



浙江三花商用制冷有限公司
Zhejiang Sanhua Commercial Refrigeration Controls Co., Ltd

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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:

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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) (b) of Directive 2014/68/EU.

Summary:

Product Series	PS (bar)	Table
MDF-A03/D03	45	See Table 2
MDF-A03 RH	49	See Table 3
MDF-B03	45	See Table 4
MDF-A02	45	See Table 5
HDF	45	See Table 6

Table 1

Description of Products:

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2		
	Models	DN	Connection	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016
	MDF-A03-xL yyy [from size 2 to size 15]	-	from 1/4" to 7/8"	NA	-	Art. 4.3	-
	MDF-A03-xH yyy [from size 2 to size 20]	from 4,95 to 19,8mm	from 1/4" to 1" 1/8"	Art. 4.3	-	Art. 4.3	-
	MDF-D03-xH yyy [from size 6 to size 15]	from 7,92 to 19,8mm	from 3/8" to 7/8"	Art. 4.3	-	Art. 4.3	-
	MDF-A03-22H xxx	19,8mm	7/8" or 28mm	Art. 4.3	-	Art. 4.3	-
	MDF-A03-22H yyy	25,58mm	from 1" 1/8 to 1" 3/8	NOT CERTIFIED	-	Art. 4.3	-

Table 2

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2		
	Models	DN	Connection ØD ODS	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016
	MDF-A03-xRH yy [from size 2 to size 22]	from 4,95 to 19,8mm	from 1/4" to 1" 1/8"	Art. 4.3	-	Art. 4.3	-
	MDF-A03-22RH xx	25,58mm	from 7/8" to 1" 3/8	Cat.II	D	Art. 4.3	-

Table 3

TS (°C)	-40 to +140		Fluid Group 1		Fluid Group 2		
	Models	DN	Connection ØD ODS	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016
	MDF-B03-25H003	25.58	1" 1/8	Cat. II	D	Art. 4.3	-
	MDF-B03-25H005	25.58	28mm	Cat. II	D	Art. 4.3	-
	MDF-B03-25H004	31.0	1" 3/8	Cat. II	D	Art. 4.3	-
	MDF-B03-32H001	31.0	1" 3/8	Cat. II	D	Art. 4.3	-
	MDF-B03-32H002	37.28	1" 5/8	Cat. II	D	Cat.I	A (point 1)
	MDF-B03-32H003	37.28	42mm	Cat. II	D	Cat.I	A (point 1)
	MDF-B03-40H002	37.28	1" 5/8	Cat. II	D	Cat.I	A (point 1)
	MDF-B03-40H003	37.28	42mm	Cat. II	D	Cat.I	A (point 1)
	MDF-B03-40H004	46.4	54mm (2" 1/8)	Cat. II	D	Cat.I	A (point 1)

Table 4

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2		
	Models	DN	Connection	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016	Safety category	Part 3 – Pressure Equipment (Safety) Regulations 2016
	MDF-A02-xL yyy [from size 6 to size 15]	-	from 3/8" to 7/8"	NA	-	Art. 4.3	-
	MDF-A02-xH yyy [from size 6 to size 22]	from 7,92 to 19,8	From 3/8" to 1" 3/8	Art. 4.3	-	Art. 4.3	-
	MDF-A02-22H008	26,18	1" 1/8	NOT CERTIFIED	-	Art. 4.3	-
	MDF-A02-22H 004	25,58	35mm (1" 3/8)	NOT CERTIFIED	-	Art. 4.3	-

Table 5

TS (°C)	-30 to +105		Fluid Group 1		Fluid Group 2	
Models	DN	Connection ØD ODS	Safety category	Part 3 – annex III – PED Directive 2014/68/EU	Safety category	Part 3 – annex III – PED Directive 2014/68/EU
HDFxHyy [from size 3 to size 22]	from 6,35 to 28,6	from 1/4" to 1" 3/8	Art. 4.3	-	Art. 4.3	-
HDF22H02	22,2	35mm (1" 3/8)	NOT CERTIFIED	-	Art. 4.3	-

Table 6

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 2-6, and all the electrical coils shown in the table 7 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**

For valves shown in Table 2-3(except for MDF-D03 series) , with coil MQ-A0322G-xxxxxx shown in Table 7, 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

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**

Household and similar electrical appliance – Safety
(Particular requirements for electrical heat pumps, air 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**

Electrical Coils:

COIL NAME	SUITABLE FOR	Power Supply	Rated Voltage (V)	Applicability of 2014/35/EU
MQ-A03024-xxxxxx	MDF A03/B03	AC	24	NO
MQ-A0311A-xxxxxx	MDF A03/B03	AC	110 to 120	YES
MQ-A0322G-xxxxxx	MDF A03/B03	AC	220 to 240	YES
MQ-A11024-xxxxxx	MDF A03/B03	AC	24	NO
MQ-A1111A-xxxxxx	MDF A03/B03	AC	110 to 120	YES
MQ-A1122G-xxxxxx	MDF A03/B03	AC	220 to 240	YES
MQ-D03012-xxxxxx	MDF A03 2-3H MDF D03 6-15H MDF A03 20-22H	DC	12	NO
MQ-D03024-xxxxxx	MDF A03 2-3H MDF D03 6-15H MDF A03 20-22H	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

Table 7

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.

Responsible Person to issue the declaration of Conformity:	Date	Signature
Mr. Zhouyang Li	2022.12.23	周祥

