DATA SHEET

# SSS-ECF Series

Harmonic filters for EC fans | 460 - 480 V 3-phase 60 Hz | 8 - 48 A

Rev E
2026-11-10

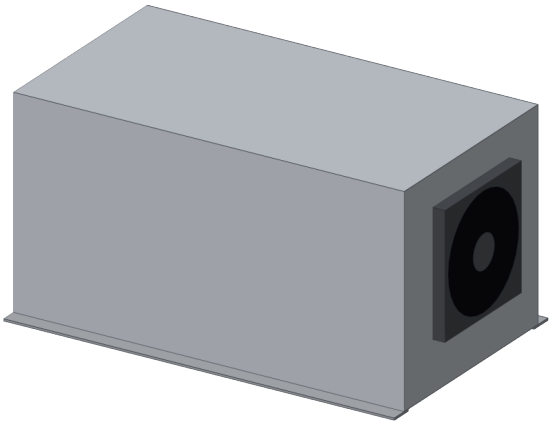
Passive harmonic filters matched to groups of electronically commutated (EC) fans. EC fans carry a rectifier and inverter inside the motor and draw distorted current from the supply; one SSS-ECF filter is connected at the group's common supply. Each model is listed by the manufacturer for a set of 3 to 10 fans (catalogue THDi ≤ 5 %); every selection is subject to confirmation at the fan group's operating current.

## ELECTRICAL

| | |
|---|---|
| Filter type | **3-phase passive harmonic filter, series connected at the supply to a group of EC fans** |
| Rated voltage | **460 - 480 V, 60 Hz** |
| Rated current | **8 - 48 A (per model); the fan group's operating current must not exceed it** |
| Load | **Catalogue fan sets of 3 to 10 Cubic Fans EC fans in parallel, CF-B630-3T-19A (1.9 kW) or CF-B560-3T-46A (4.6 kW) nominal input at 0 Pa; subject to the duty-point current check** |
| THDi | **≤ 5 %: the manufacturer's catalogue figure for the listed fan set. Test conditions not stated; applicability at a proposed duty is confirmed with the selection** |
| Circuit | **In-out reactor with a trap circuit (trap reactor and power capacitors)** |
| Over-temperature protection | **140 °C switch, contacts on TA - TB** |
| Standards cited by the manufacturer | **IEEE 519, IEC 61000-3-2/3-12, GB/T 14549** |

## CONSTRUCTION

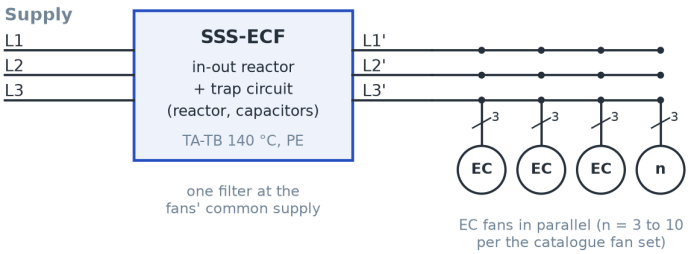
| | |
|---|---|
| Cooling | **Frames 2 - 6: built-in fan shown in the outlines; thermostat switched per the catalogue wiring (models not stated). Frame 1: no fan shown** |
| Mounting | **Two base rails; open-ended 9 mm slot and round hole at each rail end; horizontal as drawn** |
| Power loss, IP, ambient, listing, SCCR | **Not stated by the manufacturer; confirmed with the selection** |



Frame 4 shown, representative.

## CONNECTIONS

| | |
|---|---|
| Line input | **L1, L2, L3** |
| Load output (to EC fans) | **L1', L2', L3'** |
| Temperature switch | **TA - TB** |
| Protective earth | **PE** |




one filter at the fans' common supply

EC fans in parallel (n = 3 to 10 per the catalogue fan set)

Connection: one filter ahead of the fan group.

## SELECTION

| Model | Rated current | Catalogue fan set (Cubic Fans) | Fan nominal input (0 Pa) | Frame | Weight kg [lb] |
|---|---|---|---|---|---|
| **460 - 480 V, 60 Hz (all models)** | | | | | |
| **SSS-ECF480-008** | 8 A | 3 x CF-B630-3T-19A | 3 x 1.9 kW | 1 | 35 [77] |
| **SSS-ECF480-013** | 13 A | 5 x CF-B630-3T-19A | 5 x 1.9 kW | 2 | 45 [99] |
| **SSS-ECF480-019** | 18.2 A | 7 x CF-B630-3T-19A | 7 x 1.9 kW | 3 | 48 [106] |
| **SSS-ECF480-031** | 31 A | 10 x CF-B630-3T-19A | 10 x 1.9 kW | 4 | 69 [152] |
| **SSS-ECF480-030** | 30 A | 5 x CF-B560-3T-46A | 5 x 4.6 kW | 5 | 48 [106] |
| **SSS-ECF480-048** | 48 A | 8 x CF-B560-3T-46A | 8 x 4.6 kW | 6 | 138 [304] |

Catalogue fan set: the manufacturer lists each model for the fan set shown; fan power = nominal input power of those fans. Every selection is subject to confirmation: the fan group's operating current at the duty point must not exceed the model's rated current. Fan current varies with duty and tolerance (fan maker's data: CF-B630-3T-19A rated 460 - 480 V; nominal at 0 Pa (voltage not stated) 2.6 A and 1900 W, each ±10 %; 3.7 A at its maximum-current point (480 V, for reference); CF-B560-3T-46A nominal at 0 Pa at 460 - 480 V: 6.0 A and 4600 W, each ±10 %; 8.1 A and 5754 W at its maximum-current point (480 V, for reference)). The listed sets are rated at the fans' 0 Pa nominal current; at the fans' maximum-current point every listed set exceeds the rated current, so the duty-point check governs. Send us the fan duty for a confirmed selection.

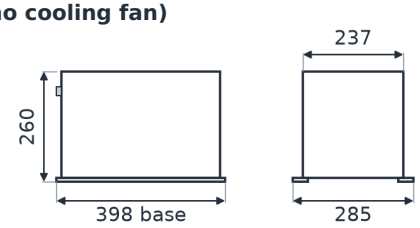
## DIMENSIONS - mm [in]

| Frame | Length overall | Base length | Width over base | Body width | Height | Mounting centres L x W | Cooling fan |
|---|---|---|---|---|---|---|---|
| **1** | - | 398 [15.67] | 285 [11.22] | 237 [9.33] | 260 [10.24] | 373 x 260 [14.69 x 10.24] slots | None shown |
| **2** | 565 [22.24] | 547 [21.54] | 320 [12.60] | 272 [10.71] | 280 [11.02] | 483 x 295 [19.02 x 11.61] holes | Built in |
| **3** | 544 [21.42] | 526 [20.71] | 320 [12.60] | 272 [10.71] | 280 [11.02] | 502 x 295 [19.76 x 11.61] slots | Built in |
| **4** | 605 [23.82] | 587 [23.11] | 370 [14.57] | 322 [12.68] | 310 [12.20] | 563 x 345 [22.17 x 13.58] slots | Built in |
| **5** | 620 [24.41] | 602 [23.70] | 370 [14.57] | 322 [12.68] | 310 [12.20] | 538 x 345 [21.18 x 13.58] holes | Built in |
| **6** | 700 [27.56] | - | 450 [17.72] | 402 [15.83] | 375 [14.76] | 658 x 425 [25.91 x 16.73] slots | Built in |

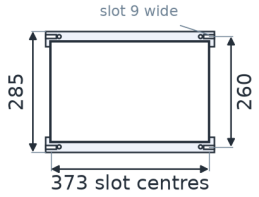
Length overall includes the cable gland and, on frames 2 - 6, the fan. Frame 1: 398 mm is the base length; its length over the cable gland is not stated. Frame 6 base length not stated. Mounting centres are between the open-ended slots (9 mm wide) or, on frames 2 and 5, between the round holes, as marked.

## OUTLINES - mm

### Frame 1 (no cooling fan)

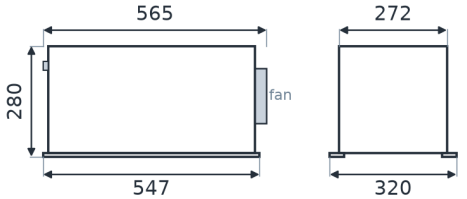



SIDE (gland not dimensioned) | END (cable end)

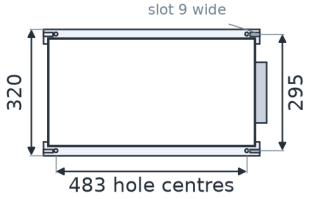



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### Frame 2

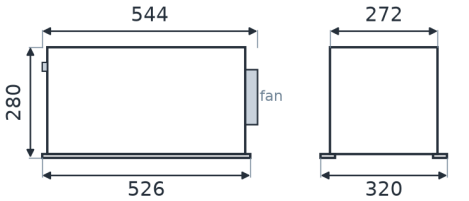



SIDE | END (cable end)

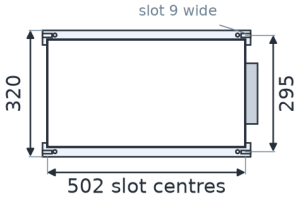



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### Frame 3

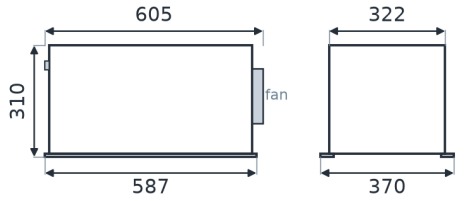



SIDE | END (cable end)

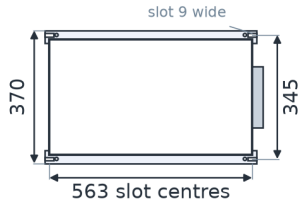



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### Frame 4

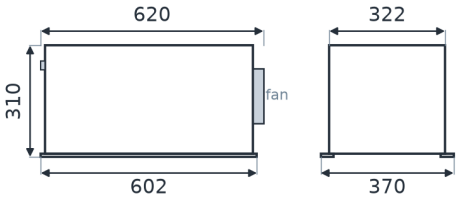



SIDE | END (cable end)

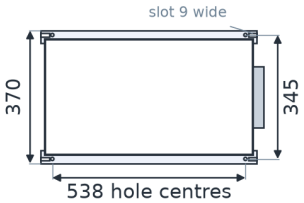



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### Frame 5

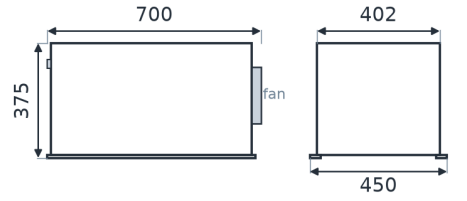



SIDE | END (cable end)

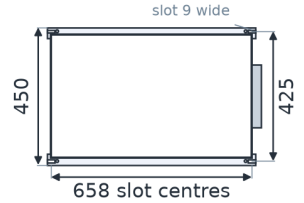



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### Frame 6




SIDE | END (cable end)




PLAN

Outline views; only the dimensions shown are stated. Body, fan, cable-gland and rail-feature shapes are indicative.