

# LIGHTING RELAYS

CONTROL, PROTECT AND POWER

TE Connectivity (TE) has extensive capabilities in the design and manufacture of relays and a broad portfolio of relays for lighting applications. Meeting the requirements of National Electrical Manufacturers Association (NEMA) 410 and complying with standardized PCB footprints, TE offers a wide range of inrush current capabilities and addresses the complete spectrum of requirements in the lighting industry. Through agency approved test labs, we ensure that our relays are tested to meet the expectations of the lighting industry. Whether you are designing for outdoor or indoor lighting applications, TE delivers high quality relays from state-of-the-art production lines.



RETAIL

GREENHOUSE LIGHTING

STREET LIGHTING

RESIDENTIAL LIGHTING








COMMERCIAL



## Our Relays in Lighting

- RTX
- RT-iPower
- RT Inrush
- RZ
- T9A Standard
- T9A2X
- EW60

# LIGHTING CONTROL

	RTX	RT-iPOWER	RT INRUSH	RZ
				
<b>Applications</b>	<ul style="list-style-type: none"> <li>• Occupancy sensor</li> <li>• Intelligence lighting control by bus systems</li> <li>• Bus system actuators (smart home)</li> <li>• Movement detectors</li> <li>• Remote light controls</li> <li>• Intelligent wall sockets</li> <li>• Light sensors</li> <li>• LED Lighting control</li> </ul>	<ul style="list-style-type: none"> <li>• Occupancy sensor</li> <li>• Intelligence lighting control by bus systems</li> <li>• Bus system actuators (smart home)</li> <li>• Movement detectors</li> <li>• Remote light controls</li> <li>• Intelligent wall sockets</li> <li>• Light sensors</li> <li>• LED Lighting control</li> </ul>	<ul style="list-style-type: none"> <li>• Occupancy sensor</li> <li>• Intelligence lighting control by bus systems</li> <li>• Movement detectors</li> <li>• Street lighting</li> <li>• Emergency lighting</li> <li>• LED Lighting control</li> </ul>	<ul style="list-style-type: none"> <li>• Movement detectors</li> <li>• Timers</li> <li>• Street lighting</li> </ul>
	T9A STANDARD	T9A2X	EW60	
				
<b>Applications</b>	<ul style="list-style-type: none"> <li>• Low voltage controllers</li> </ul>	<ul style="list-style-type: none"> <li>• Street lighting</li> <li>• Emergency lighting</li> </ul>	<ul style="list-style-type: none"> <li>• Occupancy sensor</li> <li>• Intelligence lighting control by bus systems</li> <li>• Street lighting</li> <li>• Bus system actuators (smart home)</li> <li>• Movement detectors</li> <li>• Remote light controls</li> <li>• Intelligent wall sockets</li> <li>• Light sensors</li> <li>• LED Lighting control</li> </ul>	

# LIGHTING RELAYS

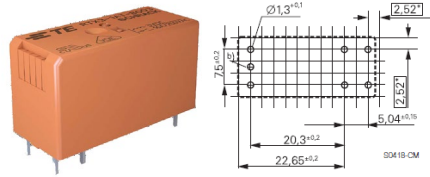
## Key Features

### RTX

Reduce cost **and** save space with one relay for capacitive and for inductive loads

Minimizes use of zero cross drives

Standard 16 Amps global footprint

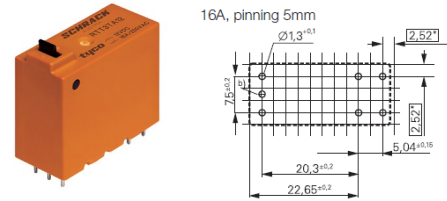


### RT-iPOWER

Enable switching without energizing the coil through manual operator option

Minimizes use of zero cross drives

Standard 16 Amps global footprints



In Rush Amperage	up to 320A	RTS3L: up to 120A; RTS3T: up to 320A; RTSET: up to 370A
Latching option	Y	Y
Reinforced insulation	Y	Y
UL electronic ballast/TV	TV16/277 VAC	3A/277 VAC; 5A/120 VAC; 5A/277 VAC 8A/277 VAC; TV 5/240 VAC

## Contact Data

Contact arrangement	1 form A, 1 NO	1 form A, 1 NO
Rated voltage	277VAC	480VAC
Rated current	16A	12/16A
Switching power	4000VA	4000VA
Contact material	W Tungsten (flip-flop spring)	AgSnO <sub>2</sub> , W+AgSnO <sub>2</sub> , (pre-make cont.)

## Coil Data

Magnetic system	DC, bistable (1 or 2 coils)	DC, monostable / bistable (1 or 2 coils)
Rated coil voltage	5 to 48VDC	5 to 110VDC
Rated coil power	650/950mW	400/600mW per

## Insulation Data

Initial dielectric strength between open contacts	1250Vrms	1000Vrms
between contact and coil	5000Vrms	5000Vrms

## Clearance/creepage

between contact and coil	min. 6/6mm	10/10mm
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## Other Data

Ambient temperature (max.)	+70°C	+85°C
Category of environmental protection IEC61810	Flux proof	Flux proof, wash tight, on request
Terminal type	THT	THT
Mounting	PCB	PCB or on socket
Dimensions (lwh)	29.1x12.7x16mm	29x12.7x15.7mm/RTS3T manual operator version: 30x13.7x28.2 mm

## Accessories

PCB and DIN rail sockets

Preferred Part Numbers	<a href="#">1937650-5</a>	<a href="#">(RTX3-1AT-B012)</a>	<a href="#">1-1415898-9</a>	<a href="#">(RTS3L012)</a>
	<a href="#">1937650-6</a>	<a href="#">(RTX3-1AT-B024)</a>	<a href="#">2-1415898-3</a>	<a href="#">(RTS3LA12)</a>
	<a href="#">1937650-8</a>	<a href="#">(RTX3-1AT-C012)</a>	<a href="#">2-1415898-5</a>	<a href="#">(RTS3LF12)</a>
	<a href="#">1937650-9</a>	<a href="#">(RTX3-1AT-C024)</a>	<a href="#">1415898</a>	<a href="#">(RTS3T012)</a>
			<a href="#">1415898-2</a>	<a href="#">(RTS3TA12)</a>
		<a href="#">1415898-5</a>	<a href="#">(RTS3TF12)</a>	

Link to datasheet	<a href="#">RTX</a>	<a href="#">RT-iPOWER</a>
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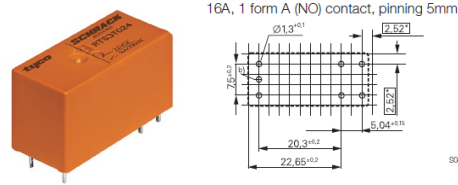
## Notes

## Key Features

### RT INRUSH

Monostable and bistable versions available

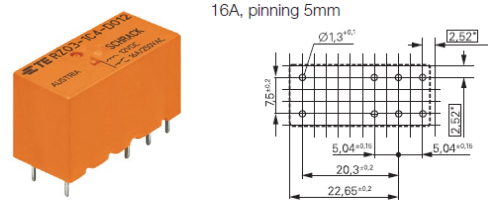
Standard 16 Amps global footprint



### RZ

Overcome micro welding and help improve life time through weld breaker mechanism

Standard 16 Amps global footprint



In Rush Amperage	up to 80A	up to 80A (AgSnO)
Latching option	Y	N
Reinforced insulation	Y	Y
UL electronic ballast/TV	1A/277 VAC 2A/120 VAC 1400W/240 VAC Tungsten	TV4/240 VAC 1000W/240 VAC Tungsten

## Contact Data

Contact arrangement	1 form C, 1 CO; 1 form A, 1 NO	1 form C, 1 CO; 1 form A, 1 NO
Rated voltage	250VAC	250VAC
Rated current	16A	16A
Switching power	4000VA	4000VA
Contact material	AgSnO	AgNi90/10, AgSnO

## Coil Data

Magnetic system	DC, monostable/bistable (1 or 2 coils)	DC, monostable
Rated coil voltage	5 to 60 VDC	3 to 48VDC
Rated coil power	400mW/600mW (bistable 2 coil version)	400mW

## Insulation Data

Initial dielectric strength between open contacts	1000Vrms	1000Vrms
between contact and coil	5000Vrms	5000Vrms

## Clearance/creepage

between contact and coil	10/10mm	10/10mm
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## Other Data

Ambient temperature (max.)	+85°C	+85°C
Category of environmental protection IEC61810	Flux proof, wash tight	Flux proof
Terminal type	THT	THT
Mounting	PCB or on socket	PCB
Dimensions (lwh)	29x12.7x15.7mm	29x12.7x15.7mm

<b>Accessories</b>	PCB and DIN rail sockets
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<b>Preferred Part Numbers</b>	<a href="#">2-1393240-7</a>	<a href="#">(RT33LA12)</a>	<a href="#">4-1415899-9</a>	<a href="#">(RZ03-1A3-D012)</a>
	<a href="#">2-1393240-8</a>	<a href="#">(RT33LF12)</a>	<a href="#">5-1415899-0</a>	<a href="#">(RZ03-1A3-D024)</a>
	<a href="#">3-1393240-3</a>	<a href="#">(RT33L012)</a>	<a href="#">5-1415899-4</a>	<a href="#">(RZ03-1C3-D012)</a>
	<a href="#">3-1393240-5</a>	<a href="#">(RT33L024)</a>	<a href="#">5-1415899-5</a>	<a href="#">(RZ03-1C3-D024)</a>
	<a href="#">7-1393239-3</a>	<a href="#">(RT31L012)</a>		
	<a href="#">7-1393239-5</a>	<a href="#">(RT31L024)</a>		

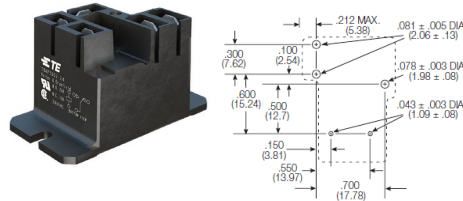
<b>Link to datasheet</b>	<a href="#">RT INRUSH</a>	<a href="#">RZ</a>
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## Notes

## Key Features

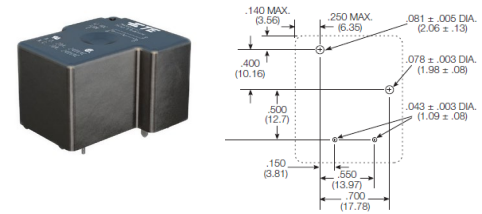
### T9A STANDARD

Option for load connections via QC terminals  
Standard 30 Amps global footprint



### T9A2X

Switches loads by de-energizing relay  
Enables fail-on functionality  
Wider application potential through high isolation (6kv) between coil and contact circuits



In Rush Amperage	up to 166A for LED load	up to 320A for LED load
Latching option	N/A	N/A
Reinforced insulation	N/A	N/A
UL electronic ballast//UL TV	3A/120 VAC//TV-8/125 VAC	5A/277 VAC (potential)

### Contact Data

Contact arrangement	1 form A (NO); 1 form B (NC); 1 form C (CO)	1 form B (NC)
Rated voltage	277VAC	240VAC
Rated current	30A	30A
Switching power	7500VA	N/A
Contact material	AgSnInO	AgSnInO

### Coil Data

Magnetic system	DC	DC
Rated coil voltage	5 to 110VDC	5 to 110VDC
Rated coil power	900mW, 1W	1W

### Insulation Data

Initial dielectric strength		
between open contacts	1500Vrms	1500Vrms
between contact and coil	2500Vrms	2500Vrms

### Clearance/creepage

between contact and coil	3.1/6.3mm	3.18/6.36mm
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### Other Data

Ambient temperature (max.)	+85°C	+70°C
Category of environmental protection IEC61810	Unenclosed, dust protected, flux proof, wash tight	Unenclosed, dust protected, flux proof, wash tight
Terminal type	THT, Quick Connect	THT, Quick Connect
Mounting	PCB, panel mount	PCB, panel mount
Dimensions (lwh)	27.4x20.4; 27.9mm (H) w/QC	27.4x20.4; 27.9mm (H) w/QC

### Accessories

Preferred Part Numbers	<a href="#">6-1423091-2</a>	<a href="#">(T9ASID14-5)</a>	<a href="#">2071229-1</a>	<a href="#">(T9AP2XD56-12)</a>
	<a href="#">5-1423091-7</a>	<a href="#">(T9ASID14-12)</a>	<a href="#">3-2071229-7</a>	<a href="#">(T9AP2XD56-24)</a>
	<a href="#">6-1423091-3</a>	<a href="#">(T9ASID14-24)</a>		
	<a href="#">1423029-7</a>	<a href="#">(T9AVID14-12)</a>		
	<a href="#">3-2071229-0</a>	<a href="#">(T9AVID14-24)</a>		

Link to datasheet	<a href="#">T9A STANDARD</a>	<a href="#">T9A2X</a>
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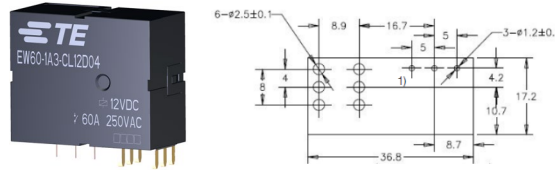
Notes	Enhanced version in development	PCB versions available upon request
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## EW60

### Key Features

Switch the lighting power of an entire floor of a building or street through strong electronic ballast switching

Minimizes use of zero cross drives



In Rush Amperage	up to 480A
Latching option	Y
Reinforced insulation	Y
UL electronic ballast/TV	16A or 20A/277 VAC; 60A/250 VAC
<b>Contact Data</b>	
Contact arrangement	1 form A (NO)
Rated voltage	250 VAC
Rated current	60A
Switching power	15 kVA
Contact material	AgSnO2
<b>Coil Data</b>	
Magnetic system	DC
Rated coil voltage	12Vdc
Rated coil power	1.5/3W, 24 VDC
<b>Insulation Data</b>	
Initial dielectric strength	
between open contacts	1500Vrms
between contact and coil	4000Vrms
<b>Clearance/creepage</b>	
between contact and coil	≥6/9mm
<b>Other Data</b>	
Ambient temperature (max.)	+70°C
Category of environmental protection IEC61810	Dust protected
Terminal type	THT
Mounting	PCB
Dimensions (lwh)	36.8x17.2x30.4mm
<b>Accessories</b>	
<b>Preferred Part Numbers</b>	<a href="#">2071366-1</a> ( <a href="#">EW60-1A3-BL12D04</a> )
	<a href="#">2071366-2</a> ( <a href="#">EW60-1A3-CL12D04</a> )
	<a href="#">2071366-3</a> ( <a href="#">EW60-1A3-BL24D04</a> )
	<a href="#">2071366-4</a> ( <a href="#">EW60-1A3-CL24D04</a> )
<b>Link to datasheet</b>	<a href="#">EW60</a>
<b>Notes</b>	

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