Technical specifications

Type			3TX7 002/3TX7 003
General data			
Rated insulation voltage U_i (degree of pollution 3)		V	300
Safe isolation for relay couplers[1] between the coil and the contacts according to EN 60947-1, Appendix N		V	Up to AC 300
Degree of protection	Connections for relay couplers		IP20
	Enclosure		IP30
Short-circuit protection according to IEC 60947-5-1 (weld-free protection at $I_k \geq 1$ kA) Fuse links, gL/gG operational class		A	4
Permissible ambient temperature	During operation	°C	-25 ... +60
	During storage	°C	-40 ... +80
Conductor cross-sections			
• Screw terminals			
- Solid		mm^2	1 x (0.25 ... 4)
- Finely stranded with or without end sleeve		mm^2	1 x (0.5 ... 2.5)
- Terminal screw			M3
• Spring-loaded terminals (for 3TX7 003):			
- Solid or finely stranded		mm^2	1 x (0.08 ... 2.5)
- Finely stranded with end sleeve		mm^2	1 x (0.25 ... 1.5)

[1] For 3TX7 00.-1FB02, no safe isolation according to DIN VDE 0106 Part 101.

Type	3TX7 002-/3TX7 003-		1AB02	1AB00	1BB00	1FB02	1CB00	2AB00	2AE00	1BF00 2BF02	2AF00	2AF05
Control side												
Operating range			0.8 ... 1.25 x U_s						0.8 ... 1.1 x U_s			
Power consumption at U_s		W	0.75	0.75	0.75	1.2	1.2	0.75	0.75	1.2	1.2	1.2
Release voltage		%	≥ 10									≥ 25
Max. permissible cable length (min. cross-section: 0.75 mm²)	AC DC	m m	300 2000	300	300	300	300	300	15	7	7	350
Permissible residual current of the electronics (with 0 signal)		mA	2	2	2	2	4	2	0.4	0.35	0.35	4
Operating times at U_s	ON-delay OFF-delay	ms ms	< 8 < 10									
Function display			Yellow LED									

Type			3TX7 002/3TX7 003
Load side			
Rated current[1]			
• Continuous thermal current I_{th}		A	6
• Rated operational currents I_e			
According to utilization categories (DIN VDE 0660) (3TX7 002-1CB00: AC-15, I_e = 2 A)			
AC-15	- at 24 V - at 110 V - at 230 V	A A A	3 3 3
DC-13	- at 24 V - at 110 V - at 230 V	A A A	1 0.2 0.1
Switching current with resistive load to DIN VDE 0435 (relay standard) and DIN VDE 0660			
AC-12	- at 24 V - at 110 V - at 230 V	A A A	6 6 6
DC-12	- at 24 V - at 110 V - at 230 V	A A A	6 0.2 0.2
Switching voltage	AC/DC	V	24 ... 250
• Min. contact load for 3TX7 00.-...02		mA	1 V AC/DC, 0.1
Mechanical endurance		Operating cycles	20 x 10^6
Electrical endurance at I_e		Operating cycles	1x10^5
Switching frequency		Operating cycles 1/h	5000
Contact material for 3TX7 00.-...02			Ag/Ni 0.15 hard gold-plated
Power limit hard gold-plating for 3TX7 00.-...02			
• Voltage		V	30
• Current		mA	20

Note: If inductive loads are connected in parallel, the endurance of the relay couplers can be increased.

[1] Capacitive loads can result in micro-weldings on the contacts.

3TX7 Coupling Relays, Narrow Design

Relay couplers

Type			3TX7 004/3TX7 005
General data			
Rated insulation voltage U_i (degree of pollution 3)		V	300
Safe isolation for relay couplers between the coil and the contacts according to EN 60947-1, Appendix N		V	Up to 300 AC
Degree of protection	Connections Enclosure		IP20 IP30
Short-circuit protection according to IEC 60947-5-1 (weld-free protection at $I_K \geq 1$ kA) Fuse links, gL/gG operational class		A	4
Permissible ambient temperature	During operation During storage	°C °C	-25 ... +60 -40 ... +80
Conductor cross-sections			
• Screw terminals (for 3TX7 004):			
- Solid		mm^2	1 x (0.25 ... 4)
- Finely stranded with end sleeve		mm^2	1 x (0.5 ... 2.5)
- Finely stranded without end sleeve		mm^2	1 x (0.5 ... 2.5)
- Terminal screws			M3
• Spring-loaded terminals (for 3TX7 005):			
- Solid or finely stranded		mm^2	1 x (0.08 ... 2.5)
- Finely stranded with end sleeve		mm^2	1 x (0.25 ... 1.5)
Control side			
Operating range	at U_S = 24 V AC/DC at U_S = 110 V and 230 V AC/DC		0.7 ... 1.25 x U_S 0.8 ... 1.1 x U_S
Power consumption at U_S			0.5 W; 3TX7 00.-. . .05: 1 W at 230 V DC/6 VA at 230 V AC
Permissible residual current of the electronics (for 0 signal)			
	- Width 6.2 mm		
	- U_S = 24 V	mA	2
	- U_S > 24 V	mA	0.5
	- From 12.5 mm width	mA	2.5
	Exceptions: 3TX7 00.-1BF05	mA	5 (U_S = 230 V AC)
		mA	0.5 (U_S = 230 V DC)
Operating times at U_S			
	ON-delay	ms	< 8
	OFF-delay	ms	< 15
Function display			Yellow LED

Type	3TX7 004/3TX7 005		-1.F00 -2ME02 -2MF02	-1.B.. -2MB02	-1BF05
Max. permissible cable length (min. conductor cross-section: 0.75 mm^2)					
	AC	m	40	400	350
	DC	m	2000	2000	2000

Type			3TX7 00.-1A/-1B/-1C/-1G/-1H/-1L	3TX7 00.-.M
Load side				
Rated operational currents I_e [1]				
• Continuous thermal current I_{th}		A	6	
Rated operational current I_e according to utilization categories (DIN VDE 0660)				
AC-15	- at 24 V	A	3	2
	- at 110 V	A	3	2
	- at 230 V	A	3	2
DC-13	- at 24 V	A	1	
	- at 110 V	A	0.2	
	- at 230 V	A	0.1	
Switching current with resistive load to DIN VDE 0435 (relay standard) and DIN VDE 0660				
AC-12	- at 24 V	A	6	
	- at 110 V	A	6	
	- at 230 V	A	6	
DC-12	- at 24 V	A	6	
	- at 110 V	A	0.3	
	- at 230 V	A	0.2	
Power limit for hard gold-plating	Voltage	V	30	
	Current	mA	20	
Switching voltage	AC/DC	V	17 ... 250	
Endurance	Mechanical	Operating cycles	20×10^6	
	Electrical (at I_e)	Operating cycles	1×10^6	0.5×10^6
Switching frequency		Operating cycles 1/h	5000	

Note: If inductive loads are connected in parallel, the endurance of the relay couplers can be increased.

[1] Capacitive loads can result in micro-weldings on the contacts.