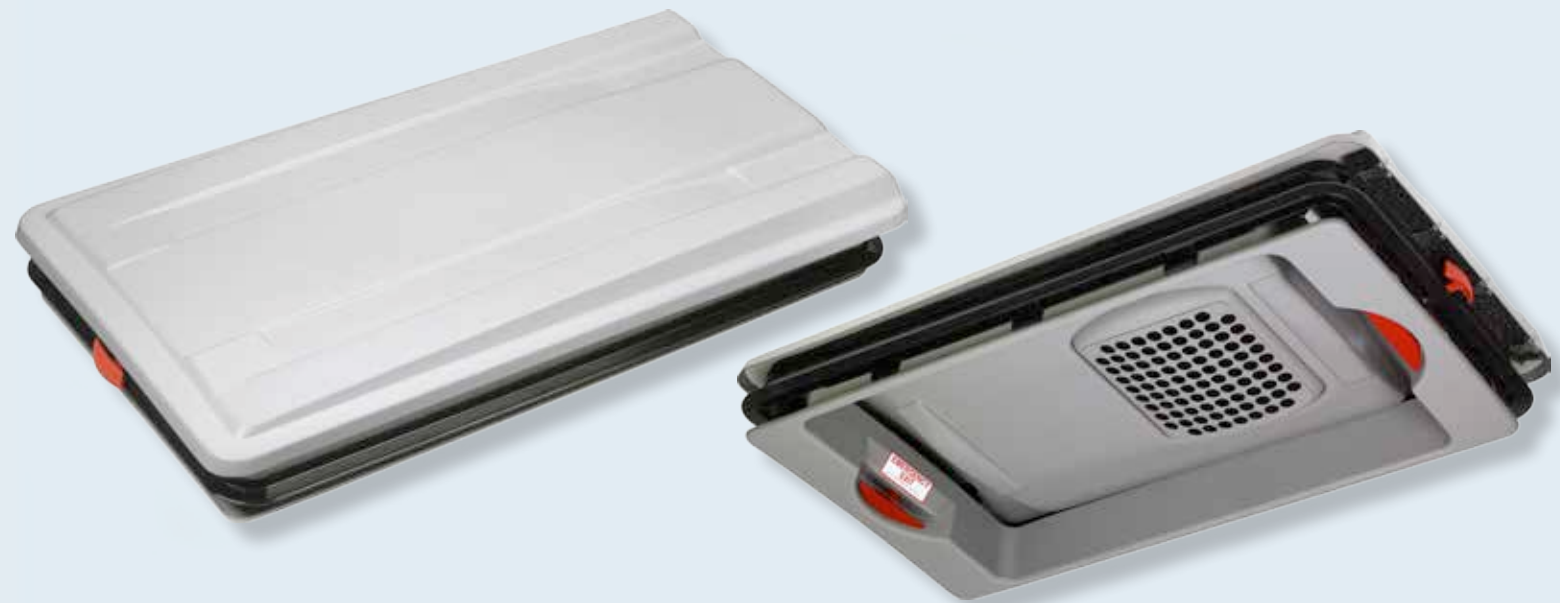




SPHEROS

Roof Hatch, manual and electrical emergency exit hatches

## ▶ Modus Cool and Modus Cool Comfort



Hatches / Fans

### Manual and electrical hatches with integrated ventilation to the Modus family

MODUS Comfort Cool is the ultimate solution for warm climate environments. The hatch can either be operated manually or electrically. An integrated electric fan is the optimal companion also in buses with A/C systems. Integration with Multiplex in terms of ventilation and hatch operation offers a perfect climatization solution. Electrically operated hatches are perfect for low-floor buses and gives additional control and comfort.

## ► Modus Cool and Modus Cool Comfort

An integrated roof hatch with ventilator unit saves time in terms of part numbers and assembly time. Modus Cool is like striking not two, but three flies in one go: an emergency exit, a ventilation hatch, and an electric ventilator hatch to make travelling in a bus even more comfortable - regardless of the speed and outside weather conditions.

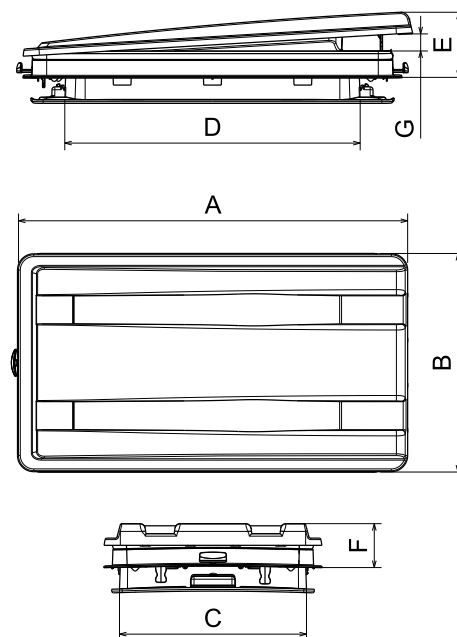
The air volume inside a normal bus is about 75 m<sup>3</sup>. With an air flow of 200 m<sup>3</sup>/h /hatch this means that the air in a bus with two hatches has been completely exchanged in barely 10 minutes meeting the German VDV 236 regulation (conditions vary depending on level of fresh-air intake). This ventilation capacity gives a great boost to the A/C unit, when switched on. If the bus is hot inside, using the A/C and the hatch ventilators at the same time will speed up the cooling process.

An injection molded frame is the heart and soul of the Modus family hatches. Quick and precise fitting by bonding ensures a life time water proof functionality. This UN ECE approved emergency hatch is light in weight with a total mass of only 10,5 kg (manual) and 11.9 kg (electrical).

Thanks to the dual wall structure dome the unit shows excellent heat and cold isolation. The dome top in white dual layer gives an excellent UV protection.

### Highlights:

- Cut-off size 530 x 970
- Ceiling R > 3000
- Ceiling T = 40 – 86 mm
- Available in manual or electrical version
- Ventilator fan 12V or 24V
- Maximum exhaust ventilation capacity >200m<sup>3</sup>/h
- Mass basic hatch: 9.3 kg (manual)
- Mass basic hatch: 10.7 kg (electric version)
- Mass inner trim: 1.2 kg
- 12V or 24V hatch operating voltage
- UN ECE R.107 Emergency Exit
- UN ECE R.118 Flammability
- UN ECE R.10 EMC (electrical)
- Digital control (electric version)
- Integrated fuse
- Fast mounting by bonding
- Maintenance free
- Light weight
- Durable
- Heat, cold insulation, dual shell dome



		A	B	C	D	E	F	G
Technical specifications:	Dimensions of Roof opening (mm)	Length of dome	Width of dome	Inner width	Inner length	Height (open)	Height (closed)	Opening
Modus Cool - Cool Comfort	530 x 970	1080	600	510	810	170	115	55