Date: December 22nd 2020

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER 'Assessment Reports' are not acceptable	**EFR-19-001286**	**CERTIFICATE NUMBER**	**EFR-1901-0182 Rev.20-0**
DATE OF ISSUE	September 3rd, 2019	**DATE OF ISSUE**	December 22nd 2020 (Date of 1st issue : December 13th, 2019)
DATE OF EXPIRY	Valid as long as the product, its production process and the referenced test standard are not modified	**DATE OF EXPIRY**	June 13th, 2022

Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	**ALDES AERAULIQUE**	**NAME OF THE BRAND**	**ALDES**
FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	SAINT-BRISSON-SUR-LOIRE - FRANCE	**MODEL / NO**	**HELIONE**
WEBSITE	www.aldes.com www.aldes.ae	**LOGO ON THE PRODUCT**	aldes
TEL	+971-6-5578285	**EMAIL**	Kostiantyn.Shpak@aldes.com

EFECTIS FRANCE
Esp. Technologique - Bât. Apollo
Route de l'Orme des Merisiers
91193 - SAINT AUBIN
RCS EVRY 490 550 712

Product Details From Test Report	Reference Test Report page NO

DESCRIPTION OF THE PRODUCT (TECHNICAL DETAILS FROM TEST REPORT, SUCH AS ACTUAL FIRE RATINGS/DIMENSIONS/THICKNESS / SENSITIVITY ETC)

Heat and Smoke Exhaust Ventilators: axial fans.

- Diameter of ventilators: 400 mm, 450 mm, 500 mm, 560 mm, 630 mm, 700 mm, 800 mm, 900 mm, 1000 mm, 1120 mm, 1200 mm, 1250 mm, 1400 mm, 1500 mm, 1600 mm.
- The blades and the hub of the impeller are made of aluminium.

Range of motors:

LEROY SOMER FLSHT (IE1 or IE2)	Shaft height	
	80 mm to 132 mm	160 mm to 280 mm
Power	Until 7.5 kW under 50 Hz	11 to 90 kW under 50 Hz
Number of poles	4	4
Insulation class	H	H
Thermal class	F	B or F
Speed	Single or multiple speed	Single or multiple speed
Ball raw bearing	one ball raw bearing SKF/NSK with deep groove	One ball raw bearing SKF with deep groove
Internal fit bearing	C3	C4
Grease	ENS (Nippon Oil) and GHY72 (Kluber)	KRYTOX GPL 226 (Du Pont de Nemours)

WEG (IE1 or IE2)	Shaft height	
	80 mm to 132 mm	160 mm to 280 mm
Power	Until 7.5 kW under 50 Hz	11 to 90 kW under 50 Hz
Number of poles	4	4
Insulation class	H	H
Thermal class	B	B
Speed	Single or multiple speed	Single or multiple speed
Ball raw bearing	one ball raw bearing with deep groove	One ball raw bearing with deep groove
Internal fit bearing	C3 or C4	C3 or C4
Grease	KRYTOX GPL 226 (Du Pont de Nemours)	KRYTOX GPL 226 (Du Pont de Nemours)

ATB (IE1 or IE2)	Shaft height
	80 mm to 225 mm
Power	Until 55 kW under 50 Hz
Number of poles	4
Insulation class	H
Thermal class	B
Speed	Single or multiple speed
Ball raw bearing	one ball raw bearing SKF/NSK with deep groove
Internal fit bearing	C3
Grease	BHP 72-102(Klüppersynth)

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DESCRIPTION OF THE PRODUCT
(TECHNICAL DETAILS FROM TEST REPORT, SUCH AS ACTUAL FIRE RATINGS/DIMENSIONS/THICKNESS/ SENSITIVITY ETC)

Approved characteristics:

Diameter (mm)	Motor speed	Class	Motors: Leroy Somer (L), Weg (W), ATB (A)								
			Impeller 4Z (R-L)			Impeller 4ZNA (R-L), 4ZNAREV		Impeller 6W (R-L)		Impeller 9W (R-L)	
			7-7	3-6 6-9 9-9	6-12 12-12	3-9 6-9 9-9	4-12 6-12 8-12 12-12	3-6 6-6	4-8 8-8	3-6 6-6	4-8 8-8
400 to 450	2P-50Hz	F200	W/L	W/L							
		F300	W								
		F400	W/L								
	4P-50Hz	F200	W	W/L							
		F300	W	W/L							
		F400	W/L/A	W/L/A							
500 to 560	2P-50Hz	F200	W/L								
		F300	W								
		F400	W/L								
	4P-50Hz	F200	W/L	W/L							
		F300	W	W/L							
		F400	W/L/A	W/L/A							
630 to 800	4P-50Hz	F200		W/L	W/L						
		F300		W/L	W/L						
		F400		W/L/A	W/L/A						
900	4P-50Hz	F200				W/L		W/L	W/L		
		F300				W/L		W/L	W/L		
		F400				W/L/A					
	4P-60Hz	F200				W/L					
		F300				W/L					
		F400				W/L					
1000	4P-50Hz	F200				W/L		W/L	W/L		
		F300				W/L		W/L	W/L		
		F400				W/L/A					
	4P-60Hz	F200				W/L					
		F300				W/L					
		F400				W/L					
1120 to 1250	4P-50Hz	F200				W/L		W/L	W/L		
		F300				W/L		W/L	W/L		
		F400				W/L/A					
	4P-60Hz	F200				W/L					
		F300				W/L					
		F400				W/L					
1400	4P-50Hz	F200					W/L				
		F300					W/L				
		F400					W/L/A				
	6P-50Hz	F200					W			W	W
		F300					W			W	W
		F400					W/L/A				
1500 to 1600	6P-50Hz	F200								W/L	W/L
		F300								W/L	W/L
		F400									

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TEST STANDARD **(SUCH AS ASTM/BS EN/ DN ETC)**	EN 12101-3 (2015): Smoke and heat control systems. Part 3: Specification for powered smoke and heat control ventilators (Fans)	EFR-19-001286
TEST DESCRIPTION	a) Warm up period In the first phase of test, the fan works at ambient temperature for at least 60 minutes in order to obtain on the motor frame a temperature rise in 10 minutes lower than 2°C. During this period, the working point of the fan is adjusted so that the fan absorbs at least at 80 % of the rated power of the motor. The measures are stabilised, in particular volume flow and pressures, before beginning the heat up period. b) Heat up period The burners of furnace are monitored to reach the hot temperature, (e.g. 300°C), in a time specified in the standard: between 5 minutes and 10 minutes. c) High temperature period The duration of the high temperature period is 120 min. After 15 minutes of functioning at high temperature, the fan is stopped for 2 minutes and restarted. Criteria of performance: the volume flow determined during the test at high temperature shall not change by more than 10 % of the volume flow determined at the end of the warm up period.	EFR-19-001286
SPECIFICATION OF TEST SPECIMEN	Tests were performed on 7 selected sizes from the range of ventilators: 400 - 500 - 550 - 800 - 1250 - 1400 - 1600. The tests results allow covering the following sizes of ventilators: 400, 450, 500, 560, 630, 700, 800, 900, 1000, 1120, 1200, 1250, 1400, 1500, 1600.	EFR-19-001286
TEST RESULT **(SUCH AS PASSED CRITERIA___/ COMPLIED TO_/ DURATION__ _/OBSERVATION__ _/ETC)**	Fire resistance class: F400 /120 - F400 /90 - F300 - F200	EFR-19-001286

PRODUCT APPLICATION GUIDELINE (END USE)
(CLEARLY STATE THE END USE WITH SPECIFIC APPLICATION, SUCH AS EXACT FIRE RATING/TO BE INSTALLED IN___/TO BE INSTALLED AT_____ CONNECTED WITH_ _____ /TO BE INSTALLED WITH___ ETC ALONG WITH ANY WARNINGS SUCH AS NOT TO BE USED IN___/NOT TO BE INSTALLED AT___/ NOT TO BE INSTALLED WITH _ETC.

- Installation inside and outside the smoke reservour
- Non thermally insulated
- Dual purpose

Mounting conditions and approved accessories:

	F 400	F 300	F 200
Vertical or horizontal mounting	X	X	X
Air flow A or B	X	X	X
Long and short sleeve	X	X	X
Composition of the case: stainless steel 304 - stainless steel 316 - galvanized - painted	X	X	X
Intake cones	X	X	X
Stand mounting	X	X	X
Grid mounting	X	X	X
Iron sleeve sheet mounting (counter flange)	X	X	X
Flexible sleeve mounting	X	X	X
Stud mounting type SDD5 with spring (in the tank)	X	X	X
Mounting with gusset plate	X	X	X
Mounting with check valve (diam 400 to 1250 mm) Nota : Mounting conditions defined in test report	X	X	X
Mounting impeller with alternated blades for reversibility	X	X	X
Despines mounting	X	X	X
Metallic connecting box connected to the motors 0.75 to 90 kW Nota : Mounting conditions defined in test report	X	X	X
Switch INTER-MA mounting (outside the smoke reservoir)			x
Switch M/A mounting on TD–TF with casing (outside the reservoir)	X	X	X
Probes PTO or PTC for the motors WEG and LEROY SOMER	X	X	X
Switch M/A type GAVE inside the tank	X	X	X
Guide vane mounting	X	X	X
Exhaust stator blades	X	X	X
Mounting as centrifugal fan type TD, TF or TV (outside the smoke reservoir) Range TF only on size 700-800-1000-1250-1500 Nota : Mounting conditions defined in test report	X	X	X
Functioning in a centrifugal heat and smoke ventilator configuration type HATCH	X	X	X
Plenum Axial Fan	X	X	X

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Laboratory and Certification body details			
NAME OF CERTIFICATION BODY	Efectis France	**NAME OF TEST FACILITY**	Efectis France
CERTIFICATION BODY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Espace Technologique Bâtiment Apollo Route de l'orme des merisiers 91193 SAINT-AUBIN FRANCE	**TEST FACILITY ADDRESS / REGION** (STREET / TOWN / CITY / COUNTRY)	Espace Technologique Bâtiment Apollo Route de l'orme des merisiers 91193 SAINT-AUBIN
WEBSITE	www.efectis.com	**WEBSITE**	www.efectis.com
TEL	00 33 1 60 13 83 90	**TEL**	00 33 1 60 13 83 90
EMAIL	france@efectis.com	**EMAIL**	france@efectis.com
ACCREDITED BY (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE CERTIFICATION BODY, ALONG WITH WEBSITE)	COFRAC	**ACCREDITED BY** (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE LABORATORY, ALONG WITH WEBSITE)	COFRAC
AS PER (STANDARD TO WHICH THE CERTIFICATION BODY IS ACCREDITED TO)	EN ISO 17065	**AS PER** (STANDARD TO WHICH YOUR ORGANIZATION IS ACCREDITED TO)	EN ISO 17025
VALIDITY (EXPIRY DATE OF CERTIFICATION BODY ACCREDITATION)	2021,November 30st	**VALIDITY** (EXPIRY DATE OF LABORATORY ACCREDITATION)	2023, February 28th
REFERENCE NUMBER: (CERTIFICATION BODY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	5-0540	**REFERENCE NUMBER:** (THE LABORATORY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	1-1762
CERTIFICATION MARK	Efectis Certified Old logo: efectis france New logo (since 2016): Efectis certified		

EFECTIS FRANCE
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(ENDORSEMENT) TO BE SIGNED BY MANUFACTURER			
NAME OF MANUFACTURER'S SIGNATORY	ALDES Aéraulique Pierre CHAFFOIS	**SIGNATURE**	
EMAIL / TEL	Pierre.Chaffois@aldes.com 00 33 4 78 77 15 15	**FACTORY OFFICIAL SEAL**	Aldes Aéraulique 20, boulevard Irène Joliot Curie 69694 Vénissieux Cedex Tél. : 04.78.77.15.15 Fax : 04.78.77.15.97 S.A.S. au capital de 8.359.065 € TVA FR 51 956 506 828 - 956 506 828 RCS Lyon
NOTES: I Undertake that all data and information provided are genuine and accurate			

(ENDORSEMENT) TO BE SIGNED BY CERTIFICATION BODY			
NAME OF CERTIFICATION BODY SIGNATORY	EFECTIS France Daniel JOYEUX	**SIGNATURE**	
EMAIL / TEL	daniel.joyeux@efectis.com 00 33 1 60 13 83 83	**CERTIFICATION BODY OFFICIAL SEAL**	EFECTIS FRANCE Esp. Technologique - Bât. Apollo Route de l'Orme des Merisiers 91193 - SAINT AUBIN RCS EVRY 490 550 712
NOTES: I Undertake that all data and information provided are genuine and accurate			

ATTACHMENTS:

COPY OF 'CERTIFICATE OF COMPLIANCE' ISSUED BY CERTIFICATION BODY (OLD OR NEW)

EFECTIS FRANCE
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