

KOOLAIR

series

KCD-2W-IR

Square diffuser with two discharge directions for supply and return air

ISO 9001

BUREAU VERITAS
Certification

Sistema de Gestión



www.koolair.com

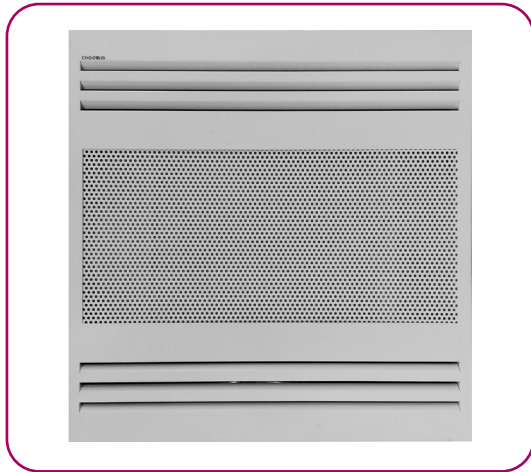


Square diffuser with two discharge directions for supply and return air KCD-2W-I/R

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KCD-2W-I/R - Square diffuser with two discharge directions for supply and return air



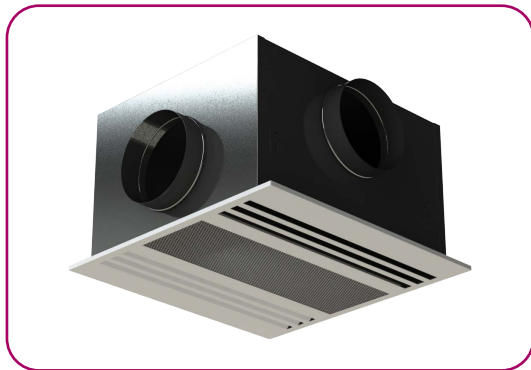
Product description

Square diffuser with supply and return branch connections integrated in the same unit. Air discharge in two directions. Designed for constant-volume or variable-volume installations, Koolair model **KCD-2W-I/R**, **_x_** – 2 or 3-slot, for supply and return air.

Perforated sheet metal central core. Product equipped with two independent plenums for supply and return made of galvanised steel sheet, complete with regulating damper on branch connection. Filter holder integrated on return.

Made from extruded aluminium profiles.

Recommended installation height is between 2.5 and 4m. Painted finish in RAL colour of choice. Option for return filter with filtration efficiency **-G2**, **-G3** or **-G4**.



Other models

KCD-2W-I/R PF. Square diffuser with two discharge directions for supply and return air with folding central core and filter holder frame.

KCD-2W-I/R LxH. Square diffuser with two discharge directions for supply and return air with dimensions LxH.



Mounting

-PFL(R)/PFL. Lateral plenum branch connection on return and lateral branch on supply.

-PFL(R)/PFS. Lateral plenum branch connection on return and top branch connection on supply.

Accessories

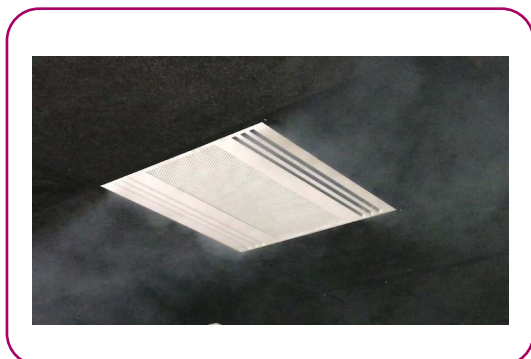
-A. Insulated plenum box.

-RE. Plenum with regulating damper accessible from false ceiling.

-G2. Filtration efficiency G2

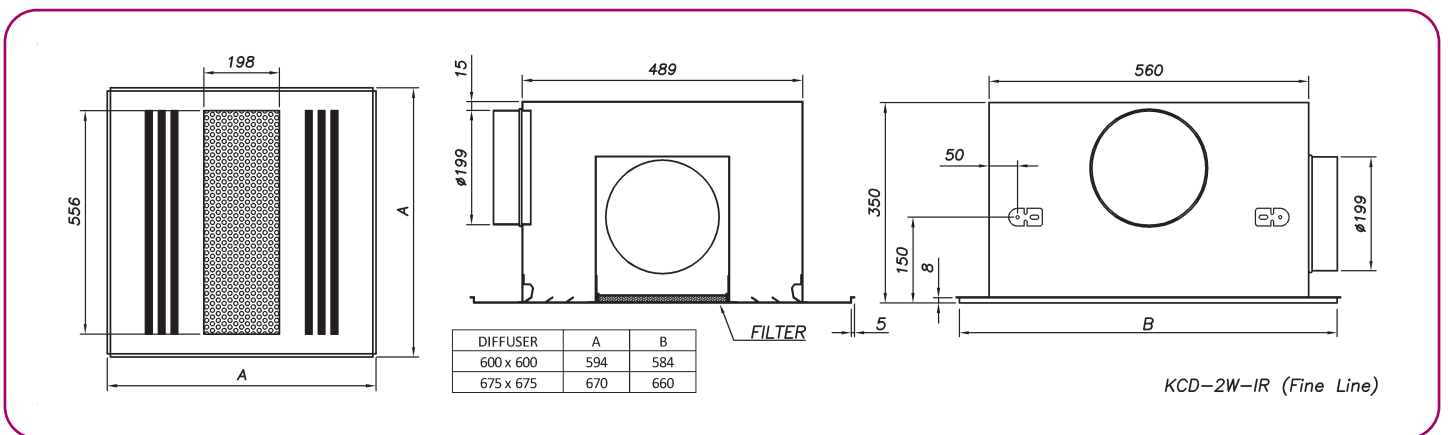
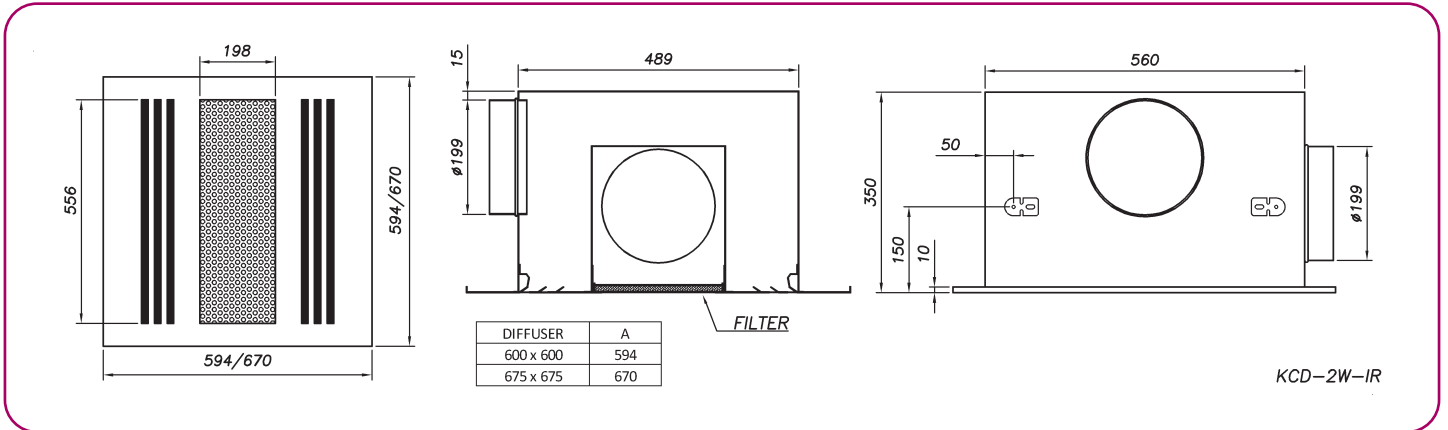
-G3. Filtration efficiency G3

-G4. Filtration efficiency G4



Dimensions

Option for PFL(R)/PFL plenum configuration.



Possibility of manufacturing diffuser plate to fit to a false ceiling tile with a specific design and plenum to fit the accessibility of the false ceiling.

Selection table

Q		A _k [m ²]	Slots			
			2		3	
[m ³ /h]	[l/s]		Supply	Return	Supply	Return
			0,0212	0,0500	0,0318	0,0500
220	61,1	V _k [m/s]	2,9	1,2		
		X [m]	2,9	-		
		ΔP [Pa]	5	7		
		LwA [dB(A)]	24	<20		
290	80,6	V _k [m/s]	3,8	1,6	2,5	1,6
		X [m]	3,8	-	3,1	-
		ΔP [Pa]	9	12	4	12
		LwA [dB(A)]	31	<20	24	<20
350	97,2	V _k [m/s]	4,6	1,9	3,1	1,9
		X [m]	4,6	-	3,8	-
		ΔP [Pa]	12	17	6	17
		LwA [dB(A)]	36	22	29	22
400	111,1	V _k [m/s]	5,2	2,2	3,5	2,2
		X [m]	5,3	-	4,3	-
		ΔP [Pa]	16	22	7	22
		LwA [dB(A)]	40	25	32	25
450	125,0	V _k [m/s]	5,9	2,5	3,9	2,5
		X [m]	5,9	-	4,9	-
		ΔP [Pa]	21	28	9	28
		LwA [dB(A)]	43	28	36	28
500	138,9	V _k [m/s]	6,6	2,8	4,4	2,8
		X [m]	6,6	-	5,4	-
		ΔP [Pa]	25	34	11	34
		LwA [dB(A)]	46	31	39	31
550	152,8	V _k [m/s]	7,2	3,1	4,8	3,1
		X [m]	7,3	-	5,9	-
		ΔP [Pa]	31	41	14	41
		LwA [dB(A)]	49	33	41	33
600	166,7	V _k [m/s]			5,2	3,3
		X [m]			6,5	-
		ΔP [Pa]			16	49
		LwA [dB(A)]			44	35
650	180,6	V _k [m/s]			5,7	3,6
		X [m]			7,0	-
		ΔP [Pa]			19	58
		LwA [dB(A)]			46	37
700	194,4	V _k [m/s]			6,1	3,9
		X [m]			7,6	-
		ΔP [Pa]			22	67
		LwA [dB(A)]			48	39

LEGEND

Q (m³/h): Air flow
 A_k (m²): Effective area
 V_k (m/s): Effective velocity
 L_{wA} [dB(A)]: Sound power level
 ΔP (Pa): Total pressure loss
 X (m): Throw for a maximum velocity of 0.25 m/s at the occupied zone, isothermal conditions, installed at a height of 3m.

Data measured for return is with diffuser with filter of efficiency G3.

Data for diffuser sizes of 600 x 600 and 675 x 675.

For other flow capacities, i.e. another number of ways, consult the Technical Department.

Product code

Model

KCD-2W-IR

Square diffuser with supply and return

Slots

2 or 3

number of slots

Type of plate

Standard plate

Fine Line plate

Filter

-

without filter

G2

filtration efficiency G2

G3

filtration efficiency G3

G4

filtration efficiency G4

Components

PFL/PFL

lateral plenum branch connection on return and lateral branch on supply

PFL/PFS

lateral plenum branch connection on return and top branch connection on supply

Accessories

-

without regulating damper

RE

with regulating damper accessible from false ceiling

A

insulated plenum box

Treatment

RAL ...

finished in RAL to be defined

Size

600x600

plate of 600 x 600 mm

675x675

plate of 675 x 675 mm

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