

# AZ763

## 12 A SPDT MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- Low height: 15.7 mm
- Epoxy sealed version available
- 12 Amp switching
- AC and DC coils
- Isolation spacing greater than 10 mm
- Proof tracking index (PTI/CTI) 250
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1) EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E43203
- VDE file 40012572



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) SPST (1 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 360 W or 3000 VA Max. switched current: 12 A Max. switched voltage: 300 VDC* or 400 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load</b>	
<b>UL, CUR</b>	12 A at 250 VAC General Use
<b>VDE</b>	12 A at 250 VAC
<b>Material</b>	Silver nickel or silver nickel gold plated or silver tin oxide
<b>Resistance</b>	< 100 milliohms initially

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 3 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 12 A 250 VAC res.
<b>Operate Time (typical)</b>	7 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength</b> (at sea level for 1 min.)	5000 Vrms coil to contact 2500 Vrms between contact sets 1000 Vrms between open contacts
<b>Insulation Resistance</b>	10 <sup>5</sup> megohms min. at 500 VDC, 20°C, 50% RH
<b>Insulation (according to DIN VDE 0110, IEC 60664-1)</b>	B250 at 1 Form C, flux proof version C250 at other relay versions Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<b>Dropout DC coils</b> <b>AC coils</b>	Greater than 10% of nominal coil voltage Greater than 15% of nominal coil voltage
<b>Ambient Temperature Operating</b> <b>Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) - DC coils -40°C (-40°F) to 70°C (158°F) - AC coils -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	Break contacts: 5 g at 20...500 Hz Make contacts: 20 g at 30...500 Hz
<b>Shock</b>	20 g
<b>Enclosure</b>	P.B.T. polyester, UL-94 : V0
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	14 grams
<b>Packing unit in pcs</b>	20 per carton tube / 1000 per carton box

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	200 mW (DC coil) .422 VA (AC coil)
<b>Max. Continuous Dissipation</b>	1.7 W at 20°C (68°F) ambient 1.7 VA at 20°C (68°F) ambient
<b>Temperature Rise</b>	26°C (47°F) at nominal coil voltage
<b>Max. Temperature</b>	155°C (311°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

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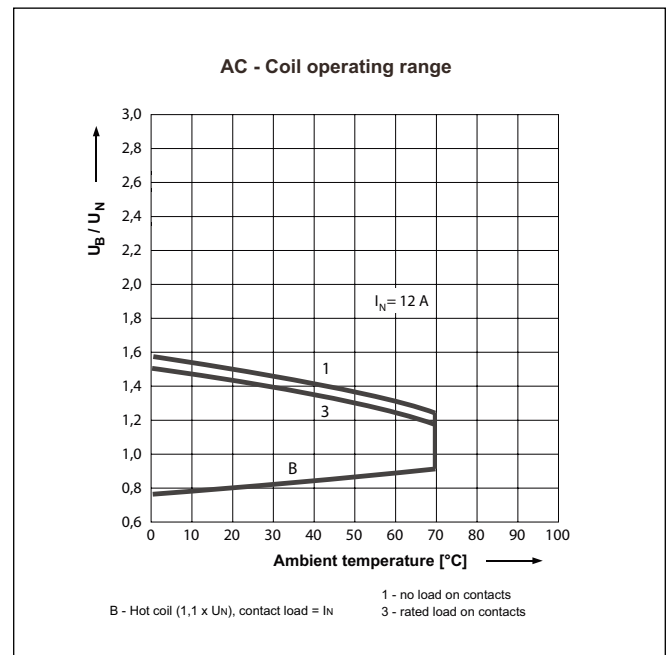
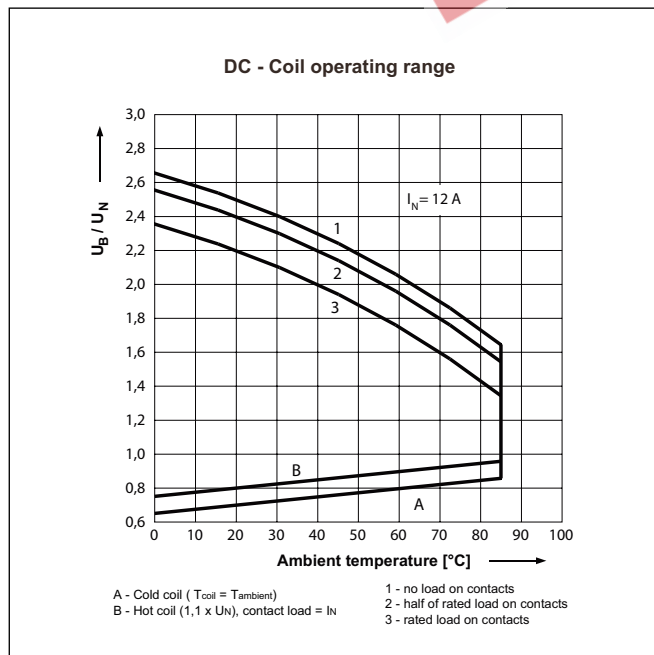
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## RELAY ORDERING DATA

COIL SPECIFICATIONS - DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	3.5 mm STD	5 mm Left
3	2.1	7.6	22	AZ763-1C-3D	AZ763L-1C-3D
5	3.5	12.7	60	AZ763-1C-5D	AZ763L-1C-5D
6	4.2	15.3	90	AZ763-1C-6D	AZ763L-1C-6D
9	6.3	22.9	200	AZ763-1C-9D	AZ763L-1C-9D
12	8.4	30.6	360	AZ763-1C-12D	AZ763L-1C-12D
18	12.6	45.9	710	AZ763-1C-18D	AZ763L-1C-18D
24	16.8	61.2	1,440	AZ763-1C-24D	AZ763L-1C-24D
36	25.2	92.0	3,140	AZ763-1C-36D	AZ763L-1C-36D
48	33.6	122.0	5,700	AZ763-1C-48D	AZ763L-1C-48D
60	42.0	153.0	7,500	AZ763-1C-60D	AZ763L-1C-60D
110	77.0	280.0	25,200	AZ763-1C-110D	AZ763L-1C-110D

COIL SPECIFICATIONS - AC COIL					ORDER NUMBER*	
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance Ohm $\pm 10\%$	3.5 mm STD	5 mm Left
12	9.0	18.0	63.0	100	AZ763-1C-12A	AZ763L-1C-12A
24	18.0	36.0	31.3	400	AZ763-1C-24A	AZ763L-1C-24A
48	36.0	72.0	15.6	1,550	AZ763-1C-48A	AZ763L-1C-48A
60	45.0	90.0	12.5	2,600	AZ763-1C-60A	AZ763L-1C-60A
110	82.5	165.0	6.8	8,900	AZ763-1C-110A	AZ763L-1C-110A
115	86.3	172.5	6.5	9,600	AZ763-1C-115A	AZ763L-1C-115A
120	90.0	180.0	6.3	10,200	AZ763-1C-120A	AZ763L-1C-120A
220	165.0	330.0	3.4	35,500	AZ763-1C-220A	AZ763L-1C-220A
230	172.5	345.0	3.3	38,500	AZ763-1C-230A	AZ763L-1C-230A
240	180.0	360.0	3.1	42,500	AZ763-1C-240A	AZ763L-1C-240A

\* For right spacing substitute "AZ763R" for "AZ763L". Substitute "1A" for "1C" for 1 Form A contacts. "1A" or "1C" denote silver nickel contacts. Add "G" to "1A" or "1C" for gold plated silver nickel contacts. Add "E" to "1A" or "1C" for silver tin oxide contacts. Add suffix "E" at the end of order number for sealed version.



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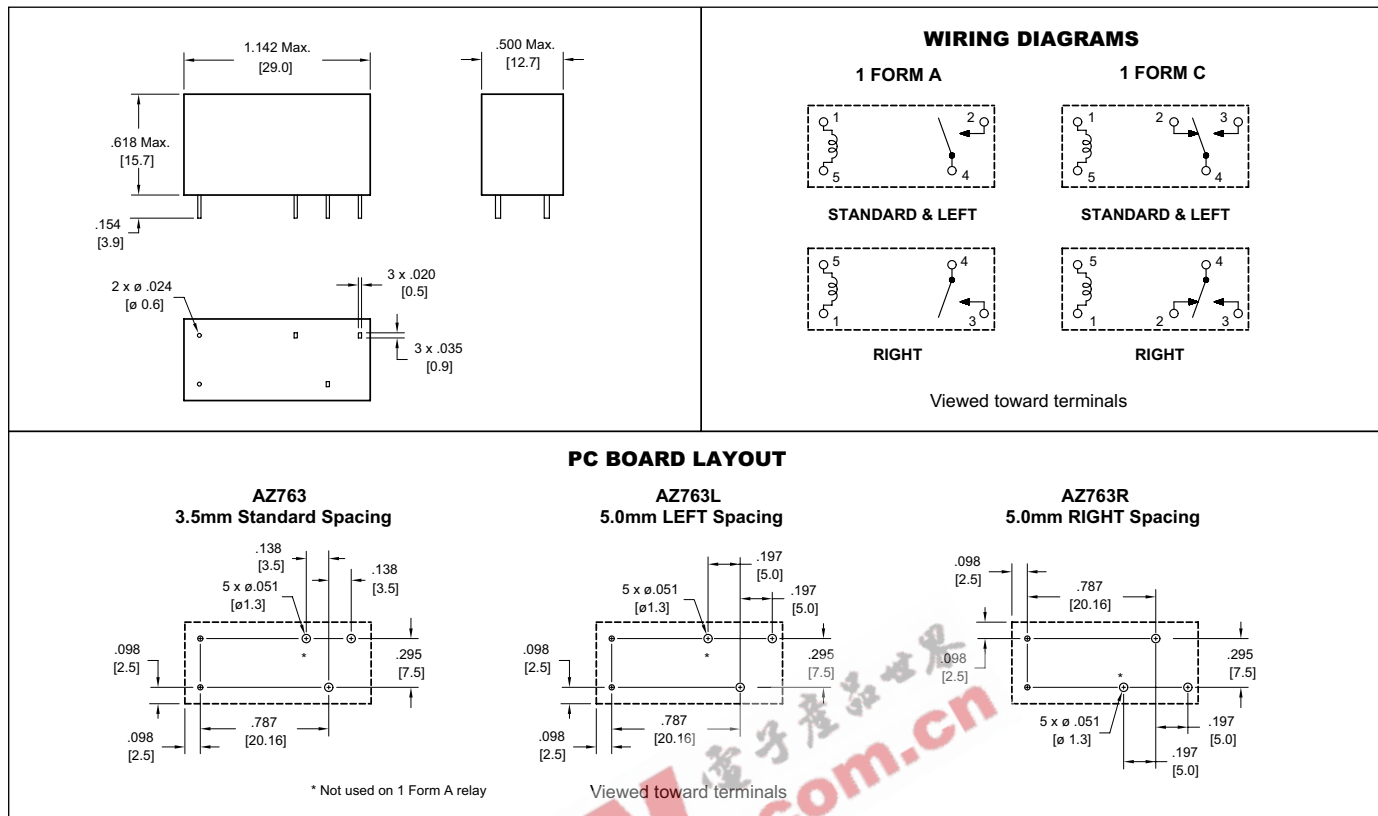
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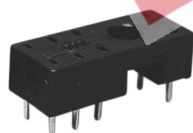
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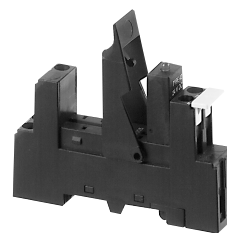
Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010''$

## ACCESSORIES

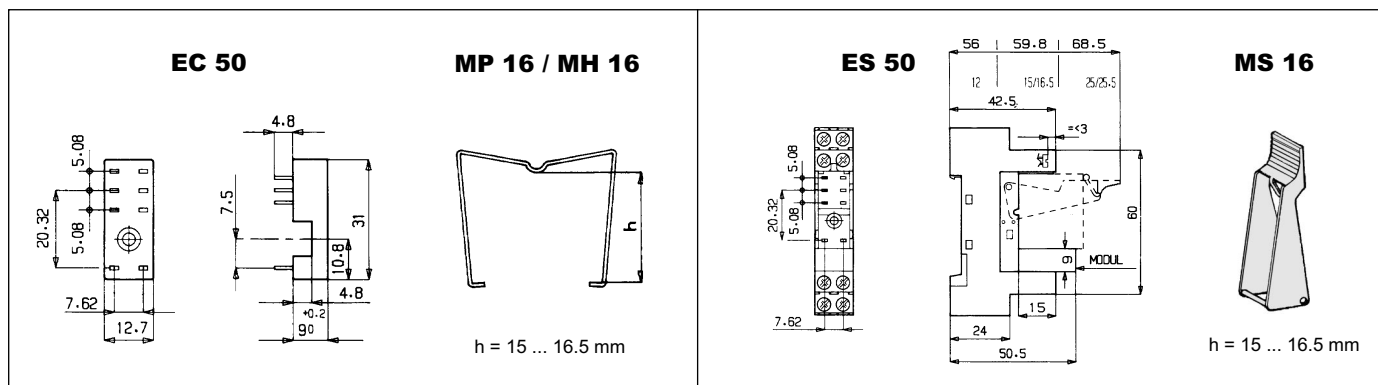
For P.C.B. mount: Socket EC 35 (EC 50 for R and L)  
Retaining Clip MP 16 / MH 16



For DIN rail mount: Socket ES 35 (ES 50 for R and L)  
Retaining Clip MS 16



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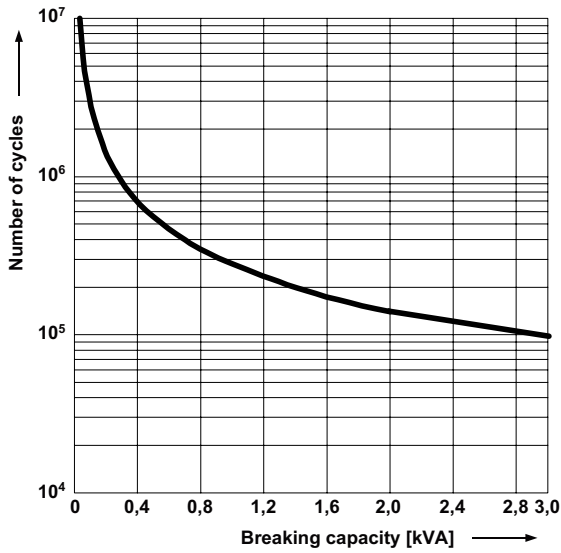
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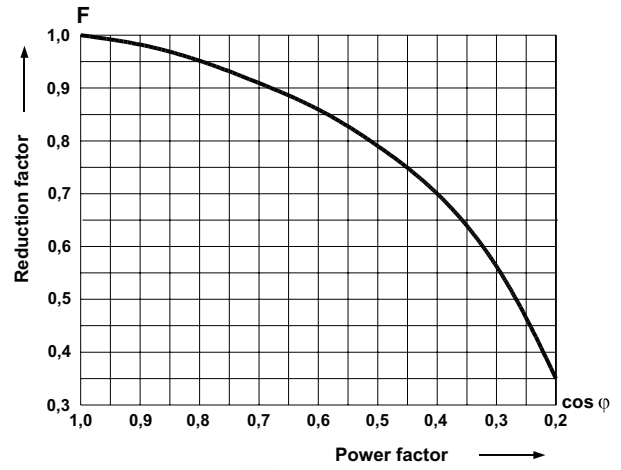
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Electrical life at 250 VAC, resistive load

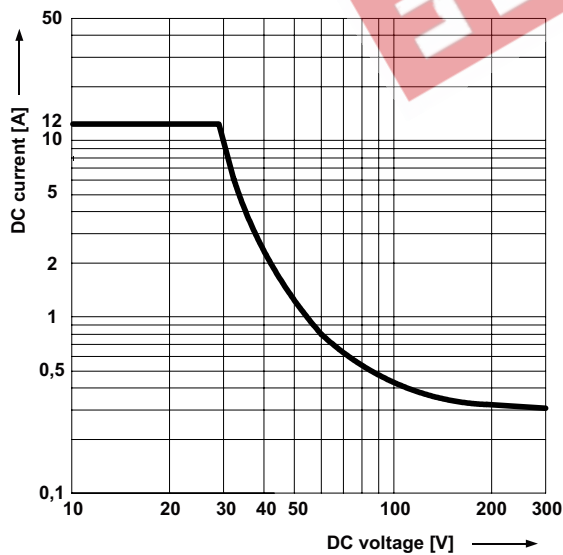


Electrical life reduction factor at inductive AC load



$$N_{\cos \phi} = N \times F$$

Max. DC resistive load breaking capacity



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