

APPLICATION

IRAB N / IRAT N series fans are used in a wide variety of mechanical ventilation systems, mainly in industrial buildings such as car parks, industrial kitchens, welding drawers, etc. suitable where low noise is required.

CONSTRUCTION

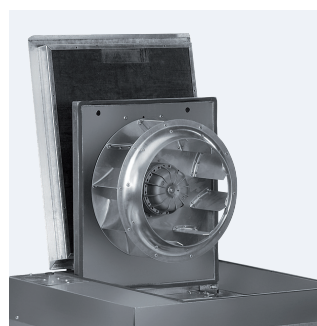
Duct fan designed for installation in rectangular ducts. The fan casing is made of galvanized sheet steel with acoustic fiberglass insulation (M0). Impeller with backward curved blades. External junction box on the power cord.

MOTOR

Fans are equipped with single phase 230V 50Hz (IRAB N) or three phase 230/400V 50Hz (IRAT N) motors. Protection rating IP54 or IP44 depending on model. Insulation class F.

The motors have thermal overload protection and are adapted to voltage control of the speed.

Electrical connection diagram: Fig. 10 p. 663.



Motor with impeller mounted on hinged door, for easy access and maintenance.



A design for mounting in any position



Dynamically balanced impeller with backward blades



WWW



DTR



CE

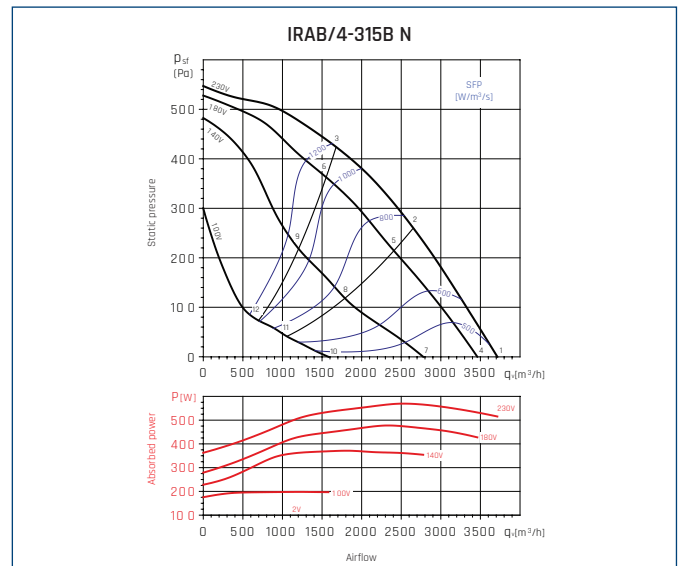
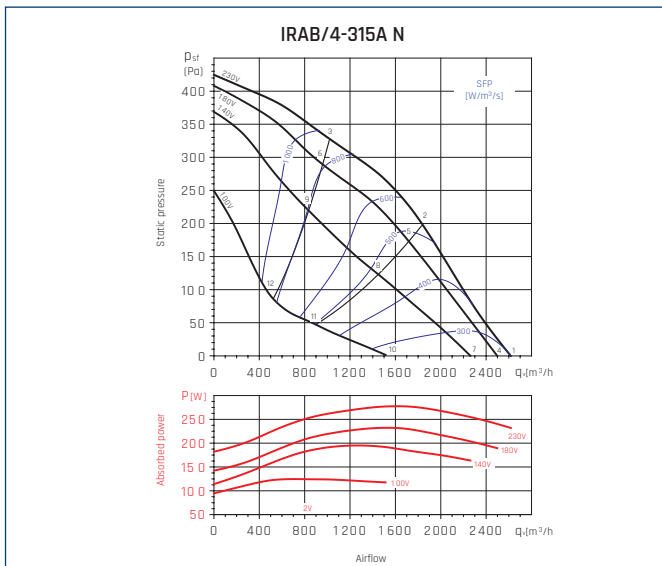
TECHNICAL CHARACTERISTICS

Type	speed	maximum absorbed power	maximum absorbed current	airflow at free discharge	operating temperature min max		sound pressure level*			weight	regulator	ErP	article number
							inlet	emitted	outlet				
	[r.p.m.]	[W]	[A]	[m ³ /h]	[°C]	[dB(A)]			[kg]				
IRAB/4-315A N	1397	278	1,2	2620	-40	+70	58	48	66	54	TLR 15 DS RVS-1,5	2018	41020250-01
IRAB/4-315B N	1388	569	2,4	3710	-40	+70	60	50	70	57	TLR 25 DS RVS-3	2018	41020252-01
IRAB/4-355 N	1402	845	3,6	5600	-40	+50	62	51	74	66	REB-5 RVS-5	2018	41020258-01

Type	speed	maximum absorbed power	maximum absorbed current		airflow at free discharge	operating temperature min max		sound pressure level*			weight	regulator	ErP	article number
			230V	400V										
	[r.p.m.]	[W]	[A]	[m ³ /h]	[°C]	[dB(A)]			[kg]					
IRAT/4-315A N	1400	244	0,9	0,5	2550	-40	+50	58	47	66	52	RMT-1,5	2018	41020254-01
IRAT/4-315B N	1415	568	2,1	1,2	3850	-40	+70	60	50	69	55	RMT-1,5	2018	41020256-01
IRAT/4-355 N	1400	813	2,9	1,7	5560	-40	+60	62	53	73	64	RMT-2,5	2018	41020260-01
IRAT/4-400A N	1430	1501	5,5	3,2	7940	-40	+70	64	56	76	91	RMT-5	2018	41020262-01
IRAT/4-400B N	1395	2142	6,9	4,0	9580	-40	+40	65	58	78	100	RMT-5	2018	41020264-01
IRAT/4-450 N	1380	2379	7,4	4,3	10720	-40	+40	66	60	80	125	RMT-5	2018	41020270-01

* measured at a distance of 3 m from the fan.

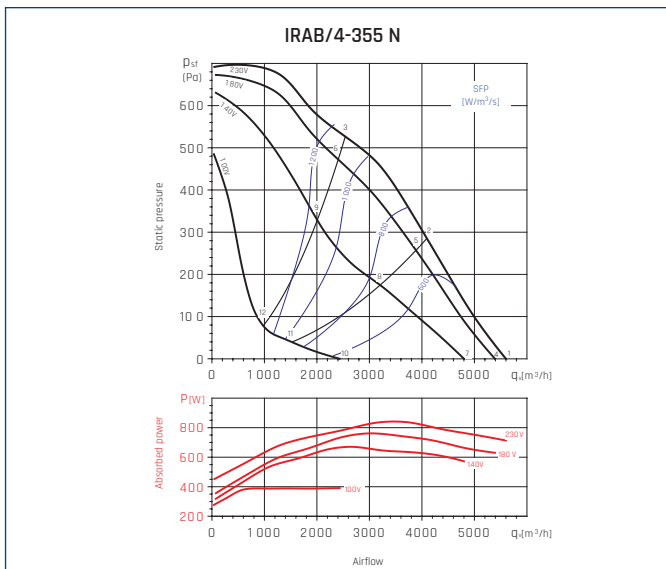
PERFORMANCE CURVES AND ACOUSTIC CHARACTERISTICS



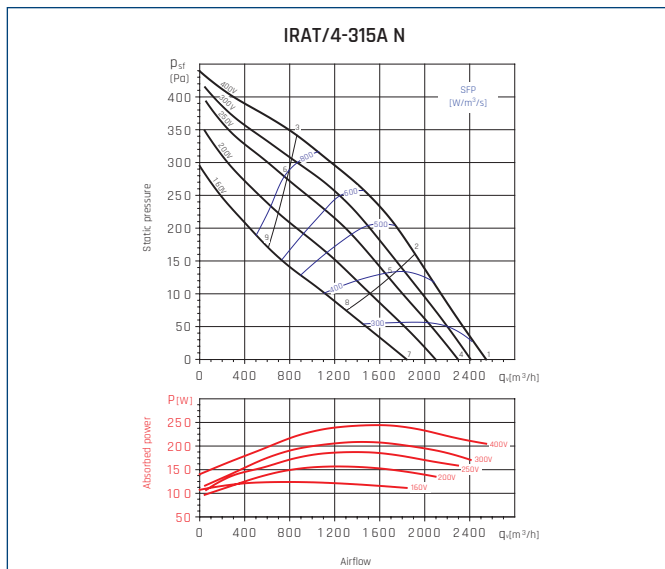
Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	55	66	72	63	64	64	61	55
	B	53	64	69	59	60	59	56	51
	C	53	61	63	55	55	54	49	44
Outlet	A	51	68	78	81	80	78	72	66
	B	48	65	75	77	76	73	67	60
	C	48	62	71	72	70	68	60	53
Emitted	A	55	56	63	50	52	52	50	40
	B	53	54	60	46	48	47	45	36
	C	53	51	54	42	43	42	38	29

Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	57	67	70	67	65	65	61	58
	B	56	64	67	63	60	60	56	51
	C	59	65	62	60	57	56	51	47
Outlet	A	54	71	78	82	82	79	74	68
	B	53	67	75	78	77	74	69	61
	C	54	65	70	74	74	71	65	58
Emitted	A	55	58	60	60	56	52	48	44
	B	54	55	57	56	51	47	43	37
	C	57	56	52	53	48	43	38	33

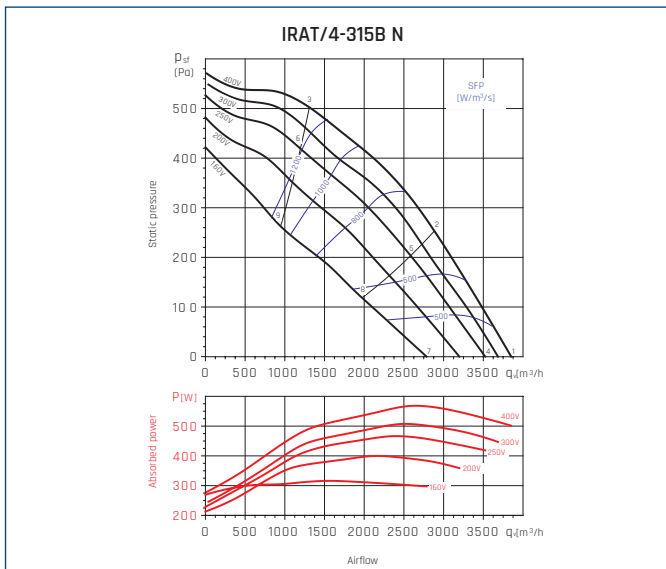
PERFORMANCE CURVES AND ACOUSTIC CHARACTERISTICS



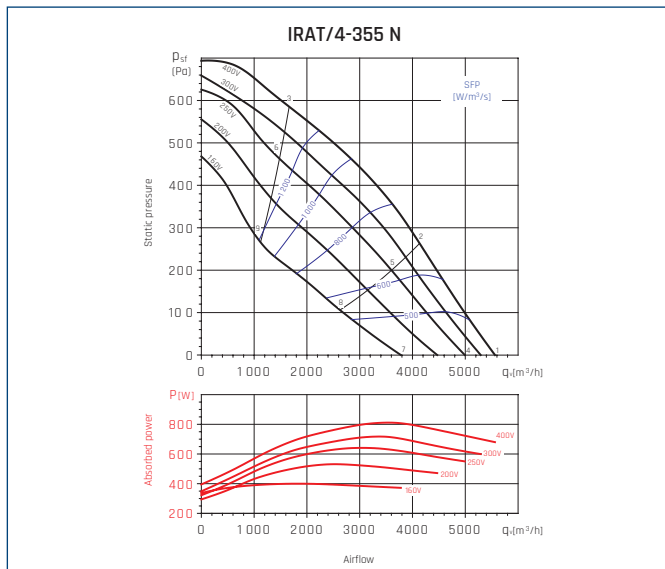
Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	58	74	68	69	64	65	61	54
	B	53	68	63	65	59	60	57	48
	C	51	65	60	62	58	58	53	49
Outlet	A	56	79	81	82	81	76	71	63
	B	53	75	77	79	76	71	65	57
	C	51	70	71	74	73	69	64	58
Emitted	A	56	68	62	59	56	51	46	38
	B	51	62	57	55	51	46	42	32
	C	49	59	54	52	50	44	38	33



Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	55	66	72	63	64	64	61	55
	B	53	64	69	59	60	59	56	51
	C	53	61	63	55	55	54	49	44
Outlet	A	51	68	78	81	80	78	72	66
	B	48	65	75	77	76	73	67	60
	C	48	62	71	72	70	68	60	53
Emitted	A	55	56	63	50	52	52	50	40
	B	53	54	60	46	48	47	45	36
	C	53	51	54	42	43	42	38	29

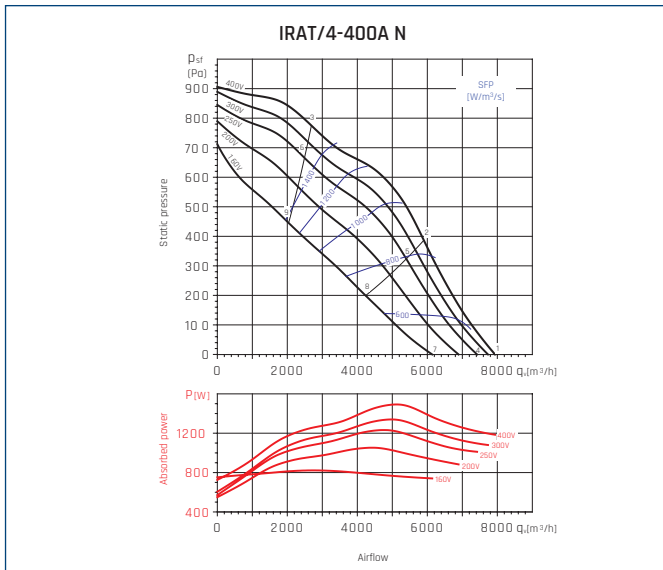


Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	58	68	72	69	66	66	62	59
	B	57	65	68	64	61	61	57	52
	C	60	65	63	60	57	57	52	47
Outlet	A	56	73	80	84	84	81	76	70
	B	54	68	76	79	78	75	70	62
	C	54	66	71	74	74	71	65	58
Emitted	A	56	59	62	62	57	53	49	45
	B	55	56	58	57	52	48	44	38
	C	58	56	53	53	48	44	39	33

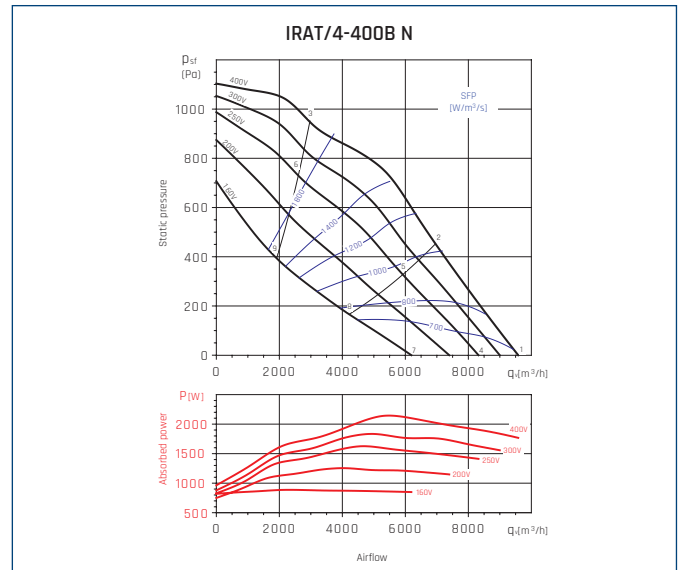


Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	59	75	69	70	65	66	62	55
	B	54	69	64	66	60	61	58	49
	C	52	66	61	63	59	59	54	50
Outlet	A	57	80	82	83	82	77	72	64
	B	54	76	78	80	77	72	66	58
	C	52	71	72	75	74	70	65	59
Emitted	A	57	69	63	60	57	52	47	39
	B	52	63	58	56	52	47	43	33
	C	50	60	55	53	51	45	39	34

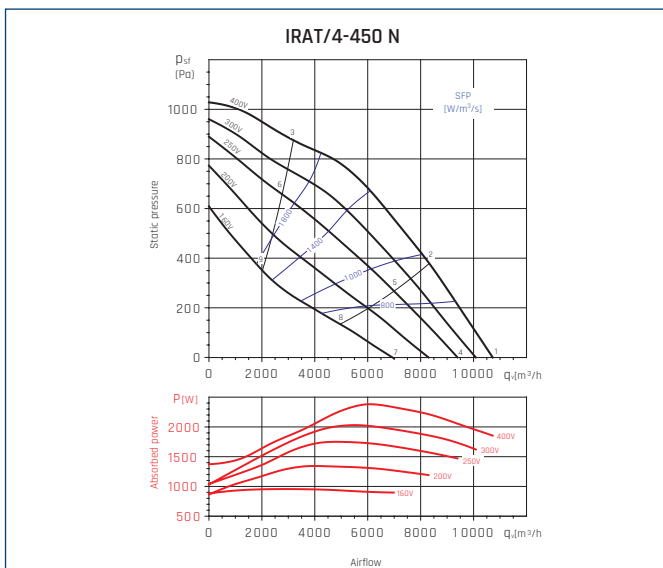
PERFORMANCE CURVES AND ACOUSTIC CHARACTERISTICS



Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	62	76	70	74	68	66	65	59
	B	61	72	67	72	64	61	59	54
	C	58	68	62	67	61	59	55	51
Outlet	A	62	83	85	86	84	80	77	67
	B	59	78	82	83	81	76	70	63
	C	61	73	78	78	76	71	65	60
Emitted	A	55	68	60	59	56	54	52	44
	B	54	64	57	57	52	49	46	39
	C	51	60	52	52	49	47	42	36

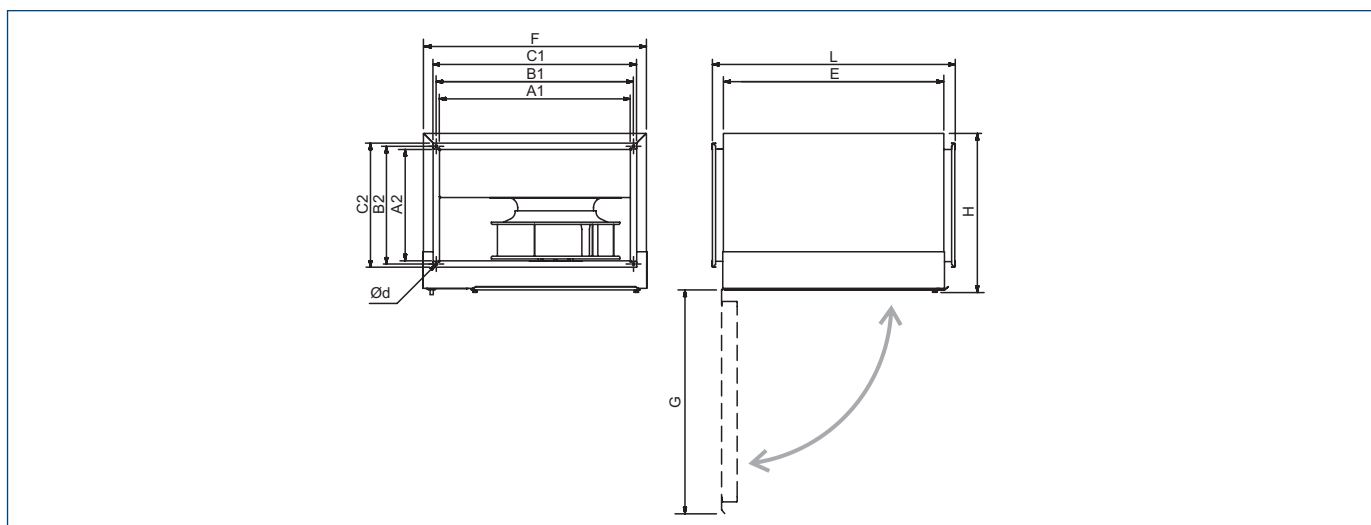


Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	66	73	73	78	76	74	67	61
	B	61	69	68	75	71	68	62	55
	C	61	67	64	69	67	66	61	57
Outlet	A	65	77	89	91	91	87	81	73
	B	62	74	85	87	86	82	75	68
	C	61	70	80	81	81	77	71	65
Emitted	A	58	66	65	65	67	67	61	55
	B	53	62	60	62	62	61	56	49
	C	53	60	56	56	58	59	55	51



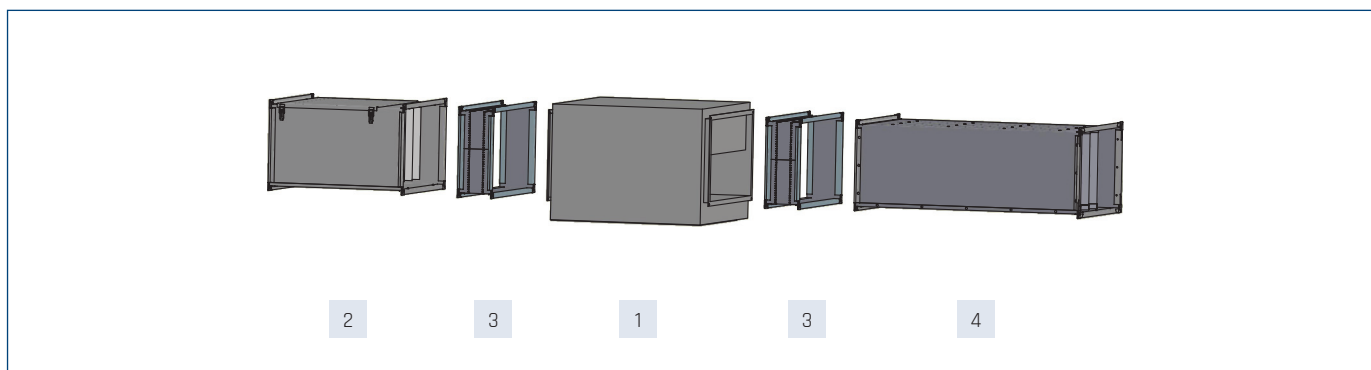
Hz/dB(A)		63	125	250	500	1000	2000	4000	8000
Inlet	A	68	78	80	83	82	84	80	83
	B	64	77	76	80	78	77	78	79
	C	63	73	73	77	76	75	77	80
Outlet	A	69	80	94	95	96	92	85	78
	B	67	78	91	92	93	88	81	74
	C	67	77	87	88	89	85	79	73
Emitted	A	64	70	75	75	73	74	73	74
	B	60	69	71	72	69	67	71	70
	C	59	65	68	69	67	65	70	71

DIMENSIONS [mm]



Type	A1	A2	B1	B2	C1	C2	d	E	F	G	H	L
315	600	350	620	370	640	390	9	697	705	704	500	765
355	700	400	720	420	740	440	9	770	804	777	550	840
400	800	500	820	520	850	550	9	861	905	868	647	930
450	1000	500	1020	520	1050	550	9	961	1104	968	655	1030

ACCESSORY ASSEMBLY



Type	2				3	4
	channel filter DFR					
	cartridge filter to DFR					
1	EU3	EU5	EU7	antivibration connector IAE-PL	flexible silencer RCS	
IRAB/4-315A N	40520960	40520963	40520965	40520967	40532850	40521950
IRAB/4-315B N	40520960	40520963	40520965	40520967	40532850	40521950
IRAB/4-355 N	40520970	40520973	40520975	40520977	40532860	40521960
IRAT/4-315A N	40520960	40520963	40520965	40520967	40532850	40521950
IRAT/4-315B N	40520960	40520963	40520965	40520967	40532850	40521950
IRAT/4-355 N	40520970	40520973	40520975	40520977	40532860	40521960
IRAT/4-400A N	40520980	40520983	40520985	40520987	40532870	40521970
IRAT/4-400B N	40520980	40520983	40520985	40520987	40532870	40521970
IRAT/4-450 N	40520990	40520993	40520995	40520997	40532880	40521980



ELECTRICAL ACCESSORIES

Type	wall thermostat	duct thermostat	air quality sensor	humidistat	thyristor regulator		
	TS	TK-1	SQA	HIG-2	REB N	REB NE	TLR
IRAB/4-315A N	40025345	40025330	40025140	40025150	40025030	40025040	40025025
IRAB/4-315B N	40025345	40025330	40025140	40025150	40025030	40025040	40025045
IRAB/4-355 N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025051	-	-
IRAT/4-315A N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-
IRAT/4-315B N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-
IRAT/4-355 N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-
IRAT/4-400A N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-
IRAT/4-400B N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-
IRAT/4-450 N	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-	-	-

Type	11-speed thyristor regulator	2-adj. 6-speed thyristor reg.	ERV	transformer regulator			transformer regulator 2-adjustable		inverter
	IRF	RND-1		RMB	RVS	RMT	SC2	SC2A	
IRAB/4-315A N	40015154	40025630	40025046	40025060	40025232	-	40025250	40025251	-
IRAB/4-315B N	40015154	40025630	40025046	40025070	40025234	-	40025252	40025253	-
IRAB/4-355 N	40015154	-	40025046	40025080	40025235	-	40025256	40025257	-
IRAT/4-315A N	-	-	-	-	-	40025100	-	40025270	40016302
IRAT/4-315B N	-	-	-	-	-	40025100	-	40025270	40016312
IRAT/4-355 N	-	-	-	-	-	40025105	-	40025272	40016322
IRAT/4-400A N	-	-	-	-	-	40025115	-	40025274	40016322
IRAT/4-400B N	-	-	-	-	-	40025115	-	40025276	40016332
IRAT/4-450 N	-	-	-	-	-	40025115	-	40025276	40016352

									
thermostat TS p. 650	thermostat TK-1 p. 650	sensor SQA p. 645	humidistat HIG-2 p. 645	thyristor regulator REB p. 638	thyristor regulator TLR p. 639	regulator IRF p. 639	regulator RND-1 p. 641	regulator ERV p. 642	regulator RMB/RMT p. 640

		
regulator RVS p. 640	transformer regulator 2-adjustable p. 641	inverter p. 643

ERP CHARACTERISTICS

NRVU*						
	Name	IRAB/4-315A N	IRAB/4-315B N	IRAB/4-355 N	IRAT/4-315A N	IRAT/4-315B N
a	supplier name	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU
b	article number	41020250-01	41020252-01	41020258-01	41020254-01	41020256-01
c	device category	NRVU	NRVU	NRVU	NRVU	NRVU
c	device type	UVU	UVU	UVU	UVU	UVU
d	type of drive	variable speed drive	variable speed drive	variable speed drive	variable speed drive	variable speed drive
e	type of heat recovery system	not applicable	not applicable	not applicable	not applicable	not applicable
f	thermal efficiency of heat recovery [%]	not applicable	not applicable	not applicable	not applicable	not applicable
g	reference flow rate in NRVU [m ³ /s]	0,422	0,555	0,817	0,414	0,581
h	effective electric power input (kW)	0,277	0,552	0,821	0,244	0,541
i	SFP _{int} W/(m ³ /s)	not applicable	not applicable	not applicable	not applicable	not applicable
j	face velocity w m/s	2	2,6	2,9	2	2,8
k	Δps, ext (Pa)	265	381	493	254	404
l	Δps, int (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
m	Δps, add (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
n	static efficiency of fans [%]	46,2	50,1	54,5	50,5	55,5
o	maximum external leakage rate [%]	2	2	2	2	2
p	maximum internal leakage rate [%]	not applicable	not applicable	not applicable	not applicable	not applicable
q	energy performance	not applicable	not applicable	not applicable	not applicable	not applicable
r	visual filter warning	not applicable	not applicable	not applicable	not applicable	not applicable
s	L _{WA} dB(A)	57	62	64	58	65
	internet address	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com

	Name	IRAT/4-355 N	IRAT/4-400A N	IRAT/4-400B N	IRAT/4-450 N
a	supplier name	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU	VENTURE INDUSTRIES/ SOLER&PALAU
b	article number	41020260-01	41020262-01	41020264-01	41020270-01
c	device category	NRVU	NRVU	NRVU	NRVU
c	device type	UVU	UVU	UVU	UVU
d	type of drive	variable speed drive	variable speed drive	variable speed drive	variable speed drive
e	type of heat recovery system	not applicable	not applicable	not applicable	not applicable
f	thermal efficiency of heat recovery [%]	not applicable	not applicable	not applicable	not applicable
g	reference flow rate in NRVU [m ³ /s]	0,817	1,256	1,396	1,598
h	effective electric power input (kW)	0,792	1,462	2,124	2,376
i	SFP _{int} W/(m ³ /s)	not applicable	not applicable	not applicable	not applicable
j	face velocity w m/s	2,9	3,1	3,5	3,2
k	Δps, ext (Pa)	450	626	792	712
l	Δps, int (Pa)	not applicable	not applicable	not applicable	not applicable
m	Δps, add (Pa)	not applicable	not applicable	not applicable	not applicable
n	static efficiency of fans [%]	52	58,7	56,8	55,8
o	maximum external leakage rate [%]	2	2	2	2
p	maximum internal leakage rate [%]	not applicable	not applicable	not applicable	not applicable
q	energy performance	not applicable	not applicable	not applicable	not applicable
r	visual filter warning	not applicable	not applicable	not applicable	not applicable
s	L _{WA} dB(A)	65	68	71	74
	internet address	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com	www.ventur.eu www.solerpalau.com

* NRVU - "non-residential ventilation unit" - according to COMMISSION REGULATION (EU) No 1254/2014.