RE030024 Product Details

RE030024

TE Internal Number: 1393217-8

Active

Industrial Relays (General Purpose)

Converted to EU RoHS but not ELV Compliant

(Statement of Compliance)

Product Highlights:

- RE Series
- Contact - Current Class = 5A to 10A Class, Less Than 16A
- Contact - Rated Current = 6 A
- Terminal Type = PCB-THT
- Contact - Arrangement = 1 Form A (NO)

Documentation & Additional Information

Product Drawings:
- None Available

Catalog Pages/Data Sheets:
- Miniature PCB Relay RE (PDF, English)

Product Specifications:
- None Available

Application Specifications:
- None Available

Instruction Sheets:
- None Available

CAD Files: (CAD Format & Compression Information)
- 2D Drawing (DXF, Version SHK1)
- 3D Model (IGES, Version SHK1)
- 3D Model (STEP, Version SHK1)

Additional Information:
- Product Line Information

Related Products:
- Tooling

Product Features (Please use the Product Drawing for all design activity)

Product Type Features:
- Series = RE
- Terminal Type = PCB-THT

Electrical Characteristics:
- Contact - Current Class = 5A to 10A Class, Less Than 16A
- Contact - Rated Current (A) = 6
- Contact - Limiting Continuous Current (A) = 6
- Contact - Limiting Making Current (A) = 15
- Contact - Limiting Breaking Current (A) = 6
- Insulation - Initial Dielectric Between Coil/Contact Class = 3500V to 4000V Class
- Insulation - Initial Dielectric Between Open Contacts (V rms) = 1000
- Insulation - Initial Dielectric Between Contacts and Coil (V rms) = 4000
- Contact - Rated Voltage (VAC) = 250
- Contact - Switching Voltage Max. (VAC) = 400
- Contact - Limiting Short-Time Current (A) = 6
- Coil - Rated Voltage (VDC) = 24
- Coil - Resistance (Ω) = 2880
- Coil - Rated Power, DC (mW) = 200
- Coil - Rated Power Class = 150mW to 200mW Class
- Insulation - Initial Insulation Resistance (MΩ) = 1000000
- Insulation - Creepage Class = 3mm to 5.5mm Class
- Insulation - Clearance Class = 2.5mm to 4mm Class
- Insulation - Special Features = Tracking Index of Relay Base PTI250

Dimensions:
- Mechanical - Length Class = 16mm to 20mm Class
- Length (mm [in]) = 20.00 [0.787]
- Mechanical - Width Class = 8mm to 10mm Class
- Width (mm [in]) = 10.00 [0.394]

Body Features:
- Mount Type = PCB
- Weight (g [oz]) = 5.00 [0.1764]

Contact Features:
- Contact Material = AgCdO
- Contact - Number of Poles = 1

Configuration Features:
- Contact - Arrangement = 1 Form A (NO)
- Coil - Magnetic System = Monostable, DC
- Coil - Special Features = UL Coil Insulation Class F

Industry Standards:
- RoHS/ELV Compliance = RoHS/Not ELV Compliant
- Lead Free Solder Processes = Wave solder capable to 240°C, Wave solder capable to 260°C
- RoHS/ELV Compliance History = Converted to comply with RoHS not ELV directives
- Approved/Registered Standards = VDE, cULus

Environmental:
- Environmental - Category of Protection = RTIII
- Environmental - Ambient Temperature, Max. (°C [°F]) = 70 [158]
- Environmental - Ambient Temperature Class = 50°C to 70°C Class

Packaging Features:
- Packaging Method = Tube

Other:
- Brand = Schrack

• Mechanical - Height Class = 10mm to 11mm Class • Height (mm [in]) = 10.60 [0.417] • Insulation - Clearance Between Contact and Coil (mm [in]) = 4 [0.157] • Insulation - Creepage Between Contact and Coil (mm [in]) = 4 [0.157]	

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Miniature PCB Relay RE

- **1 pole 6 A, 1 form A (NO) contact**
- **Sensitive coil 200 mW**
- **4 kV coil-contact**
- **Optimized height 10.6mm**
- **PCB area 200mm²**
- **Wash tight**
- **Product in accordance to IEC 60335-1 (domestic appliances)**

F0141-B

Typical applications
PLC's, timers, temperature control, I/O cards, white goods

Approvals

VDE REG.-Nr. 5063, UL E214025

Technical data of approved types on request

Contact Data

Contact arrangement	1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	6A
Limiting making current, max 4s, duty factor 10%	15A
Breaking capacity max.	1500VA
Contact material	AgCdO, AgNi 0.15, AgNi 90/10
Frequency of operation, with/without load	360/72000 ops./h
Operate/release time max.	10/5ms
Bounce time max.	4ms

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
RE030	A (NO)	6A, 250VAC, cosφ=1, 70°C	$100x10^3$
RE034	A (NO)	6A, 250VAC, cosφ=1, 70°C	$100x10^3$
UL 508			
RE030	A (NO)	1/4 hp, 240VAC, motor 40°C	$30x10^3$
RE030	A (NO)	B300 pilot duty 40°C	$6x10^3$
RE034	A (NO)	6A, 250VAC,general purpose, 70°C	$100x10^3$
RE034	A (NO)	B300 pilot duty 40°C	$6x10^3$
Mechanical endurance		$>30x10^6$ ops.	

Max. DC load breaking capacity

Electrical endurance

Coil Data

Coil voltage range	5 to 48 VDC
Operative range, IEC 61810	2
Coil insulation system according UL1446	F

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%[1]	Rated coil power mW
5	5	3.5	0.5	125	200
6	6	4.2	0.6	180	200
12	12	8.4	1.2	720	200
18	18	12.6	1.8	1620	200
24	24	16.8	2.4	2880[1]	200
48	48	33.6	4.8	11520[1]	200

[1] Coil resistance ±15%.

All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

Coil operating range DC

Insulation Data

Initial dielectric strength	
between open contacts	$1000V_{rms}$
between contact and coil	$4000V_{rms}$
Initial insulation resistance	
open contact circuit	$>10x10^9\Omega$
coil-contact circuit	$>10x10^9\Omega$
Clearance/creepage	
between contact and coil	≥4/4mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

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Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

Miniature PCB Relay RE (Continued)

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	
Resistance to heat and fire	according EN 60335, par.30
Ambient temperature	-40 to +70°C -40 to +85°C at 4A
Category of environmental protection IEC 61810	RTIII - wash tight
Vibration resistance (functional)	10g
Terminal type	PCB-THT
Resistance to soldering heat THT IEC 60068-2-20	260°C/5s
Packaging/unit	tube/25 pcs.

PCB layout / terminal assignment

Bottom view on solder pins

Dimensions

Product code structure

Typical product code **RE 0 3 2 012**

Type
- **RE** Miniature PCB Relay RE

Version
- **0** Wash tight

Contact configuration
- **3** 1 form A (NO) contact

Contact material
- **1** AgNi 0.15
- **2** AgNi 0.15 gold plated
- **4** AgNi 90/10
- **0** AgCdO

Coil
- Coil code: please refer to coil versions table

Product code	Version	Contacts	Contact material	Coil	Part number
RE030005	wash tight	1 form A	AgCdO	5VDC	1393217-1
RE030006		1 NO contact		6VDC	1393217-2
RE030012				12VDC	1393217-4
RE030024				24VDC	1393217-8
RE030048				48VDC	1-1393217-1
RE032005			AgNi 0,15 gold plated	5VDC	1-1393217-9
RE032006				6VDC	2-1393217-0
RE032012				12VDC	2-1393217-2
RE032024				24VDC	2-1393217-4
RE032048				48VDC	2-1393217-5
RE034005			AgNi 90/10	5VDC	2-1416010-3
RE034006				6VDC	2-1416010-4
RE034012				12VDC	2-1416010-6
RE034024				24VDC	2-1416010-7
RE034048				48VDC	2-1416010-8

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