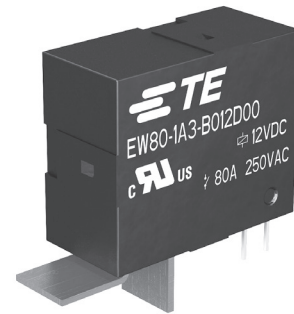


Power Latching Relay EW80

- 1 pole 80A, 1 form A (NO) contact
- High Performance version meets requirements of UC2/IEC62055-31 @ 80A
- Polarized bistable (latching) with 1 or 2 coils
- Shunt implementation optional
- Various terminal configurations

Typical applications

Electricity meters, pre-paid power meters



Approvals

UL E58304; CQC 09002031473

Contact Data

Contact arrangement	1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	440VAC
Rated current	80A
Breaking capacity max.	20kVA
Contact material	AgSnO ₂
Initial voltage drop	≤80mV @ 80A
Frequency of operation with/without load	360/3600h ⁻¹

Contact ratings

Load	Cycles
UL508	
80A, 250VAC, resistive, 70°C	10 ⁴
TV-20, 120VAC, 70°C	25x10 ³
IEC62055-31 UC2	
High Performance version:	
80A, 250V; p.f. 1 + p.f. 0.5	5000+5000
C.5: 2.5kA; C.6-1: 4.5kA; C.6-2: 2.5kA	
Mechanical endurance	10 ⁶

Coil Data

Magnetic system	polarized, bistable (latching)
Number of coils	1 or 2
Coil voltage range	5 to 24VDC
Min./Max. energization duration	100ms/1min at <10% duty factor

Coil versions, bistable 1 coil

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω±10%	Rated coil power W
B005	5	4	4	25	1.0
B006	6	4.8	4.8	36	1.0
B009	9	7.2	7.2	81	1.0
B012	12	9.6	9.6	144	1.0
B024	24	19.2	19.2	576	1.0

Coil version with 1.5 W on request

Coil versions, bistable 2 coils

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω±10%	Rated coil power W
C012	12	9	9	72	2.0
C024	24	18	18	288	2.0

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

Max. coil power: 130% of rated coil power
Other coil voltages on request

Coil operation

	1 coil		2 coils		
coil terminals	A1	A2	A1	A2	A3
Set	-	+	-	+	
Reset	+	-	-	+	+

Contact position not defined at delivery

Insulation Data

Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	4000V _{rms}
Initial surge withstand voltage	
between contact and coil	10000V (1.2/50μs)
Clearance/creepage	
between contact and coil	≥6/9mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175V

Other Data

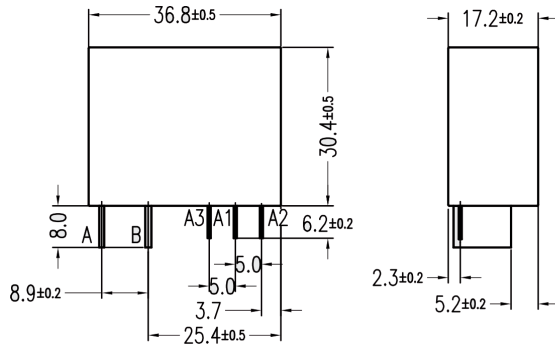
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	-40 to 70°C
Category of environmental protection	
IEC 61810	RTI (dust protected)
Vibration resistance (functional)	1.5mm double amplitude ¹⁾
Shock resistance (functional)	50g
Shock resistance (destructive)	100g
Terminal type	Blades and PCB terminals
Weight	40g
Packaging/unit	tray/25 pcs., box/100 pcs.

¹⁾ 10...55Hz

Power Latching Relay EW80 (Continued)

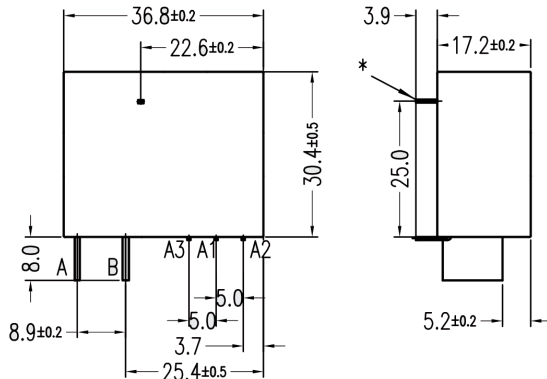
Dimensions



Vertical version, straight terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm

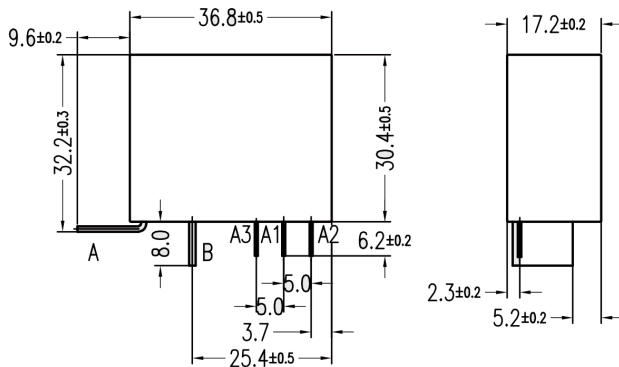


Horizontal version, straight terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm

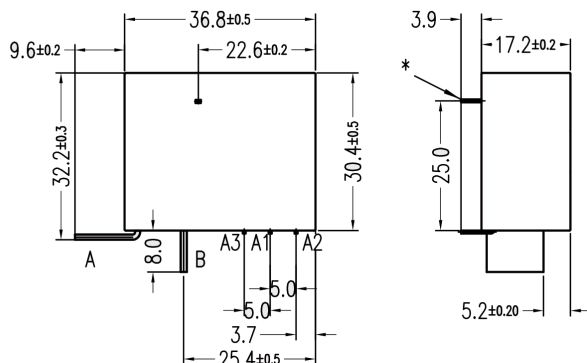
* auxiliary solder point 0.6 x1.0



Vertical version, angled terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm



Horizontal version, angled terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm



Power Latching Relay EW80 (Continued)

Product code structure	Typical product code	EW	8	0	-1	A	3	-B	012	D	0	2
Type												
Model	8 80A											
Design, Performance Class	<ul style="list-style-type: none"> 0 vertical (up-right), standard performance 1 horizontal (flat), standard performance A vertical (up-right); High Performance (UC2) B horizontal (flat); High Performance (UC2) 											
Number of Contact Poles	1 1 pole											
Contact configuration	A form A (NO Contact)											
Contact material	3 AgSnO											
Coil version	<ul style="list-style-type: none"> B bistable 1 coil C bistable 2 coils 											
Coil voltage												
Category of Protection	D RTI (dust proof)											
Mechanical feature	0 Standard											
Terminals	<ul style="list-style-type: none"> 0 angled contact blades 2 straight contact blades 											
Variant												

Product code	Version	Design	Coil	Contact terminals	Part Number
EW80-1A3-B012D02	80A, standard performance	vertical	12V bistable, 1 coil	straight	2071239-4
EW80-1A3-B024D02			24V bistable, 1 coil		2071239-5
EW80-1A3-B005D00			5V bistable, 1 coil	angled	2071224-1
EW80-1A3-B006D00			6V bistable, 1 coil		2071224-2
EW80-1A3-B009D00			9V bistable, 1 coil		2071224-3
EW80-1A3-B012D00			12V bistable, 1 coil		2071224-4
EW80-1A3-B024D00			24V bistable, 1 coil		2071224-5

Other types on request
This list represents the most common types and does not show all variants covered by this data sheet.