



Hermetically sealed, high reliability contactor featuring Extended Performance Impervious Ceramic (EPIC®) technology for 270Vdc applications.

Meets the standards and requirements of

**MIL-PRF-32085**

**PRINCIPLE TECHNICAL CHARACTERISTICS**

Contacts rated at  
Coil rated at

**270Vdc/100Amps  
28Vdc**

Weight

**14.1oz/400g**

Special units available upon request, including models with auxiliary contacts.

**SPECIAL FEATURES**

- Compact, lightweight design
- Durable, temperature-resistant EPIC ceramic seal
- High temperature internal components
- Hydrogen gas inside for maximum carry and current switching
- Built-in coil suppression
- Optional dual coil-economizer

EPIC is a registered trademark of GIGAVAC, LLC

**CONTACT ELECTRICAL CHARACTERISTICS**

Contact rating per pole and load type	Load current in Amps
	270 Vdc
Resistive	100
Overload	167A, 50 cycles
Rupture	
-Break	1,000A, 5 times
-Make	600A, 5 times
Minimum operating cycles (life) at rated load	20,000
Mechanical life (cycles)	100,000



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Data sheets are for initial product selection and comparison. Contact Leach International prior to choosing a component.

**COIL CHARACTERISTICS (Vdc)****SERIES A270-100**

CODE	A Vdc
Nominal operating voltage	28Vdc
Pick-up voltage, maximum	
-Normal, max, continuous current	18Vdc @ -55°C to +85°C
-Current continuous test	22Vdc
Drop-out voltage, maximum	1.5-7Vdc @ +25°C; 1.0-7Vdc @ -55°C to +85°C
Max coil current at 28Vdc +20°C hold	330mAmp
Maximum contact voltage drop	150mV
<b>Consult factory for other coil voltages.</b>	

**GENERAL CHARACTERISTICS**

Temperature range	-55°C to +85°C
Minimum operating cycles (life) at rated resistive load	20,000
Mechanical life (cycles) @10% of rated voltage and current	100,000
Dielectric strength at sea level	Initial/After Life
- Main contacts	1,500/1050 Vdc
- Coil and aux. contacts	1050/500 Vdc
Insulation resistance	
- Initial (500 Vdc @°20C)	100 M Ω min
- In service	50 M Ω min
Sinusoidal vibration per MIL-STD-202, Method 204	0.036 D.A. 10 – 52 Hz 5G 52-500Hz 10G 500 – 2000 Hz
Shock (11 ms duration per MIL-STD-202, Method 213)	20 G
Max. contact opening time under vibration and shock	10μ (see chatter/1μsec. transfer)
Operate time at nominal voltage (Including bounce) @ +25°C	20 ms max
Release time at nominal voltage (Including bounce)	15 ms max
Contact bounce at nominal voltage	4 ms max
Altitude	45,000 Feet; 70,000 feet [1]

	A270-100	A	2	A
Relay family_____				
1-Mounting Style(A)and Coil Terminations(4)_____				
2-Circuit (1,2) _____				
4-Coil Voltage(A)(5)_____				

**NOTES**

- (1.) 70,000 feet maximum with performance limitations. Information available upon request.
- 2. This series drawing is for general use only. Some performance characteristics are subject to change without notice. Please consult factory for special requirements.
- 3. Gas and contact material performance comparisons for switching applications shown in Figure 1 for reference.

**GAS AND CONTACT MATERIAL PERFORMANCE COMPARISON  
FOR SWITCHING APPLICATIONS**

APPLICATION	H2 (Hydrogen)		N2 (Nitrogen)	
CONTACTS	Copper	Moly/Copper	Copper	Moly/Copper
Carry Only	Best	Good	Better	Fair
Make only Life	Good	Better	Good	Best
Make & Break Life	Good	Best	Fair	Better
Very High Overload Make & Break	Good	Best	Fair	Better

**Figure 1**

- [4.] ¼-28UNC power terminals also are available. Consult factory for other mounting styles.
- [5.] Consult factory for other coil voltages.
- 6. Qualification report to Mil-PRF-32085 available upon request.
- 7. Description of EPIC™ technology: Avionics Magazine [article](#).

