

3TX71 plug-in relays



Selection and ordering data

Open Power Relays

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Metal Cover 7144-	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-	
SPST NO-DM	40	24VAC	3TX7130-0AC13	1M0	—	—	—	—	—	—	
SPST NO-DM		120 VAC	3TX7130-0AF13	1M0	—	—	—	—	—	—	
SPST NO-DM		240 VAC	3TX7130-0AH13	1M0	—	—	—	—	—	—	
SPST NC-DM		240 VDC	3TX7130-0AC03	1M0	—	—	—	—	—	—	
SPST NC-DB	40	120 VAC	3TX7130-0QF13	1M0	—	—	—	—	—	—	
SPDT		24 VAC	3TX7130-0BC13	1M0	—	—	—	—	—	—	
SPDT		120 VAC	3TX7130-0BF13	1M0	—	—	—	—	—	—	
SPDT		240 VAC	3TX7130-0BH13	1M0	—	—	—	—	—	—	
SPDT	40	277 VAC	3TX7130-0BS13	1M0	—	—	—	—	—	—	
DPDT		40	24 VAC	3TX7130-0DC13	1M0	—	—	—	—	—	—
			120 VAC	3TX7130-0DF13	1M0	—	—	—	—	—	—
			240 VAC	3TX7130-0DH13	1M0	—	—	—	—	—	—
	277 VAC		3TX7130-0DS13	1M0	—	—	—	—	—	—	
	12 VDC		3TX7130-0DB03	1M0	—	—	—	—	—	—	
	24 VDC		3TX7130-0DC03	1M0	—	—	—	—	—	—	
	48 VDC		3TX7130-0DD03	1M0	—	—	—	—	—	—	
110 VDC	3TX7130-0DF03	1M0	—	—	—	—	—	—	—		
DPST NO	40	24 VAC	3TX7130-0CC13	1M0	—	—	—	—	—	—	
		120 VAC	3TX7130-0CF13	1M0	—	—	—	—	—	—	
		240 VAC	3TX7130-0CH13	1M0	—	—	—	—	—	—	
		277 VAC	3TX7130-0CS13	1M0	—	—	—	—	—	—	
		12 VDC	3TX7130-0CB03	1M0	—	—	—	—	—	—	
		24 VDC	3TX7130-0CC03	1M0	—	—	—	—	—	—	
		48 VDC	3TX7130-0CD03	1M0	—	—	—	—	—	—	
110 VDC	3TX7130-0CF03	1M0	—	—	—	—	—	—	—		
DPDT (Mag Blowout)	40	120 VAC	3TX7130-0RF13	1M0	—	—	—	—	—	—	
		12 VDC	3TX7130-0RB03	1M0	—	—	—	—	—	—	
		24 VDC	3TX7130-0RC03	1M0	—	—	—	—	—	—	
		48 VDC	3TX7130-0RD03	1M0	—	—	—	—	—	—	
110 VDC	3TX7130-0RF03	1M0	—	—	—	—	—	—	—		



Enclosed Power Relays

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
DPST-NO	30	24VAC	3TX7131-4CC13	—	—	—	—	—	—	—
		120 VAC	3TX7131-4CF13	—	—	—	—	—	—	—
		230 VAC	3TX7131-4CH13	—	—	—	—	—	—	—
DPDT	30 NO/3 NC	12 VDC	3TX7131-4DB03	—	—	—	—	—	—	—
		24 VDC	3TX7131-4DC03	—	—	—	—	—	—	—
		24VAC	3TX7131-4DC13	—	—	—	—	—	—	—
		120 VAC	3TX7131-4DF13	—	—	—	—	—	—	—
		230 VAC	3TX7131-4DH13	—	—	—	—	—	—	—
SPDT	30 NO/15 NC	5 VDC	3TX7132-6BA03	—	—	—	—	—	—	—
		12 VDC	3TX7132-6BB03	—	—	—	—	—	—	—
		24 VDC	3TX7132-6BC03	—	—	—	—	—	—	—
		120 VAC	3TX7132-6BF13	—	—	—	—	—	—	—

Note: See page 11/84 for socket accessories.

3TX71 plug-in relays

General specifications

Contact Characteristics		Units	3TX7119		3TX7127			3TX7130	
Number and Type of Contacts			DPDT	3PDT	DPDT	3PDT	4PDT	4PDT	All
Contact Material			Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Fine Silver	Silver Alloy	Silver Alloy
Thermal (Carrying) Current	A		20	16	12	12	3	5	40
Maximum Switching Voltage	V		600	600	300	300	300	300	600
Switching Current at Voltage			20A @300V	16A @277V	12A @240V	12A @240V	3A @240V	12A @240V	40A @277V
			Resistive	—	12A @120V	12A @120V	3A @120V	—	—
			Resistive	—	12A @28	12A @28	3A @30	—	40A @28
			Resistive	20A @ 28	5A @ 28	12A @ 28	12A @ 28	—	—
	HP		1/3 @ 120VAC	1/2 @ 120VAC	1/3 @ 120VAC	1/3 @ 120VAC	1/16 @ 120VAC	—	—
	HP		1/2 @ 600VAC	3/4 @ 240VAC	1/2 @ 240VAC	1/2 @ 240VAC	1/10 @ 240VAC	—	—
	Pilot Duty		B600	B600	B300	B300	—	—	—
Minimum Switching Requirement	mA		100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	10 @ 5VDC (.5W)	100 @ 5VDC (.5W)	1000 @ 12VAC/DC
Coil Characteristics									
Voltage Range	AC	V	6...240	6...240	6...240	6...240	6...240	6...240	6...600
	DC	V	6...125	6...125	6...125	6...125	6...125	6...125	6...600
Operating Range	AC	%	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110
	DC	%	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110
Average Consumption	AC	VA	2.75	2.75	1.2	2	1.2	1.2	10
	DC	W	2	2	0.9	1.2	0.9	0.9	4
Drop-out Voltage Threshold	AC	%	15	15	15	15	15	15	10
	DC	%	10	10	10	10	10	10	10
Performance Characteristics									
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Mechanical Life	Unpowered		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	1,000,000
Operating Time (response time)		ms	20	20	20	20	20	20	30
Dielectric Strength	Between Coil and Contact	V(rms)	2000	2000	1500	1500	1240	1240	2200
	Between Poles	V(rms)	2000	2000	1500	1500	1240	1240	2200
	Between Contacts	V(rms)	1500	1500	1500	1500	500	500	1500
Environment									
Product Certifications	Standard Version		UL	UL	UL,RoHS	UL	UL,RoHS	UL,RoHS	UL
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
	Operational	°C	-40...+55	-40...+55	-40...+55	-40...+55	-40...+70	-40...+70	-40...+70
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz
Shock Resistance		g-n	10	10	10	10	10	10	—
Degree of Protection			IP40	IP40	IP67	IP67	IP67	IP67	Open
Weight		grams	88	88	130	130	45	45	227 to 312

Contact Characteristics		Units	3TX7131		3TX7132		3TX7136		3TX7137
Number and Type of Contacts			DPST-NO	DPDT	DPDT	SPDT	SPDT	DPDT	DPDT
Contact Material			Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Thermal (Carrying) Current	A		30	30 DPDT-NO	3 DPDT-NC	30 SPDT-NO	15 DPDT-NC	12	16
Maximum Switching Voltage	V		600	300	300	300	300	300	300
Switching Current at Voltage			20A @300V	30A @277V	3A @277V	30A @277V	3A @277V	12A @240V	16A @277V
			Resistive	—	—	—	—	—	16A @120V
			Resistive	—	—	—	—	—	16A @28
			Resistive	20A @ 28	20A @ 28	10A @ 28	3A @ 28	12A @ 28	16A @ 28
	HP		1/3 @ 120VAC	1 @ 120VAC	1 @ 120VAC	1 @ 120VAC	—	1/2 @ 120VAC	1/2 @ 120VAC
	HP		1/2 @ 600VAC	3 @ 240VAC	—	2 @ 240VAC	—	1/3 @ 240VAC	1/3 @ 240VAC
	Pilot Duty		—	—	—	—	—	B300	B300
Minimum Switching Requirement	mA		500 @ 12VAC/DC	500 @ 12VAC/DC	500 @ 12VAC/DC	1000 @ 12VAC/5VDC	500 @ 12VAC/DC	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)
Coil Characteristics									
Voltage Range	AC	V	12...240	12...240	12...240	12...277	12...277	12...120	6...240
	DC	V	6...110	6...110	6...110	5...110	5...110	12...110	6...125
Operating Range	AC	%	85 to 120	85 to 120	85 to 120	85 to 120	85 to 120	85 to 110	85 to 110
	DC	%	75 to 120	75 to 120	75 to 120	75 to 120	75 to 120	80 to 110	80 to 110
Average Consumption	AC	VA	4	4	4	2.8	2.8	1.8	3
	DC	W	1.7	1.7	1.7	1	1	1.8	1.4
Drop-out Voltage Threshold	AC	%	10	10	10	10	10	15	15
	DC	%	10	10	10	10	10	10	10
Performance Characteristics									
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Mechanical Life	Unpowered		5,000,000	5,000,000	5,000,000	10,000,000	10,000,000	10,000,000	5,000,000
Operating Time (response time)		ms	15	15	15	15	15	35	20
Dielectric Strength	Between Coil and Contact	V(rms)	4000	4000	4000	2500	2500	1500	1500
	Between Poles	V(rms)	2000	2000	2000	1500	1500	500	1500
	Between Contacts	V(rms)	1500	1500	1500	1500	1500	1500	1500
Environment									
Product Certifications	Standard Version		UL	UL	UL	UL	UL	UL	UL
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
	Operational	°C	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55	-40...+70	-40...+70
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz
Shock Resistance		g-n	10	10	10	10	10	10	10
Degree of Protection			—	—	—	—	—	IP40	IP40
Weight		grams	86	86	86	33	33	110	87