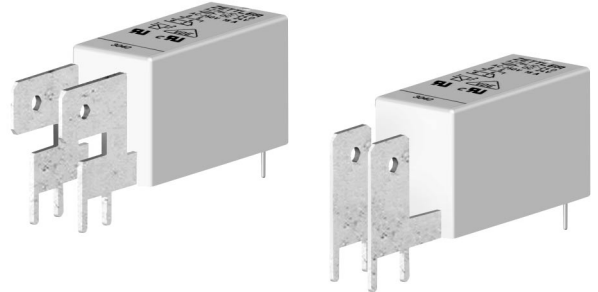


# AZ764F

## 20 AMP HIGH TEMPERATURE MINIATURE POWER RELAY

### FEATURES

- Quick connect Faston and PCB terminals
- Ambient Temperature up to 105°C (221°F)
- Dielectric strength 5000 Vrms
- Low height: 15.7 mm
- 20 Amp switching (18 A over Faston)
- AC and DC (standard and sensitive) 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 pending
- VDE file 40012572 (sensitive DC coils only)



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 600 W or 5000 VA Max. switched current: 20 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 UL, CUR</b>	20 A at 250 VAC general use
<b>VDE</b>	10 A at 250 VAC resistive, 105 °C, 150k cycles 16 A at 250 VAC resistive, 105 °C, 10k cycles 20 A at 250 VAC resistive, 85 °C, 10k cycles
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 100 milliohms initially

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b> (ohmic load at 105°C / 221°F)	Minimum operations 3 x 10 <sup>7</sup> 1.7 x 10 <sup>5</sup> at 10 A 230 VAC res. 2.8 x 10 <sup>5</sup> at 8 A 230 VAC res. 3.2 x 10 <sup>5</sup> at 6 A 230 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 1000 Vrms between open contacts
<b>Insulation Resistance</b>	10 <sup>5</sup> megohms min. at 500 VDC, 20°C, 50% RH
<b>Insulation</b> (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<b>Dropout</b> DC coils AC coils	Greater than 10% of nominal coil voltage Greater than 15% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C (-40°F) to 105°C (221°F) - DC sens. -40°C (-40°F) to 85°C (185°F) - DC std. -40°C (-40°F) to 70°C (158°F) - AC coils -40°C (-40°F) to 105°C (221°F)
<b>Storage</b>	
<b>Vibration</b>	20 g at 30...500 Hz
<b>Shock</b>	30 g
<b>Enclosure</b>	P.B.T. polyester, UL-94 : V0
<b>Terminals</b>	Tinned copper alloy P.C. and quick connect
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Weight</b>	16 grams
<b>Packing unit in pcs</b>	12 per carton tube / 600 per carton box

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	140 mW (sensitive DC coil) 200 mW (standard DC coil) .422 VA (AC coil)
<b>Max. Continuous Dissipation</b>	2.2 W at 20°C (68°F) ambient (DC coil) 1.7 VA at 20°C (68°F) ambient (AC coil)
<b>Temperature Rise (at nominal voltage)</b>	16°C (29°F) (sensitive DC coil) 26°C (47°F) (standard DC coil) 26°C (47°F) (AC coil)
<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.
4. Allow suitable slack on leads when wiring and do not subject the terminals to excessive force.

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# AZ764F

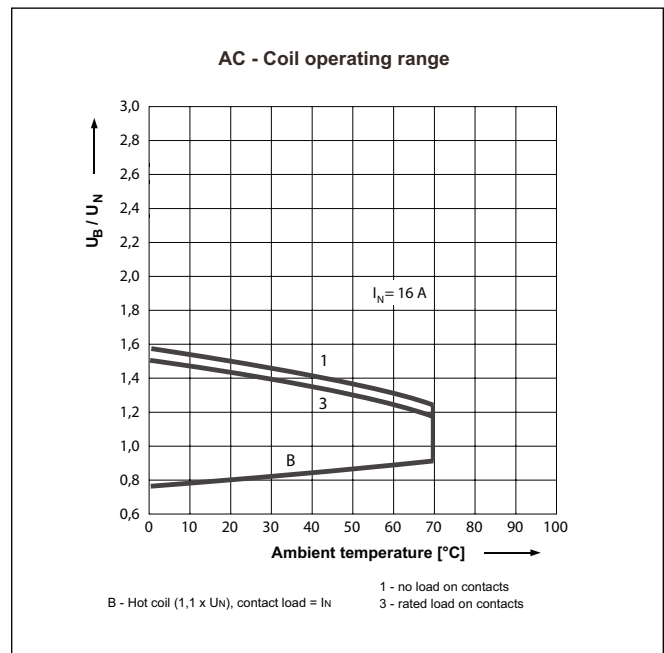
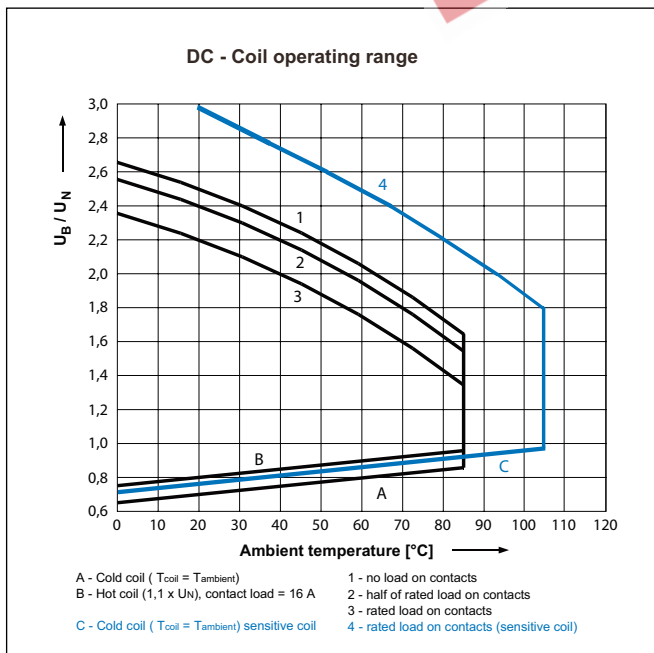
## RELAY ORDERING DATA

COIL SPECIFICATIONS - DC COIL				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
5	3.5	12.7	60	AZ764FH-1AE-5D
6	4.2	15.3	90	AZ764FH-1AE-6D
9	6.3	22.9	200	AZ764FH-1AE-9D
12	8.4	30.6	360	AZ764FH-1AE-12D
18	12.6	45.9	710	AZ764FH-1AE-18D
24	16.8	61.2	1,440	AZ764FH-1AE-24D
48	33.6	122.0	5,700	AZ764FH-1AE-48D
60	42.0	153.0	7,500	AZ764FH-1AE-60D
110	77.0	280.0	25,200	AZ764FH-1AE-110D

COIL SPECIFICATIONS - DC COIL SENSITIVE VERSION				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
5	3.75	15.0	102	AZ764FH-1AE-5DS
6	4.5	18.0	144	AZ764FH-1AE-6DS
9	6.75	27.0	330	AZ764FH-1AE-9DS
10	7.5	30.0	400	AZ764FH-1AE-10DS
12	9.0	36.0	580	AZ764FH-1AE-12DS
24	18.0	72.0	2,300	AZ764FH-1AE-24DS

COIL SPECIFICATIONS - AC COIL					ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance Ohm $\pm 10\%$	
12	9.0	18.0	63.0	100	AZ764FH-1AE-12A
24	18.0	36.0	31.3	400	AZ764FH-1AE-24A
115	86.3	172.5	6.5	9,600	AZ764FH-1AE-115A
230	172.5	345.0	3.3	38,500	AZ764FH-1AE-230A
240	180.0	360.0	3.1	42,500	AZ764FH-1AE-240A

\* Substitute "FV" for "FH" for vertical quick connect terminals.



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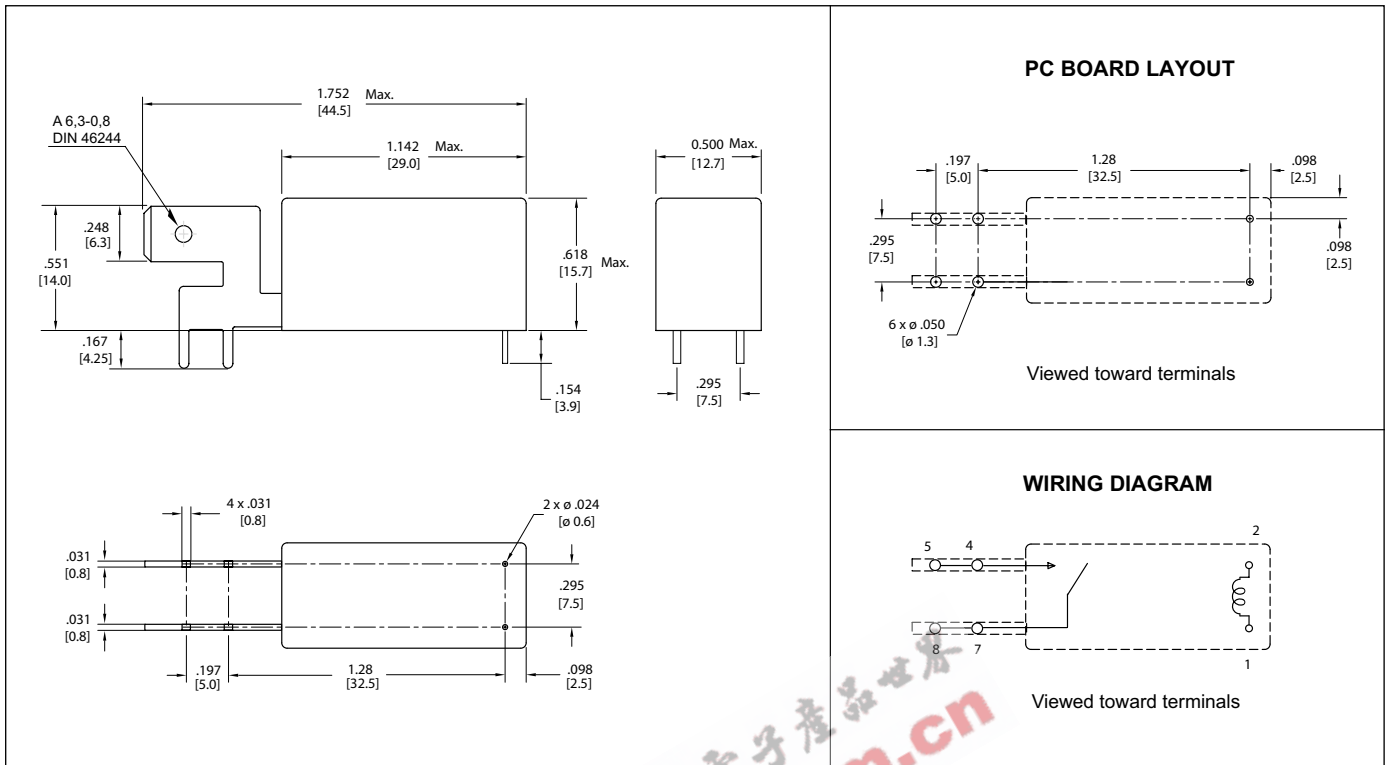
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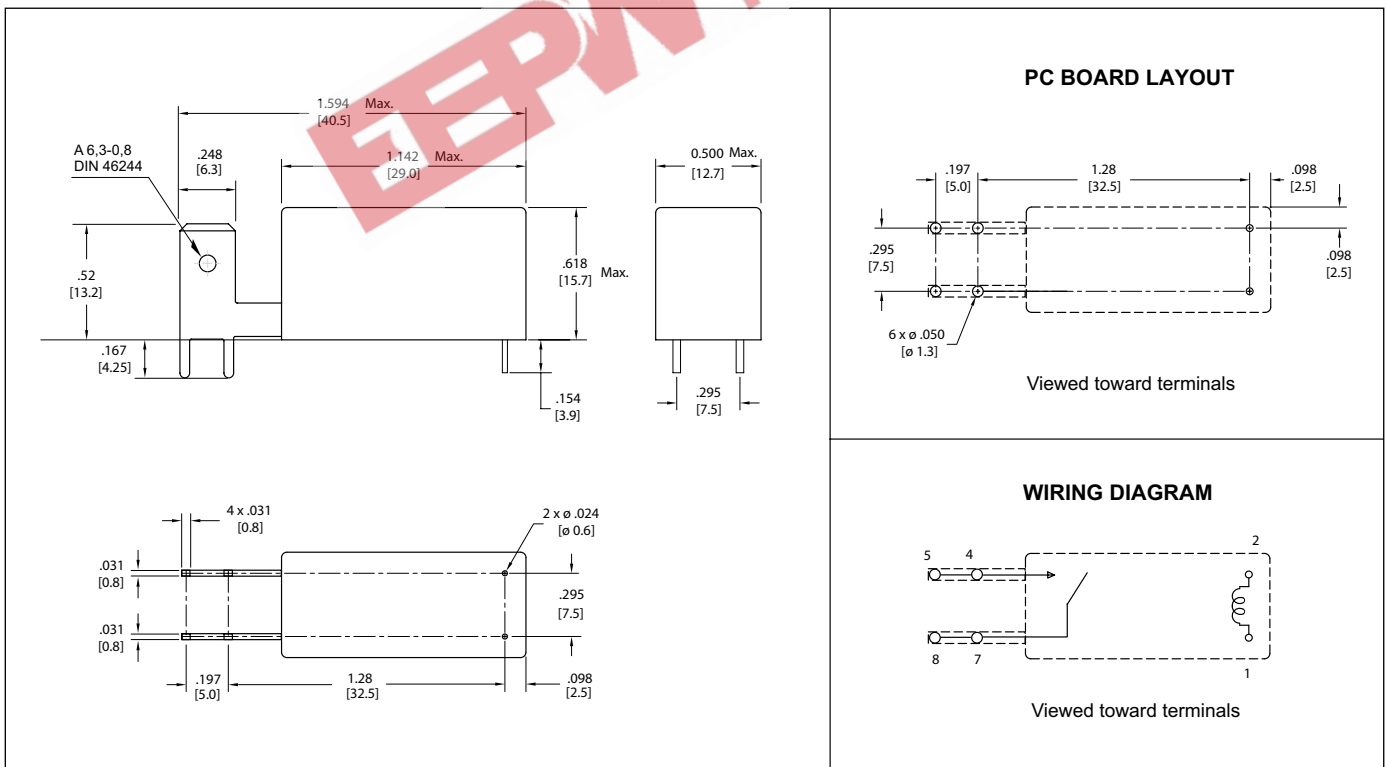
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# AZ764F

## MECHANICAL DATA AZ764FH - HORIZONTAL VERSION



## MECHANICAL DATA AZ764FV - VERTICAL VERSION



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

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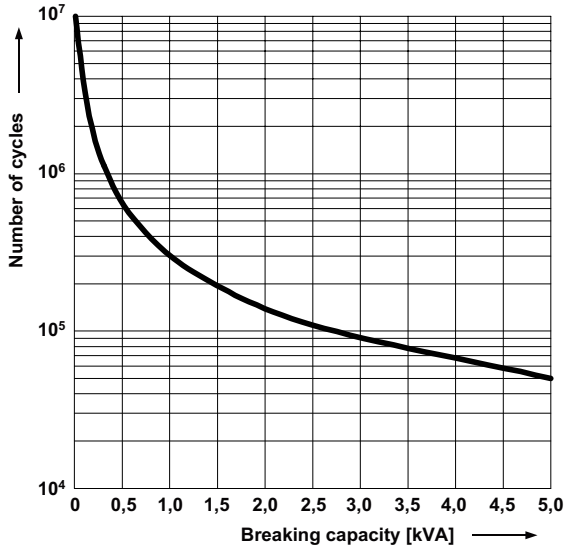
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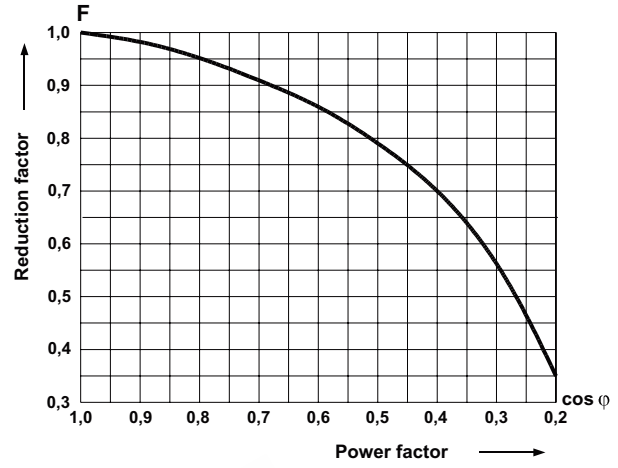
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# AZ764F

Electrical life at 250 VAC, resistive load

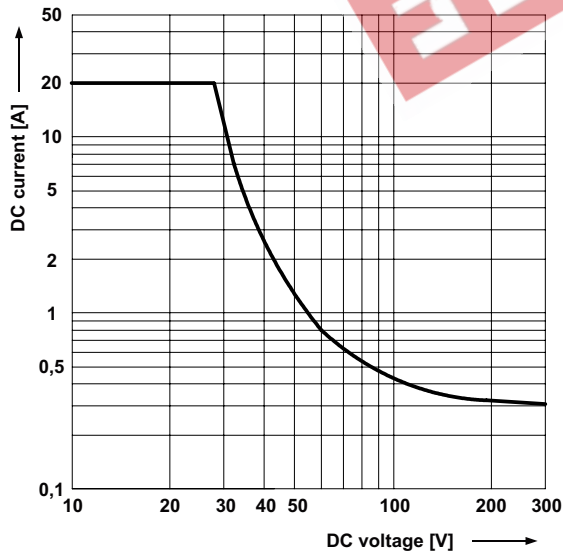


Electrical life reduction factor at inductive AC load



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

Max. DC resistive load breaking capacity



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