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Zhejiang Sanhua Commercial Refrigeration Controls Co., Ltd

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312500, Zhejiang ,China

The EU Declaration of Conformity

Issued in accordance with
The Pressure Equipment Directive 2014/68/EU
The Low Voltage Directive 2014/35/EU

The manufacturer's name and address:
Company: Zhejiang Sanhua Commercial Refrigeration Controls Co., Ltd
Address: No.6 Damingshi Road, Yulin District, Xinchang, Shaoxing , 312500, Zhejiang ,China
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Address: C/ José Celestino Mutis, 4, 2l 28703 San Sebastian de los Reyes - Spain

Section 1 - Pressure Equipment Directive 2014/68/EU

Declaration:

Solenoid valves series shown in the tables below, are classified as "Pressure accessories" in the sense of the Pressure Equipment Directive 2014/68/EU, Article 2 point (5). The Refrigerant proper to the Group 1 and 2 as defined in article 13 1. (a)(b) of Directive 2014/68/EU.

Summary:

Product Series	PS (bar)	Table
MDF-A03	49	See Table 2
MDF-D03	49	See Table 3
MDF-B03	45	See Table 4
MDF-A02	45	See Table 5
Not-detachable HDF	45	See Table 6.1
Detachable HDF（2H~15H）	45	See Table 6.2
Detachable HDF（19H&25H）	32	See Table 6.2
MDFxHyyy; KDFxHyyy	45	See Table 7

Table 1

Description of Products:

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
MDF-A03-xL yyy [from size 2 to size 15]	from 4.8 to 20	from 1/4" to 7/8"	NA	-	Art. 4.3	-
MDF-A03-xH yyy [from size 2 to size 22]	from 6.15 to 22.35	from 1/4" to 7/8" (6mm to 22mm)	Art. 4.3	-	Art. 4.3	-
MDF-A03-20H yyy	28.8 & 28.2	1" 1 /8 & 28 mm	Cat. II	D	Art. 4.3	-
MDF-A03-22H yyy	28.2	1" 1 /8 & 28 mm	Cat. II	D	Art. 4.3	-
MDF-A03-22H yyy	35.2	1" 3/8 (35mm)	Cat. II	D	Cat.I	A (point 1)

Table 2

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
MDF-D03-xL yyy [from size 2 to size 15]	from 7 to 20	from 3/8" to 7/8"	NA	-	Art. 4.3	-
MDF-D03-xH yyy [from size 6 to size 15]	From 10.15 to 22.35	from 3/8" to 7/8" (10mm to 22mm)	Art. 4.3	-	Art. 4.3	-

Table 3

TS (°C)	-40 to +150		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection ØD ODS	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
MDF-B03-25H yyy	28.1	28mm & 1" 1/8	Cat. II	D	Art. 4.3	-
MDF-B03-25H yyy	35.1	1" 3/8(35mm)	Cat. II	D	Cat.I	A (point 1)
MDF-B03-32H yyy	35.1 to 42.1	1" 3/8(35mm); 42mm & 1" 5/8	Cat. II	D	Cat.I	A (point 1)
MDF-B03-40H yyy	42.1 to 54.2	42mm & 1" 5/8; 2" 1/8(54mm)	Cat. II	D	Cat.I	A (point 1)

Table 4

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
MDF-A02-xL yyy [from size 6 to size 15]	from 7 to 20	from 3/8" to 7/8"	NA	-	Art. 4.3	-
MDF-A02-xH yyy [from size 6 to size 22]	From 9.65 to 22.35	from 3/8" to 7/8" (10mm to22mm)	Art. 4.3	-	Art. 4.3	-

Table 5

TS (°C)	-40°C / +140°C		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection ØD ODS	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
HDFxHyy [from size 3 to size 22}	from 6.15 to 22.35	from 1/4" to 7/8" (6mm to 22mm)	Art. 4.3	-	Art. 4.3	-
HDF20Hyy	28.8 & 28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-
HDF22Hyy	28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-
HDF22Hyy	35.2	1" 3/8 (35mm)	Cat.II	NOT CERTIFIED	Cat.I	A (point 1)

Table 6.1

TS (°C)	**HDFxH3yK/HDFxH4yK: -40°C / +150°C HDFxH5yK/HDFxH6yK: -40°C / +120°C HDFxH8yK/HDFxH9yK:-40°C / +150°C**		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection ØD ODS	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
HDFxH3yK,HDFxH4yK, [from size 19 to size 25}	from 16.15 to 22.35	from 5/8" to 7/8" (16mm to 22mm)	Art. 4.3	-	Art. 4.3	-
HDFxH3yK,HDFxH4yK, [from size 19 to size 25}	28.8 & 28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-
HDFxH5yK,HDFxH6yK, [from size 19 to size 25}	from 16.15 to 22.35	from 5/8" to 7/8" (16mm to 22mm)	Art. 4.3	-	Art. 4.3	-
HDFxH5yK,HDFxH6yK, [from size 19 to size 25}	28.8 & 28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-

HDFxH8yK,HDFxH9yK [from size 2 to size 15}	from 6 to 22.35	from 1/4" to 7/8" (6mm to 22 mm)	Art. 4.3	-	Art. 4.3	-

Table 6.2

TS (°C)	**MDF10/15/16/20/22: -30°C / +105°C; MDF2/3/6; KDF10/15: -40°C / +140°C**		Fluid Group 1		Fluid Group 2	
Models	DN(mm)	Connection ØD ODS	Safety category	Module annex III – PED Directive 2014/68/EU	Safety category	Module annex III – PED Directive 2014/68/EU
MDFxHyy [from size 2 to size 22]	from 6.15 to 22.35	from 1/4" to 7/8" (6mm to 22mm)	Art. 4.3	-	Art. 4.3	-
KDFxHyy [from size 3 to size 15]	from 6.15 to 22.35	from 1/4" to 7/8" (6mm to 22 mm)	Art. 4.3	-	Art. 4.3	-
MDF20Hyy	28.8 & 28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-
MDF22Hyy	28.2	1" 1 /8 & 28 mm	Cat.II	NOT CERTIFIED	Art. 4.3	-
MDF22Hyy	35.2	1" 3/8 (35mm)	Cat.II	NOT CERTIFIED	Cat.I	A (point 1)

Table7

x position: identifies the valve size

y position: identifies an internal code

Note:

All the models listed in the tables above classified as ”Art. 4.3” aren’t subjected to the Essential Safety Requirements set out in Annex I of Directive 2014/68/EU because their characteristics are below or equal to the limits fixed in Article 4 (1) (c) (i) of the same Directive. As mentioned in the Directive all these products have a nominal size “DN” below or equal to :

a) 25mm for refrigerants belonging to Fluid Group 1
b) 32mm for refrigerants belonging to Fluid Group 2

Therefore, according to requirements of Article 4 (1) (c) (i) them:

- Are designed and manufactured in accordance with a sound engineering practice in order to ensure safe use.
- Are accompanied by adequate instructions for use
- Bear markings to permit identification of the manufacturer
- Don’t bear CE marking referred to in Article 18 and Article 19
- Are not accompanied by a “Declaration of Conformity” to Directive 2014/68/EU referred to in Annex IV

Covered by this declaration is in conformity with the following directives, standards or other normative documents, provided that the product is used in accordance with our instructions:

- EN ISO 21922:2021 - Refrigerating systems and heat pumps. Valves. Requirements, testing and marking

- EN 378-2:2016 - Refrigerating systems and heat pumps. Safety and environmental requirements. Basic requirements, definitions, classification and selection criteria

Notified Body:

For products are defined as Category Ⅱ in tables above, are surveillance of the QS-System: examination / inspection / test during manufacturing:

Name:	TUV Rheinland Industrie Service GmbH
Address:	Am Grauen Stein, D-51105 Koln - Germany
Identification Number:	0035
EC-Certificate of conformity No:	01 202 CHN/Q-22 0740

Section 2 - Low Voltage Directive 2014/35/EU

Declaration:

Solenoid valves series, shown in the table 2-7, and all the electrical coils shown in the table 8 are in conformity to the following standards as required by the Low Voltage Directive 2014/35/EU.

Covered by this declaration is in conformity with the following directives, standards or other normative documents, provided that the product is used in accordance with our instructions:

Automatic electrical controls for household and similar use – Part 1 : General requirements

EN 60730-1:2017-05 ; EN 60730-1:2016; EN 60730-1:2016/A1:2019;

- **With sub-clauses 7/8/9/10/11/12/13/18/19/20/21/27**

Electrical Coils:

COIL NAME	SUITABLE FOR	Power Supply	Rated Voltage (V)	Applicability of 2014/35/EU
MQ-A03024-000xxx[1)]	MDF-A03/B03	AC	24	NO
MQ-A0311A-000xxx[2)]	MDF-A03/B03	AC	110 to 120	YES
MQ-A0322G-000xxx[3)]	MDF-A03/B03	AC	220 to 240	YES
MQ-A11024-xxxxxx	MDF-A03	AC	24	NO
MQ-A1111A-xxxxxx	MDF-A03	AC	110 to 120	YES
MQ-A1122G-xxxxxx	MDF-A03	AC	220 to 240	YES
MQ-D03110-xxxxxx	MDF-A03 2-3H MDF-A03 20-22H MDF-B03; MDF-D03	DC	110	YES
MQ-D03012-xxxxxx	MDF-A03 2-3H MDF-A03 20-22H MDF-B03; MDF-D03	DC	12	NO

MQ-D03024-xxxxxx	MDF-A03 2-3H MDF-A03 20-22H MDF-B03; MDF-D03	DC	24	NO
MQ-A02024-xxxxxx	MDF-A02	AC	24	NO
MQ-A0211A-xxxxxx	MDF-A02	AC	110 to 120	YES
MQ-A0222G-xxxxxx	MDF-A02	AC	220 to 240	YES
MQ-D02012-xxxxxx	MDF-A02	DC	12	NO
MQ-D02024-xxxxxx	MDF-A02	DC	24	NO
MQ-A03024-001xxx	HDF	AC	24	NO
MQ-A0311A-001xxx	HDF	AC	110 to 120	YES
MQ-A0322G-001xxx	HDF	AC	220 to 240	YES
HQ*G**	MDFxHyy/KDFxHyy	AC	220 to 240	YES
HQ*D**	MDFxHyy/KDFxHyy	AC	110 to 120	YES
HQ*K**	MDFxHyy/KDFxHyy	AC	24	NO
HQD*K**	MDFxHyy	DC	24	NO
HQD*Y**	MDFxHyy	DC	12	NO

Table 8

Note:

The applicability of the Directive 2014/35/EU as mentioned in the Article 1 is limited to the coil models with voltage rating of between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current.

All the products excluded by the Directive 2014/35/EU respects the following requirements:

- Are designed and manufactured in accordance with a sound engineering practice in order to ensure safe use.
- Are accompanied by adequate instructions for use
- Bear markings to permit identification of the manufacturer
- Don't bear CE marking referred to in Article 16 and Article 17
- Are not accompanied by a "Declaration of Conformity" to Directive 2014/35/EU referred to in Annex IV

For valves shown in Table 2,4,5,6.2,7 with coils shown in Table 9, additional test has been performed in order to allow the usage of the present electrical device with Flammable refrigerants as described in the EN-378-1/2012-08 Annex F section F.2.3, see Table 9 for reference.

Valve series	SUITABLE FOR	The additional requirements of the following standard have been considered and fulfilled
MDF-A03	MQ-A03024-000xxx[1)] MQ-A0311A-000xxx[2)] MQ-A0322G-000xxx[3)] MQ-D03012-xxxxxx MQ-D03024-xxxxxx MQ-D03110-xxxxxx	Household and similar electrical appliances – Safety **EN 60335-2-24 :2019-11; EN 60335-2-24 :2010/A1:2019** • **With sub-clauses 22.110** Household and similar electrical appliances – Safety **EN 60335-2-89:2018-10; EN 60335-2-89:2010/A2:2017** • **With sub-clauses 22.109**
MDF-A02	MQ-A02024-xxxxxx	Household and similar electrical appliance – Safety (Particular requirements for electrical heat pumps, air

	MQ-A0222G-xxxxxx MQ-D02012-xxxxxx MQ-D02024-xxxxxx	conditioner, dehumidifiers) **EN 60335-2-40/2014-01** **EN 60335-2-40/2003 + A11/2004 + A12/2005 + A1/2006 + A2/2009 + A13/2012** • **With sub-clauses 22.116(no electrical component, which could be a source of ignition in case of normal operation or in the event of a leak)** • **With sub-clauses 22.117 and Annex BB**
MDF-B03	MQ-A03024-000xxx[1)] MQ-A0311A-000xxx[2)] MQ-A0322G-000xxx[3)]	**EN IEC 60335-2-24:2022+A11:2022 Cl. 22.110** **EN IEC 60335-2-40:2023+A11:2023 Cl. 22.116, Cl. 22.117 and Annex BB** **EN IEC 60335-2-89:2022+A11:2022 Cl. 22.114** **IEC 60079-0:2017 Cl. 26.5.1.3** **IEC 60079-7:2015+A1:2018 Cl. 4.1 and Cl. 6.1**
MDFxHyy	HQ*G** HQ*D** HQ*K** HQD*K** HQD*Y**	**EN 60335-2-24: 2010 + A1: 2012 + A2: 2019, clause 22.110;** **EN 60335-2-40: 2003 + A11: 2004 + A12: 2005 + A1: 2006 + A2: 2009 + A13: 2012 + A13: 2012/AC: 2013, clause 22.116, 22.117 and Annex BB;** **EN 60335-2-89: 2010 + A1: 2016 + A2: 2017, clause 22.109** **IEC 60079-0: 2011, clause 26.5.1.3** **IEC 60079-15: 2010, clause 6.3.1, 6.4.1, 6.5.1**
KDFxHyy	HQ*G** HQ*D** HQ*K**	**EN IEC 60335-2-24:2022/A11:2022, clause 22.110.** **EN IEC 60335-2-89:2022, clause 22.109.** **EN 60335-2-40:2003/A13:2012/AC:2013, clause 22.116, 22.117 and Annex BB.** **IEC 60335-2-40:2022, clause 22.116, 22.117 and Annex BB.** **IEC 60079-0:2017, Abs. 26.5.1 , Abs. 26.4.5** **IEC 60079-7:2015+A1:2018, Abs. 6.1**
HDF	MQ-A03024-001xxx MQ-A0311A-001xxx MQ-A0322G-001xxx	**EN IEC 60335-2-24:2022 + A11:2022 Subclause 22.110.** **EN IEC 60335-2-89:2022/AC:2023-11 Subclause 22.114** **EN IEC 60335-2-40:2023 + A11:2023** **EN IEC 60335-2-40:2024/A11:2024 Subclause 22.116 (no electrical component, which could be a source of ignition in case of normal operation or in the event of a leak); subclause 22.117 (Annex BB)**

Table 9

1) Except of coils: MQ-A03024-000018/MQ-A03024-000023/MQ-A03024-000024
2) Except of coils:MQ-A0311A-000005/MQ-A0311A-010011/MQ-A0311A-000012
3) Except of coils: MQ-A0322G-000024/MQ-A0322G-010051/MQ-A0322G-000054/MQ-A0322G-000055
4) The "x","*" position: identifies an internal code
5) Coils MQ-D03012-xxxxxx/MQ-D03024-xxxxxx/MQ-D03110-xxxxxx can not be used with MDF A03 6-15H.

Responsible Person to issue the declaration of Conformity:	Date	Signature
Mr. Zhouyang Li	2026.9.16	