DESTRATIFICATORS

Series DRF-OV



Series **DRFI-OV**



One of the most efficient energy saving techniques. The destratificator is designed to prevent warm air accumulation in the building upper area and to direct warm air to the occupied area.

Applications

The destratificators are used in industrial workshops, stocks, supermarkets, exhibition and concert halls, closed sport halls, etc.

The destratificators are recommended for use in large premises above 5 m height where warmer air due to natural air convection is accumulated closer to ceiling whereas air temperature in the occupied area (2 m above floor level) remains lower.

Description

Warm air is accumulated above in the heated high premises.

Air temperature rises per 1 °C for each meter upwards, which results in heat losses through the roof.

The destratificators direct warm air accumulated under the ceiling to the occupied area. The temperature difference between a floor and a ceiling is minimized. The destratificators are designed to reduce heat losses and heating costs.

Design

The destratificator consists of an axial fan that is attached to the casing with anti-vibration mounts.

The DRF-OV and DRFI-OV destratificator casing is

The DRF-OV and DRFI-OV destratificator casing is made of polymer-coated steel.

The DRFI-OV casing is perforated and has mineral wool insulation to attenuate sound produced by the axial fan. The directing vanes are located at outlet from the DRFI-OV to provide a long linear air flow.



DRF-OV application example at a stock.



The destratificator is mounted with an arched fixing bracket with position fixation pitch each 15° and a thread-connected mounting and a safety ropes, each 3 m long.

Motor

The destratificator is equipped with a single phase asynchronous external rotor motor and an axial impeller. The motors have built-in overheating protection with automatic restart. The motors are equipped with ball bearing. Ingress Protection Rating IP 44.

Speed control

Step or smooth speed control with a thyristor or autotransformer speed controller.

One speed controller is able to control several destratificators on condition that the total power and operating current do not exceed the controller rated parameters.

■ Mounting

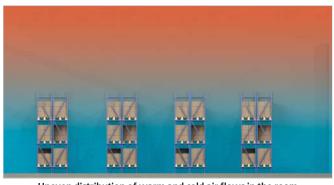
The destratificator is for indoor installation in weatherprotected premises. The destratificators are designed for mounting under a ceiling with a directing nozzle downwards.

The destratificator must be either rigidly fixed to a bearing structure or for suspended with a mounting kit supplied with the delivery.

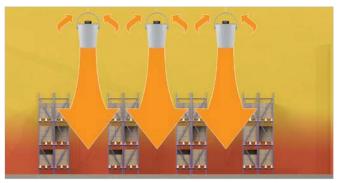
The destratificator is connected to power mains via an external terminal box. Electric connections and installations must comply with the product manual and a wiring diagram on the terminal block.

Selection

The destratificator selection is based on the assumption that the destratificator operation distance correlates to the premise height as 1:1.25. Number of the destratificators to be installed in the premise is selected on the assumption that the total air capacity is 1 to 2 premise volume.



Uneven distribution of warm and cold air flows in the room without destratificators.



Even distribution of warm and cold air flows in the room with destratificators.

Technical data:

	DRF-OV 250 DRFI-OV 250	DRF-OV 300 DRFI-OV 300	DRF-OV 350 DRFI-OV 350
Voltage [V / 50 Hz]	1~ 230	1~ 230	1~ 230
Power [W]	50	75	140
Current [A]	0.22	0.35	0.65
Max. air capacity [m³/h]	800	1340	2500
RPM [min ⁻¹]	1380	1350	1380
Range of air stream [m]	8	9	10
Effective range [m]	6-9	8-11	10-13
Influence area [m²]	28-64	50-95	78-133
Noise level at 3m [dBA]	53 / 46*	56 / 49*	60 / 53*
Max. transported air temperature [°C]	60	60	60
Protection rating	IP X4	IP X4	IP X4

^{*} parameter for DRFI

Overall dimensions:

Model	Dimensions [mm]					Weight	
Model	Α	Н	H1	ØD	ØD1	ØD2	[kg]
DRF-OV 250	390	524	386	341	260	9.1	6.0
DRV-OV 300	442	620	456	392	316	9.1	7.2
DRF-OV 350	490	705	516	442	360	9.1	9.7
DRFI-OV 250	456	626	468	384	302	9.1	11.0
DRFI-OV 300	506	701	518	434	352	9.1	14.5
DRFI-OV 350	556	776	569	484	402	9.1	17.0

