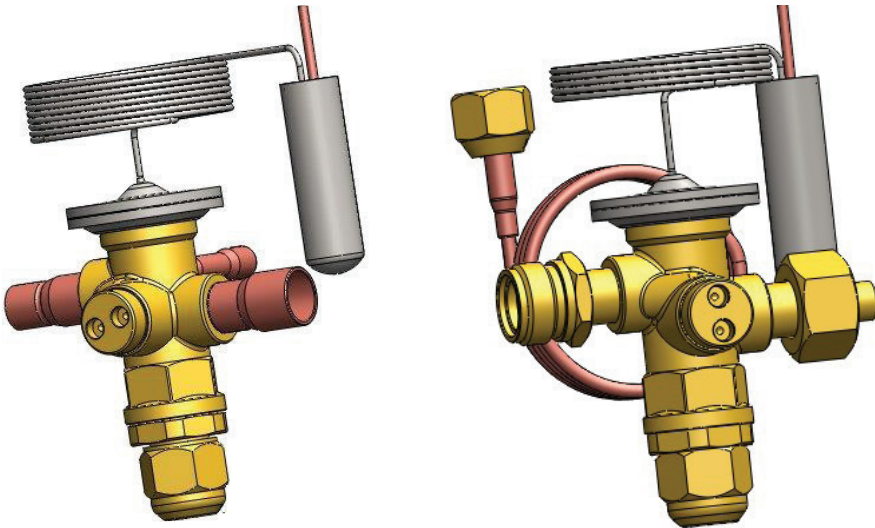


RFGF SERIES | *Thermostatic Expansion Valve*



RFGF series thermostatic expansion valves are used to regulate refrigerant flow into the evaporator while controlling the refrigerant's superheat at the outlet of the evaporator. They incorporate an internal check valve which makes them ideal for use in AC/Heat pump systems.

FEATURES

- AN INTERNAL CHECK VALVE WITH A VERY LOW PRESSURE DROP AT FULL FLOW
- STAINLESS STEEL POWER ELEMENT, CAPILLARY TUBE AND BULB
- ADSORPTION CHARGE FOR STABLE SYSTEM OPERATION AND HIGHER EFFICIENCY
- LASER WELDED POWER ELEMENT

GENERAL SPECIFICATION

- Applicable for R-22 and R-410A
- Maximum operating pressure:
 - R-22: 500 psig (3.5MPa)
 - R-410A: 670 psig (4.6MPa)
- Installation position: It is recommended to install the power element in the upright position with flow direction from inlet A to outlet D
- Certifications: UL/CSA and PED declaration

TECHNICAL PARAMETERS

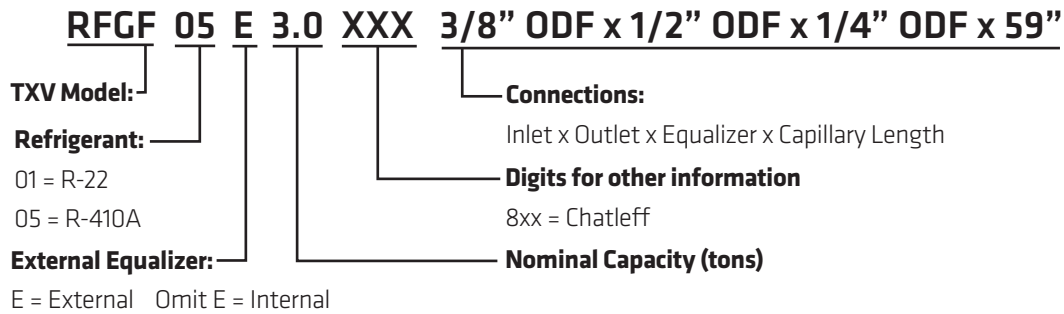
- RFGF valves are available in straight through configuration
- Adjustable superheat or fixed superheat
- Internal check valve
- Connection types:
 - Chatleff: Inlet: Male Chatleff
Outlet: Female Chatleff
 - External Equalizer: 1/8" ODx24" with 1/4" Female SAE Flare
 - Solder: Inlet: 3/8"ODF, 1/2"ODF, or 5/8"ODF
Outlet: 3/8"ODF, 1/2"ODF, or 5/8"ODF
External Equalizer: 1/4"ODF
- Capillary tube length: 60" (1500mm)
- Power element charge and MOP:
- Temperature range = -22°F to 50°F; with or without 59°F MOP

PRODUCT DATA



RFGF SERIES | *Thermostatic Expansion Valve*

MODEL DESIGNATION

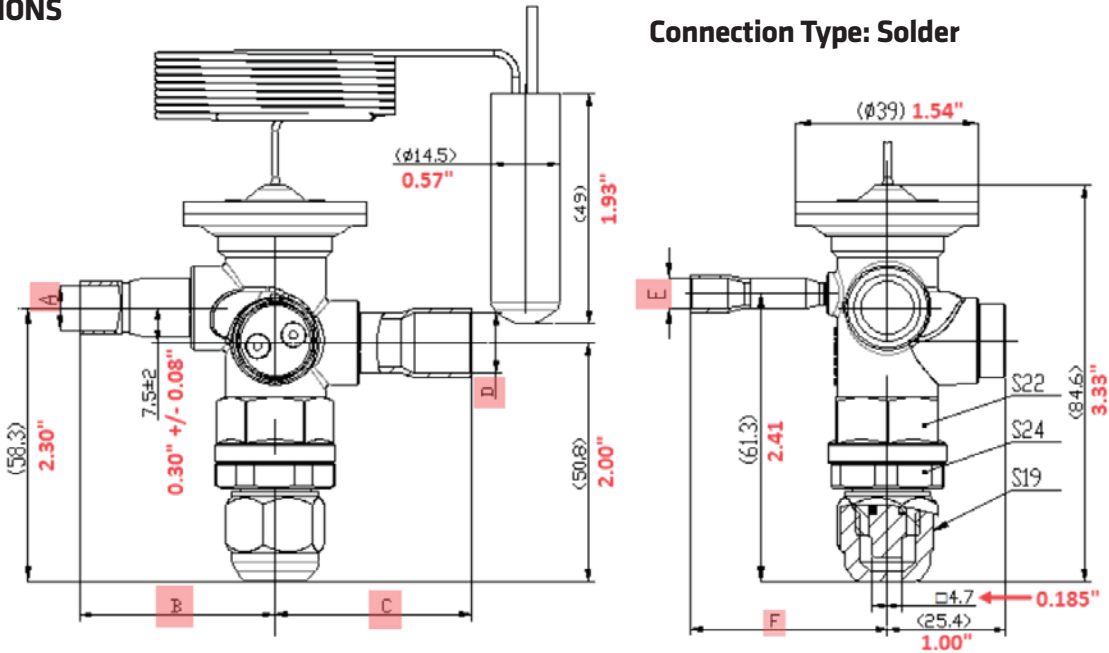


TECHNICAL DATA

Ref.	Model Name	Connection Type	Inlet (inch)	Outlet (inch)	External Pressure Equalizer (inch)	Capillary Tube Length Solder (inch)	External Tube Length	
R-22	RFGF01E-1.0-401	Solder	3/8 ODF	1/2 ODF	1/4 ODF	60	-	
	RFGF01E-2.0-402							
	RFGF01E-3.0-403							
	RFGF01E-4.0-404							
	RFGF01E-5.0-405							
	RFGF01E-6.0-406							
	R-22	RFGF01E-1.0-801	Chatleff	Chatleff (Male)	Chatleff (Female)	1/8 ODx24 with 1/4 SAE Female Flare	60	-
		RFGF01E-2.0-802						
		RFGF01E-3.0-803						
		RFGF01E-4.0-804						
RFGF01E-5.0-805								
RFGF01E-6.0-806								
R-410A	RFGF05E-1.0-411	Solder	3/8 ODF	1/2 ODF	1/4 ODF	60	-	
	RFGF05E-1.5-410							
	RFGF05E-2.0-412							
	RFGF05E-3.0-413							
	RFGF05E-4.0-414							
	RFGF05E-5.0-415							
	RFGF05E-6.0-416							
	RFGF05E-7.0-417							
	RFGF05E-8.0-418							
	RFGF05E-9.0-419							
	R-410A	RFGF05E-1.0-811	Chatleff	Chatleff (Male)	Chatleff (Female)	1/8 ODx24 with 1/4 SAE Female Flare	60	-
		RFGF05E-1.5-810						
		RFGF05E-2.0-812						
		RFGF05E-3.0-813						
		RFGF05E-4.0-814						
		RFGF05E-5.0-815						
		RFGF05E-6.0-816						
		RFGF05E-7.0-817						
RFGF05E-8.0-818								
RFGF05E-9.0-819								

RFGF SERIES | Thermostatic Expansion Valve

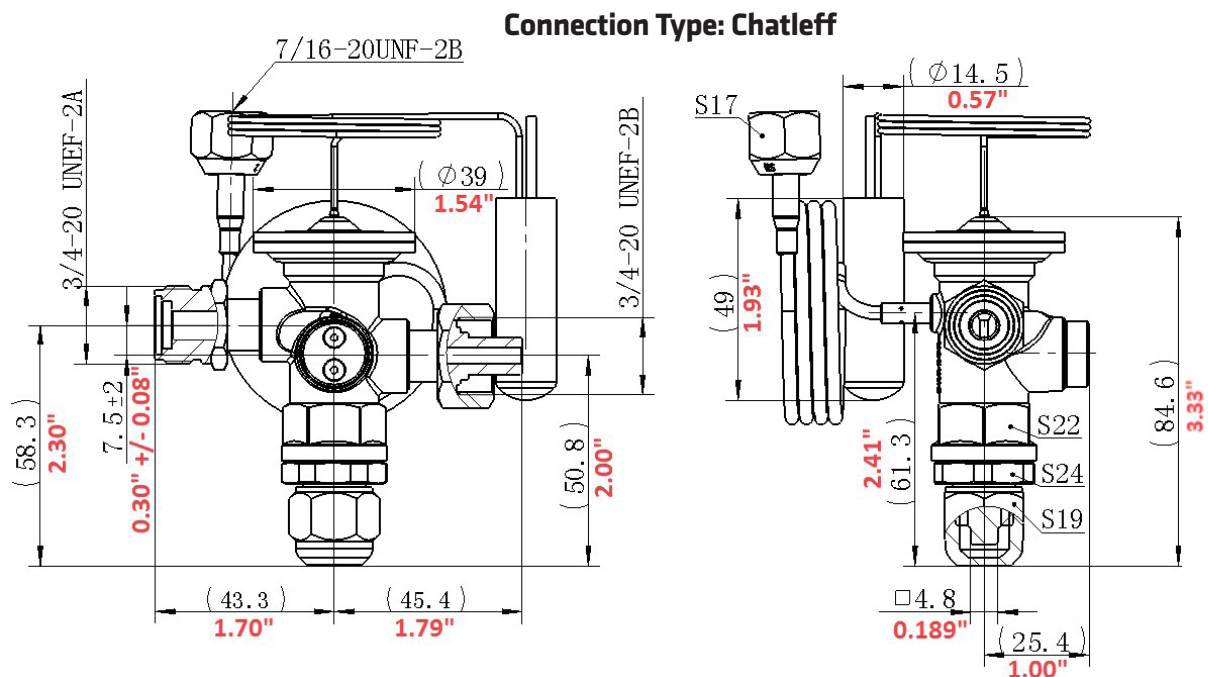
DIMENSIONS



Inlet Solder Connection Size	Dim A in (mm)	Dim B in (mm)
3/8" ODF	.378 / .384 (9.60/9.75)	1.62 +/- .06 (41.1 +/- 1.5)
1/2" ODF	1.65 +/- .06 (41.9 +/- 1.5)	.504/.510
5/8" ODF	Available on request	

Outlet Solder Connection Size	Dim C in (mm)	Dim D in (mm)
3/8" ODF	.378 / .384 (9.60/9.75)	1.62 +/- .06 (41.1 +/- 1.5)
1/2" ODF	1.65 +/- .06 (41.9 +/- 1.5)	.504/.510 (12.80/12.95)
5/8" ODF	Available on request	

External Equalizer Solder Connection Size	Dim E in (mm)	Dim F in (mm)
1.4" ODF	.256 / .262 (6.50 / 6.65)	1.65 +/- .06 (41.9 +/- 1.5)



RFGF SERIES | *Thermostatic Expansion Valve*

REFRIGERANT CAPACITY TABLES

R-410A Capacities (tons)

	Nominal Capacity (tons)	Evaporator Temperature (°F)											
		50°						40°					
		Pressure Drop (psi)											
		80	120	160	200	240	280	80	120	160	200	240	280
RFGF	1	0.74	0.91	1.05	1.17	1.28	1.38	0.72	0.88	1.02	1.14	1.24	1.34
	1.5	1.12	1.37	1.58	1.77	1.94	2.09	1.06	1.29	1.49	1.67	1.83	1.98
	2	1.50	1.84	2.12	2.37	2.60	2.81	1.41	1.73	2.00	2.24	2.45	2.65
	3	2.24	2.74	3.17	3.54	3.88	4.19	2.13	2.61	3.02	3.37	3.69	3.99
	4	3.00	3.67	4.24	4.74	5.19	5.61	2.83	3.47	4.00	4.47	4.90	5.29
	5	3.74	4.58	5.29	5.91	6.47	6.99	3.55	4.35	5.02	5.61	6.14	6.64
	6	4.48	5.48	6.33	7.08	7.75	8.38	4.27	5.22	6.03	6.74	7.39	7.98
	7	5.24	6.41	7.41	8.28	9.07	9.80	4.96	6.08	7.02	7.85	8.60	9.28
	8	5.98	7.32	8.45	9.45	10.4	11.2	5.68	6.96	8.03	8.98	9.84	10.6
9	6.72	8.22	9.50	10.6	11.6	12.6	6.38	7.81	9.02	10.1	11.0	11.9	

	Nominal Capacity (tons)	Evaporator Temperature (°F)											
		20°						0°					
		Pressure Drop (psi)											
		80	120	160	200	240	280	80	120	160	200	240	280
RFGF	1	0.53	0.65	0.75	0.83	0.91	0.99	0.44	0.51	0.57	0.62	0.67	0.72
	1.5	0.78	0.96	1.11	1.24	1.35	1.46	0.67	0.78	0.87	0.95	1.03	1.10
	2	1.03	1.27	1.46	1.64	1.79	1.94	0.91	1.05	1.17	1.28	1.38	1.48
	3	1.56	1.91	2.21	2.47	2.71	2.92	1.34	1.55	1.74	1.90	2.05	2.20
	4	2.09	2.56	2.96	3.31	3.62	3.91	1.81	2.09	2.34	2.56	2.77	2.96
	5	2.60	3.18	3.67	4.11	4.50	4.86	2.25	2.60	2.90	3.18	3.44	3.67
	6	3.13	3.83	4.42	4.94	5.41	5.85	2.72	3.14	3.51	3.84	4.15	4.43
	7	3.65	4.47	5.17	5.78	6.33	6.83	3.16	3.64	4.07	4.46	4.82	5.15
	8	4.16	5.10	5.88	6.58	7.21	7.78	3.60	4.15	4.64	5.08	5.49	5.87
9	4.69	5.74	6.63	7.41	8.12	8.77	4.06	4.69	5.24	5.74	6.20	6.63	

LIQUID TEMPERATURE CORRECTION FACTORS

Refrigerant	Liquid Temperature Entering TXV (°F)											
	40°	50°	60°	70°	80°	90°	98°	100°	110°	120°	130°	140°
	Correction Factor											
R-410A	1.45	1.37	1.30	1.22	1.14	1.06	1.00	0.98	0.90	0.81	0.72	0.62

Ratings are in accordance with AHRI Standard 750-2016

RFGF SERIES | *Thermostatic Expansion Valve*

REFRIGERANT CAPACITY TABLES

R-22 Capacities (tons)

	Nominal Capacity (tons)	Evaporator Temperature (°F)											
		50°						40°					
		Pressure Drop (psi)											
		75	100	125	150	175	200	75	100	125	150	175	200
RFGF	1	0.92	1.06	1.19	1.30	1.40	1.50	0.87	1.00	1.12	1.22	1.32	1.41
	2	1.53	1.77	1.98	2.17	2.34	2.50	1.45	1.67	1.87	2.05	2.21	2.36
	3	2.29	2.64	2.95	3.23	3.49	3.73	2.16	2.49	2.78	3.05	3.29	3.52
	4	3.07	3.54	3.96	4.34	4.68	5.01	2.90	3.35	3.75	4.10	4.43	4.74
	5	3.82	4.41	4.93	5.40	5.83	6.24	3.60	4.16	4.65	5.09	5.50	5.88
	6	4.62	5.34	5.97	6.54	7.06	7.55	4.36	5.04	5.63	6.17	6.67	7.13

	Nominal Capacity (tons)	Evaporator Temperature (°F)											
		20°						0°					
		Pressure Drop (psi)											
		75	100	125	150	175	200	75	100	125	150	175	200
RFGF	1	0.63	0.73	0.82	0.89	0.97	1.03	0.44	0.51	0.57	0.62	0.67	0.72
	2	1.06	1.22	1.36	1.49	1.61	1.73	0.74	0.85	0.95	1.04	1.12	1.20
	3	1.58	1.82	2.03	2.23	2.41	2.57	1.10	1.27	1.42	1.56	1.68	1.80
	4	2.12	2.45	2.74	3.00	3.24	3.46	1.48	1.71	1.91	2.09	2.26	2.42
	5	2.64	3.05	3.41	3.74	4.03	4.31	1.85	2.14	2.39	2.62	2.83	3.03
	6	3.19	3.68	4.11	4.51	4.87	5.20	2.23	2.57	2.87	3.15	3.40	3.63

LIQUID TEMPERATURE CORRECTION FACTORS

Refrigerant	Liquid Temperature Entering TXV (°F)											
	40°	50°	60°	70°	80°	90°	98°	100°	110°	120°	130°	140°
	Correction Factor											
R-22	1.33	1.27	1.22	1.16	1.10	1.05	1.00	0.98	0.93	0.87	0.81	0.74

Ratings are in accordance with AHRI Standard 750-2016