



A Unit of Teledyne Electronics and Communications

Series DX

3A to 220 Vdc
DIN Rail Relay, AC/DC Control

Part Number	Description
DX22R1E-02	1A, 220 Vdc
DX6R3E-02	3A, 60 Vdc
DX6R3U-02	3A, 60 Vdc

Part Number Explanation

DX	22	R	1	E	-02
Series	Line Voltage ¹	Switch Type ²	Output Current - Amps	Control Range ³	Feature ⁴

NOTES

- 1) Line Voltage (nominal): 6 = 60 Vdc; 22 = 220 Vdc
- 2) Switch Type: R = Random turn-on
- 3) Control Range: E = 5-30 Vdc (3-30 Vdc for DX6R3E-02);
U = 90-240 Vdc
- 4) Feature: 02 = With LED

MECHANICAL SPECIFICATION

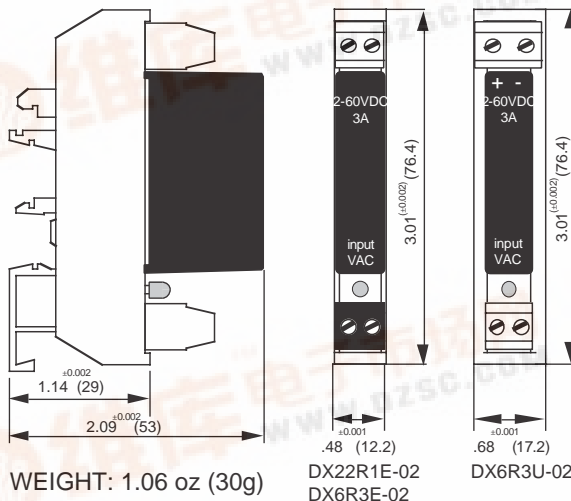


Figure 1 — DX relays, dimensions in inches (mm)

TYPICAL APPLICATION

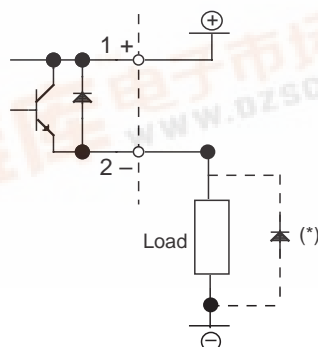


Figure 2 — DX relays



FEATURES/BENEFITS

- New generation of solid-state relays for DIN-rail mounting
- Control visualization by LED
- AC/DC control
- High immunity to surges

DESCRIPTION

The Series DX relays are designed for DIN-rail mounting. These solid-state relays include a control LED that provides visual control status. The tight zero-cross window significantly reduces EMI. Its compact size and user friendly package make the Series DX relay an excellent choice for designers.

APPLICATIONS

- Interface applications
- Vending machines
- Light/lamp control
- Contactor driver
- Fan speed control
- HVAC controls

BLOCK DIAGRAM

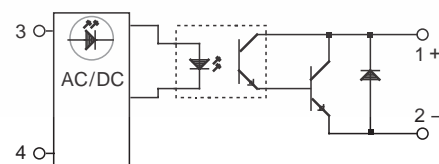


Figure 3 — DX relays

INPUT (CONTROL) SPECIFICATION

	Min	Max	Unit
Control Range			
DX22R1E-02	5	30	Vdc
DX6R3E-02	3	30	Vdc
DX6R3U-02	90	240	Vac/dc
Input Current Range			
DX22R1E-02	1	30	mA
DX6R3E-02	1	30	mA
DX6R3U-02	2	5.7	mA
Must Turn-Off Voltage			
DX22R1E-02	1		Vdc
DX6R3E-02	1		Vdc
DX6R3U-02	15		Vac/dc
Input Resistance (Typical)			
DX22R1E-02		1000	Ohms
DX6R3E-02		600	Ohms
DX6R3U-02		41,000	Ohms

OUTPUT (LOAD) SPECIFICATION

	Min	Max	Unit
Operating Range			
DX22R1E-02	2	220	V
DX6	2	60	V
Peak Voltage			
DX22R1E-02		220	V
DX6		60	V
Load Current Range			
DX22R1E-02	.003	1	A
DX6R3E-02	.003	3	A
DX6R3U-02	.005	3	A
On-State Voltage Drop			
		1.6	V
Maximum Surge Current Rating (Non-Repetitive)			
DX22R1E-02		3	Apeak
DX6R3E-02		5	Apeak
DX6R3E-02		10	Apeak

OUTPUT (LOAD) SPECIFICATION (Continued)

	Min	Max	Unit
Off-State Leakage Current (60Hz)			
DX22R1E-02		0.3	mA
DX6R3E-02		0.3	mA
DX6R3E-02		1	mA
Turn-On Time			
		0.2	ms
Turn-Off Time			
		0.8	ms
Off-State dv/dt			
	200		V/μs
Switching Frequency			
		500	Hz

THERMAL CURVES

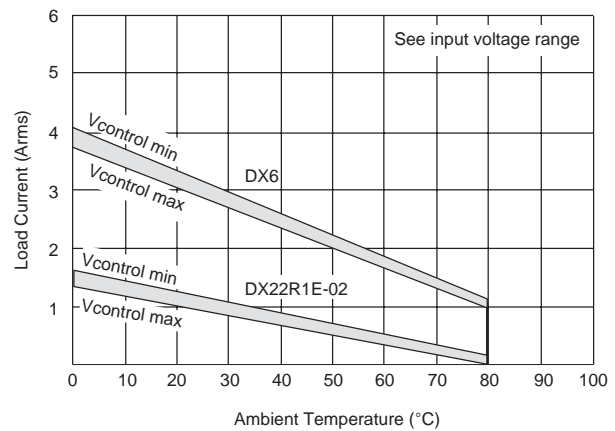


Figure 4 — DX relays

ENVIRONMENTAL SPECIFICATION

	Min	Max	Unit
Operating Temperature	-40	80	°C
Storage Temperature	-40	105	°C
Input-Output Isolation	2500		Vrms
Input-Output Capacity		8	pF

NOTES:

1. Electrical specifications at 25°C unless otherwise specified.
2. On inductive loads, a free-wheeling diode (or clamp) is recommended.
3. For additional/custom options, contact factory.