Supplement Nr:01
EU-Type Examination Certificate

(1)

(2) Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU

(3) EU – Type Examination Certificate Number: **IEP 18 ATEX 0561X**

(4) Equipment: **CVS x Series , (H, AF, RH, RV, WA type) Axial Fans**

(5) Manufacturer: **CVS Havalandırma Sistemleri Sanayi ve Ticaret A.Ş.**

(6) Address: **Orta Mah. Erk Sokak A No: 5 A İç Kapı No: 2 Tuzla/İstanbul, TÜRKİYE**

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II/III to the Directive. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-1214-1 date 14.03.2024.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with;

EN 14986:2017, IEC EN 60079-0:2018, EN ISO 80079-36:2016

(10) If the sign " X " is placed after the certificate number, it indicates that the product is subject to specified conditions of safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

II 2G Ex db or eb IIC T4 Gb (engine)
II 2D Ex tb IIIB T130 °C Max (engine)
II 2GD Ex h IIC/IIIB T4 Gb/Db (Fans)

Responsible Person:

Nurettin Terzioglu
Head of Certification Body

Supplement 01 Date of Issue: 22.03.2024

(13) Schedule

(14) Certificate Nr: **IEP 18 ATEX 0561X**

(15) Description of Equipment:

CVS (H, AF, RH, RV, WA) series axial fans are single inlet. Fans used for ventilation purposes. This device the electrical axial fans. These devices are used for IIC gas group and IIIB dust group explosive atmospheres.

Axial fan with adjustable blade pitch angle at standstill, long cylindrical casing with flanges on both ends, direct driven, explosion proof according to ATEX. Cylindrical duct casing in S235JR steel, covering impeller (motor protrudes at rear). Rolled flanges at both ends. Dimensions and flange drillings to Explosion-proof execution according to ATEX.

Description of equipment protective system axial fan mechanical and electrical parts list is part 2.6 and date 26.10.2017. (New Rev.1, 2 pages and dated 06.02.2024)

Axial Fans are used as external zone 1, 21 or zone 2, 22 and interior zone 1,21 that be used danger area determined in the EN 60079-10-1/2 standard.

Information's of assembled working of Axial Fans with order related equipment's exist in instruction manual with 16 pages and date 05.10.2017. (New version 37 pages and dated 06.02.2024)

CVS-AF Series Axial Fans Technical Parameters:

Type	Capacity		Motor Power		Motor Speed Max	Hub Size Min	Hub Size Max
Model	Min (m3/h)	Max (m3/h)	Kw(min)	Kw (Max)	(rpm)	(mm)	(mm)
CVS-AF-Ø315	200	5000	0,09	0,75	1200-1800 -3600	160	200
CVS-AF-Ø355	500	7000	0,09	0,75		160	200
CVS-AF-Ø400	1000	11000	0,12	2,2		160	200
CVS-AF-Ø450	1500	15000	0,25	3		160	200
CVS-AF-Ø500	5000	21500	0,25	5,5		160	290
CVS-AF-Ø560	8500	28000	0,25	11		160	290
CVS-AF-Ø630	4000	33500	0,37	18,5		160	290
CVS-AF-Ø710	10000	30000	0,55	5,5		160	290
CVS-AF-Ø800	16000	42000	0,75	7,5		160	290
CVS-AF-Ø900	15000	57500	1,1	15		160	380
CVS-AF-Ø1000	20000	87500	3	30		160	380
CVS-AF-Ø1120	27000	102000	4	30		280	380
CVS-AF-Ø1250	29000	150000	5,5	55		280	380
CVS-AF-Ø1400	29000	180000	11	55		280	380
Ambient Temperature Max (-20 ~ +40 °C)							

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

(16) Schedule

(17) Certificate Nr: **IEP 18 ATEX 0561X**

CVS-RH/RV Series Axial Fans Technical Parameters:

Type	Capacity		Motor Power		Motor Speed Max	Hub Size Min	Hub Size Max
Model	Min (m3/h)	Max (m3/h)	Kw(min)	Kw (Max)	(rpm)	(mm)	(mm)
CVS-RH/RV – Ø315	200	5000	0,09	0,75	1200-1800 – 3600	160	200
CVS-RH/RV – Ø355	500	7000	0,09	0,75		160	200
CVS-RH/RV – Ø400	1000	11000	0,09	2,2		160	200
CVS-RH/RV – Ø450	1500	15000	0,25	3		160	200
CVS-RH/RV – Ø500	5000	21500	0,25	5,5		160	290
CVS-RH/RV – Ø560	8500	28000	0,25	11		160	290
CVS-RH/RV – Ø630	4000	33500	0,37	18,5		160	290
CVS-RH/RV – Ø710	10000	30000	0,55	5,5		160	290
CVS-RH/RV – Ø800	16000	42000	0,75	7,5		160	290
CVS-RH/RV – Ø900	15000	57500	1,1	15		160	380
CVS-RH/RV – Ø1000	20000	87500	3	30		160	380
CVS-RH/RV-Ø1120	27000	102000	4	30		280	380
CVS-RH/RV-Ø1250	29000	150000	5,5	55		280	380
CVS-RH/RV- Ø1400	29000	180000	11	55		280	380
Ambient Temperature Max (-20 ~ +40 °C)							

CVS-WA Series Axial Fans Technical Parameters:

Type	Capacity		Motor Power		Motor Speed Max	Hub Size Min	Hub Size Max
Model	Min (m3/h)	Max (m3/h)	Kw(min)	Kw (Max)	(rpm)	(mm)	(mm)
CVS-WA – Ø315	200	5000	0,09	0,75	1200-1800 – 3600	160	200
CVS-WA – Ø355	500	7000	0,09	0,75		160	200
CVS-WA – Ø400	1000	11000	0,09	2,2		160	200
CVS-WA – Ø450	1500	15000	0,25	3		160	200
CVS-WA – Ø500	5000	21500	0,25	5,5		160	290
CVS-WA – Ø560	8500	28000	0,25	11		160	290
CVS-WA – Ø630	4000	33500	0,37	18,5		160	290
CVS-WA – Ø710	10000	30000	0,55	5,5		160	290
CVS-WA – Ø800	16000	42000	0,75	7,5		160	290
CVS-WA – Ø900	15000	57500	1,1	15		160	380
CVS-WA-Ø1000	20000	87500	3	30		160	380
CVS-WA -Ø1120	27000	102000	4	30		280	380
CVS-WA- Ø1250	29000	150000	5,5	55		280	380
CVS-WA-Ø1400	29000	180000	11	55		280	380
Ambient Temperature Max (-20 ~ +40 °C)							

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

(18) Schedule

(29) Certificate Nr: **IEP 18 ATEX 0561X**

CVS-H Series Axial Fans Technical Parameters:

Type	Capacity		Motor Power		Motor Speed Max	Hub Size Min	Hub Size Max
Model	Min (m3/h)	Max (m3/h)	Kw(min)	Kw (Max)	(rpm)	(mm)	(mm)
CVS-H – Ø315	200	5000	0,09	0,75	1200-1800 – 3600	160	200
CVS-H – Ø355	500	7000	0,09	0,75		160	200
CVS-H – Ø400	1000	11000	0,09	2,2		160	200
CVS-H – Ø450	1500	15000	0,25	3		160	200
CVS-H – Ø500	5000	21500	0,25	5,5		160	290
CVS-H – Ø560	8500	28000	0,25	11		160	290
CVS-H – Ø630	4000	33500	0,37	18,5		160	290
CVS-H – Ø710	10000	30000	0,55	5,5		160	290
CVS-H – Ø800	16000	42000	0,75	7,5		160	290
CVS-H – Ø900	15000	57500	1,1	15		160	380
CVS-H-Ø1000	20000	87500	3	30		160	380
CVS-H -Ø1120	27000	102000	4	30		280	380
CVS-H- Ø1250	29000	150000	5,5	55		280	380
CVS-H-Ø1400	29000	180000	11	55		280	380
Ambient Temperature Max (-20 ~ +40 °C)							

(20) Essential Health and Safety Requirements:

20.1 Assembly and working of fan with other related equipment's must be adapted to national regulations.

20.2 For terms of installation, it must be ensured that the equipment grounding connection of all components is realized and will be maintained.

20.3 The electrical equipment may only be opened in absence of an explosive atmosphere.

20.4 All additional safety instructions of the manufacturer must be met.

20.5 IEP 18 ATEX 0561X: It should be assembled according to the standard (EN 60079-14) and user manual. Periodic checks should be carried out by authorized personnel or authorized body according to the standard /EN 60079-17) and user manual. To must be IP 6X for III B dust.

20.6 Are included in standards, which are mentioned in clause (9) of this certificate. The products were approved in accordance with above mentioned standards and manufacturer's instruction.

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

(21) Schedule

(22) Certificate Nr: **IEP 18 ATEX 0561X**

(23) List of Documentation:

- Axial fans user manual : 16 pages, dated 05.10.2017(37 pages, dated 06.02.2024
- Component lists : Part 2.6 dated 26.10.2017
- Mounting pictures and technical drawings : 10 pages.Part 2
- Certificates and test reports : 49 pages, Part 4
- Drawings;

Drawing Nr	Drawing Name	Date
CVS-01	Exploded Picture-AF tunnel type	11.08.2017
CVS-02	Exploded Picture-RF roof type	11.08.2017
CVS-03	Exploded Picture-WA wall type	11.08.2017
CVS-04	Dimensions-AF tunnel type	11.08.2017
CVS-05	Dimensions-RF roof type	11.08.2017
CVS-06	Dimensions-WA wall type	11.08.2017
CVS-07	Electrical Mechanical Connection Shame	11.08.2017
CVS-08	Rotor-Body gaps	11.08.2017
CVS-09	Security details	11.08.2017
CVS-10	Label	11.08.2017
CVS-11	RV Detail Assembly	05.01.2024
CVS-12	RH Detail Assembly	22.12.2023
CVS-13	WA Assembly	22.12.2023
CVS-14	AF Assembly and dimension drawings	27.01.2024
CVS-15	RH Assembly and dimension drawings	02.01.2024
CVS-16	RV Assembly and dimension drawings	02.01.2024
CVS-17	WA Assembly and dimension drawings	02.01.2023
CVS-18	H Assembly and dimension drawings	02.01.2024
CVS-X	General parts drawings (57 pages)	01.01.2024
CVS	General Electrical Connection Shame	01.01.2024

For the validity of analysis type certificate, the parts that are used in radial fans is determined in confirmed the list of equipment's part 2,6 and date 26.10.2017. (New Rev.1, 2 pages and dated 06.02.2024)

Supplement Nr	Issue Date	Summary Description of Variation
01	22.03.2024	Change of address and addition of roof fans
00	06.09.2018	First issue of certificate

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

Supplement 01 Date of Issue: 22.03.2024