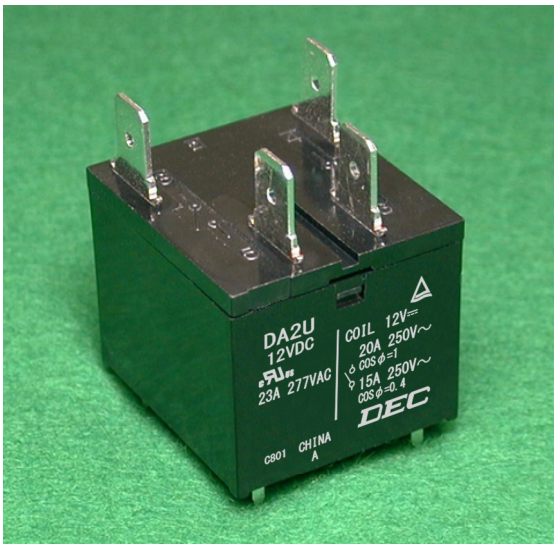
General purpose miniature power relay

RoHS compliant

DA series

Power relay series pursuing reliability and safety



DA2U

■ Currently it is used for such purposes

- Air conditioners, Solar water heater, Factory automation equipment, Automation equipment
- Control panel, Power supply equipment, Molding equipment, Machine tools, Welding machines, Machinery for agriculture
- Power supply for commercial equipment, Power supply for electric tools, Measuring instruments, Medical devices, Disaster prevention equipment
- Packing machines, Food processing machines

DEC is a professional manufacturer of relays

Daiichi Electric Co., Ltd.

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General purpose miniature power relay that can be used for a wide range of applications from control to power.

DA series

■ Features

○ General purpose power relay boasting high reliability and achievement.
○ Terminal shape suitable for application is standard equipped.
○ Tab terminals for contact and PCB terminals for coil and contacts signal is prepared.
○ Medium size and easy to use 2-poles type.

■ Model numbering system

DA □ □ □

Rated coil voltage: Numeric part indication	DC (V): 12, 24
Coil type	D: DC
Number of contact poles	2: 2 poles

■ Safety standards

	Contact rating
UL (C-UL)	23A 277V AC
TUV	20A 250V AC $\cos\phi$=1 15A 250V AC $\cos\phi$=0.4
Electrical Appliances and Materials Safety Act	Conformable

■ Coil ratings

AC/DC \ Item / Voltage		Rated current (mA)	Coil resistance (Ω)	Operate voltage (V)	Release voltage (V)	Maximum voltage (V)	Power consumption (W)
				Ratio to rated voltage			
DC	12	83.3	144	80% max.	10% min.	110%	1.0
	24	41.6	577				

● Notes: 1. Rated current and coil resistance are values at coil temperature of 20℃, tolerance is ±10%.
2. Operate voltage and release voltage are values at coil temperature of 20℃.
3. Maximum voltage is the maximum value of the allowable voltage fluctuation range of the relay coil operating power supply with the ambient temperature at 20℃.

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■ Ratings・Performance

Specifications	Item		Performance
Contact specification	Contact configuration		2a
	Contact resistance		50mΩ max. (at DC6V 1A)
	Contact material		Ag alloy
Ratings	Rated load (resistive load)		AC220V 20A
	Max. switching capacity (resistive load)		4400VA
	Max. switching voltage		AC250V
	Max. switching current		20A
Electrical capability	Insulation resistance		100MΩ min. (at DC500V)
	Dielectric strength	Between coil and contacts	AC4000V 1 min
		Between open contacts	AC1000V 1 min
		Between opposite polarity contacts	AC2000V 1 min
	Impulse withstand voltage (between coil and contacts)		10 000V min. (1.2×50μs)
	Operate time (at rated voltage on, at 20℃)		30ms max. (excluding contact bounce time)
	Release time (at rated voltage off, at 20℃)		30ms max. (excluding contact bounce time)
Mechanical capability	Vibration resistance	Malfunction	10 to 55 to 10Hz (double amplitude 1.5mm)
		Destruction	10 to 55 to 10Hz (double amplitude 1.5mm)
	Shock resistance	Malfunction	100m/s^2
		Destruction	1000m/s^2
Life	Mechanical endurance (at 180 times/min)		1 000 000 times min.
	Electrical endurance (inverter load) (at 20 times/min)		30 000 times min. (AC: 220V 20A)
Conditions for operation	Ambient temperature		−40℃ to +60℃ (no freezing and condensing at low temperature)
	Ambient humidity		5% to 85%RH
Mass			approx. 32g

● Notes: The above is the initial value.

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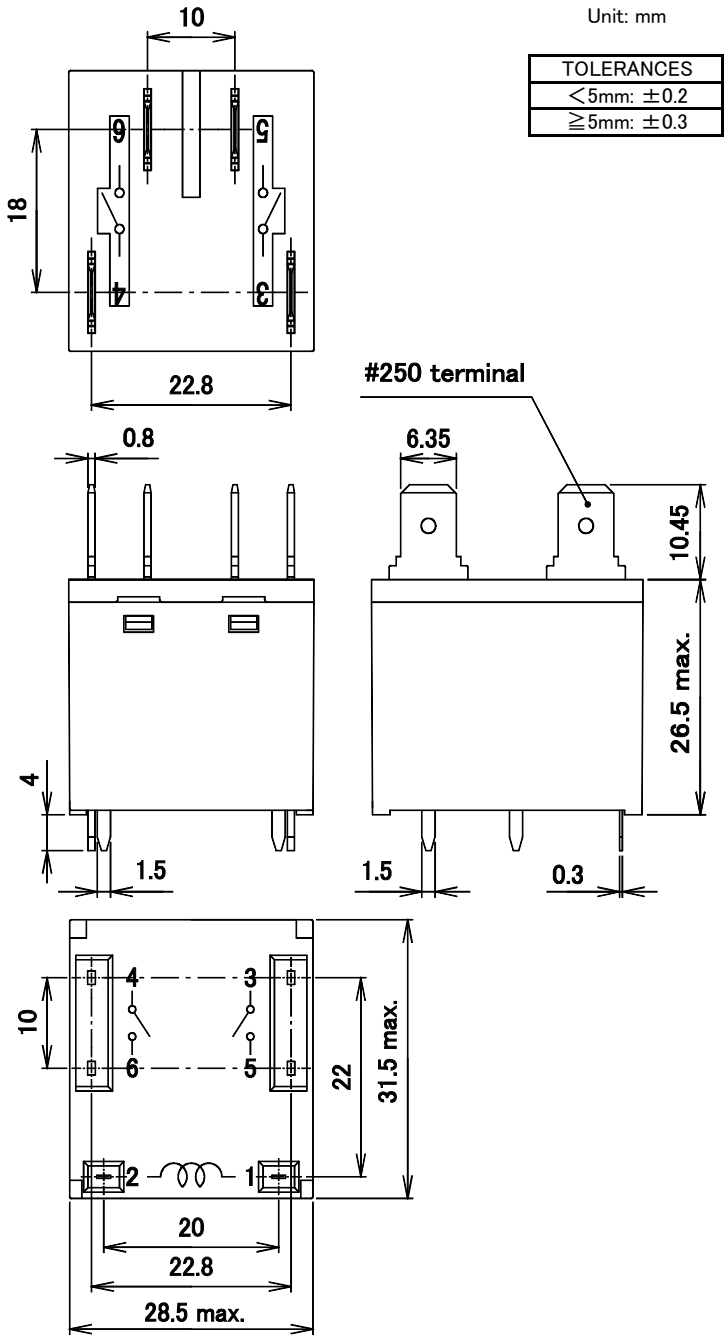
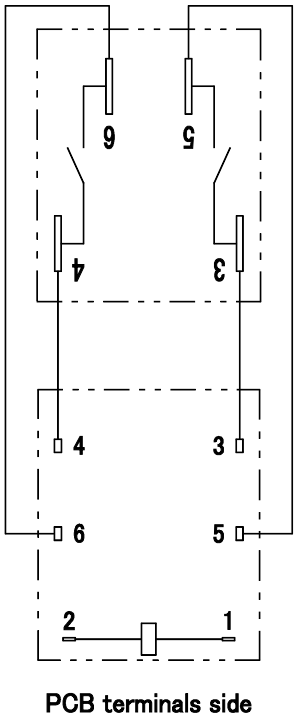
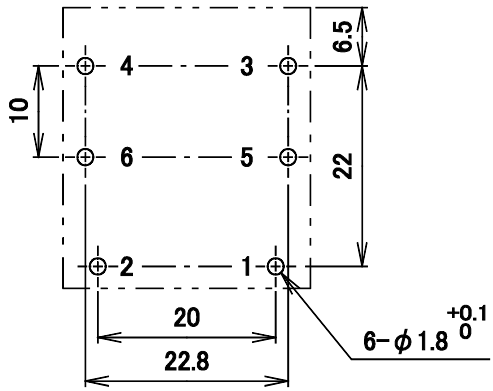
■ Dimensions



■ Schematics



■ PCB mounting holes (tolerances±0.1)



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Reference data

■ Maximum switching capacity

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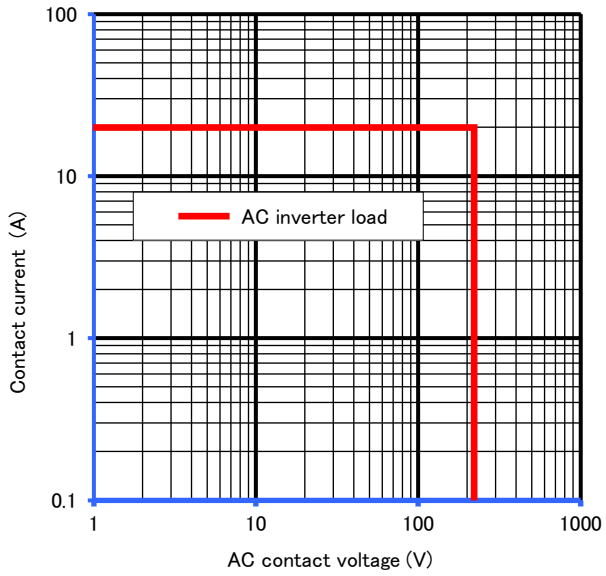

■ Durability curve

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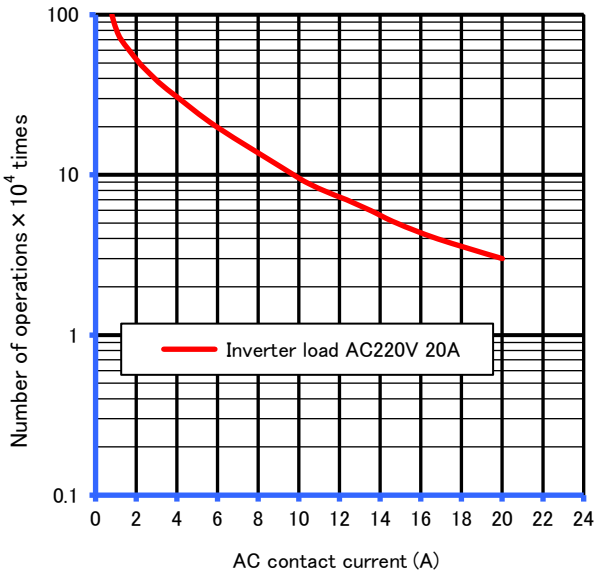

DEC is a professional manufacturer of relays

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