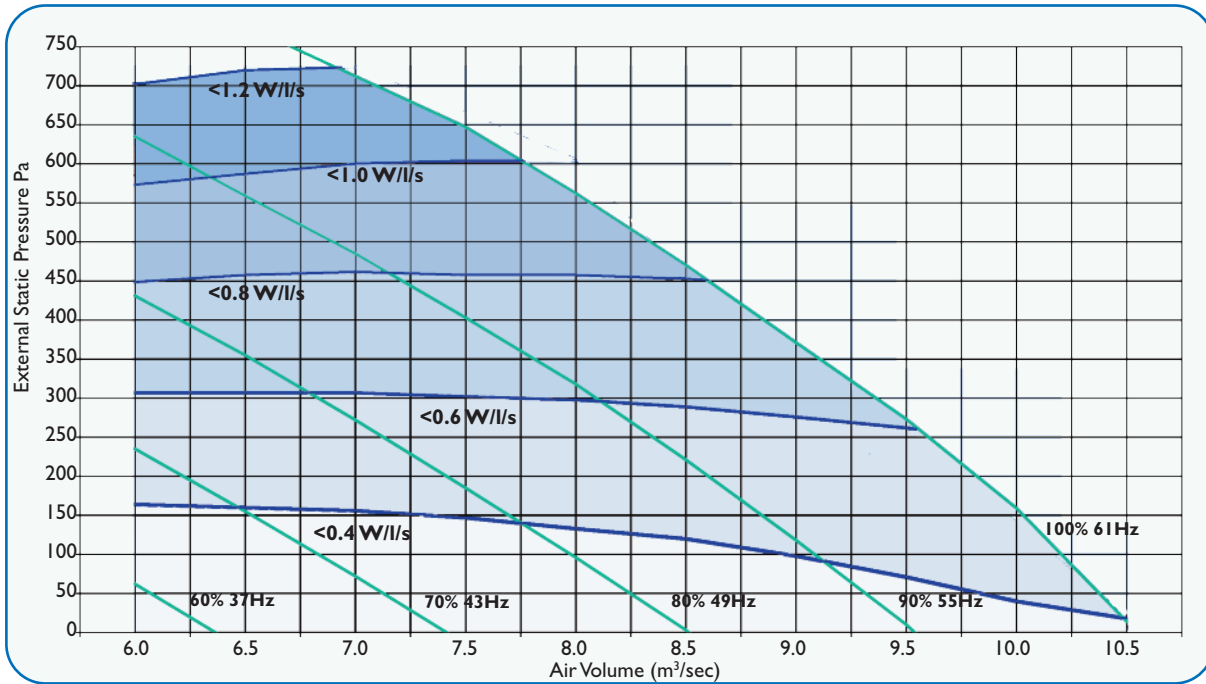
| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size 9          | 11.0         | 415V, 3Ph | 22.6     |

| Size 9 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|--------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|        |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%   | Inlet in duct dB  | 81                             | 93  | 89  | 86  | 87 | 89 | 84 | 86 | 98            | 94    | 71            | >50 | 62            | >50 |
|        | Outlet in duct dB | 86                             | 95  | 96  | 97  | 93 | 94 | 85 | 86 | 103           | 100   |               |     |               |     |
| 90%    | Inlet in duct dB  | 79                             | 90  | 87  | 82  | 84 | 85 | 83 | 79 | 94            | 91    | 68            | >50 | 58            | >50 |
|        | Outlet in duct dB | 83                             | 92  | 93  | 93  | 89 | 90 | 82 | 79 | 99            | 96    |               |     |               |     |
| 80%    | Inlet in duct dB  | 79                             | 86  | 84  | 80  | 82 | 81 | 76 | 75 | 91            | 87    | 65            | >50 | 55            | >50 |
|        | Outlet in duct dB | 82                             | 88  | 90  | 91  | 87 | 86 | 78 | 76 | 97            | 93    |               |     |               |     |
| 70%    | Inlet in duct dB  | 80                             | 82  | 81  | 79  | 80 | 76 | 71 | 74 | 89            | 85    | 61            | >50 | 52            | 50  |
|        | Outlet in duct dB | 84                             | 85  | 86  | 89  | 85 | 82 | 73 | 75 | 94            | 91    |               |     |               |     |
| 60%    | Inlet in duct dB  | 79                             | 79  | 76  | 76  | 77 | 70 | 69 | 67 | 85            | 81    | 58            | >50 | 49            | 50  |
|        | Outlet in duct dB | 82                             | 82  | 83  | 85  | 82 | 76 | 71 | 68 | 91            | 87    |               |     |               |     |
| 50%    | Inlet in duct dB  | 76                             | 74  | 70  | 72  | 70 | 65 | 64 | 56 | 81            | 75    | 53            | >50 | 44            | 45  |
|        | Outlet in duct dB | 77                             | 76  | 78  | 81  | 76 | 69 | 65 | 58 | 85            | 81    |               |     |               |     |



### Technical Data - Size I0

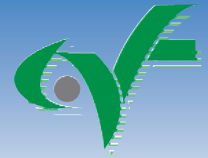
### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"



| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size I0         | 11.0         | 415V, 3Ph | 23.5     |

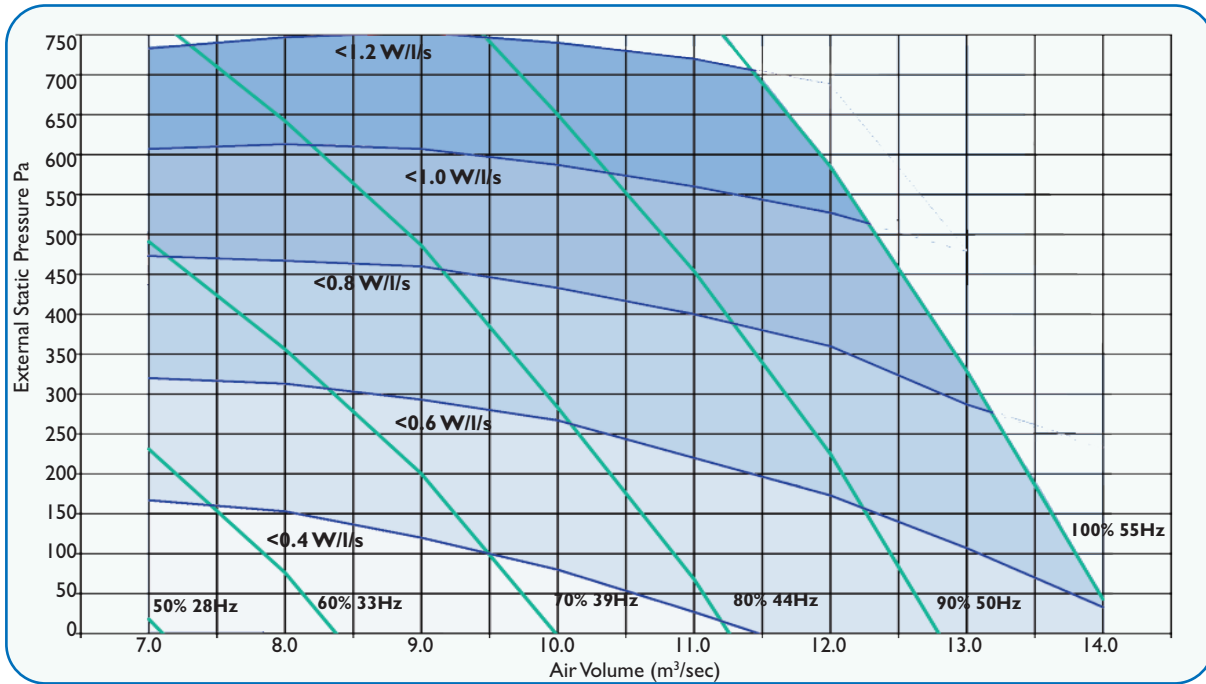
| Size I0 |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 83                             | 92  | 89  | 85  | 87 | 84 | 75 | 73 | 96            | 92    | 71            | >50 | 61            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 96  | 95  | 94 | 92 | 78 | 83 | 102           | 99    |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 89  | 86  | 83  | 84 | 79 | 71 | 78 | 94            | 88    | 59            | 50  | 49            | 50  |
|         | Outlet in duct dB | 87                             | 83  | 83  | 83  | 81 | 86 | 74 | 79 | 100           | 95    |               |     |               |     |
| 80%     | Inlet in duct dB  | 85                             | 84  | 80  | 80  | 81 | 73 | 69 | 73 | 85            | 90    | 63            | >50 | 54            | >50 |
|         | Outlet in duct dB | 88                             | 87  | 88  | 89  | 87 | 79 | 71 | 74 | 96            | 91    |               |     |               |     |
| 70%     | Inlet in duct dB  | 78                             | 79  | 77  | 78  | 77 | 69 | 67 | 65 | 86            | 81    | 60            | >50 | 50            | 50  |
|         | Outlet in duct dB | 81                             | 83  | 85  | 85  | 83 | 74 | 70 | 66 | 91            | 87    |               |     |               |     |
| 60%     | Inlet in duct dB  | 73                             | 78  | 74  | 76  | 72 | 65 | 63 | 59 | 83            | 77    | 57            | >50 | 48            | 50  |
|         | Outlet in duct dB | 76                             | 81  | 82  | 83  | 79 | 70 | 65 | 61 | 88            | 84    |               |     |               |     |
| 50%     | Inlet in duct dB  | 73                             | 78  | 73  | 75  | 70 | 61 | 64 | 54 | 82            | 76    | 56            | >50 | 47            | 45  |
|         | Outlet in duct dB | 75                             | 82  | 81  | 82  | 79 | 66 | 66 | 55 | 88            | 83    |               |     |               |     |





### Technical Data - Size II

### "STPE-HRSTK/STPW-HRSTK - STRE-HRSTK/STRW-HRSTK"

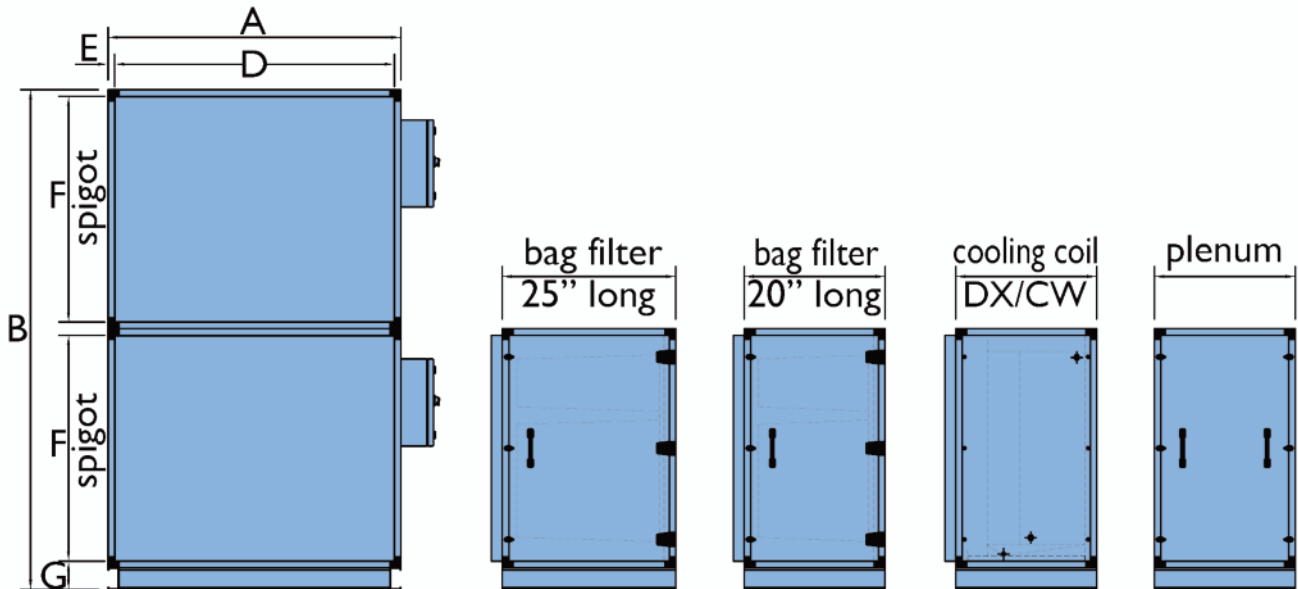


| Electrical Data |              |           |          |
|-----------------|--------------|-----------|----------|
| Models          | Fan Power kW | Supply    | FLC amps |
| Size II         | 18.5         | 415V, 3Ph | 36.5     |

| Size II |                   | Mid Octave Frequency band / Hz |     |     |     |    |    |    |    | Total in Duct |       | Breakout @ 1m |     | Breakout @ 3m |     |
|---------|-------------------|--------------------------------|-----|-----|-----|----|----|----|----|---------------|-------|---------------|-----|---------------|-----|
|         |                   | 63                             | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB            | dB(A) | dB(A)         | NR  | dB(A)         | NR  |
| 100%    | Inlet in duct dB  | 85                             | 98  | 92  | 90  | 91 | 91 | 81 | 90 | 102           | 97    | 75            | >50 | 66            | >50 |
|         | Outlet in duct dB | 90                             | 100 | 100 | 101 | 97 | 99 | 85 | 90 | 107           | 104   |               |     |               |     |
| 90%     | Inlet in duct dB  | 83                             | 93  | 89  | 87  | 88 | 87 | 77 | 84 | 98            | 93    | 72            | >50 | 60            | >50 |
|         | Outlet in duct dB | 88                             | 95  | 97  | 97  | 95 | 94 | 81 | 85 | 103           | 100   |               |     |               |     |
| 80%     | Inlet in duct dB  | 82                             | 90  | 86  | 84  | 85 | 81 | 73 | 78 | 94            | 89    | 69            | >50 | 59            | >50 |
|         | Outlet in duct dB | 86                             | 92  | 94  | 93  | 91 | 88 | 76 | 79 | 100           | 96    |               |     |               |     |
| 70%     | Inlet in duct dB  | 85                             | 87  | 83  | 82  | 83 | 76 | 70 | 76 | 92            | 87    | 65            | >50 | 56            | >50 |
|         | Outlet in duct dB | 88                             | 89  | 90  | 91  | 89 | 83 | 73 | 77 | 98            | 94    |               |     |               |     |
| 60%     | Inlet in duct dB  | 79                             | 81  | 78  | 79  | 78 | 70 | 68 | 67 | 87            | 82    | 61            | >50 | 51            | 50  |
|         | Outlet in duct dB | 82                             | 84  | 86  | 86  | 85 | 75 | 71 | 68 | 93            | 88    |               |     |               |     |
| 50%     | Inlet in duct dB  | 76                             | 80  | 76  | 77  | 74 | 66 | 67 | 60 | 85            | 79    | 58            | >50 | 49            | 50  |
|         | Outlet in duct dB | 78                             | 83  | 83  | 84  | 82 | 70 | 69 | 61 | 90            | 86    |               |     |               |     |

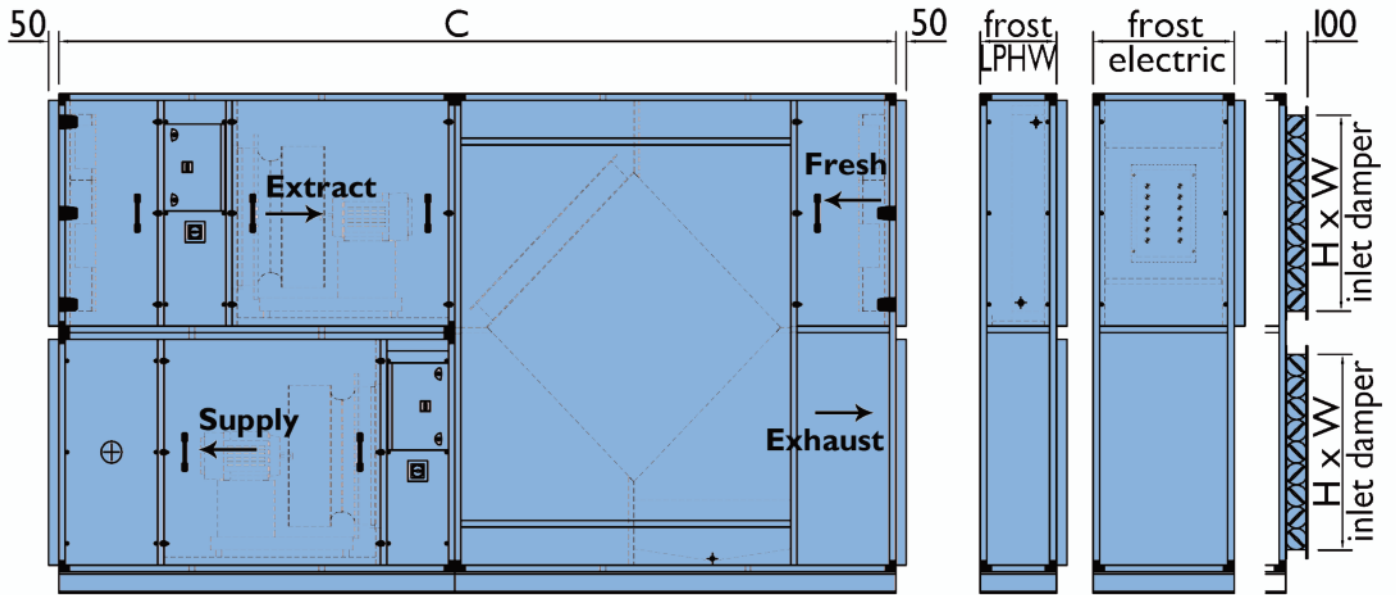
## STP - STR (EHB and LPHW): Stacked

### Dimensions - Plant

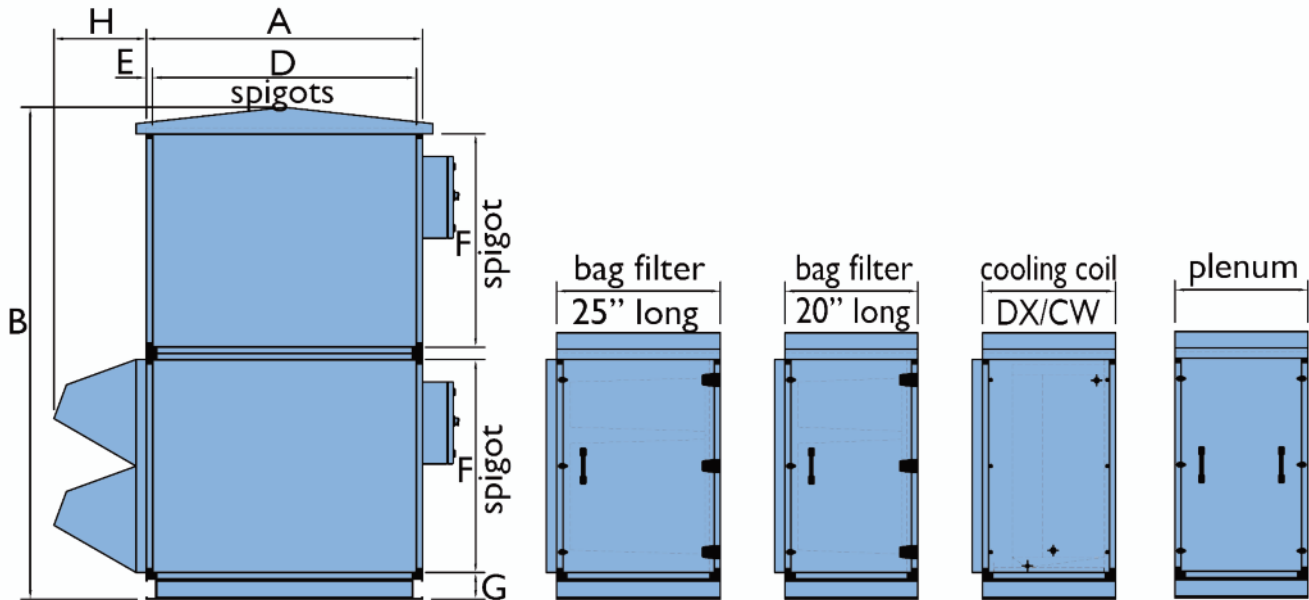


| Model Plant | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Unit Weight kg | Inlet Damper HxW - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |     |     |     |     |     |     |     |
|-------------|--------------|---------------|---------------|---------------|--------|---------------|--------|----------------|------------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|
| STP-HRSTK1  | 800          | 1100          | 2650          | 740           | 30     | 440           | 130    | 408            | 300x600                | 6                | 650               | 127           | 350                 | 91                    | 650                   | 62  | 650 | 100 | 650 | 72  | 800 | 83  |
| STP-HRSTK2  | 800          | 1700          | 2900          | 740           | 30     | 740           | 130    | 713            | 600x600                | 10               | 650               | 144           | 350                 | 107                   | 650                   | 70  | 650 | 127 | 650 | 83  | 800 | 96  |
| STP-HRSTK3  | 1075         | 1700          | 3600          | 1015          | 30     | 740           | 130    | 926            | 600x900                | 16               | 650               | 172           | 350                 | 129                   | 650                   | 84  | 650 | 157 | 650 | 99  | 800 | 113 |
| STP-HRSTK4  | 1350         | 1700          | 3600          | 1290          | 30     | 740           | 130    | 1051           | 600x1200               | 20               | 650               | 199           | 350                 | 152                   | 650                   | 97  | 650 | 188 | 650 | 116 | 800 | 132 |
| STP-HRSTK5  | 1350         | 2300          | 4050          | 1290          | 30     | 1050          | 130    | 1370           | 900x1200               | 30               | 650               | 215           | 350                 | 170                   | 650                   | 105 | 650 | 253 | 650 | 128 | 800 | 146 |
| STP-HRSTK6  | 1400         | 3000          | 4900          | 1340          | 30     | 1390          | 130    | 1944           | 1200x1200              | 40               | 650               | 242           | 350                 | 196                   | 650                   | 118 | 650 | 298 | 650 | 145 | 800 | 166 |
| STP-HRSTK7  | 1675         | 3000          | 4900          | 1615          | 30     | 1390          | 130    | 2127           | 1200x1500              | 50               | 650               | 269           | 350                 | 223                   | 650                   | 131 | 650 | 343 | 650 | 164 | 800 | 186 |
| STP-HRSTK8  | 1950         | 3000          | 4900          | 1890          | 30     | 1390          | 130    | 2360           | 1200x1800              | 60               | 650               | 295           | 350                 | 249                   | 650                   | 144 | 650 | 380 | 650 | 182 | 800 | 207 |
| STP-HRSTK9  | 1950         | 3600          | 6000          | 1850          | 50     | 1650          | 150    | 3036           | 1500x1800              | 76               | 700               | 421           | 400                 | 273                   | 700                   | 158 | 700 | 418 | 700 | 195 | 850 | 211 |
| STP-HRSTK10 | 1950         | 4300          | 6150          | 1850          | 50     | 2000          | 150    | 3447           | 1800x1800              | 90               | 700               | 451           | 400                 | 296                   | 700                   | 169 | 700 | 470 | 700 | 211 | 850 | 239 |
| STP-HRSTK11 | 2550         | 4300          | 6150          | 2450          | 50     | 2000          | 150    | 4004           | 1800x2100              | 106              | 700               | 530           | 400                 | 357                   | 700                   | 199 | 700 | 569 | 700 | 252 | 850 | 284 |

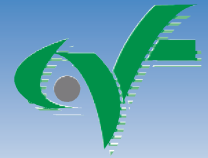
### Dimensions - Plant



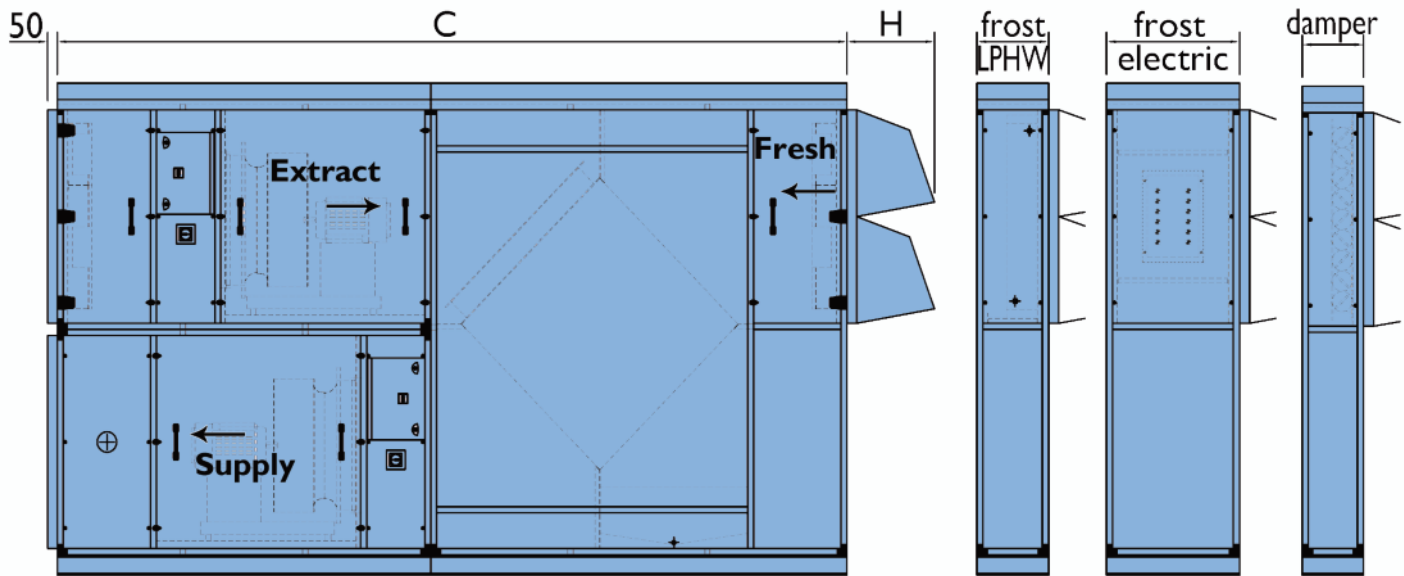
### Dimensions - Roof



| Model Roof  | Width "A" mm | Height "B" mm | Length "C" mm | Spigot "D" mm | "E" mm | Spigot "F" mm | "G" mm | Cowl "H" mm | Unit Weight kg | Inlet Damper mm - kgs | Frost EHB mm-kgs | Frost LPHW mm-kgs | Plenum mm-kgs | Cooling Coil mm-kgs | Bag Filter 20" mm-kgs | Bag Filter 25" mm-kgs |     |     |     |     |     |     |     |
|-------------|--------------|---------------|---------------|---------------|--------|---------------|--------|-------------|----------------|-----------------------|------------------|-------------------|---------------|---------------------|-----------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|
| STR-HRSTK1  | 800          | 1200          | 2650          | 740           | 30     | 440           | 130    | 300         | 490            | 300                   | 90               | 650               | 139           | 350                 | 85                    | 650                   | 68  | 650 | 106 | 650 | 78  | 800 | 91  |
| STR-HRSTK2  | 800          | 1800          | 2900          | 740           | 30     | 740           | 130    | 450         | 728            | 300                   | 106              | 650               | 158           | 350                 | 99                    | 650                   | 77  | 650 | 133 | 650 | 89  | 800 | 103 |
| STR-HRSTK3  | 1075         | 1800          | 3600          | 1015          | 30     | 740           | 130    | 450         | 1001           | 300                   | 134              | 650               | 189           | 350                 | 121                   | 650                   | 92  | 650 | 165 | 650 | 107 | 800 | 123 |
| STR-HRSTK4  | 1350         | 1800          | 3600          | 1290          | 30     | 740           | 130    | 450         | 1147           | 300                   | 151              | 650               | 219           | 350                 | 142                   | 650                   | 107 | 650 | 199 | 650 | 126 | 800 | 145 |
| STR-HRSTK5  | 1350         | 2400          | 4050          | 1290          | 30     | 1050          | 130    | 450         | 1491           | 300                   | 169              | 650               | 238           | 350                 | 160                   | 650                   | 116 | 650 | 246 | 650 | 138 | 800 | 158 |
| STR-HRSTK6  | 1400         | 3100          | 4900          | 1340          | 30     | 1390          | 130    | 450         | 2104           | 300                   | 187              | 650               | 262           | 350                 | 185                   | 650                   | 128 | 650 | 308 | 650 | 156 | 800 | 179 |
| STR-HRSTK7  | 1675         | 3100          | 4900          | 1615          | 30     | 1390          | 130    | 450         | 2317           | 300                   | 212              | 650               | 293           | 350                 | 210                   | 650                   | 143 | 650 | 356 | 650 | 176 | 800 | 202 |
| STR-HRSTK8  | 1950         | 3100          | 4900          | 1890          | 30     | 1390          | 130    | 450         | 2587           | 300                   | 241              | 650               | 326           | 350                 | 233                   | 650                   | 159 | 650 | 400 | 650 | 197 | 800 | 225 |
| STR-HRSTK9  | 1950         | 3750          | 6000          | 1850          | 50     | 1650          | 150    | 450         | 3334           | 350                   | 239              | 700               | 474           | 400                 | 256                   | 700                   | 174 | 700 | 434 | 700 | 211 | 850 | 240 |
| STR-HRSTK10 | 1950         | 4450          | 6150          | 1850          | 50     | 2000          | 150    | 450         | 3744           | 350                   | 260              | 700               | 503           | 400                 | 280                   | 700                   | 184 | 700 | 486 | 700 | 227 | 850 | 259 |
| STR-HRSTK11 | 2550         | 4450          | 6150          | 2450          | 50     | 2000          | 150    | 450         | 4397           | 350                   | 318              | 700               | 567           | 400                 | 340                   | 700                   | 219 | 700 | 589 | 700 | 273 | 850 | 309 |

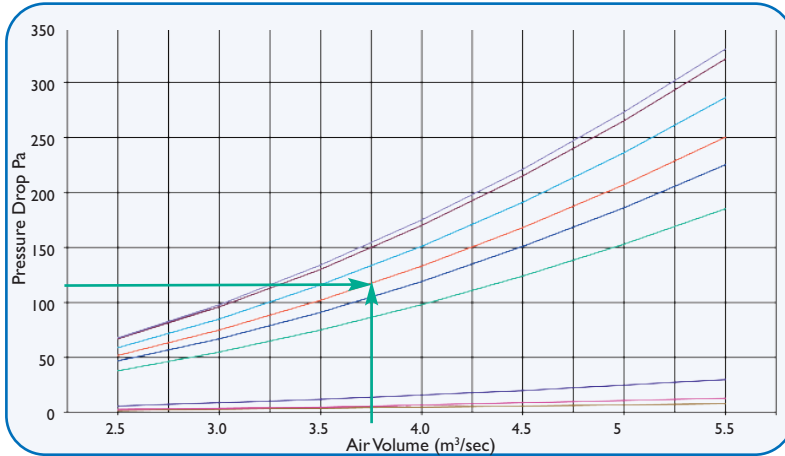


### Dimensions - Roof



## Ancillaries

### Ancillary Selection Example

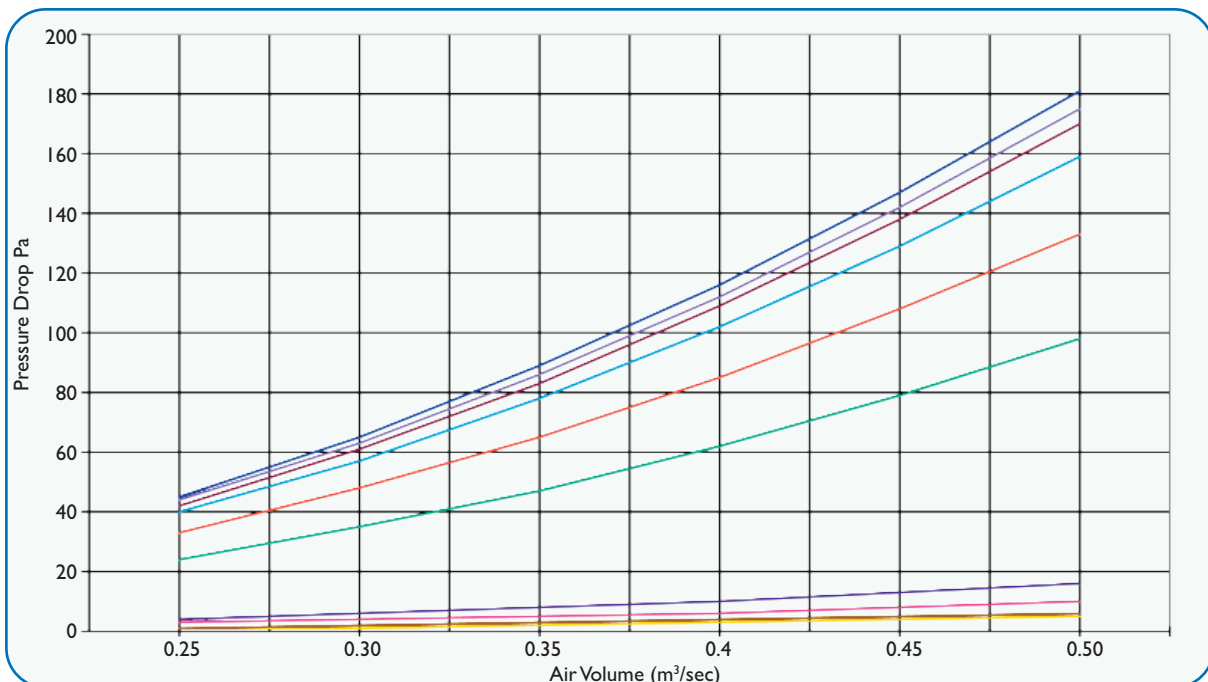


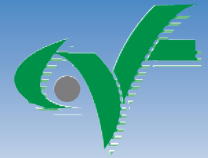
#### Ancillary Selection

- F6 20" bag filter to be added
- add 120 Pa to External Static
- reselect on unit curve

|  |   |
|--|---|
| <p><b>Damper - Plantroom</b></p> <p><b>Damper - Rooftop</b></p> <p><b>Frost - EHB</b></p> <p><b>Frost - LPHW</b></p> <p><b>Cooling Coil - CW</b></p> | <p><b>Cooling Coil - DX</b></p> <p><b>F620"</b></p> <p><b>F625"</b></p> <p><b>F820"</b></p> <p><b>F825"</b></p> |
|--|---|

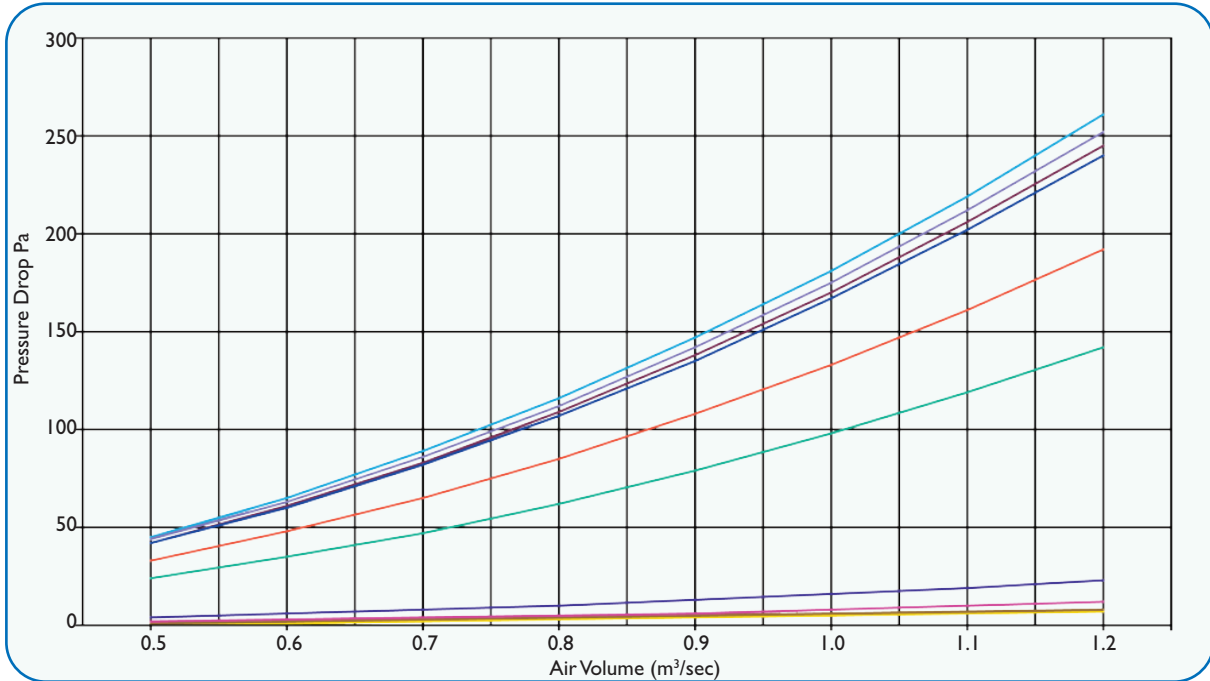
### Size I





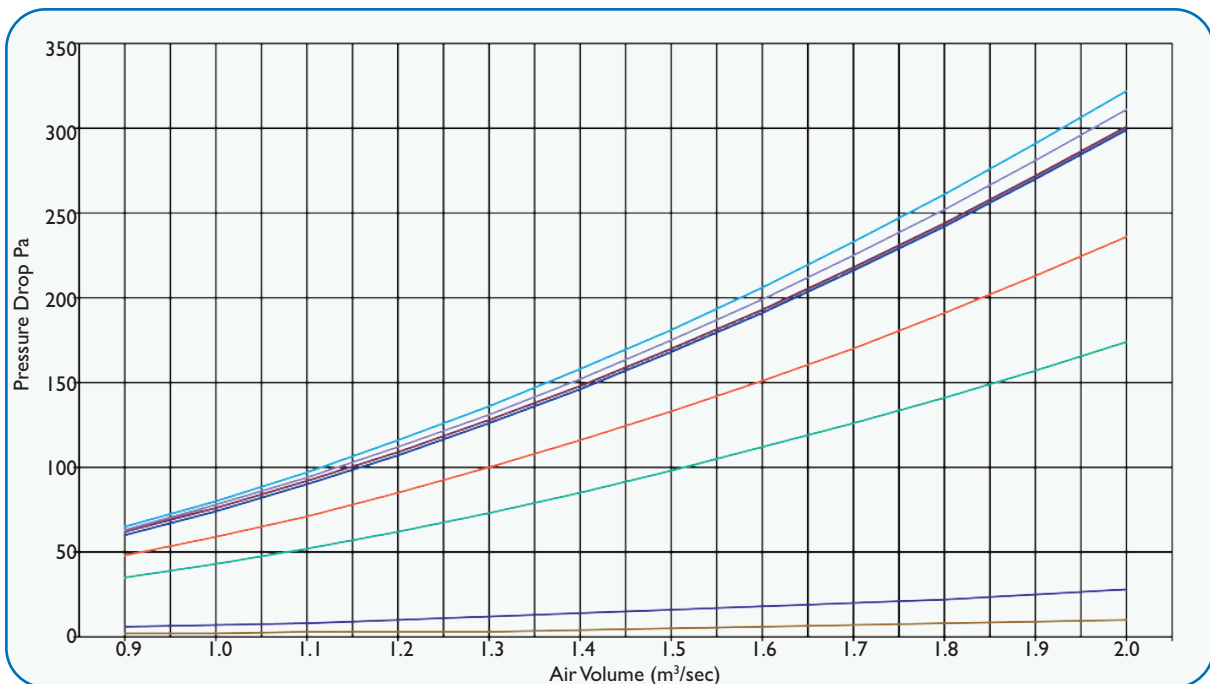
## Ancillaries

### Size 2



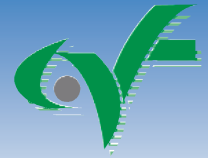
|                           |                          |
|---------------------------|--------------------------|
| <b>Damper - Plantroom</b> | <b>Cooling Coil - DX</b> |
| <b>Damper - Rooftop</b>   | <b>F620"</b>             |
| <b>Frost - EHB</b>        | <b>F625"</b>             |
| <b>Frost - LPHW</b>       | <b>F820"</b>             |
| <b>Cooling Coil - CW</b>  | <b>F825"</b>             |

### Size 3



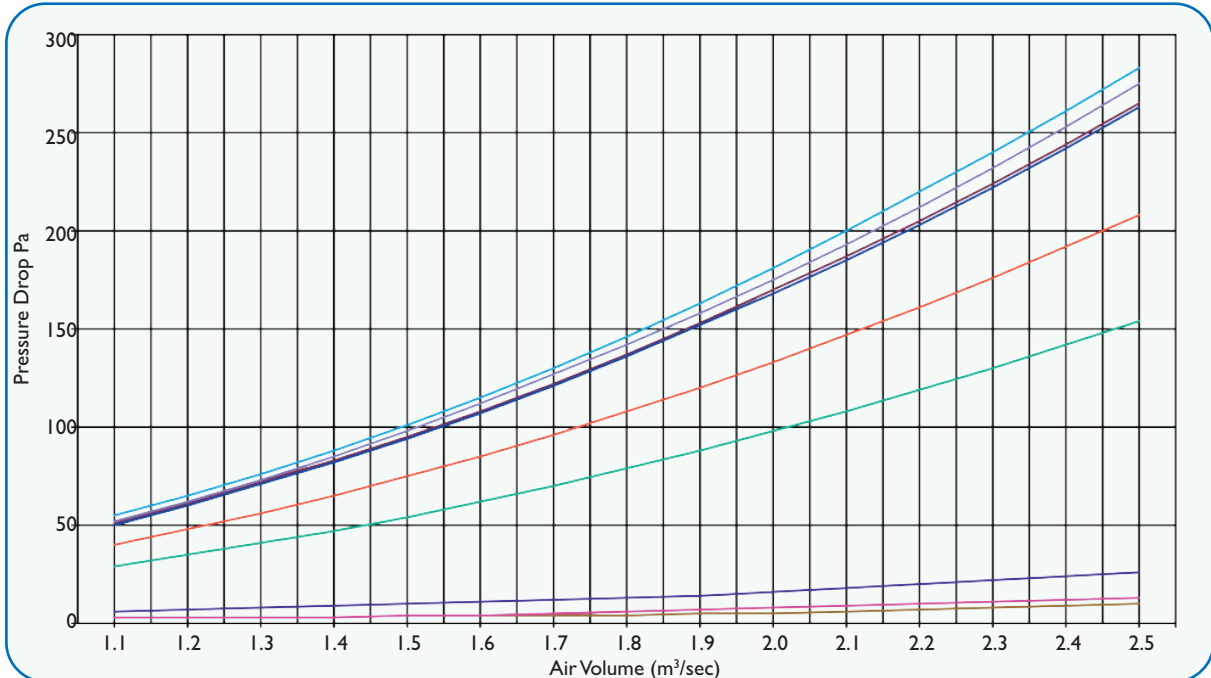


# STP-STR - Direct Drive



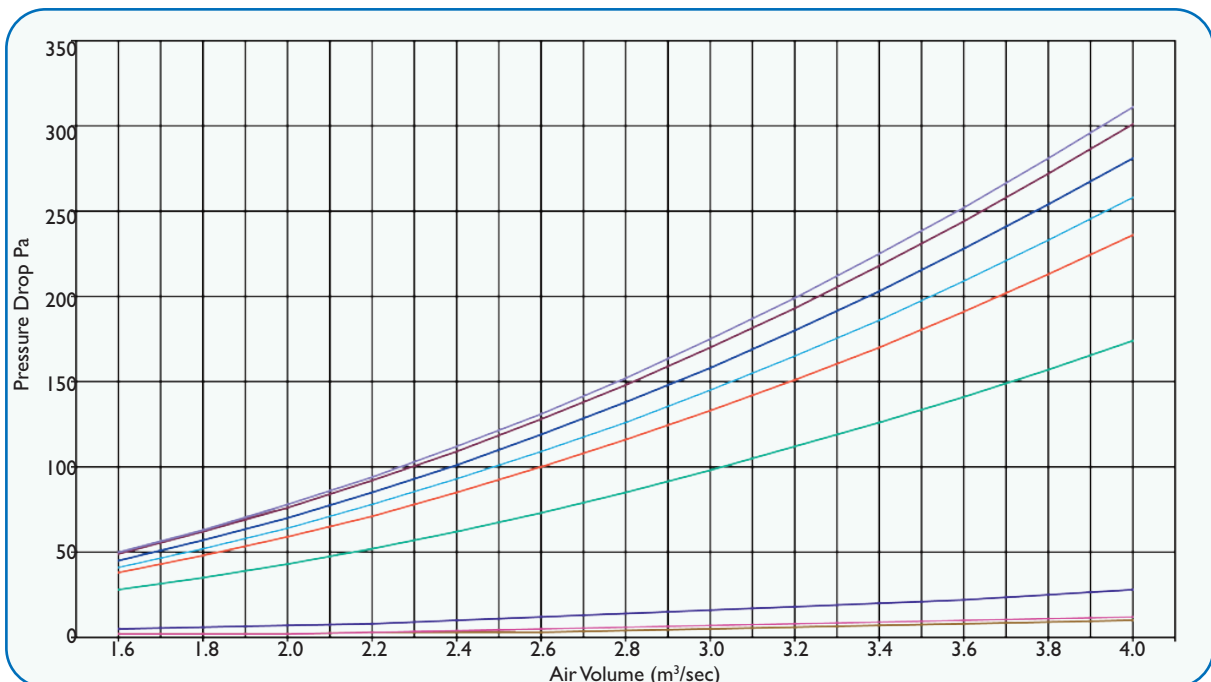
## Ancillaries

### Size 4



|                           |                          |
|---------------------------|--------------------------|
| <b>Damper - Plantroom</b> | <b>Cooling Coil - DX</b> |
| <b>Damper - Rooftop</b>   | <b>F620"</b>             |
| <b>Frost - EHB</b>        | <b>F625"</b>             |
| <b>Frost - LPHW</b>       | <b>F820"</b>             |
| <b>Cooling Coil - CW</b>  | <b>F825"</b>             |

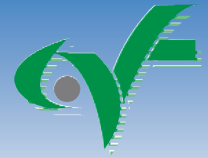
### Size 5





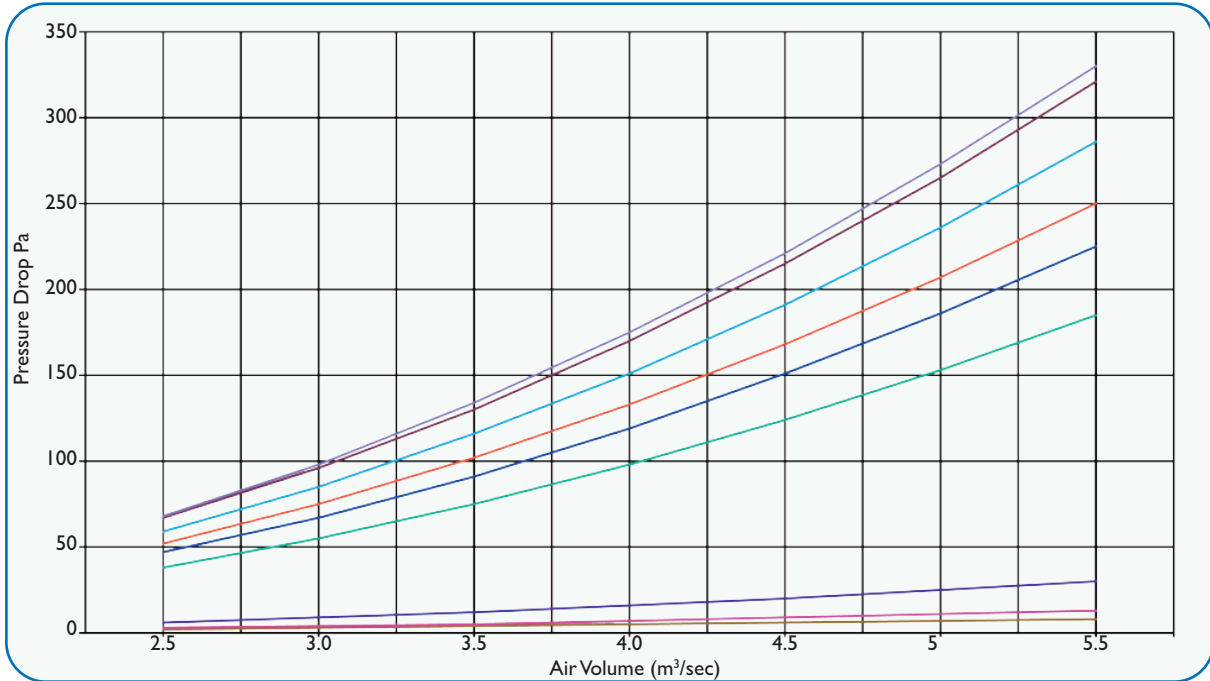


# STP-STR - Direct Drive



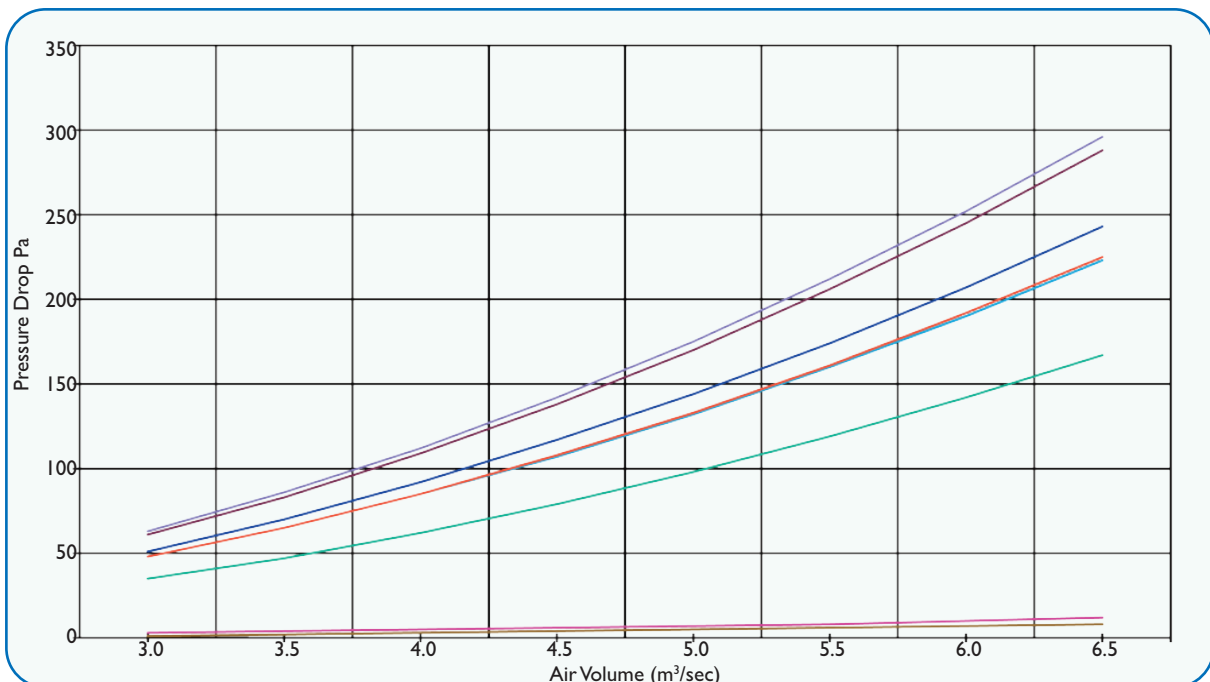
## Ancillaries

### Size 6



|                           |                          |
|---------------------------|--------------------------|
| <b>Damper - Plantroom</b> | <b>Cooling Coil - DX</b> |
| <b>Damper - Rooftop</b>   | <b>F620"</b>             |
| <b>Frost - EHB</b>        | <b>F625"</b>             |
| <b>Frost - LPHW</b>       | <b>F820"</b>             |
| <b>Cooling Coil - CW</b>  | <b>F825"</b>             |

### Size 7



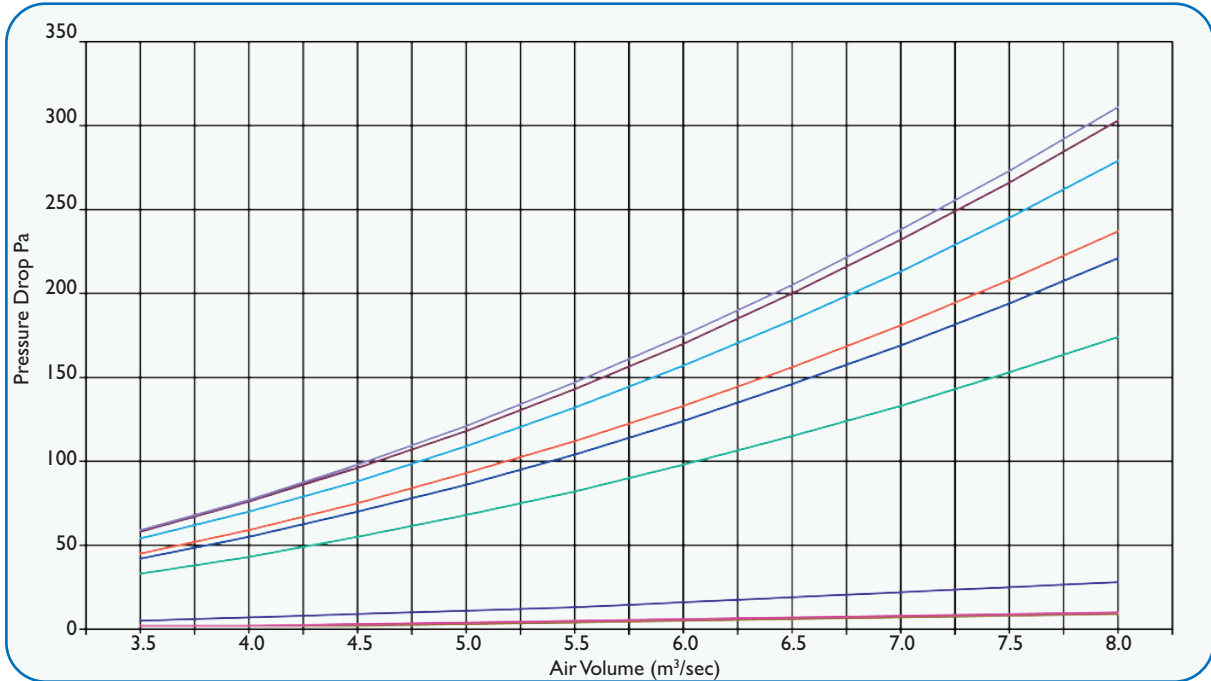


# STP-STR - Direct Drive



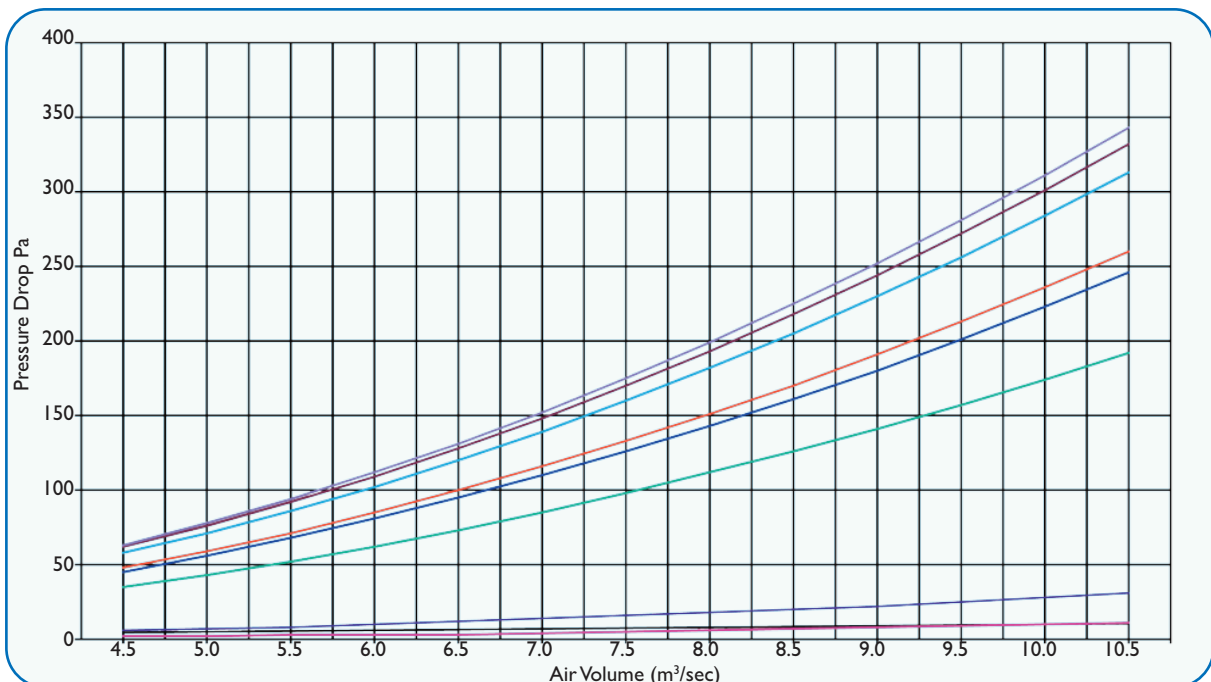
## Ancillaries

### Size 8



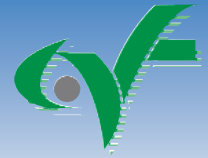
|                           |                          |
|---------------------------|--------------------------|
| <b>Damper - Plantroom</b> | <b>Cooling Coil - DX</b> |
| <b>Damper - Rooftop</b>   | <b>F620"</b>             |
| <b>Frost - EHB</b>        | <b>F625"</b>             |
| <b>Frost - LPHW</b>       | <b>F820"</b>             |
| <b>Cooling Coil - CW</b>  | <b>F825"</b>             |

### Size 9



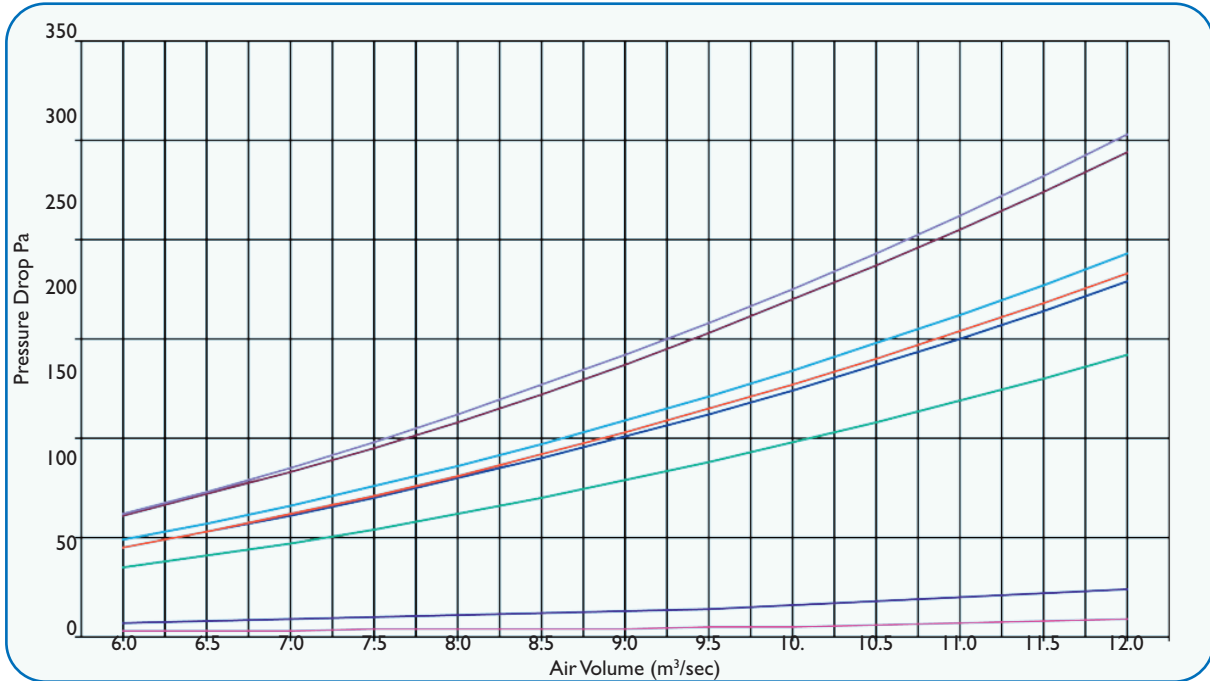


# STP-STR - Direct Drive



## Ancillaries

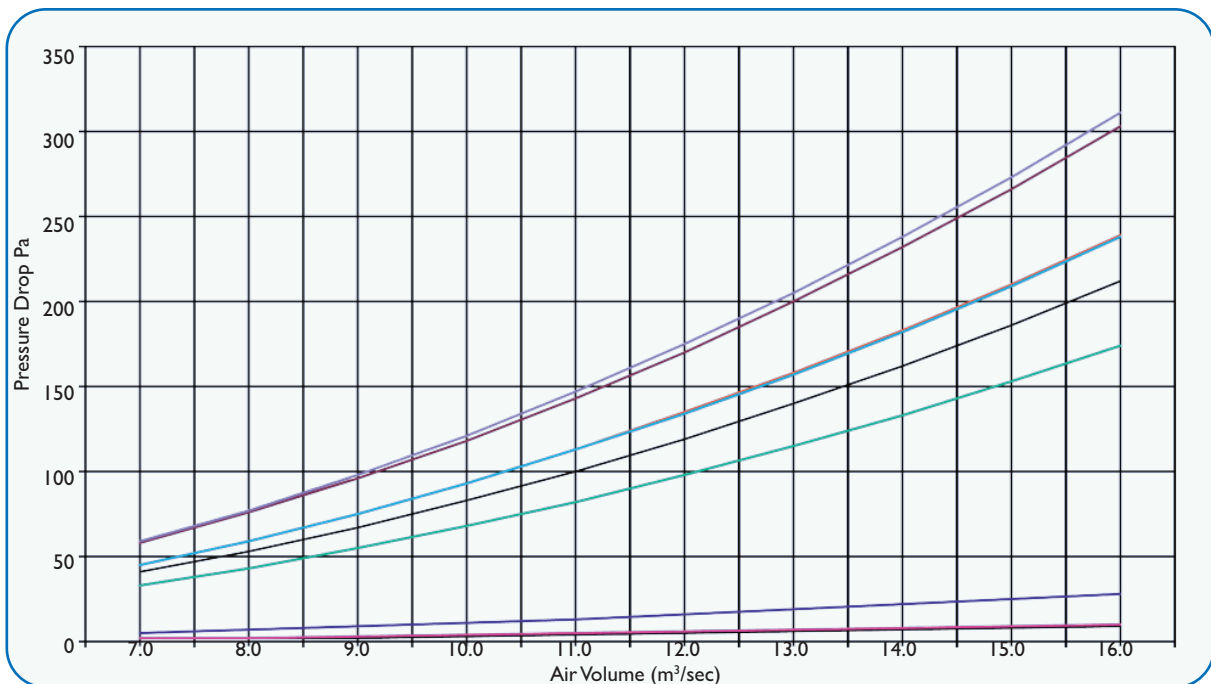
### Size 10



**Damper - Plantroom**  
**Damper - Rooftop**  
**Frost - EHB**  
**Frost - LPHW**  
**Cooling Coil - CW**

**Cooling Coil - DX**  
**F620"**  
**F625"**  
**F820"**  
**F825"**

### Size 11



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