

YCVS/YCVS-R SERIES

CHECK VALVE – PISTON TYPE



Piston type check valves are designed for installation in commercial refrigerating systems and in residential or industrial air conditioning plants. They are used to control the unidirectional flow of refrigerant to prevent backflow. All the Check Valves listed in this datasheet can be installed in system using flammable refrigerants HFO (categories A2* and A2L*), and Hydrocarbons HC (category A3*).

FEATURES

- THIS VALVE CAN ENSURE THE ONLY CORRECT FLOW DIRECTION
- EQUIPPED WITH DAMPING SPRING TO FREELY INSTALL THE VALVE AT POSITIONS WITH PRESSURE PULSE
- AVAILABLE IN TWO TYPES OF MODEL: STRAIGHTWAY VALVE AND L-SHAPE VALVE, EASY TO CONNECT
- SPECIAL VERSION OF CHECK VALVE EQUIPPED WITH REINFORCED SPRING, APPLICABLE TO COMPRESSOR DISCHARGE PIPES IN SINGLE OR MULTI COMPRESSOR SYSTEMS (YCVSH & YCVSH-R SERIES)
- LOW PRESSURE DROPS DURING OPERATION
- CERTIFIED ACCORDING PED CAT.II BY TUV RHEINLAND

GENERAL SPECIFICATIONS

- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R404A, R407A/C/F, R410A, R507A, R448A, R449A, R450A, R452A, R513A, R32, R1234yf, R1234ze(E), R454A/B/C, R455A, R290, R1270, R600a, R744
- Medium temperature TS min./max.: -50°C / +150°C
- Max. operating pressure PS: 4,6 (46bar) or 4,9 MPa (49 bar) depending by the model
- Installation position:
 - Flow direction corresponds to the arrow
 - The suggested positions are described in the installation instructions
- Declaration according to PED
- Certifications: UL/CSA available only for models with size until YCVS20. For bigger sizes on request

Note: *according ANSI-ASHRAE 34-2016 and EN-378-1 ANNE EN 378-1:2016 Annex E

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1. MODELS WITH NORMAL PISTON SPRING

General Characteristics													
Model	Product Number	Type	Connections Ø d ODF		Kv	Min. OPD	Dimensions			Weight	PS	PED Category [Fluid Group 1]	PED Category [Fluid Group 2]
			[inch]	[mm]			ØD	C	E				
			[m³/h]	[kPa]	[mm]	[mm]	[mm]	[Kg]	[bar]				
YCVS 5-11GSHC-1	10160030202	S	-	6	0,6	5	5	90	18	0,046	46	Art. 4.3	Art. 4.3
YCVS 5-22GSHC-1	10160024502	S	1/4	-	0,6	5	5	90	18	0,046	46	Art. 4.3	Art. 4.3
YCVS 8-33GSHC-1	10160024602	S	3/8	-	1,4	5	8	110	18	0,056	46	Art. 4.3	Art. 4.3
YCVS 8-33GSHC-2	10160031302	S	-	10	1,4	5	8	110	18	0,057	46	Art. 4.3	Art. 4.3
YCVS 10-33GSHC-1	10160023802	S	-	12	2,1	5	10	130	22	0,081	46	Art. 4.3	Art. 4.3
YCVS 10-44GSHC-1	10160023902	S	1/2	-	2,1	5	10	130	22	0,081	46	Art. 4.3	Art. 4.3
YCVS 13-55GSHC-1	10160024002	S	5/8	16	3,9	5	13	140	28	0,154	46	Art. 4.3	Art. 4.3
YCVS 17-55GSHC-1	10160024202	S	-	18	5,5	5	17	165	34	0,223	46	Art. 4.3	Art. 4.3
YCVS 17-66GSHC-1	10160024102	S	3/4	-	5,5	5	17	165	34	0,224	46	Art. 4.3	Art. 4.3
YCVS 17-77GSHC-1	10160025002	S	7/8	22	5,5	5	17	165	34	0,231	46	Art. 4.3	Art. 4.3
YCVS 20-77GSHC-1	10160030002	L	7/8	22	13,2	10	20	132	87	0,427	46	Art. 4.3	Art. 4.3
YCVS 26-88GSHC-1R	10160055602	L	-	28	19,0	10	26	196	123	1,050	49	Cat.II	Art. 4.3
YCVS 26-99GSHC-1R	10160055802	L	1 1/8	-	19,0	10	26	196	123	1,132	49	Cat.II	Art. 4.3
YCVS 31-BBGSHC-1R	10160056002	L	1 3/8	35	29,1	10	31	196	123	1,154	49	Cat.II	Art. 4.3
YCVS 31-DDGSHC-1R	10160056202	L	1 5/8	-	29,1	10	31	196	123	1,182	49	Cat.II	Art. 4.3
YCVS 31-DDGSHC-2R	10160053602	L	-	42	29,1	10	31	196	123	1,184	49	Cat.II	Art. 4.3

Note on layout type: S = straight-way shape; L = angle shape

Note: For the simulation of the performance, please refer to the Sanhua selection tool "Quickfinder" or ask your local support.

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2. MODELS WITH REINFORCED PISTON SPRING

General Characteristics													
Model	Product Number	Type	Connections Ø d ODF		Kv	Min. OPD	Dimensions			Weight	PS	PED Category [Fluid Group 1]	PED Category [Fluid Group 2]
			[inch]	[mm]			ØD	C	E				
			[mm ³ /h]	[kPa]	[mm]	[mm]	[mm]	[Kg]	[bar]				
YCVSH 8-33GSHC-1	10160030502	S	3/8	-	1,4	15	8	110	18	0,056	46	Art. 4.3	Art. 4.3
YCVSH 8-33GSHC-2	10160033202	S	-	10	1,4	15	8	110	18	0,057	46	Art. 4.3	Art. 4.3
YCVSH 10-33GSHC-1	10160029102	S	-	12	2,1	15	10	130	22	0,081	46	Art. 4.3	Art. 4.3
YCVSH 10-44GSHC-1	10160024802	S	1/2	-	2,1	15	10	130	22	0,082	46	Art. 4.3	Art. 4.3
YCVSH 13-55GSHC-1	10160024902	S	5/8	16	3,9	15	13	140	28	0,154	46	Art. 4.3	Art. 4.3
YCVSH 17-55GSHC-1	10160036902	S	-	18	5,5	15	17	165	34	0,223	46	Art. 4.3	Art. 4.3
YCVSH 17-66GSHC-1	10160028202	S	3/4	-	5,5	15	17	165	34	0,225	46	Art. 4.3	Art. 4.3
YCVSH 17-77GSHC-1	10160037502	S	7/8	22	5,5	15	17	165	34	0,231	46	Art. 4.3	Art. 4.3
YCVSH 20-77GSHC-1	10160034602	S	7/8	22	13,2	30	20	132	87	0,429	46	Art. 4.3	Art. 4.3
YCVSH 26-88GSHC-1R	10160055702	S	-	28	19,0	30	26	196	123	1,061	49	Cat.II	Art. 4.3
YCVSH 26-99GSHC-1R	10160055902	L	1 1/8	-	19,0	30	26	196	123	1,063	46	Cat.II	Art. 4.3
YCVSH 31-BBGSHC-1R	10160056102	L	1 3/8	35	29,1	30	31	196	123	1,154	49	Cat.II	Art. 4.3
YCVSH 31-DDGSHC-1R	10160056302	L	1 5/8	-	29,1	30	31	196	123	1,195	49	Cat.II	Art. 4.3
YCVSH 31-DDGSHC-2R	10160056502	L	-	42	29,1	30	31	196	123	1,195	49	Cat.II	Art. 4.3
YCVS 31-DDGSHC-1R	10160056202	L	1 5/8	-	29,1	10	31	196	123	1,182	49	Cat.II	Art. 4.3
YCVS 31-DDGSHC-2R	10160053602	L	-	42	29,1	10	31	196	123	1,184	49	Cat.II	Art. 4.3

Note on layout type: S = straight-way shape; L = angle shape

