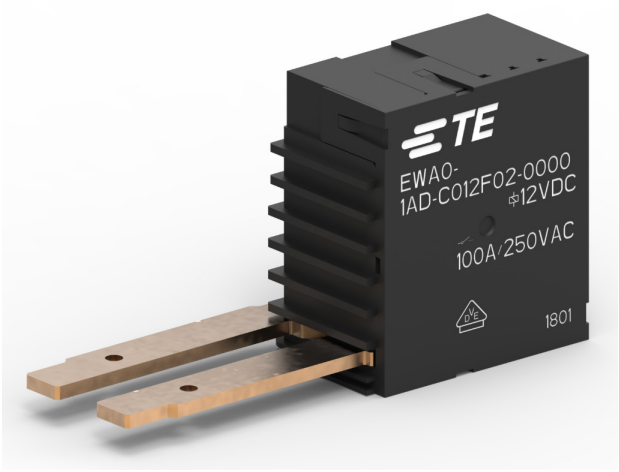
Power Latching Relay EW100/120

- **1pole 100 or 120A, 1 form A (NO) contact**
- **High Performance version meets requirements of UC3/IEC62055-31 @ 120A:**
  - **5000 cycles p.f.1 + 5000 cycles p.f.0.5**
  - **3/6kA short circuit**
- **Polarized bistable (latching), 1 coil or 2 coils**
- **Shunt implementation optional**
- **Various terminal configurations**
- **4kV dielectric strength (contact-coil)**



Typical applications
Electricity meters, pre-paid power meters

Approvals

VDE Cert. No. 40039995
Technical data of approved types on request

Contact Data

	100A	120A
Contact arrangement	1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current	100A	120A
Breaking capacity max.	25kVA	30kVA
Short circuit resistance	UC1/IEC62053-21: 3kA	UC3/IEC62055-31: C.5: 3kA; C.6-1: 6kA; C.6-2: 3kA
Contact material	$AgSnO_2$	
Frequency of operation, with/without load	1/30min-1	
Mechanical endurance	10^5 cycles	

Coil Data

Magnetic system	polarized, bistable (latching)
Number of coils	1 or 2
Coil voltage range	6 to 24VDC
Min./Max. energization duration	20ms/3min at <10% duty factor
Coil insulation system according UL	class F

Coil versions, bistable 1 coils

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power W
E006	6	4.5	1.5	15	2.4
E009	9	6.8	2.3	34	2.4
E012	12	9.0	3.0	60	2.4
E018	18	13.5	4.5	135	2.4
E024	24	18.0	6.0	240	2.4

Coil versions, bistable 2 coils

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power W
C006	6	4.5	1.5	8	4.5
C009	9	6.8	2.3	18	4.5
C012	12	9.0	3.0	32	4.5
C018	18	13.5	4.5	72	4.5
C024	24	18.0	6.0	128	4.5

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Coil operation - bistable 1 coil

A1	A2
-	+

Coil operation - bistable 1 coil

A1	A2	A3
-	+	
	-	+

Insulation Data

Initial dielectric strength	
between open contacts	$2000V_{rms}$
between contact and coil	$4000V_{rms}$
Initial surge withstand voltage	
between contact and coil	12kV (1.2/50µs)
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 125V

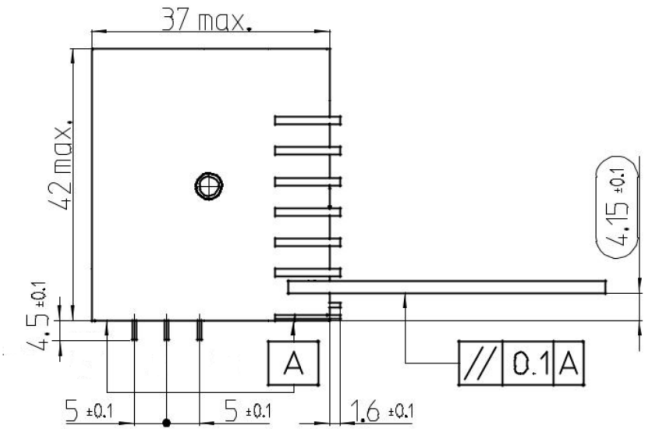
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

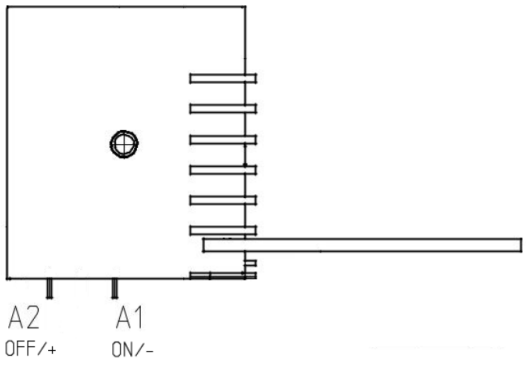
Terminal type	Blades and PCB terminals
Ambient temperature	-40 to +70°C
Category of environmental protection	
IEC 61810	RTII - flux proof
Vibration resistance (functional)	15g
Shock resistance (functional)	5g
Shock resistance (destructive)	100g
Terminal type	coil terminals: pcb load terminals: copper
Mounting position	any
Mounting distance	≥7mm
Weight	72g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C / 5s
Packaging/unit	tray/12 , box/120

Power Latching Relay EW100/120 (Continued)

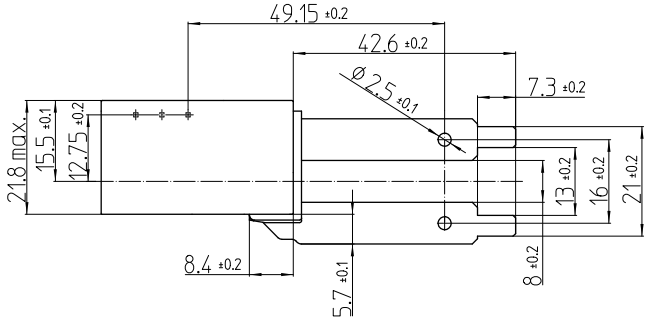
Dimensions, vertical design



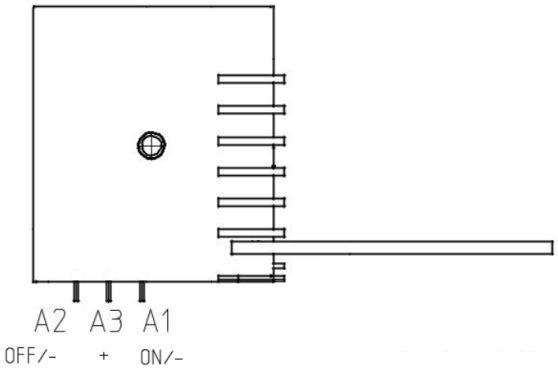
Bistable 1 coil - coil operation



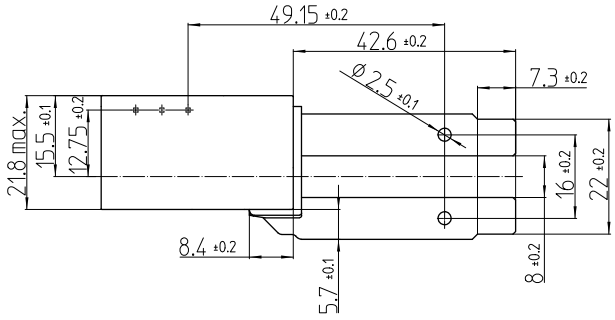
EWA (100A)



Bistable 2 coil - coil operation



EWC (120A)



Power Latching Relay EW100/120

Product code structure Typical product code: **EW A 0 -1 A D -C 012 F 0 2**

Type

Model
- **A** 100A
- **C** 120A

Design, Performance Class
- **0** vertical (up-right), UC1
- **1** horizontal (flat), UC1 (planned)
- **A** vertical (up-right); High Performance UC3
- **B** horizontal (flat); High Performance UC3 (planned)

Number of Contact Poles
- **1** 1 pole

Contact configuration
- **A** form A (NO double contact)

Contact material
- **D** AgSnO bifurcated contacts

Coil version
- **C** bistable 2 coils
- **E** bistable 1 coil

Coil voltage

Category of Protection
- **F** Flux proof

Mechanical feature
- **0** Standard

Terminals
- **2** straight contact blades [1)]

Variant

1) Customized terminals or shunt implementation on request

Product code	Version	Contacts	Contact material	Coil	Part number
EWA0-1AD-C006F02	flux proof	NO contacts	AgSnO	6 VDC	1558290-4
EWA0-1AD-E006F02	flux proof	NO contacts	AgSnO	6 VDC	1558291-4
EWC0-1AD-C006F02	flux proof	NO contacts	AgSnO	6 VDC	1558290-3
EWC0-1AD-E006F02	flux proof	NO contacts	AgSnO	6 VDC	1558291-3
EWAA-1AD-C006F02	flux proof	NO contacts	AgSnO	6 VDC	1558290-2
EWAA-1AD-E006F02	flux proof	NO contacts	AgSnO	6 VDC	1558291-2
EWCA-1AD-C006F02	flux proof	NO contacts	AgSnO	6 VDC	1558290-1
EWCA-1AD-E006F02	flux proof	NO contacts	AgSnO	6 VDC	1558291-1
EWA0-1AD-C009F02	flux proof	NO contacts	AgSnO	9 VDC	1558293-4
EWA0-1AD-E009F02	flux proof	NO contacts	AgSnO	9 VDC	1558292-4
EWC0-1AD-C009F02	flux proof	NO contacts	AgSnO	9 VDC	1558293-3
EWC0-1AD-E009F02	flux proof	NO contacts	AgSnO	9 VDC	1558292-3
EWAA-1AD-C009F02	flux proof	NO contacts	AgSnO	9 VDC	1558293-2
EWAA-1AD-E009F02	flux proof	NO contacts	AgSnO	9 VDC	1558292-2
EWCA-1AD-C009F02	flux proof	NO contacts	AgSnO	9 VDC	1558293-1
EWCA-1AD-E009F02	flux proof	NO contacts	AgSnO	9 VDC	1558292-1
EWA0-1AD-C012F02	flux proof	NO contacts	AgSnO	12 VDC	1558299-1
EWA0-1AD-E012F02	flux proof	NO contacts	AgSnO	12 VDC	1558298-4
EWC0-1AD-C012F02	flux proof	NO contacts	AgSnO	12 VDC	1558299-2
EWC0-1AD-E012F02	flux proof	NO contacts	AgSnO	12 VDC	1558298-3
EWAA-1AD-C012F02	flux proof	NO contacts	AgSnO	12 VDC	1558298-2
EWAA-1AD-E012F02	flux proof	NO contacts	AgSnO	12 VDC	1558298-5
EWCA-1AD-C012F02	flux proof	NO contacts	AgSnO	12 VDC	1558299-3
EWCA-1AD-E012F02	flux proof	NO contacts	AgSnO	12 VDC	1558298-6
EWA0-1AD-C018F02	flux proof	NO contacts	AgSnO	18 VDC	1558295-4
EWA0-1AD-E018F02	flux proof	NO contacts	AgSnO	18 VDC	1558294-4
EWC0-1AD-C018F02	flux proof	NO contacts	AgSnO	18 VDC	1558295-3
EWC0-1AD-E018F02	flux proof	NO contacts	AgSnO	18 VDC	1558294-3
EWAA-1AD-C018F02	flux proof	NO contacts	AgSnO	18 VDC	1558295-2
EWAA-1AD-E018F02	flux proof	NO contacts	AgSnO	18 VDC	1558294-2
EWCA-1AD-C018F02	flux proof	NO contacts	AgSnO	18 VDC	1558295-1
EWCA-1AD-E018F02	flux proof	NO contacts	AgSnO	18 VDC	1558294-1
EWA0-1AD-C024F02	flux proof	NO contacts	AgSnO	24 VDC	1558297-4

Product code	Version	Contacts	Contact material	Coil	Part number
EWA0-1AD-E024F02	flux proof	NO contacts	AgSnO	24 VDC	1558296-4
EWC0-1AD-C024F02	flux proof	NO contacts	AgSnO	24 VDC	1558297-3
EWC0-1AD-E024F02	flux proof	NO contacts	AgSnO	24 VDC	1558296-3
EWAA-1AD-C024F02	flux proof	NO contacts	AgSnO	24 VDC	1558297-2
EWAA-1AD-E024F02	flux proof	NO contacts	AgSnO	24 VDC	1558296-2
EWCA-1AD-C024F02	flux proof	NO contacts	AgSnO	24 VDC	1558297-1
EWCA-1AD-E024F02	flux proof	NO contacts	AgSnO	24 VDC	1558296-1

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