

**Danfoss A/S**

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**MANUFACTURER'S DECLARATION****Danfoss A/S****Danfoss Cooling Segment**

declares under our sole responsibility that the

**Product category :** Check Valve , differential pressure valve , Shut off valve , Sight glass

**Type designation(s):**

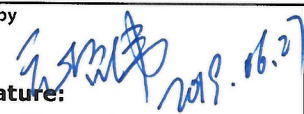
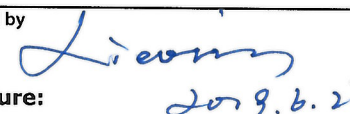
Check valves	Type NRV(H), NRV10s H
Differential pressure valve	Type NRD
Sight glasses	Type SG, SGP
Shut-off valve	Type BM ,GBC, CBV

Covered by this declaration is in conformity with the following directive(s), standard(s) or other normative document(s), provided that the product is used in accordance with our instructions.

**Pressure Equipment Directive 2014/68/EU**

EN 12284: 2003 "Refrigerating systems and heat pumps – Valves – Requirements, Testing and marking";

Types	Range	DN (mm)	PS (Bar)	Fluid Group	Ts (°C)	PED category
NRV(H) NRD	NRV(H) 6~22 NRD 6~12s	6-25	46	I(1), II	-50 ~ 140	Article 4, Paragraph 3
	NRV(H) 22~28	25-32	46	II	-50 ~ 140	
	NRV6~19 NRD6~12s NRV(H) 22-28s	6-22	49	I(1), II	-50 ~ 155	
NRV10s H	10s	10	90	II	-50 ~ 140	
SG	SGR,SG6~22	6-25	35	II	-50 ~ 80	
	SGRH,SGH6~22	6-25	46	II	-50 ~ 80	
SGP	SGPR, SGP6~22	6-25	52	I(2),II	-50 ~ 80	
BM	BMT6,BML6~22	6~22	28	I(3),II	-55 ~100	

Date: 2019.06.27 Place of issue: 301700 Tianjin China	Issued by  Signature: Name: Yuan Zhewei Title: Senior Specialist	Date: 2019.06.27 Place of issue: 301700 Tianjin China	Approved by  Signature: Name: Jing(Amy) Xiao Title: Director of RD&E , RAC-RPC
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Types	Range	DN (mm)	PS (Bar)	Fluid Group	Ts (°C)	PED category
GBC	6s~28s	6~25	45	I <sup>(4)</sup> ,II	-40 ~150*	Article 4, Paragraph 3
	28~35s	25~32	45	II	-40 ~150*	
	6~28s	6~25	49	I <sup>(5)</sup>	-40 ~100	
GBC CO2	6s~28s	6~32	90	II	-40 ~100	
CBV	6s~28s	6~32	45	II	-30 ~120	

**Note:**

-Fluid group II (non-toxic and non-flammable refrigerants) ;

-Fluid group I (toxic and flammable refrigerants),

(1) include R32 , R290 ,R454A, R452B , R454B , R454C, R455A, R516A, R600 , R600a , R1234yf , R1270 ;

(2) include R32 , R290 , R452B , R454B , R600 , R600a , R1234yf , R1270 ;

(3) include R290, R600 , R600a , R516A, R1270 , R1234yf;

(4) include R290 ,R452B , R454B;

(5) include R32, R452B , R454A , R454B , R454C , R455A , R516A;

\* -40°C -150°C (short term 100°C to 150°C), for long term use in high temperature (Temp.> 100°C) application, please consult Danfoss

### **Ignition Hazard Assessments for component(s) used in fluid group I were conducted in accordance to :**

EN ISO 80079-36 Non-electrical equipment for explosive atmospheres – Basic method and requirements

EN ISO 80079-37 Non-electrical equipment for explosive atmospheres – Non-electrical type of protection constructional safety "c"

The component(s) do not have its own source of ignition according to 2014/34/EU, Article 2 when operated as intended in normal conditions (Category3, Zone 2)

Equipment used for the above condition must be installed and maintained at least according to the requirements in one of the following standards:

IEC60335-2-24/ IEC60335-2-40/ IEC60335-2-89/ EN378/ ISO5149/ GBT9237