

Pressure Relief Valves & Devices

Protecting from sudden pressure build-up

Pressure rise in liquid-filled transformers is a very important parameter to determine signs of deterioration in performance or upcoming failure.

Pressure Relief Valves and Devices are used to prevent rapid build-up of pressure within the transformer tank.

The Pressure Relief Valve or Device will trigger when accidental, instantaneous, and uncontrolled increases in pressure to avoid an explosion. Certain models allow to direct the oil to reduce the risk to personnel and diminish the environmental impact of an oil spill.

The Pressure Relief Valves (PRV) and Pressure Relief Devices (PRD) are designed to discharge the pressure very quickly and at pre-set thresholds. Our PRV or PRD will discharge rapidly increasing internal pressures that could be caused by a sudden and violent short circuit inside a transformer. These safety accessories reduce risk of possible injury to nearby personnel, equipment and environmental damages that would be caused by a catastrophic transformer failure.



Features:

- Flexibility in product sizes
- Robust design and field-proven reliability
- Precision and tested quality
- Quick Quotes and Deliveries

Applications:

- IEEE small and medium distribution transformers
- IEC medium and large distribution transformers
- IEC small and medium power transformers

Flexibility

Our pressure relief devices can be used for different sizes of oil-filled distribution and power transformers, in both the IEC and IEEE markets. Some models offer contact options:

Oil Volume (dm3)	Product	Standard* Compliant	Transformer Connection	Tank Hole Size	Pressure Setting (bar)	Switch	Product Number
≤ 1000	T-0.5 	-	Threaded	1/2" 14 NPT	0.35(5 psi)	n/a	1ZTE001001F0001
					0.70 (10 psi)		1ZTE001001F0002
≤ 2000	T-10 	●	Threaded	G1'	0.30	n/a	1ZTE003001F0034
					0.35		1ZTE003001F0035
					0.50		1ZTE003001F0037
		-		G1 1/2"	0.30	n/a	1ZTE003001F0044
					0.35		1ZTE003001F0045
					0.50		1ZTE003001F0047
≤ 3000	V-50 	-	4 hole flange	Ø50 mm	0.30	n/a	1ZTE007001F0001
					0.35		1ZTE007001F0002
					0.50		1ZTE007001F0004
					0.70		1ZTE007001F0003
	T-50 	●	4 hole flange	Ø75 mm	0.30	2xCO	1ZTE005001F0023
					0.35		1ZTE005001F0025
					0.50		1ZTE005001F0030
					0.70		1ZTE005001F0033
	T-50C 	●	4 hole flange	Ø75 mm	0.30	1xNO/NC	1ZTE010002F0002
						2xNO/NC	1ZTE010003F0002
						3xNO/NC	1ZTE010004F0002
					0.35	1xNO/NC	1ZTE010002F0003
						2xNO/NC	1ZTE010003F0003
						3xNO/NC	1ZTE010004F0003
					0.50	1xNO/NC	1ZTE010002F0006
						2xNO/NC	1ZTE010003F0006
						3xNO/NC	1ZTE010004F0006
					0.70	1xNO/NC	1ZTE010002F0010
						2xNO/NC	1ZTE010003F0010
						3xNO/NC	1ZTE010004F0010
	T-50CF 	●	4 hole flange	Ø75 mm	0.30	1xNO/NC	1ZTE010006F0002
						2xNO/NC	1ZTE010007F0002
3xNO/NC						1ZTE010008F0002	
0.35					1xNO/NC	1ZTE010006F0003	
					2xNO/NC	1ZTE010007F0003	
					3xNO/NC	1ZTE010008F0003	
0.50					1xNO/NC	1ZTE010006F0006	
					2xNO/NC	1ZTE010007F0006	
					3xNO/NC	1ZTE010008F0006	
0.70					1xNO/NC	1ZTE010006F0010	
					2xNO/NC	1ZTE010007F0010	
					3xNO/NC	1ZTE010008F0010	

≤ 9000	V-80 	-	4 hole flange	Ø80 mm	0.35	n/a	1ZTE008001F0003
					0.70		1ZTE008001F0004
	T-80 	●	4 hole flange	Ø100 mm	0.35	1xNO/NC	1ZTE006007F0002
						2xNO/NC	1ZTE006008F0002
						3xNO/NC	1ZTE006009F0002
					0.70	1xNO/NC	1ZTE006007F0009
						2xNO/NC	1ZTE006008F0009
						3xNO/NC	1ZTE006009F0009
					0.35	1xNO/NC	1ZTE006001F0011
						2xNO/NC	1ZTE006001F0002
						3xNO/NC	1ZTE006001F0034
		-	6 hole flange		0.70	1xNO/NC	1ZTE006001F0018
						2xNO/NC	1ZTE006001F0008
						3xNO/NC	1ZTE006001F0035
	T-80C 	●	4 hole flange	Ø100 mm	0.35	1xNO/NC	1ZTE011002F0002
						2xNO/NC	1ZTE011003F0002
						3xNO/NC	1ZTE011004F0002
					0.70	1xNO/NC	1ZTE011002F0009
						2xNO/NC	1ZTE011003F0009
						3xNO/NC	1ZTE011004F0009
T-80CF 	●	4 hole flange	Ø100 mm	0.35	1xNO/NC	1ZTE011006F0002	
					2xNO/NC	1ZTE011007F0002	
					3xNO/NC	1ZTE011008F0002	
				0.70	1xNO/NC	1ZTE011006F0009	
					2xNO/NC	1ZTE011007F0009	
					3xNO/NC	1ZTE011008F0009	
≤ 25000	V-125 	-	8 hole flange	Ø125 mm	0.25	n/a	1ZTE009001F0003
					0.80		1ZTE009001F0004

*Complies with EN 50216-5, IEC 60076-22-1 standards.

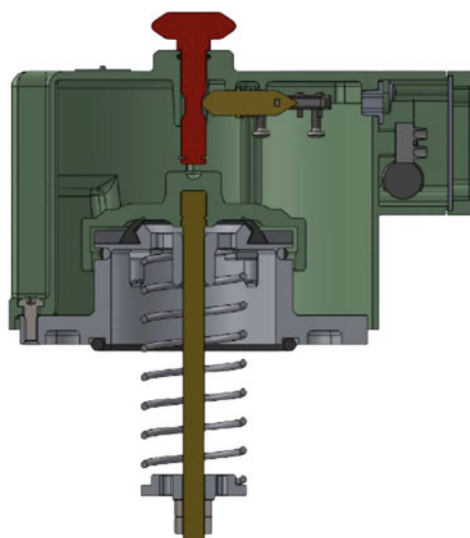
Custom options are available on request, including pressure settings, contact types, color and C5 Medium corrosion protection.

Robust design and field-proven reliability

The Pressure Relief Devices are offered with or without protective covers and conveyor duct, allowing the transformer manufacturer to choose the best fit for the application and regulations.

While our dual gasket design provides amplified force for rapid operation, especially calibrated springs moves the disks on the product to release the internal pressure that exceeded the pre-defined threshold. The T-50 & T-80 series contacts will also remain activated after sending the signal until they are reset by using the visual indicator on top.

Our PRDs have been installed for decades in the harshest environments on earth testifying to the robustness of our designs and quality of our products.



Precision and Testing



Quality is a priority for us. We offer technology leadership, backed by a proven record of addressing diverse challenges and improving standard practices. Our product portfolio is the result of research, manufacturing, and servicing transformers, making us unique in the industry.

All our Pressure Relief Devices are fully tested for precision and operation before dispatch. Some of our manufacturing lines are entirely automated, allowing us to manufacture and test quickly per standards and specifications.

Customers worldwide can rely on the quality of our products, supported by our extensive experience in transformer technology and our global footprint.

Quick quotes and deliveries

We offer standard pricelists and quick delivery times for our standard products listed herein. If required, our engineers can also offer customized solutions for your application.

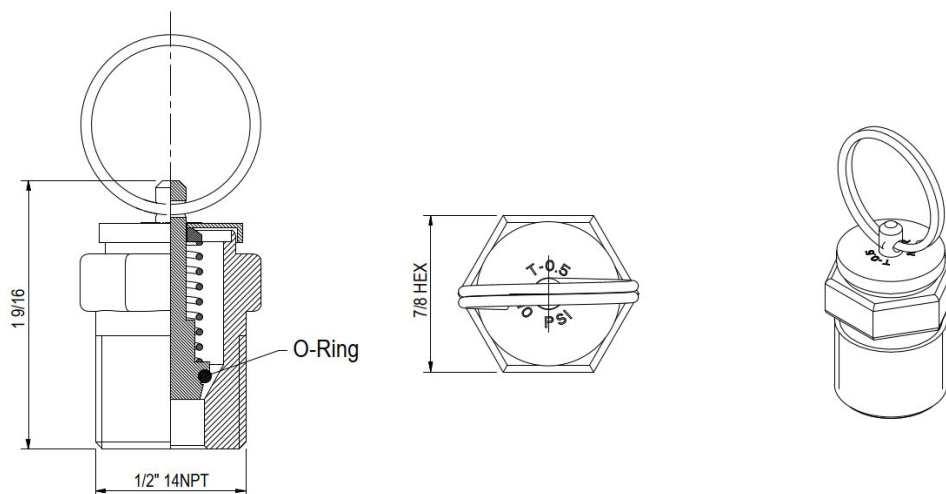
Technical Data

Standard

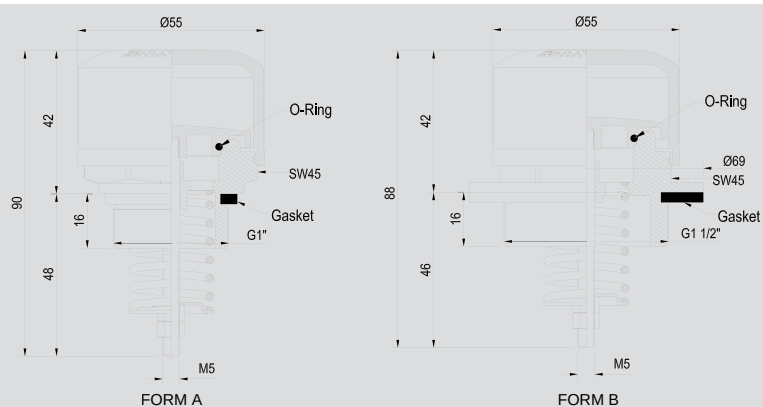
EN 50216-5, IEC 60076-22-1

Mechanical

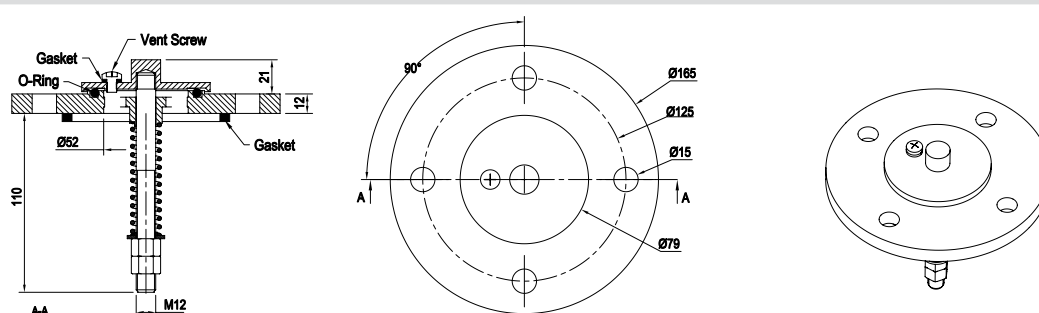
T-0.5



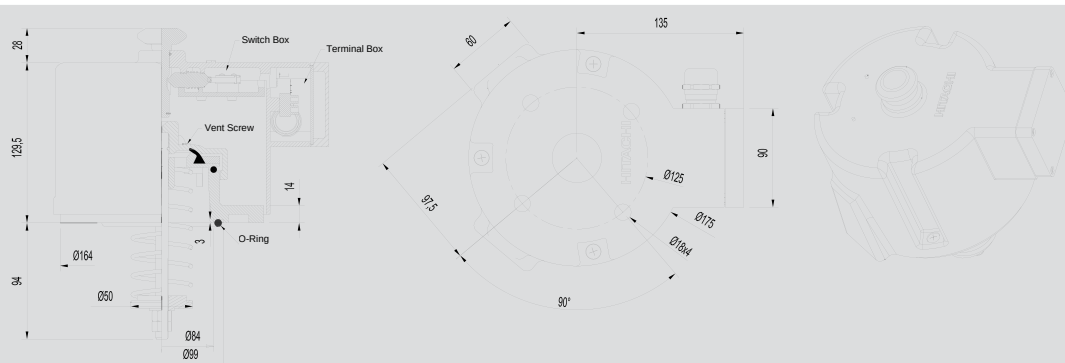
T-10



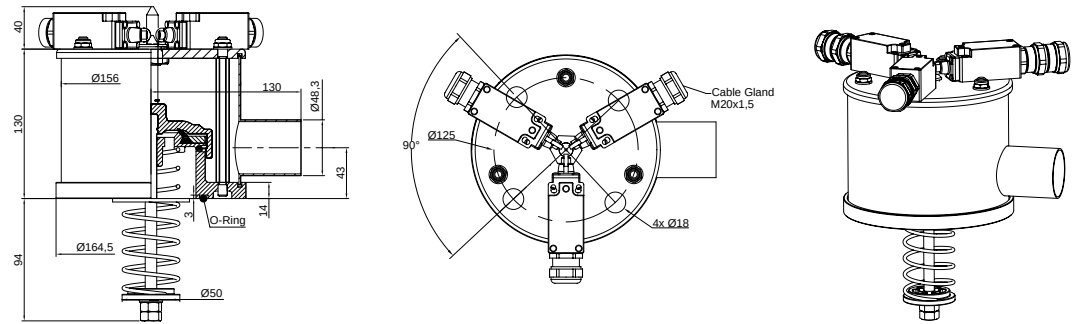
V-50



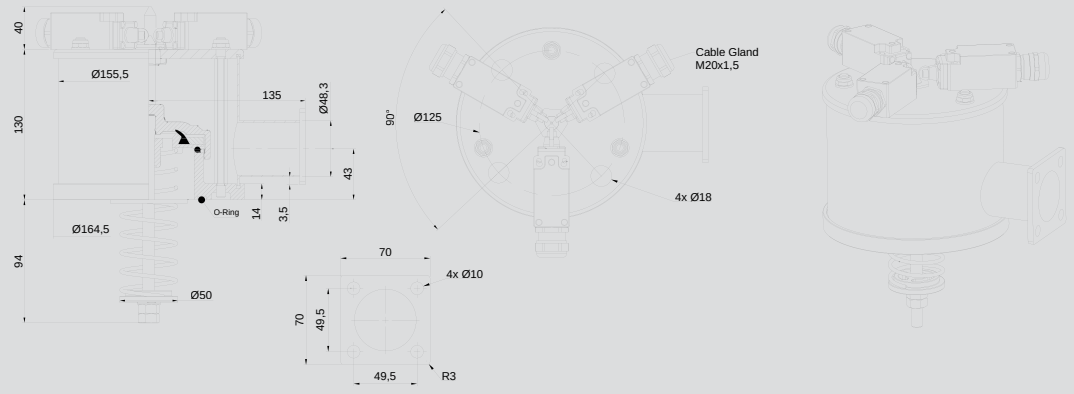
T-50



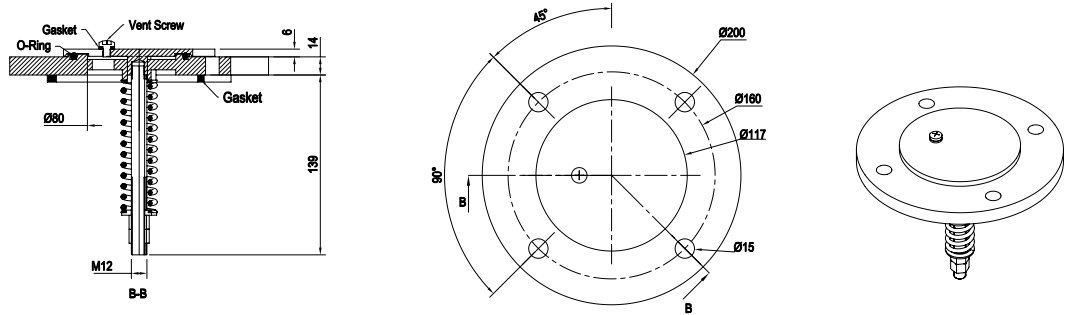
T-50C



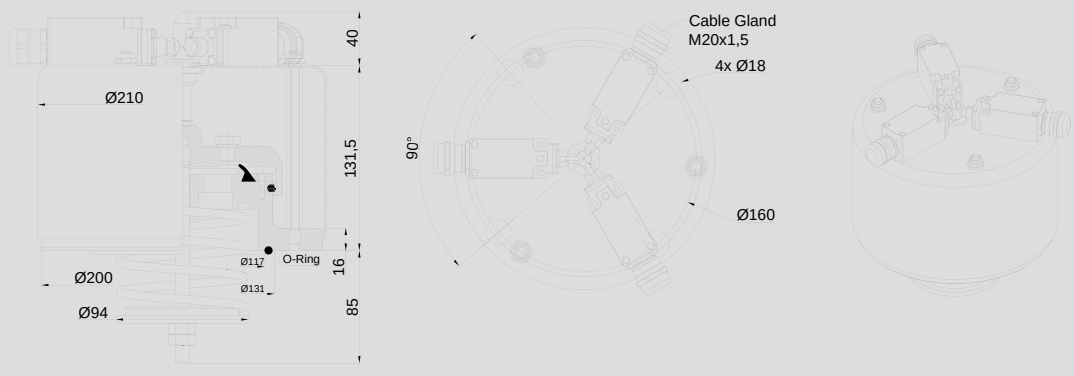
T-50CF



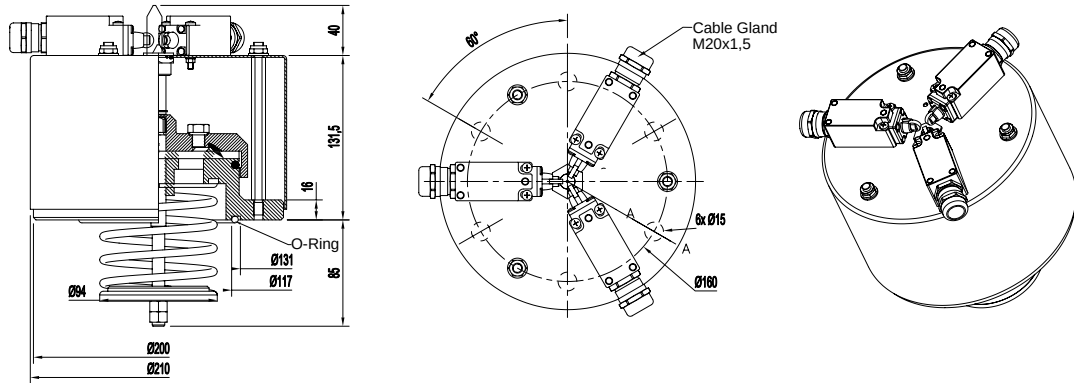
V-80



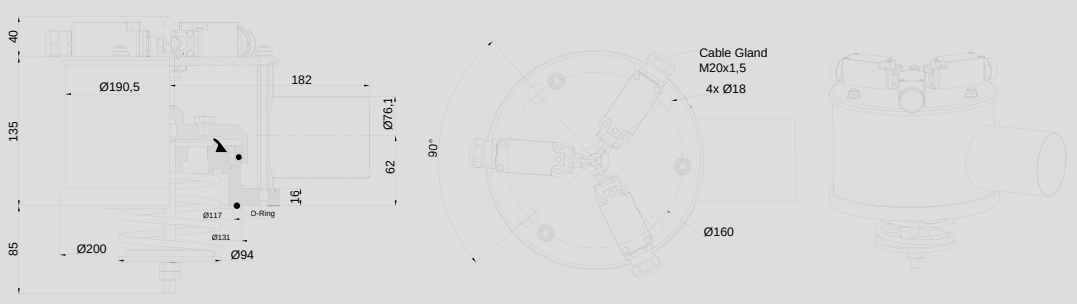
T-80
4 hole flange



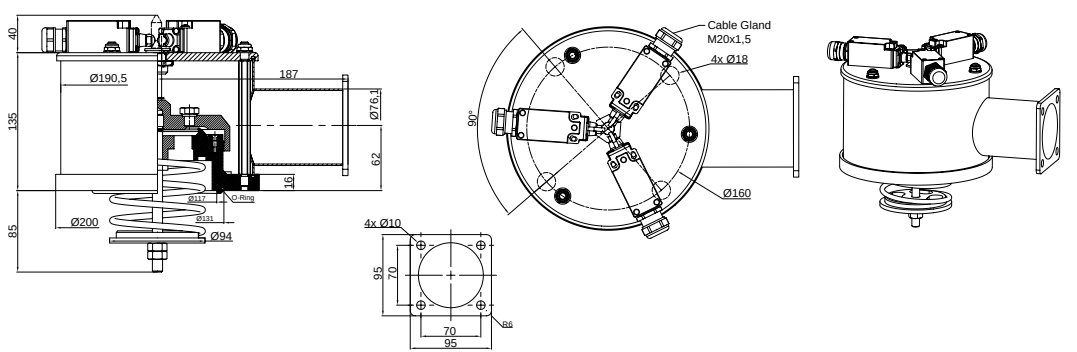
T-80
6 hole flange



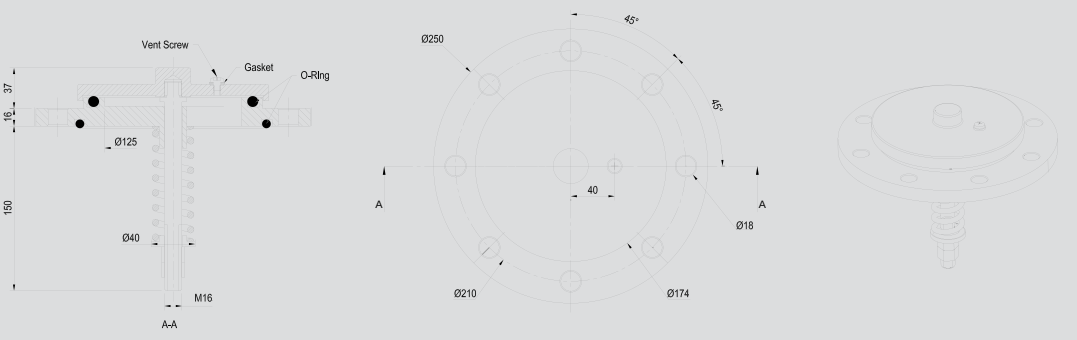
T-80C



T-80CF



V-125



Cover	T-10	Plastic
	T-50 & T-80	Aluminum
	T-50C & CF T-80C & CF	Steel
Flange	T-0.5 T-10	Brass
	V series	Steel with nickel plated
	T-50 series T-80 series	Aluminum
Color	RAL7033 electrostatic powder paint	
Flange mounting	4 holes 6 holes only available on T-80	
Conveyor duct	T-50C T-80C	Without flange
	T-50CF T-80CF	With flange

Tank connection size	T-0.5	½" 14 NPT	
	T-10	G1", G1 ½"	
	V-50	Ø50 mm	
	T-50 series	Ø75 mm	
	V-80	Ø80 mm	
	T-80 series	Ø100 mm	
	V-125	Ø125 mm	
Sealing material	NBR (standard) for mineral oil, other options available		
Weight	T-0.5	Viton	
	T-0.5	60 g	
	T-10	G1"	0.25kg
	T-10	G1 ½"	0.35kg
	V-50	2.18 kg	
	T-50	2.76 kg	
	T-50C	3.27 kg	
	T-50CF	3.5 kg	
	V-80	3.72 kg	
	T-80	3.85 kg	
	T-80C	5.7 kg	
	T-80CF	5.7 kg	
	V-125	7.46 kg	
Operation			
Operating oil temperature	-40°C to +110°C		
Pressure settings	T-10	0.30/0.35/0.50 bar	
	V-50	0.30/0.35/0.50/0.70 bar	
	T-50 series		
	T-0.5	0.35/0.70 bar	
	V-80		
	T-80 series	0.25/0.80 bar	
V-125			
Accuracy	T-0.5	±2 psi	
	others	±7 kPa (0.07 bar)	
Transformer oil volume	T-0.5	up to 1,000 dm³	
	T-10	up to 2,000 dm³	
	V-50	up to 3,000 dm³	
	T-50 series		
	V-80	up to 9,000 dm³	
	T-80 series		
V-125	up to 25,000 dm³		
Electrical (for T-50 series & T-80 series)			
Switches	T-50	2xCO	
	others	1x NO/NC, 2x NO/NC or 3x NO/NC	

Switch ratings	T-50	in compliance with EN 61058-1, UL 1054				
		EN 61058-1 (A)			10 (1,5)	
		EN 61058-1 (V)			250 (AC)	
		UL 1054 (A)			10.1	
		UL 1054 (V)			125-250 (AC) ¼ HP 125 (AC)	
Switch ratings	T-50C T-50CF T-80 series	in compliance with IEC 60947-5-1, UL 508				
		Voltage (V)			400	
		Resistive Load (A)			3	
		AC (50/60 Hz)	Ie (A)	6	4	1
			Ue (V)	250 (AC)	400	500 (AC)
		DC13	Ie (A)	3	0.55	0.3
			Ue (V)	24 (AC)	125 (AC)	250 (AC)
		UL	Q300	69 VA		
				125-250 V dc		
			A600	720 VA		
				120-600 V ac		
		IMQ	Ui	500 V ac		
				400 V ac		
			Ith	10 A		
			Uimp	6kV		
		4kV				
Cable glands	T-50	Terminal box with one M25x1.5 cable gland				
	others	M20x1.5 cable gland on each switch				
Environmental						
Ambient temperature		from -40°C up to +80°C				
Degree of protection	T-50	IP65 in accordance with IEC 60529				
	T-50C T-50CF T-80 series	IP67 in accordance with IEC 60529				
Corrosion protection	T-50 series T-80 series	C4 Medium				