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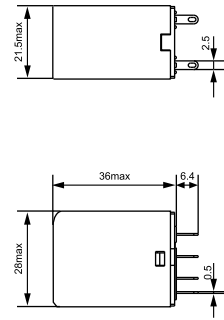
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



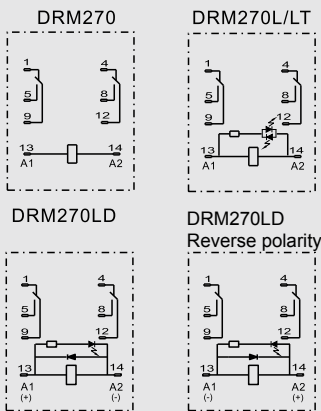
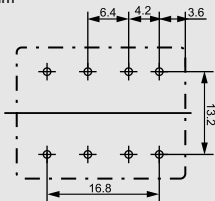
# DRM Auxiliary Relay

DRM 270 Relay  
 2 change over contacts  
 AC/DC coil

- Small size with high sensitivity
- Reasonable structure with wide usage
- Various types available
- Approvals with us TÜV CE



**Circuit diagram**  
 PIN top view  
 Dimensions are in mm



### Output

Load (resistive)	10 A / 250 Vac
Switching power (resistive)	2500 VA, 300W
Contact resistance (initial)	≤ 50 mΩ
Min. load voltage / current	12 V / 10 mA or 5 V / 1 mA (gold plated contact)
Contact material	Silver alloy or silver alloy with gold plating
Electrical endurance / Mechanical endurance	> 25×10 <sup>4</sup> (1800 Ops/h) / > 2×10 <sup>7</sup> (18000 Ops/h)
Response / dropout delay at rated voltage	≤ 20 ms / ≤ 20 ms
Dielectric strength: Between Coil-contacts / open contacts / adjacent contacts	2000VAC/1min / 1000VAC/1min / 2000VAC/1min (leakage current: 1mA)

### Input

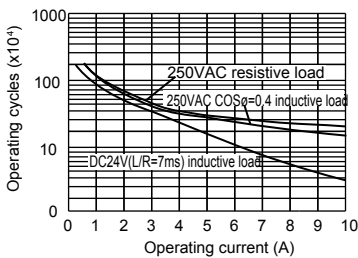
Response voltage @ 25°C	DC: ≥ 75% of rated voltage, AC: ≥ 80% of rated voltage
Dropout voltage @ 25°C	DC: ≥ 10% of rated voltage, AC: ≥ 30% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Insulation resistance	≥ 1000 MΩ
Coil power consumption	DC: ≤ 0.9 W, AC: 1.2 VA

### General

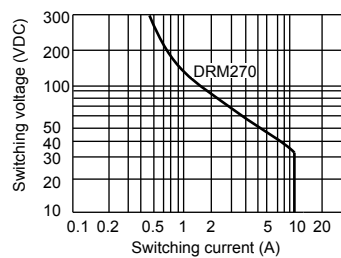
Ambient temperature	DC: -40 °C...+60°C, AC: -40 °C...+55°C
Storage temperature	-40 °C...+70°C
Humidity	35%~85% RH
Atmospheric pressure	86-106KPa
Shock resistance	10G (half wave of sine pulse: 11ms)
Vibration resistance	10~55Hz dual amplitude: 1.0mm 10~55Hz
Mounting	Push-in connection or PCB welding
Weight	35 g
Min. in package	20 pcs

## Application

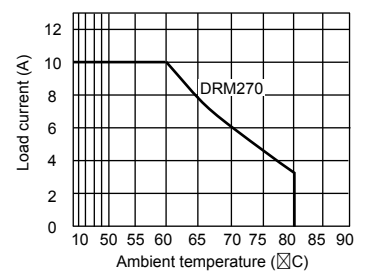
DRM270 electrical life



Max. DC load break capacity



Temperature derating curve



# DRM Auxiliary Relay

DRM 270 Relay  
2 change over contacts  
AC/DC coil

## Type code

Type DRM

Type of construction  
2 change over contact

Coil voltage

006 6Vdc / 012 12Vdc  
024 24Vdc / 048 48Vdc  
110 110Vdc / 220 220Vdc  
524 24Vac / 548 48Vac  
615 115Vac / 730 230Vac

LED L (Red for AC coil; green for DC coil)

Test lever T (Red for AC coil; green for DC coil)

Suppressor diode D

DRM

## Ordering information

### Input

	24 V AC 2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC
Rated current (50Hz / 60Hz)	62.4mA/52.2mA	33.3mA/27.8mA	12.6mA/10.8mA	6.1mA/5.2mA
Coil resistance	160Ω ±10%	600Ω ±10%	3.750Ω ±10%	16.000Ω ±10%
Response / dropout voltage	19.2V / 7.2V	38.4V / 14.4V	92V / 34.5V	184V / 69V
Max. voltage	26.4V	52.8V	126.5V	253V
Power consumption	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)

## Ordering information

	24 V AC 2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Standard Type	DRM270524	DRM270548	DRM270615	DRM270730
Order No.	<b>7760056055</b>	<b>7760056056</b>	<b>7760056057</b>	<b>7760056058</b>
With LED Type	DRM270524L	DRM270548L	DRM270615L	DRM270730L
Order No.	<b>7760056064</b>	<b>7760056065</b>	<b>7760056066</b>	<b>7760056067</b>
With LED and test lever Type	DRM270524LT	DRM270548LT	DRM270615LT	DRM270730LT
Order No.	<b>7760056073</b>	<b>7760056074</b>	<b>7760056075</b>	<b>7760056076</b>
With LED, gold plated contact Type				DRM270730L Au
Order No.				<b>7760056184</b>
With LED and test lever, gold plated contact Type				DRM270730LT Au
Order No.				<b>7760056186</b>

Note

## Ordering information

### Input

	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
Rated voltage	12 V DC	24 V DC	48 V DC	110V DC	220V DC
Rated current	75mA	36.9mA	18.5mA	10mA	5.2mA
Coil resistance	160Ω ±10%	650Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	44,000Ω ±10%
Response / dropout voltage	9V / 1.2V	18V / 2.4V	36V / 4.8V	82.5V / 11V	165V / 22V
Max. voltage	13.2V	26.4V	52.8V	121.0V	242V
Power consumption	0.9W	0.9W	0.9W	0.9W	0.9W

## Ordering information

### Relay

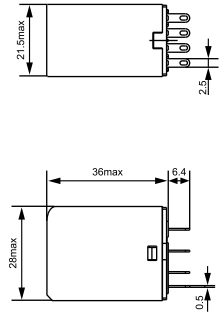
	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
Standard Type	DRM270012	DRM270024	DRM270048	DRM270110	DRM270220
Order No.	<b>7760056050</b>	<b>7760056051</b>	<b>7760056052</b>	<b>7760056053</b>	<b>7760056054</b>
With LED Type	DRM270012L	DRM270024L	DRM270048L	DRM270110L	DRM270220L
Order No.	<b>7760056059</b>	<b>7760056060</b>	<b>7760056061</b>	<b>7760056062</b>	<b>7760056063</b>
With LED and test lever Type	DRM270012LT	DRM270024LT	DRM270048LT	DRM270110LT	DRM270220LT
Order No.	<b>7760056068</b>	<b>7760056069</b>	<b>7760056070</b>	<b>7760056071</b>	<b>7760056072</b>
With LED and suppressor diode Type		DRM270024LD			
Order No.		<b>7760056077</b>			
With LED, gold plated contact Type		DRM270024L Au			
Order No.		<b>7760056183</b>			
With LED and test lever, gold plated contact Type		DRM270024LT Au			
Order No.		<b>7760056185</b>			



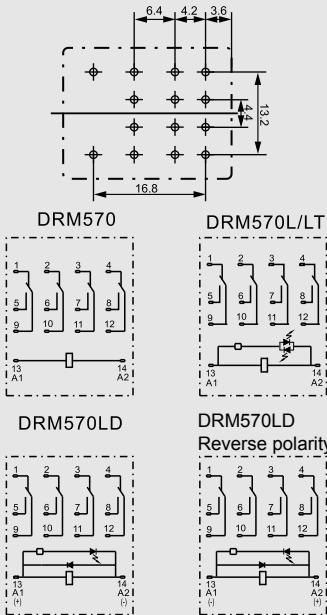
# DRM Auxiliary Relay

DRM 570 Relay  
4 change over contacts  
AC/DC coil

- Small size with high sensitivity
- Reasonable structure with wide usage
- Various types available
- Approvals with TÜV CE



**Circuit diagram**  
PIN top view  
Dimensions are in mm



### Output

Load (resistive)	10 A / 250 Vac
Switching power (resistive)	2500 VA, 300W
Contact resistance (initial)	≤ 50 mΩ
Min. load voltage / current	12 V / 10 mA or 5 V / 1 mA (gold plated contact)
Contact material	Silver alloy or silver alloy with gold plating
Electrical endurance / Mechanical endurance	> 25×10 <sup>4</sup> (1800 Ops/h) / > 2×10 <sup>7</sup> (18000 Ops/h)
Response / dropout delay at rated voltage	≤ 20 ms / ≤ 20 ms
Dielectric strength: Between Coil-contacts / open contacts / adjacent contacts	2000VAC/1min / 1000VAC/1min / 2000VAC/1min (leakage current: 1mA)

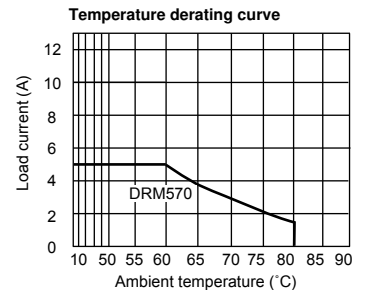
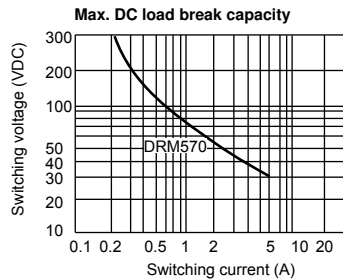
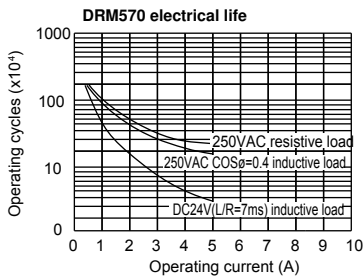
### Input

Response voltage @ 25°C	DC: ≥ 75% of raged voltage, AC: ≥ 80% of raged voltage
Dropout voltage @ 25°C	DC: ≥ 10% of raged voltage, AC: ≥ 30% of raged voltage
Max. voltage @ 25°C	110% of raged voltage
Insulation resistance	≥ 1000 MΩ
Coil power consumption	DC: ≤ 0.9 W, AC: 1.2 VA

### General

Ambient temperature	DC: -40 °C...+60°C, AC: -40 °C...+55°C
Storage temperature	-40°C...+70°C
Humidity	35%~85% RH
Atmospheric pressure	86-106KPa
Shock resistance	10G (half wave of sine pulse: 11ms)
Vibration resistance	10~55Hz dual amplitude: 1.0mm 10~55Hz
Mounting	Push-in connection or PCB welding
Weight	35 g
Min. in package	20 pcs

## Application



# DRM Auxiliary Relay

DRM 570 Relay  
4 change over contacts  
AC/DC coil

## Type code

Type DRM

Type of construction  
4 change over contact

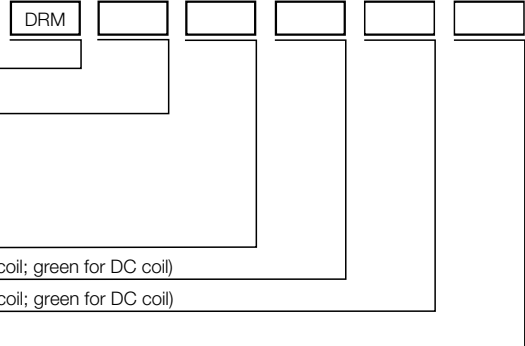
Coil voltage

006 6Vdc / 012 12Vdc  
024 24Vdc / 048 48Vdc  
110 110Vdc / 220 220Vdc  
524 24Vac / 548 48Vac  
615 115Vav / 730 230Vac

LED L (Red for AC coil; green for DC coil)

Test lever T (Red for AC coil; green for DC coil)

Suppressor diode D



Ordering information	24 V AC 4CO	48 V AC 4CO	115 V AC 4CO	230 V AC 4CO	
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
Rated current (50Hz / 60Hz)	62.4mA/52.2mA	33.3mA/27.8mA	12.6mA/10.8mA	6.1mA/5.2mA	
Coil resistance	160Ω ±10%	615Ω ±10%	4,340Ω ±10%	15,000Ω ±10%	
Response / dropout voltage	19.2V / 7.2V	38.4V / 14.4V	92V / 34.5V	184V / 69V	
Max. voltage	26.4V	52.8V	126.5V	253V	
Power consumption	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	


Ordering information					
Standard	Type	DRM570524	DRM570548	DRM570615	DRM570730
	Order No.	<b>7760056083</b>	<b>7760056084</b>	<b>7760056085</b>	<b>7760056086</b>
With LED	Type	DRM570524L	DRM570548L	DRM570615L	DRM570730L
	Order No.	<b>7760056092</b>	<b>7760056093</b>	<b>7760056094</b>	<b>7760056095</b>
With LED and test lever	Type	DRM570524LT	DRM570548LT	DRM570615LT	DRM570730LT
	Order No.	<b>7760056101</b>	<b>7760056102</b>	<b>7760056103</b>	<b>7760056104</b>
With LED, gold plated contact	Type				DRM570730L Au
	Order No.				<b>7760056188</b>
With LED and test lever, gold plated contact	Type				DRM570730LT Au
	Order No.				<b>7760056190</b>
Note					

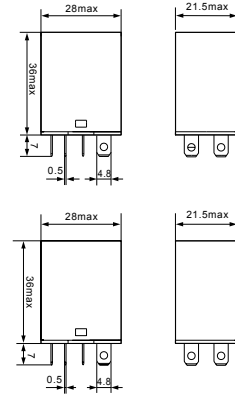
Ordering information	12 V DC 4CO	24 V DC 4CO	48 V DC 4CO	110 V DC 4CO	220 V DC 4CO
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110V DC	220V DC
Rated current	75mA	36.9mA	18.5mA	10mA	5.2mA
Coil resistance	160Ω ±10%	630Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	42,000Ω ±10%
Response / dropout voltage	9V / 1.2V	18V / 2.4V	36V / 4.8V	82.5V / 11V	165V / 22V
Max. voltage	13.2V	26.4V	52.8V	121.0V	242V
Power consumption	0.9W	0.9W	0.9W	0.9W	0.9W

Ordering information					
Standard	Type	DRM570012	DRM570024	DRM570048	DRM570110
	Order No.	<b>7760056078</b>	<b>7760056079</b>	<b>7760056080</b>	<b>7760056081</b>
With LED	Type	DRM570012L	DRM570024L	DRM570048L	DRM570110L
	Order No.	<b>7760056087</b>	<b>7760056088</b>	<b>7760056089</b>	<b>7760056090</b>
With LED and test lever	Type	DRM570012LT	DRM570024LT	DRM570048LT	DRM570110LT
	Order No.	<b>7760056096</b>	<b>7760056097</b>	<b>7760056098</b>	<b>7760056099</b>
With LED and suppressor diode	Type		DRM570024LD		
	Order No.		<b>7760056105</b>		
With LED, gold plated contact	Type		DRM570024L Au		
	Order No.		<b>7760056187</b>		
With LED and test lever, gold plated contact	Type		DRM570024LT Au		
	Order No.		<b>7760056189</b>		

# DRL Power Relay

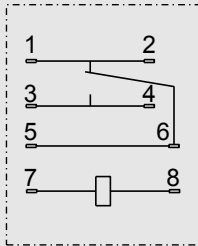
DRL Power Relay  
1 or 2 change over contacts, AC/DC coil

- Arc shield
- High dielectric strength: 2,000 V
- Approvals with 

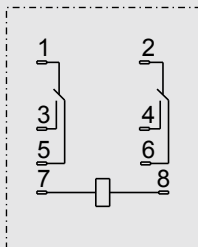


**Circuit diagram**  
PIN top view  
Dimensions are in mm

**1CO**



**2CO**



**Output**

Max. switching voltage	250 V AC
Continuous current	16 A @ 1CO / 10A @ 2CO
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles (1,800 cycles / hour)
Response / dropout delay	< 20 ms / < 20 ms

**Input**

Response voltage @ 25° C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25° C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25° C	110% of rated voltage
Coil power consumption	1.2 VA / 0.9 W

**General**

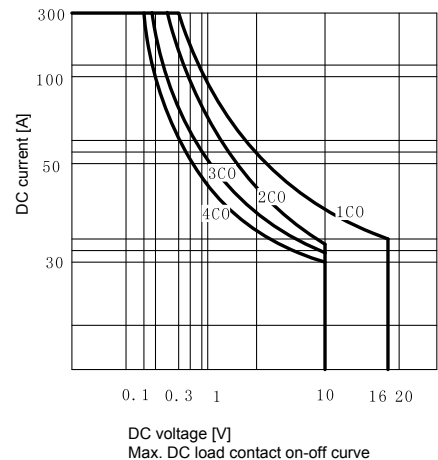
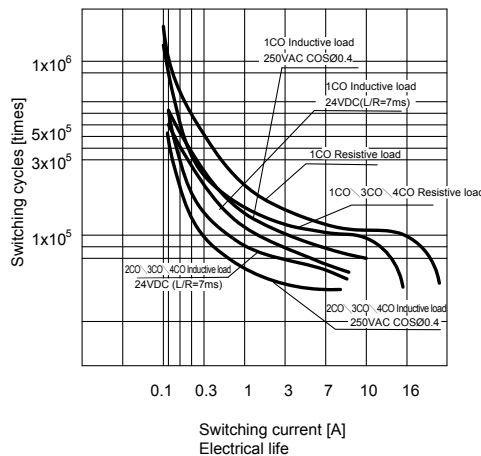
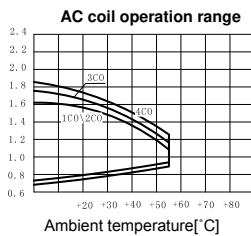
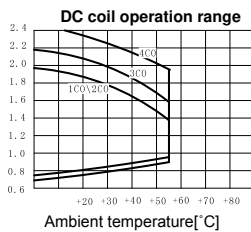
Operation temperature	- 25 ... 55° C
Storage temperature	- 25 ... 55° C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact: 2000V AC / 1 min Between N.O. contacts: 1000V AC / 1 min Between adjacent contacts: 2000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

Rated voltage	250 V
Pollution category	3
Over voltage category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	35 g
Min. in package	20 pcs

**Dimension**

Length x Width x Height	28 x 21.5 x 43 mm
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# DRL Power Relay

DRL Power Relay  
1 or 2 change over contacts, AC/DC coil

Type code **DRL**

Type code  
Type DRL  
Type of construction  
170 1 change over contact  
270 2 change over contacts

Coil voltage  
012 12Vdc / 024 24Vdc  
048 48Vdc / 110 110Vdc  
220 220Vdc / 524 24Vac  
615 115Vac / 730 230Vac

LED indicator

Ordering information	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W
Rated coil current	75 mA	36.9 mA	18.5 mA	10 mA	5.2 mA
Coil resistance	160Ω ±10%	650Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	42,000Ω ±10%


Ordering information					
1 change over contact 1CO Type	DRL170012L	DRL170024L	DRL170048L	DRL170110L	DRL170220L
Order No.	<b>1133450000</b>	<b>1133460000</b>	<b>1133470000</b>	<b>1133480000</b>	<b>1133490000</b>
2 change over contact 2CO Type	DRL270012L	DRL270024L	DRL270048L	DRL270110L	DRL270220L
Order No.	<b>1133510000</b>	<b>1133520000</b>	<b>1133530000</b>	<b>1133540000</b>	<b>1133550000</b>

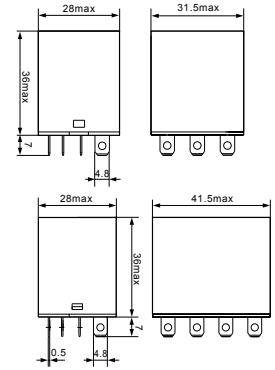
Ordering information	24 V AC	115 V AC	230 V AC		
<b>Input</b>					
Rated voltage	24 V AC	115 V AC	230 V AC		
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V		
Power consumption	1.2 VA	1.2 VA	1.2 VA		
Rated coil current (50 Hz)	54 mA	12.9 mA	6.8 mA		
Coil resistance	160Ω ±10%	3,750Ω ±10%	13,000Ω ±10%		

Ordering information					
1 change over contact 1CO Type	DRL170524L	DRL170615L	DRL170730L		
Order No.	<b>1133840000</b>	<b>1133850000</b>	<b>1133860000</b>		
2 change over contact 2CO Type	DRL270524L	DRL270615L	DRL270730L		
Order No.	<b>1133870000</b>	<b>1133880000</b>	<b>1133890000</b>		

# DRL Power Relay

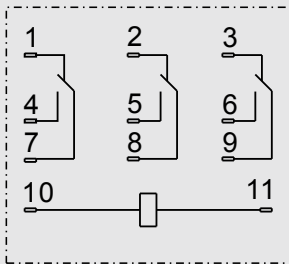
DRL Power Relay  
3 or 4 change over contacts, AC/DC coil

- Arc shield
- High dielectric strength: 2,000 V
- Approvals with 

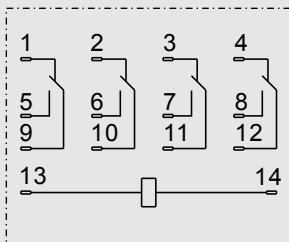


**Circuit diagram**  
PIN top view  
Dimensions are in mm

3CO



4CO



## Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles (1,800 cycles / hour)
Response / dropout delay	< 20 ms / < 20 ms

## Input

Response voltage @ 25° C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25° C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25° C	110% of rated voltage
Coil power consumption	3CO: 2 VA / 1.4 W; 4CO: 2.5 VA / 1.5 W

## General

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact Between N.O. contacts Between adjacent contacts
	2000V AC / 1 min 1000V AC / 1 min 2000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm

Insulation IEC60664

Rated voltage	250 V
Pollution category	3
Over voltage category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)

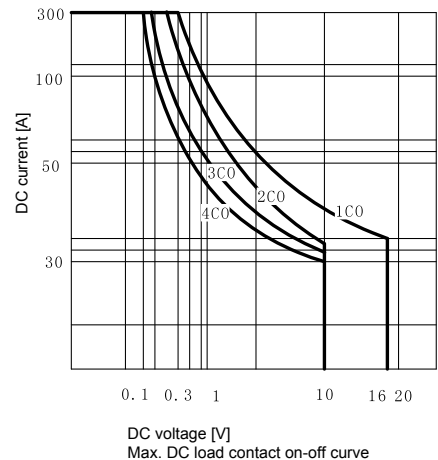
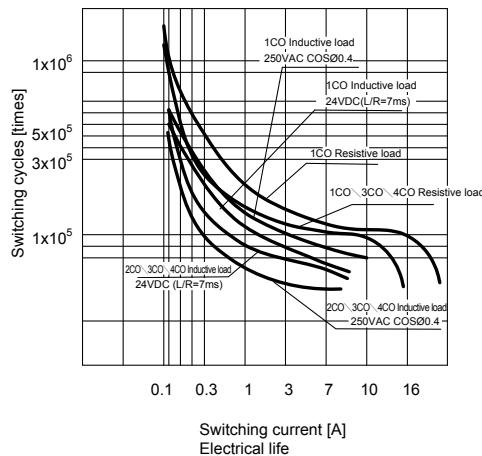
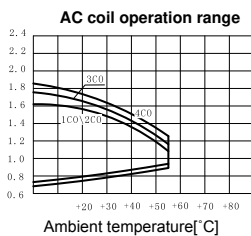
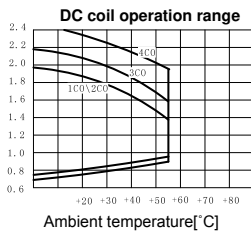
Approval CE; TÜV; UL

Weight 3CO: 50g; 4CO: 65g

Min. in package 10

## Dimension

Length x Width x Height 28 x 21.5 x 43 mm





# DRL Power Relay

DRL Power Relay  
3 or 4 change over contacts, AC/DC coil

Type code	DRL			
Type code				
Type DRL				
Type of construction	370 3 change over contact			
	570 4 change over contacts			
Coil voltage	012 12Vdc / 024 24Vdc			
	048 48Vdc / 110 110Vdc			
	220 220Vdc / 524 24Vac			
	615 115Vac / 730 230Vac			
LED indicator				

Ordering information	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption	3CO 1.4 W 4CO 1.5 W	3CO 1.4 W 4CO 1.5 W	3CO 1.4 W 4CO 1.5 W	3CO 1.4 W 4CO 1.5 W	3CO 1.4 W 4CO 1.5 W
Rated coil current	120 mA 125 mA	60 mA 66.7 mA	30 mA 31.2 mA	13.1 mA 16.2 mA	6.7 mA 7.6 mA
Coil resistance	100Ω ±10% 96Ω ±10%	400Ω ±10% 360Ω ±10%	1,600Ω ±10% 1,540Ω ±10%	8,400Ω ±10% 6,800Ω ±10%	33,000Ω ±10% 29,000Ω ±10%

Ordering information					
3 change over contact 3CO Type	DRL370012L	DRL370024L	DRL370048L	DRL370110L	DRL370220L
Order No.	1133570000	1133580000	1133590000	1133600000	1133610000
4 change over contact 4CO Type	DRL570012L	DRL570024L	DRL570048L	DRL570110L	DRL570220L
Order No.	1133620000	1133630000	1133640000	1133650000	1133660000

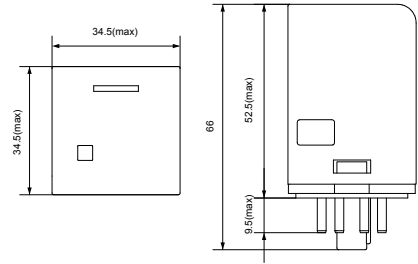
Ordering information	24 V AC	115 V AC	230 V AC		
<b>Input</b>					
Rated voltage	24 V AC	115 V AC	230 V AC		
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V		
Power consumption	3CO 2 VA 4CO 2.5 VA	3CO 2 VA 4CO 2.5 VA	3CO 2 VA 4CO 2.5 VA		
Rated coil current (50 Hz)	80 mA 93.5 mA	16 mA 25.5 mA	10 mA 13.1 mA		
Coil resistance	102Ω ±10% 80Ω ±10%	2,300Ω ±10% 1,680Ω ±10%	8,600Ω ±10% 6700Ω ±10%		

Ordering information					
3 change over contact 3CO Type	DRL370524L	DRL370615L	DRL370730L		
Order No.	1133910000	1133920000	1133930000		
4 change over contact 4CO Type	DRL570524L	DRL570615L	DRL570730L		
Order No.	1133940000	1133950000	1133960000		

# DRR Power Relay

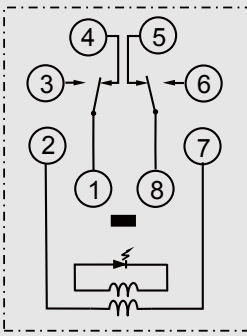
DRR Power Relay  
2 change over contacts, AC/DC coil

- 2500 VA switchover capacity
- 8-pin plug in DIN rail installation
- Approvals with TÜV CE

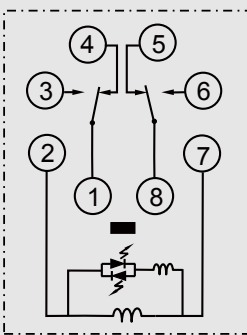


**Circuit diagram**  
PIN top view  
Dimensions are in mm

### AC



### DC



### Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles (1,800 cycles / hour)
Response / dropout delay	< 30 ms / < 20 ms

### Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.7 VA / 1.5 W

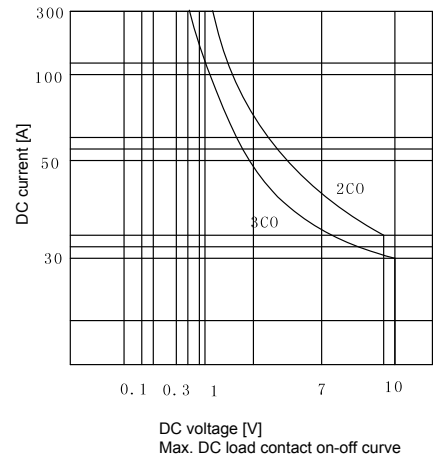
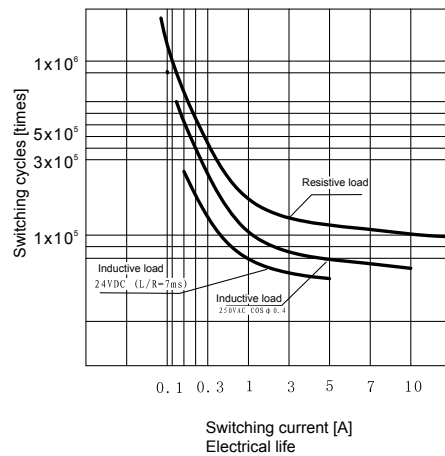
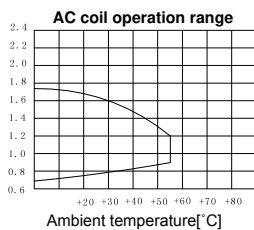
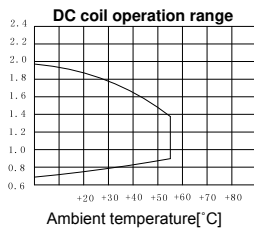
### General

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	5 ... 85 %
Electrical strength	Coil-contact: 2500V AC / 1 min Between N.O. contacts: 1000V AC / 1 min Between adjacent contacts: 2500V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

Rated voltage	250 V
Pollution category	3
Over voltage category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	75g
Min. in package	10

<b>Dimension</b>	
Length x Width x Height	34.5 x 34.5 x 66 mm



# DRR Power Relay

DRL Power Relay  
2 change over contacts, AC/DC coil

Type code	DRR			
Type code				
Type DRR				
Type of construction	270	2 change over contacts		
Coil voltage	012	12Vdc / 024	24Vdc	
	048	48Vdc / 110	110Vdc	
	220	220Vdc / 524	24Vac	
	615	115Vac / 730	230Vac	
LED indicator				

Relay

Ordering information	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
Rated coil current	125 mA	55.8 mA	29.3 mA	14.9 mA	7.5 mA
Coil resistance	96Ω ±10%	430Ω ±10%	1640Ω ±10%	7360Ω ±10%	29500Ω ±10%

Ordering information					
Type	DRR270012L	DRR270024L	DRR270048L	DRR270110L	DRR270220L
Order No.	<b>1133360000</b>	<b>1133370000</b>	<b>1133380000</b>	<b>1133390000</b>	<b>1133400000</b>

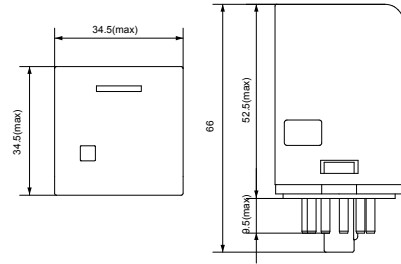
Ordering information	24 V AC 2CO	115 V AC 2CO	230 V AC 2CO		
<b>Input</b>					
Rated voltage	24 V AC	115 V AC	230 V AC		
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V		
Power consumption	2.7 VA	2.7 VA	2.7 VA		
Rated coil current (50 Hz/60Hz)	130 mA/116 mA	29.8 mA/25.4 mA	14.9 mA/12.7 mA		
Coil resistance	62.5Ω ±10%	1250Ω ±10%	6500Ω ±10%		

Ordering information					
Type	DRR270524L	DRR270615L	DRR270730L		
Order No.	<b>1133760000</b>	<b>1133780000</b>	<b>1133800000</b>		

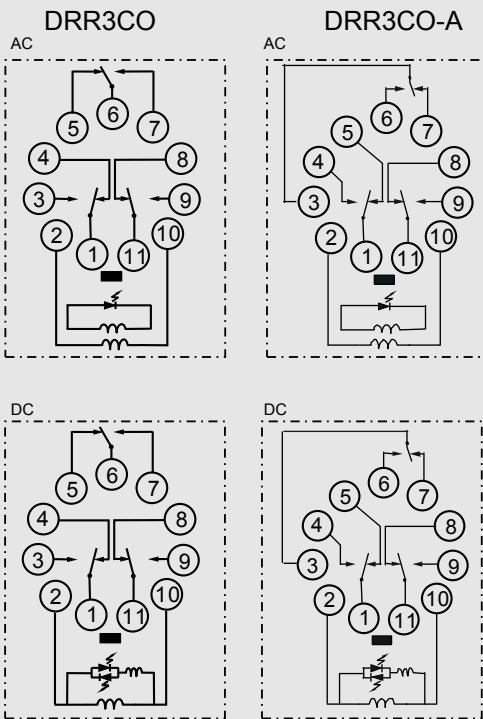
# DRR Power Relay

DRR Power Relay  
3 change over contacts, AC/DC coil

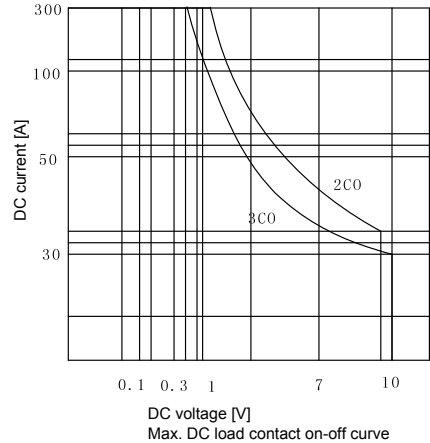
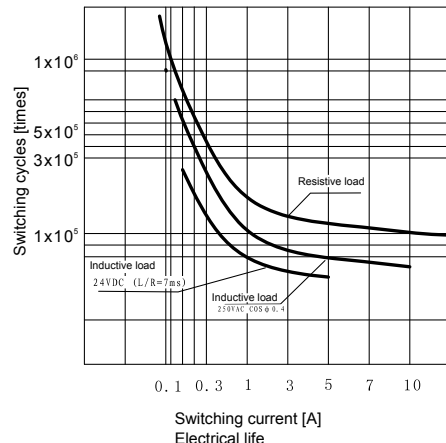
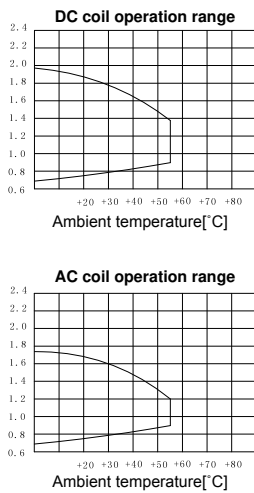
- 2500 VA switchover capacity
- 11-pin plug in DIN rail installation
- Approvals with TÜV CE



**Circuit diagram**  
PIN top view  
Dimensions are in mm



<b>Output</b>	
Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgNi 90/10
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles (1,800 cycles / hour)
Response / dropout delay	< 30 ms / < 20 ms
<b>Input</b>	
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 80% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.7 VA / 1.5 W
<b>General</b>	
Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	5 ... 85 %
Electrical strength	Coil-contact Between N.O. contacts Between adjacent contacts
	2500V AC / 1 min 1000V AC / 1 min 2500V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	
	Rated voltage Pollution category Over voltage category
	250 V 3 III
Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	75g
Min. in package	10
<b>Dimension</b>	
Length x Width x Height	34.5 x 34.5 x 66 mm



# DRR Power Relay

DRL Power Relay  
3 change over contacts, AC/DC coil

Type code	DRR			
Type DRR				
Type of construction	370 3 change over contacts			
Coil voltage	012 12Vdc / 024 24Vdc 048 48Vdc / 110 110Vdc 220 220Vdc / 524 24Vac 615 115Vac / 730 230Vac			
LED indicator				

Ordering information	12 V DC 3CO	24 V DC 3CO	48 V DC 3CO	110 V DC 3CO	220 V DC 3CO
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
Rated coil current	125 mA	55.8 mA	29.3 mA	14.9 mA	7.5 mA
Coil resistance	96Ω ±10%	430Ω ±10%	1640Ω ±10%	7360Ω ±10%	29500Ω ±10%

Ordering information					
Type	DRR370012L	DRR370024L	DRR370048L	DRR370110L	DRR370220L
Order No.	1133410000	1133420000	1133430000	1133440000	1133560000
Type	DRR370012L-A	DRR370024L-A	DRR370048L-A	DRR370110L-A	DRR370220L-A
Order No.	7760056250	7760056251	7760056252	7760056253	7760056254

Ordering information	24 V AC 3CO	115 V AC 3CO	230 V AC 3CO		
<b>Input</b>					
Rated voltage	24 V AC	115 V AC	230 V AC		
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V		
Power consumption	2.7 VA	2.7 VA	2.7 VA		
Rated coil current (50 Hz/60Hz)	130 mA/116 mA	29.8 mA/25.4 mA	14.9 mA/12.7 mA		
Coil resistance	62.5Ω ±10%	1250Ω ±10%	6500Ω ±10%		

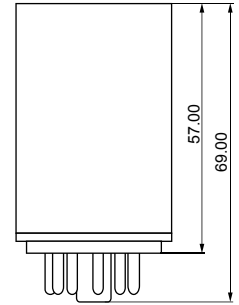
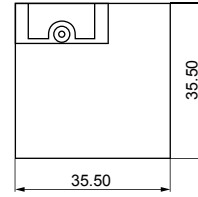
Ordering information					
Type	DRR370524L	DRR370615L	DRR370730L		
Order No.	1133810000	1133820000	1133830000		
Type	DRR370524L-A	DRR370615L-A	DRR370730L-A		
Order No.	7760056255	7760056256	7760056257		



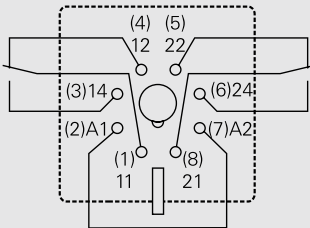
# RRD Power Relay

RRD Relay  
2 change over contacts  
AC/DC coil

- 2500 VA switchover capacity
- With test lever
- Approvals with VDE us



**Circuit diagram**  
PIN top view  
Dimensions are in mm



### Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgNi 90/10
Mechanical endurance	20x10 <sup>6</sup> switching cycles
Response / dropout delay at rated voltage	12 ms / 5 ms

### General

Operation temperature	- 45°C ... 55°C
UL 94 fire retardant class	V-0
Approval	cURus; CE; VDE

### Insulation coordination

Electrical strength	
Coil-contact	2,500V AC / 1 min
Between N.O. contacts	1,500V AC / 1 min
Between adjacent contacts	2,500V AC / 1 min
Clearance / creepage distance	2.8 mm / 4 mm
Insulation IEC60664	

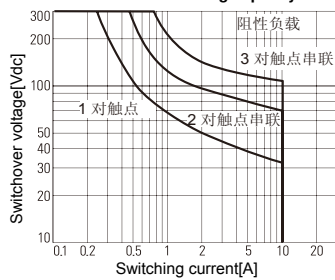
Rated voltage	250 V
Pollution category	3
Over voltage category	III
Insulation VDE 0110b (2/79)	C / 250
Dielectric index of relay socket	CTI 175

### Dimension

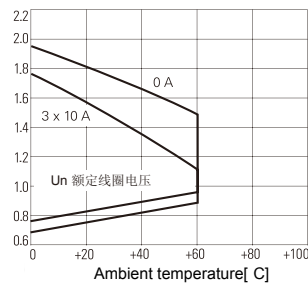
Length x Width x Height 35.5 x 35.5 x 57 mm

## Application

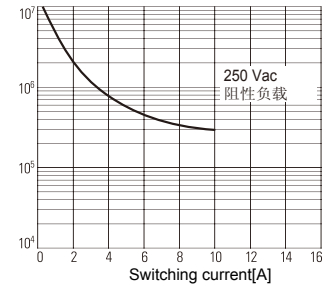
**DC load breaking capacity**



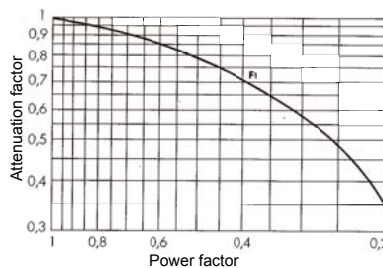
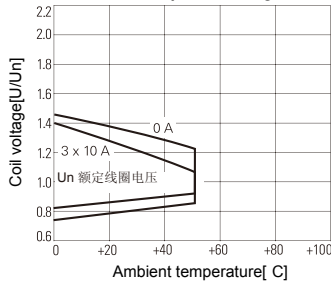
**DC coil operation range**



**Electrical life**



**AC coil operation range**



Derating curve at  $\cos\psi < 1$  (inductive load)  
Actual action times = action times in resistive load x factor in the table

# RRD Power Relay

RRD Relay  
2 change over contacts  
AC/DC coil

## Type code

Type RIDER Round

Contacts

- 2 2 change over contact, 8-pin
- 3 3 change over contacts, 11-pin

Contact material

2 AgNi 90/10

Type of construction

- 1 DC with test lever
- 3 DC with test lever and bipolar LED
- 6 AC with test lever
- 8 AC with test lever and bipolar LED

RRD				
-----	--	--	--	--

DC Coil		Free wheel diode
006	6 V DC	
012	12 V DC	
024	24 V DC	0C4
048	48 V DC	0E8
060	60 V DC	0G0
110	110 V DC	1B0
220	220 V DC	2C0
AC Coil		
506	6 V AC	
512	12 V AC	
524	24 V AC	
548	48 V AC	
615	115 V AC	
730	230 V AC	

Ordering information	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
<b>Input</b>				
Rated voltage	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	18.0 V / 2.4 V	36.0 V / 4.8 V	82.5 V / 11.5 V	165 V / 22 V
Power consumption	1,2 W	1,2 W	1,2 W	1,2 W
Rated coil current	50.5 mA	24.0 mA	11.0 mA	5,5 mA
Coil resistance	475 Ω ± 10%	2000 Ω ± 10%	10000 Ω ± 12%	40000 Ω ± 15%

Ordering information				
With test lever	Type	RRD221024	RRD221048	RRD221110
AgNi 90/10	Order No.	<b>8690370000</b>	<b>8690390000</b>	<b>8690410000</b>
With test lever and LED	Type	RRD223024	RRD223048	RRD223110
AgNi 90/10	Order No.	<b>8690380000</b>	<b>8690400000</b>	<b>8690420000</b>
	Type			RRD223220
	Order No.			<b>8798600000</b>

Ordering information	24 V AC 2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO
<b>Input</b>				
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC
Response / dropout voltage	19.2 V / 9.6 V	38.4 V / 19.2 V	92.0 V / 46.0 V	184.0 V / 92.0 V
Power consumption	2,3 VA	2,3 VA	2,3 VA	2,3 VA
Rated coil current	94.2 mA	47.5 mA	20.6 mA	10.1 mA
Coil resistance	86 Ω ± 10%	345 Ω ± 10%	2000 Ω ± 10%	8300 Ω ± 12%

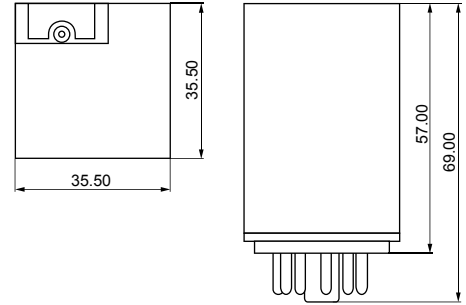
Ordering information				
With test lever	Type	RRD226024	RRD226048	RRD226115
AgNi 90/10	Order No.	<b>8690270000</b>	<b>8690290000</b>	<b>8690310000</b>
With test lever and LED	Type	RRD228024	RRD228048	RRD228115
AgNi 90/10	Order No.	<b>8690280000</b>	<b>8690300000</b>	<b>8690320000</b>
	Type			RRD226230
	Order No.			<b>8690330000</b>
	Type			RRD228230
	Order No.			<b>8690340000</b>

Note				

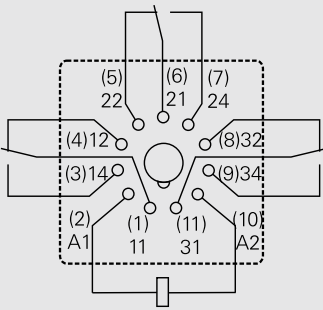
# RRD Power Relay

RRD Relay  
3 change over contacts  
AC/DC coil

- 2500 VA switchover capacity
- With test lever
- Approvals with  $\text{CE}$  VDE  $\text{RU}_{\text{US}}$



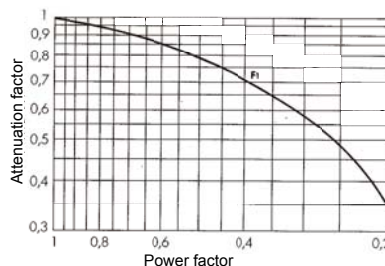
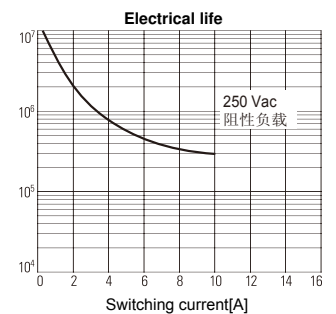
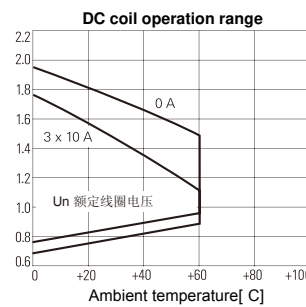
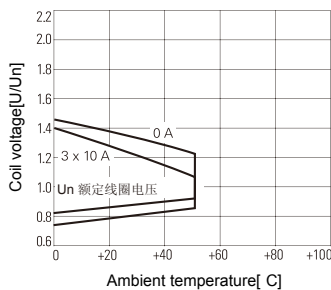
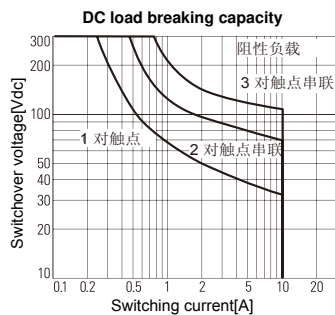
**Circuit diagram**  
PIN top view  
Dimensions are in mm



Output	
Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgNi 90/10
Mechanical endurance	20x10 <sup>6</sup> switching cycles
Response / dropout delay at rated voltage	12 ms / 5 ms
General	
Operation temperature	AC Coil- 45°C ... 50°C/DC Coil- 45°C ... 60°C
UL 94 fire retardant class	V-0
Approval	cURus; CE; VDE
Insulation coordination	
Electrical strength	
Coil-contact	2,500V AC / 1 min
Between N.O. contacts	1,500V AC / 1 min
Between adjacent contacts	2,500V AC / 1 min
Clearance / creepage distance	2.8 mm / 4 mm
Insulation IEC60664	
Rated voltage	250 V
Pollution category	3
Over voltage category	III
Insulation VDE 0110b (2/79)	C / 250
Dielectric index of relay socket	CTI 175

Dimension	
Length x Width x Height	35.5 x 35.5 x 57 mm
Note	

## Application



Derating curve at  $\text{COS}\phi < 1$  ( inductive load)  
Actual action times = action times in resistive load x factor in the table

# RRD Power Relay

RRD Relay  
3 change over contacts  
AC/DC coil

<b>Type code</b>	RRD					
Type RIDER Round						
Contacts	2 2 change over contact, 8-pin 3 3 change over contacts, 11-pin					
Contact material	2 AgNi 90/10					
Type of construction	1 DC with test lever 3 DC with test lever and bipolar LED 6 AC with test lever 8 AC with test lever and bipolar LED					
	DC Coil	6 V DC	12 V DC	24 V DC	48 V DC	60 V DC
		006	012	024	048	060
						110
						220
	Free wheel diode			0C4	0E8	0G0
						1B0
						2C0
	AC Coil	6 V AC	12 V AC	24 V AC	48 V AC	115 V AC
		506	512	524	548	615
						730
						230 V AC

Ordering information	12 V DC 3CO	24 V DC 3CO	110 V DC 3CO	220 V DC 3CO
<b>Input</b>				
Rated voltage	12 V DC	24 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	82.5 V / 11.5 V	165 V / 22 V
Power consumption	1.2 W	1.2 W	1.2 W	1.2 W
Rated coil current	109.1 mA	50.5 mA	11 mA	5.5 mA
Coil resistance	110 Ω ± 10%	475 Ω ± 10%	10000 Ω ± 12%	40000 Ω ± 15%

Ordering information				
With test lever Type	RRD321012	RRD321024	RRD32 1110	RRD321220
AgNi 90/10 Order No.	<b>8799030000</b>	<b>8690610000</b>	<b>8690650000</b>	<b>7940007742</b>
With test lever and LED Type		RRD323024	RRD3231 10	RRD323220
AgNi 90/10 Order No.		<b>8690620000</b>	<b>8690660000</b>	<b>8798610000</b>
With test lever and suppressing diode Type		RRD3210C4	RRD3211B0	RRD3212C0
AgNi 90/10 Order No.		<b>8797650000</b>	<b>8797640000</b>	<b>8797610000</b>
With LED, test lever and suppressing diode Type		RRD3230C4		RRD3232C0
AgNi 90/10 Order No.		<b>7940007732</b>		<b>8829400000</b>

Note				



Ordering information	24 V AC 3CO	48 V AC 3CO	115 V AC 3CO	230 V AC 3CO
<b>Input</b>				
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC
Response / dropout voltage	19.2 V / 9.6 V	38.4 V / 19.2 V	92 V / 46 V	184 V / 92 V
Power consumption	2.3 VA	2.3 VA	2.3 VA	2.3 VA
Rated coil current	94.2 mA	47.5 mA	20.6 mA	10.1 mA
Coil resistance	86 Ω ± 10%		2000 Ω ± 10%	8300 Ω ± 12%

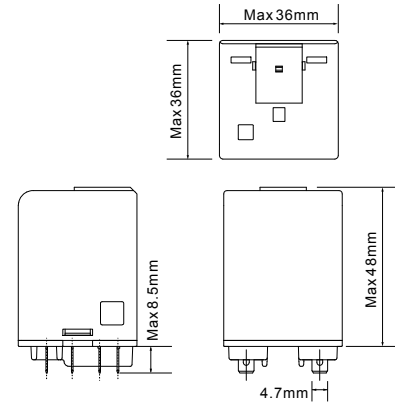
Ordering information				
With test lever Type	RRD326024	RRD326048	RRD3261 15	RRD326230
AgNi 90/10 Order No.	<b>8690450000</b>	<b>8690470000</b>	<b>8690550000</b>	<b>8690570000</b>
With test lever and LED Type	RRD328024	RRD328048	RRD3281 15	RRD328230
AgNi 90/10 Order No.	<b>8690460000</b>	<b>8690480000</b>	<b>8690560000</b>	<b>8690580000</b>
Type Order No.				

Note				

# DRH DC Relay

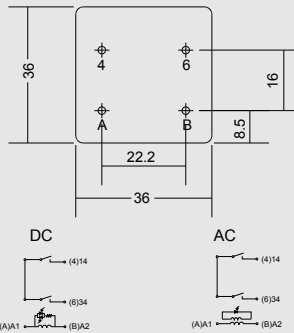
DRH DC Relay  
 1 N.O. contact and 1 N.C. contact  
 AC / DC coil

- Suitable to switch heavy DC load
- Arc shield
- With LED and test lever
- Approval with CE   TÜV

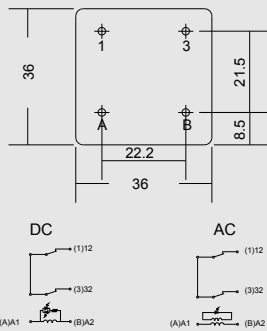


**Circuit diagram**  
 PIN top view  
 Dimensions are in mm

### 1NO



### 1NC



### Output

Max. switching voltage	AC: 500 V; DC: 220 V
Continuous current	16 A@ 500 VAC; 10 A@ 220 VDC
Contact material	AgSnO2
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 20 ms
Max. switching frequency at rated load	1 Hz

### Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage

Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

### General

Operation temperature	- 40°C ... 60°C	
Storage temperature	- 40°C ... 60°C	
Humidity	35 ... 85 %	
Electrical strength	Coil-contact	4,000V AC / 1 min
	Between N.O. contacts	2,500V AC / 1 min
	Between adjacent contacts	4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm	

Insulation IEC60664

Rated voltage	400 V
Pollution category	3
Over voltage category	III

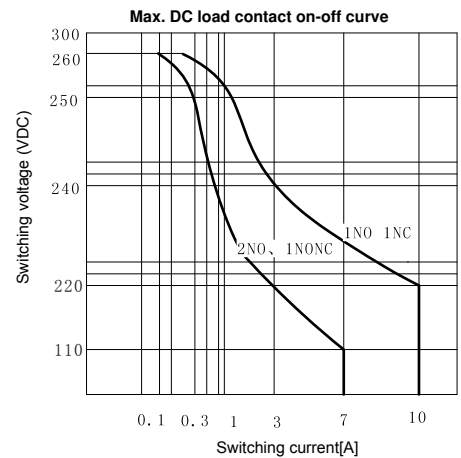
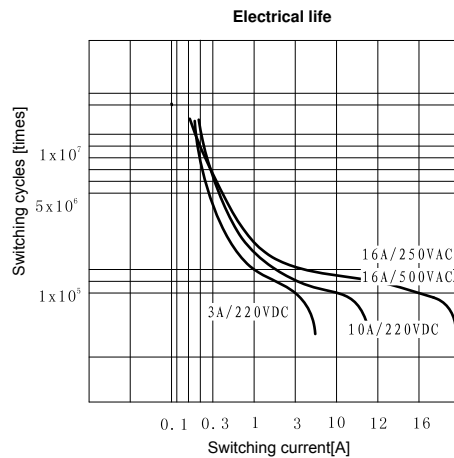
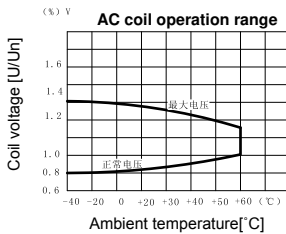
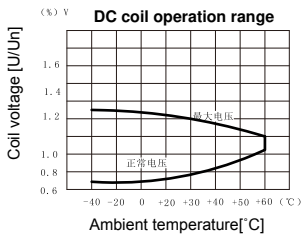
Vibration resistance	10-55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)

Approval CE; TÜV; UL

Weight 48 g

### Dimension

Length x Width x Height 36 x 36 x 48 mm





# DRH DC Relay

DRH DC Relay  
1 N.O. contact and 1 N.C. contact  
AC / DC coil

Type code	DRH			
Type DRH				
Type of construction	173 1NO 174 1NC			
Coil voltage	012 12Vdc / 024 24Vdc 048 48Vdc / 110 110Vdc 220 220Vdc / 524 24Vac 548 48Vac / 615 115Vac 730 230Vac			
With LED or test lever	LT			

Ordering information	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
DC rated current	120 mA	60 mA	30 mA	13.03 mA	6.7 mA
Coil resistance	100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%



Ordering information						
1 N.O. contact	Type	DRH173012LT	DRH173024LT	DRH173048LT	DRH173110LT	DRH173220LT
	Order No.	1219840000	1219850000	1219860000	1219870000	1219880000
1 N.C. contact	Type	DRH174012LT	DRH174024LT	DRH174048LT	DRH174110LT	DRH174220LT
	Order No.	1219940000	1219950000	1219960000	1219970000	1219980000
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

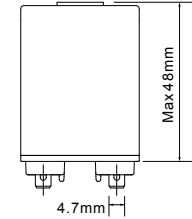
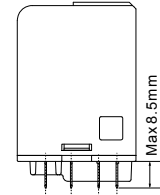
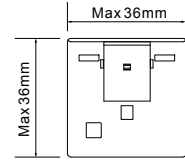
Ordering information	24 V AC	48 V AC	115 V AC	230 V AC	
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
AC response / dropout voltage	19.2V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V	
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	
AC rated current	101.7 mA	51.04 mA	21.2 mA	10.61 mA	
Coil resistance	100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%	

Ordering information						
1 N.O. contact	Type	DRH173524LT	DRH173548LT	DRH173615LT	DRH173730LT	
	Order No.	1219890000	1219910000	1219920000	1219930000	
1 N.C. contact	Type	DRH174012LT	DRH174024LT	DRH174048LT	DRH174110LT	
	Order No.	1219990000	1220010000	1220020000	1220030000	
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	
	Order No.	7760056249	7760056249	7760056249	7760056249	

# DRH DC Relay

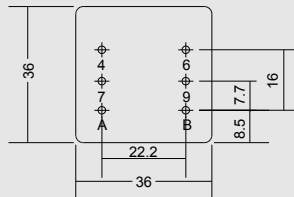
DRH DC Relay  
 2 N.O. contact and 1 N.O./1 N.C. contact  
 AC / DC coil

- Suitable to switch heavy DC load
- Arc shield
- With LED and test lever
- Approval with CE   TÜV

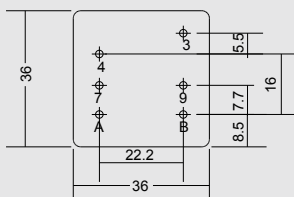


**Circuit diagram**  
 PIN top view  
 Dimensions are in mm

### 2NO



### 1NO/1NC



### Output

Max. switching voltage	AC: 250 V; DC: 220 V
Continuous current	2NO 16 A @ 250 VAC; 3 A @ 220 VDC; 7A @ 110VDC
	1NO/1NC 16 A @ 250 VAC; 3 A @ 220 VDC; 7A @ 110VDC
Contact material	AgSnO <sub>2</sub>
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 20 ms
Max. switching frequency at rated load	1 Hz

### Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

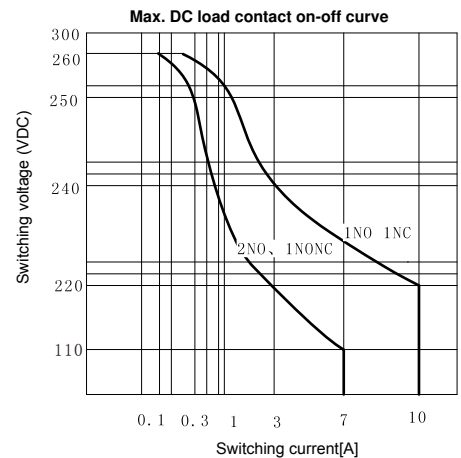
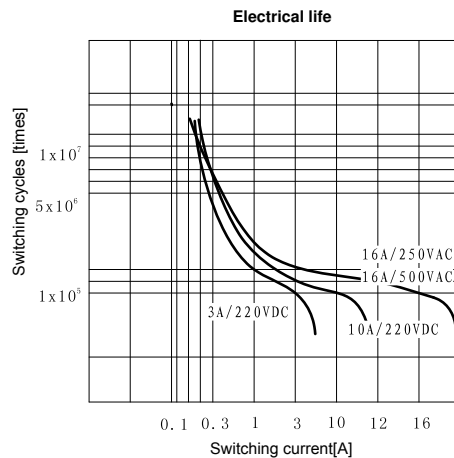
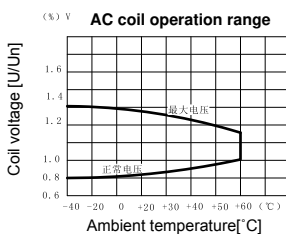
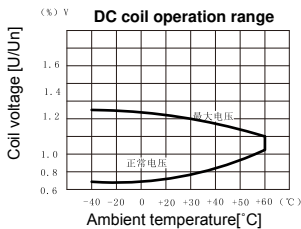
### General

Operation temperature	- 40 ... 60°C
Storage temperature	- 40 ... 60°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact 4,000V AC / 1 min Between N.O. contacts 2,500V AC / 1 min Between adjacent contacts 4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	
Rated voltage	400 V
Pollution category	3
Over voltage category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	48 g

### Dimension

Length x Width x Height	36 x 36 x 48 mm
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# DRH DC Relay

DRH DC Relay  
2 N.O. contact and 1 N.C. contact  
AC / DC coil

Type code	DRH			
Type DRH				
Type of construction	275 1NO/1NC			
	276 2NO			
Coil voltage	012 12Vdc / 024 24Vdc			
	048 48Vdc / 110 110Vdc			
	220 220Vdc / 524 24Vac			
	548 48Vac / 615 115Vac			
	730 230Vac			
With LED or test lever	LT			

Ordering information	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
DC rated current	120 mA	60 mA	30 mA	13.03 mA	6.7 mA
Coil resistance	100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%

Ordering information						
1 N.O. contact/ 1 N.C. contact	Type	DRH275012LT	DRH275024LT	DRH275048LT	DRH275110LT	DRH275220LT
	Order No.	1220040000	1220050000	1220060000	1220070000	1220080000
2 N.O. contact	Type	DRH276012LT	DRH276024LT	DRH276048LT	DRH276110LT	DRH276220LT
	Order No.	1220140000	1220150000	1220170000	1220180000	1220190000
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

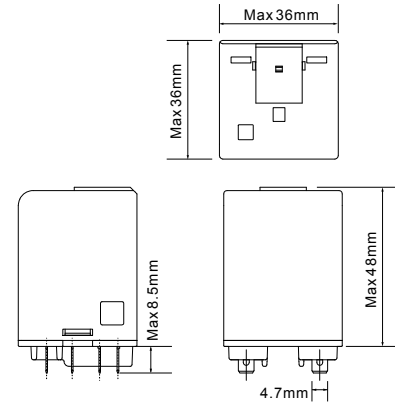
Ordering information	24 V AC	48 V AC	115 V AC	230 V AC	
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
DC response / dropout voltage	19.2V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V	
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	
DC rated current	101.7 mA	51.04 mA	21.2 mA	10.61 mA	
Coil resistance	100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%	

Ordering information						
1 N.O. contact/ 1 N.C. contact	Type	DRH275524LT	DRH275548LT	DRH275615LT	DRH275730LT	
	Order No.	1220090000	1220110000	1220120000	1220130000	
2 N.O. contact	Type	DRH276524LT	DRH276548LT	DRH276615LT	DRH276730LT	
	Order No.	1220200000	1220210000	1220220000	1220230000	
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	
	Order No.	7760056249	7760056249	7760056249	7760056249	

# DRW Power Relay

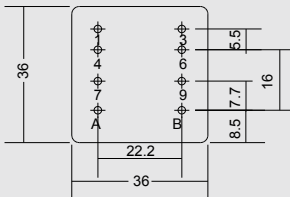
DRW power relay  
2CO / 3CO contacts  
AC / DC coil

- Suitable to switch high voltage load
- With LED and test lever
- Approval with

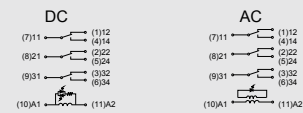
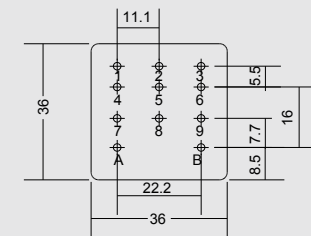


**Circuit diagram**  
PIN top view  
Dimensions are in mm

### 2CO



### 3CO



### Output

Max. switching voltage	400 V AC
Continuous current	16 A@ 400 VAC; 16 A@ 30 VDC
Contact material	AgCdO
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 10 ms
Max. switching frequency at rated load	1 Hz

### Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

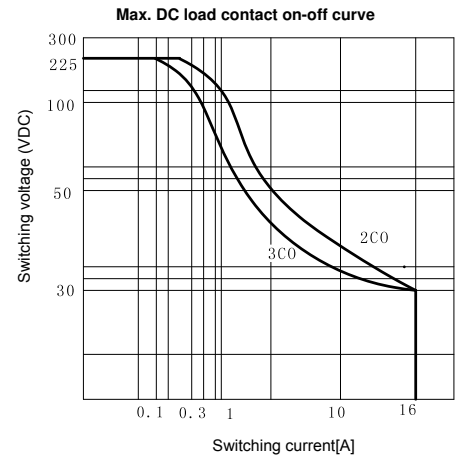
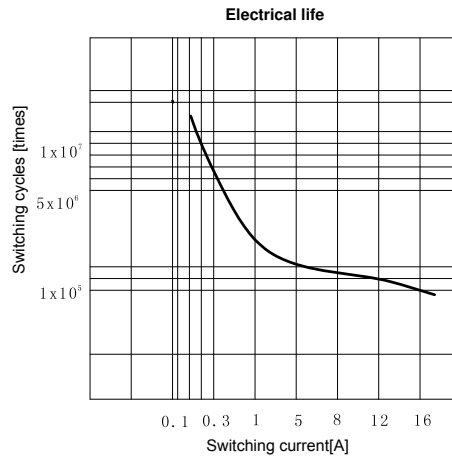
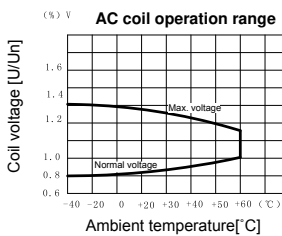
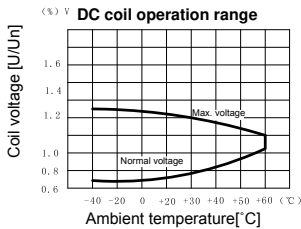
### General

Operation temperature	2CO: - 40 ... 60°C; 3CO: - 40 ... 50°C;
Storage temperature	- 40 ... 60°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact: 4,000V AC / 1 min Between N.O. contacts: 2,500V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	3.5 mm / 6 mm
Insulation IEC60664	Rated voltage: 400 V Pollution category: 3 Over voltage category: III

Vibration resistance	10-55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	51 g

### Dimension

Length x Width x Height	36 x 36 x 48 mm
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# DRW Power Relay

DRW power relay  
2CO / 3CO contacts  
AC / DC coil

Type code **DRW**

Type DRW  
Type of construction  
270 2CO  
174 1NC

Coil voltage  
012 12Vdc / 024 24Vdc  
048 48Vdc / 110 110Vdc  
220 220Vdc / 524 24Vac  
548 48Vac / 615 115Vac  
730 230Vac / 900 400Vac

With LED or test lever  
LT

Ordering information	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	9 V / 1.2 V	8 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	115 V / 22 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
DC rated current	120 mA	60 mA	30 mA	13.03 mA	6.7 mA
Coil resistance	100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%

Ordering information						
2CO contact	Type	DRW270012LT	DRW270024LT	DRW270048LT	DRW270110LT	DRW270220LT
	Order No.	<b>1219730000</b>	<b>1219740000</b>	<b>1219750000</b>	<b>1219760000</b>	<b>1219770000</b>
3CO contact	Type	DRW370012LT	DRW370024LT	DRW370048LT	DRW370110LT	DRW370220LT
	Order No.	<b>1219780000</b>	<b>1219790000</b>	<b>1219810000</b>	<b>1219820000</b>	<b>1219830000</b>
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>

Ordering information	24V AC	48V AC	115V AC	230V AC	400V AC
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	400 V AC
AC response / dropout voltage	19.2V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V	320 V / 120 V
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA
AC rated current	101.7 mA	51.04 mA	21.2 mA	10.61 mA	6.1 mA
Coil resistance	100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%	30,000Ω ±10%

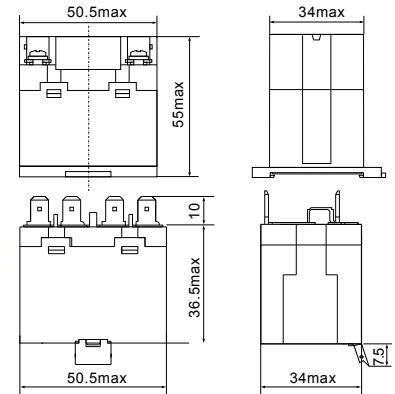
Ordering information						
2CO contact	Type	DRW270524LT	DRW270548LT	DRW270615LT	DRW2701730LT	DRW270900LT
	Order No.	<b>1219350000</b>	<b>1219360000</b>	<b>1219370000</b>	<b>1219380000</b>	<b>1219390000</b>
3CO contact	Type	DRW370524LT	DRW370548LT	DRW370615LT	DRW370730LT	DRW370900LT
	Order No.	<b>1219410000</b>	<b>1219420000</b>	<b>1219430000</b>	<b>1219440000</b>	<b>1219450000</b>
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>	<b>7760056249</b>



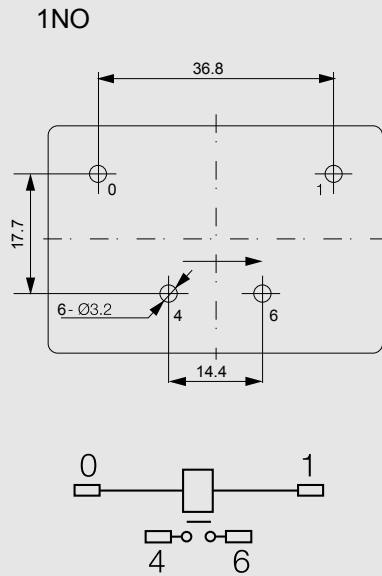
# PWR High Power Relay

PWR high power relay  
 1 N.O. contact  
 AC / DC coil

- Max. load current: 30 A
- Various mounting methods available
- Approval with CE TÜV



**Circuit diagram**  
 PIN top view  
 Dimensions are in mm

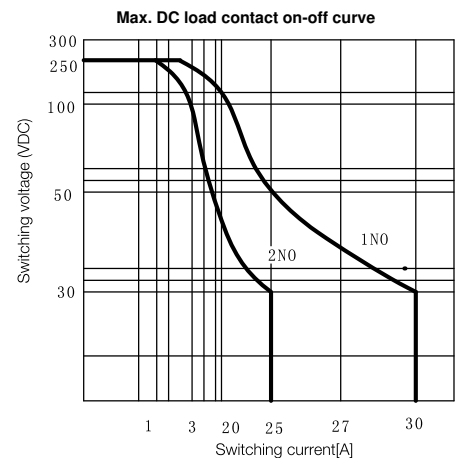
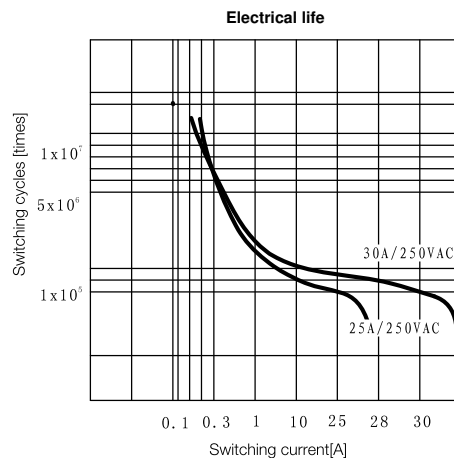
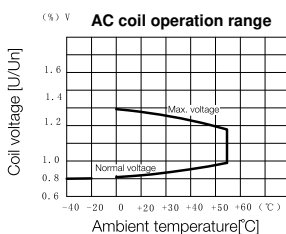
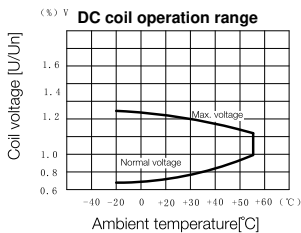


Output	
Max. switching voltage	277 V AC
Continuous current	30 A
Contact material	Ag alloy
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 10 ms

Input	
Response voltage @ 25°C	AC: ≤ 75% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 15% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.9 W

General	
Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact: 2,000V AC / 1 min Between N.O. contacts: 2,000V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	3.5 mm / 6 mm
Insulation IEC60664	Rated voltage: 250 V Pollution category: 3 Over voltage category: III

Vibration resistance	10-55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV
Weight	Push-in connection/PCB welding: 90g; DIN-rail mounting: 120g
Dimension	
Length x Width x Height	34 x 50.5 x 36.5 mm



# PWR High Power Relay

PWR high power relay  
1 N.O. contact  
AC / DC coil

Type code	PWR			
Type PWR	Type of construction and mounting 153 1N.O. contact, push-in connection 173 1N.O. contact, DIN-rail mounting			
Coil voltage	006 6Vdc / 012 12Vdc 024 24Vdc / 048 48Vdc 110 110Vdc / 220 220Vdc 524 24Vac / 548 48Vac 615 115Vac / 730 230Vac 880 380Vac			
L	with LED			
T	with test lever			
P	PCB welding			

Ordering information	6 V DC 1NO	12 V DC 1NO	24 V DC 1NO	48 V DC 1NO	110 V DC 1NO	220 V DC 1NO
<b>Input</b>						
Rated voltage	6 V DC	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	4.5 V / 0.9 V	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption	1.9 W	1.9 W	1.9 W	1.9 W	1.9 W	1.9 W
DC rated current	317 mA	160 mA	79.2 mA	39.3 mA	17.3 mA	8.6 mA
Coil resistance	18.9Ω ±10%	75Ω ±10%	303Ω ±10%	1,220Ω ±10%	6,360Ω ±10%	25,474Ω ±10%

Ordering information							
plug-in , need socket	Type	PWR153006LT	PWR153012LT	PWR153024LT	PWR153048LT	PWR153110LT	PWR153220LT
	Order No.	1219590000	1219610000	1219620000	1219630000	1219640000	1219650000
Din rail installation,no need socket	Type	PWR173006L	PWR173012L	PWR173024L	PWR173048L	PWR173110L	PWR173220L
	Order No.	1219460000	1219470000	1219480000	1219490000	1219510000	1219520000
PCB soldering	Type	PWR153006P	PWR153012P	PWR153024P	PWR153048P	PWR153110P	PWR153220P
	Order No.	1233010000	1233020000	1233030000	1233040000	1233050000	1233060000

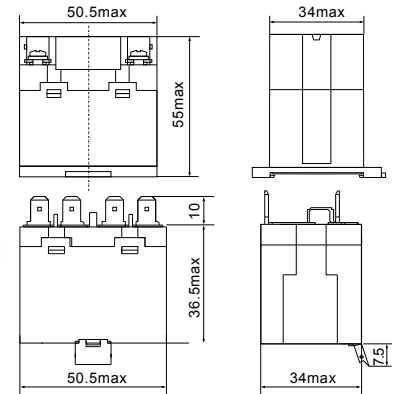
Ordering information	24 V AC 1NO	48 V AC 1NO	115 V AC 1NO	230 V AC 1NO	380 V AC 1NO	
<b>Input</b>						
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	115 V AC	
AC response / dropout voltage	18V / 3.6 V	36 V / 7.2 V	86.3 V / 17.3 V	172.5 V / 34.5 V	285 V / 57 V	
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA	
AC rated current	87.3 mA	43.6 mA	22.1 mA	11.0 mA	6.1 mA	
Coil resistance	275Ω ±10%	1,100Ω ±10%	5,200Ω ±10%	21,000Ω ±10%	62,650Ω ±10%	

Ordering information							
Din-rail mounting without socket	Type	PWR153524LT	PWR153548LT	PWR153615LT	PWR153730LT	PWR153880LT	
	Order No.	1219230000	1219240000	1219250000	1219260000	1219270000	
Push-in connection with socket	Type	PWR173524L	PWR173548L	PWR173615L	PWR173730L	PWR173880L	
	Order No.	1219090000	1219120000	1219130000	1219140000	1219150000	
PCB welding	Type	PWR153524P	PWR153548P	PWR153615P	PWR153730P	PWR153880P	
	Order No.	1232860000	1232870000	1232880000	1232890000	1232900000	

# PWR High Power Relay

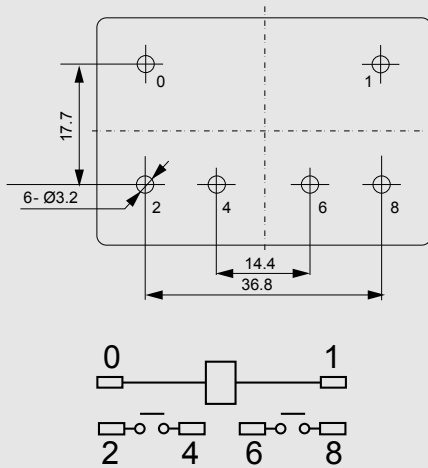
PWR high power relay  
2 N.O. contact  
AC / DC coil

- Max. load current: 25 A
- Various mounting methods available
- Approval with CE TÜV



**Circuit diagram**  
PIN top view  
Dimensions are in mm

2NO



**Output**

Max. switching voltage	277 V AC
Continuous current	25 A
Contact material	Ag alloy
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 30 ms / < 30 ms

**Input**

Response voltage @ 25°C	AC: ≤ 75% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 15% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.9 W

**General**

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact: 2,000V AC / 1 min Between N.O. contacts: 2,000V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	
Rated voltage	250 V
Pollution category	3
Over voltage category	III
Vibration resistance	10-55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV
Weight	Push-in connection/PCB welding: 90g; DIN-rail mounting: 120g
<b>Dimension</b>	
Length x Width x Height	34 x 50.5 x 36.5 mm

