

SERIES HC,HCD,HCP

ENGINEERING DATA SHEET

CONTACTOR
CENTER-OFF
50 AMP



APPLICATION NOTES:

[101](#)
[102](#)
[007](#)

Balanced-Force Design
Hermetically sealed
Designed to the performance standards of **MIL-PRF-6106**

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **28 Vdc and 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400Hz, 3Ø**
Weight **15.0 oz.**
Special units available upon request, including models with auxiliary contacts.

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type [4]	Load current in Amps		
	28 Vdc	115 Vac 400 Hz	115/200 Vac 400 Hz 3Ø
Resistive	25	50 [8]	50 [8]
Inductive [1]	15	50 [8]	50 [8]
Motor	15	30	30
Lamp	10	15	15
Transfer load [7]	-	12.5	12.5



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Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.

COIL CHARACTERISTICS (Vdc)**SERIES HC,HCD,HCP**

CODE	A Vdc	B Vdc	C Vdc	F Vac 400Hz	N [4] Vdc
Nominal operating voltage	28	12	6	115	28
Maximum operating voltage	29	14.5	7.3	124	29
Pick-up voltage, at +71° C maximum					
- Nominal	18	9	4.5	90	18
- High temp test	20	10	5	100	20
- Continuous current test	21	10.5	5.3	105	21
Drop-out voltage, maximum	7	4.5	2.5	45	7
Coil resistance in ohms ±10% at +25° C	175	44	11	-	200
Coil current max. milliampere at +25° C	-	-	-	100	-

GENERAL CHARACTERISTICS

Temperature range	-55°C to +71°C
Minimum operating cycles (life) at rated resistive load	50,000
Minimum operating cycles (life) at 25% rated resistive load	200,000
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit	1500 Vrms[9]
- Coil to ground and aux. contacts	1000 Vrms
Dielectric strength at altitude:50,000 feet	
- Main contacts	700 Vrms
- Coil and aux. contacts	500 Vrms
Insulation resistance	
- Initial	100 M Ω min
- After environmental tests	50 M Ω min
Sinusoidal vibration	10 G / 70 to 2000 Hz
Shock (6 ms duration)	50 G
Maximum contact opening time under vibration and shock	10 μs
Operate time at nominal voltage (Including bounce)	
- DC	35 ms max.
- AC	60 ms max
Release time at nominal voltage (Including bounce)	
- DC	25 ms max
- AC	80 ms max
Contact bounce at nominal voltage	3 ms max
Weight	15.0 oz. max.
Power requirements:	
- at nominal D.C voltage	4.35 watt
Overload - 115/200 Vac, 400Hz @ 28 Vdc	400 Amp 100 Amp
Rupture - 115/200 Vac, 400Hz @ 28 Vdc	400 Amp 125 Amp

NUMBERING SYSTEM

SERIES HC,HCD,HCP

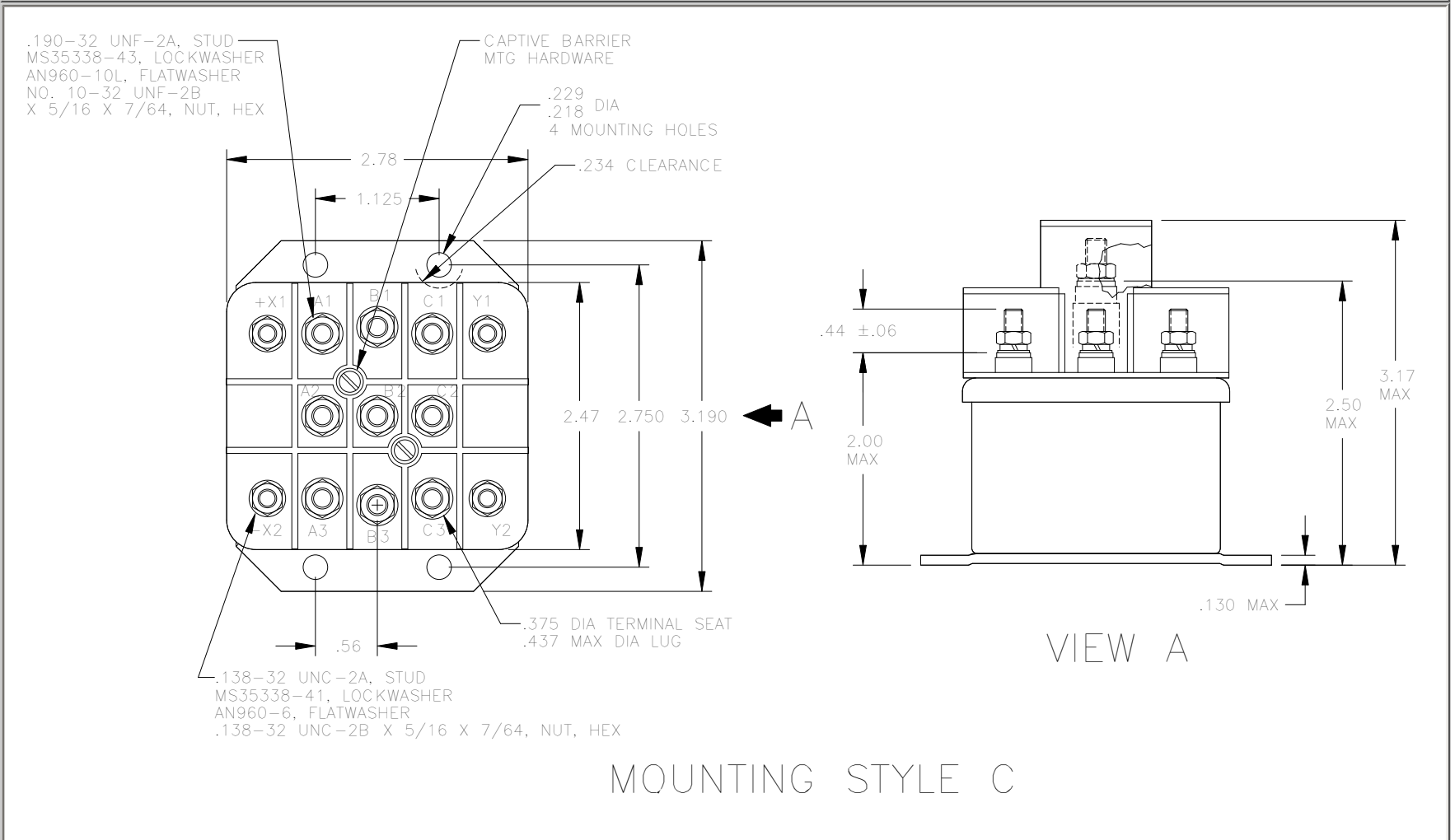
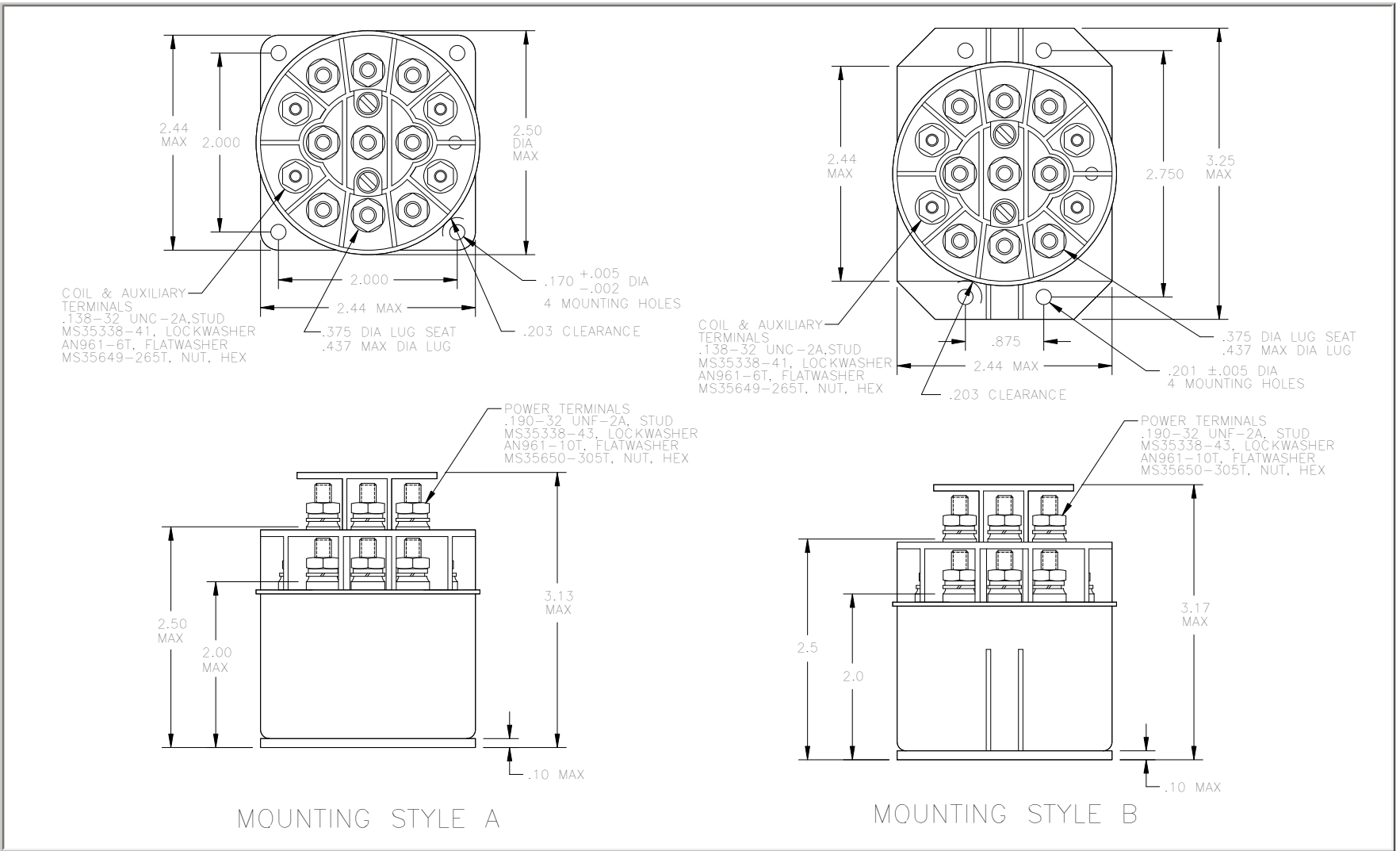
	HC	-	X	0	X
	[5]HCD	-	X	0	X
	[6]HCP	-	X	0	X
Relay family_____					
1-Mounting Style(A,B,Etc.)_____					
2-Terminal & Circuit (1,2,3,Etc.)_____					
3-Coil Voltage(A,B,C,F & N)_____					

NOTES

- [1] Inductive load life: 20,000 cycles.
2. Applicable military specification: MS27750.
3. Alternate contact configurations and other special models available upon request; Please contact factory.
- [4] Suppressed "N" coil has back EMF suppression to 42 volts max. Consult factory.
- [5] Non hermetic, gasket sealed version.
- [6] Non hermetic, not metallic cover, gasket sealed version. (Not available with mounting style C).
- [7] Suitable for transfer between unsynchronized AC power sources at ratings indicated.
- [8] These values are 30, for AC coil models.
- [9] 1250 VRMS for auxiliary contacts.

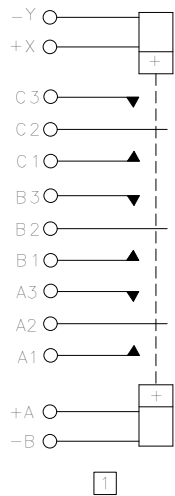
CONFIGURATION STYLES

SERIES HC,HCD,HCP

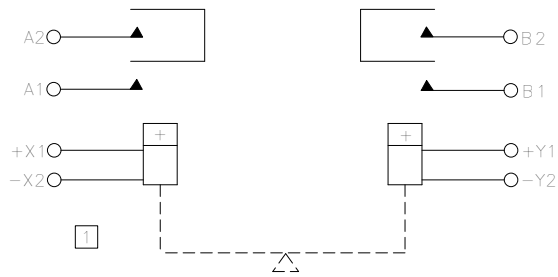


STANDARD TOLERANCE: XX ± .03, XXX ± .010

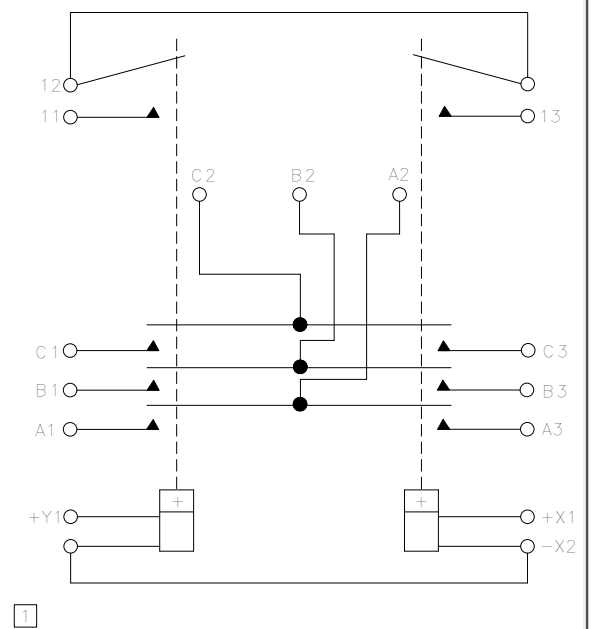
TERMINAL TYPE 1



TERMINAL TYPE 2



TERMINAL TYPE 3

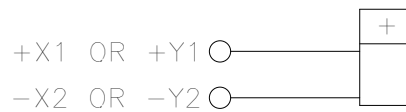


TERMINAL TYPE 9

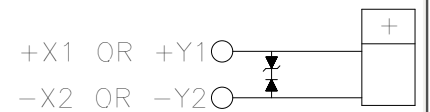
IS A GENERAL CATEGORY USED FOR ALL TERMINAL TYPES NOT ILLUSTRATED FOR OTHER VARIATIONS OF TERMINAL CONFIGURATIONS PLEASE CONTACT FACTORY.

COIL CONFIGURATION

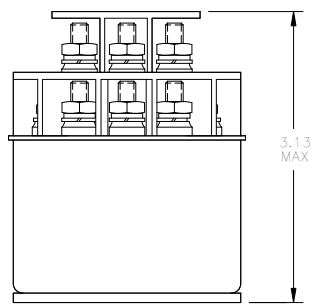
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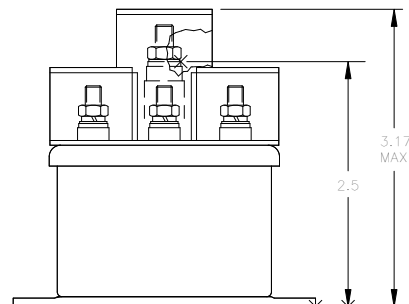
STANDARD COIL "A, B, C & F"



SUPPRESSED COIL "N"



TERMINAL TYPE 1 AND 2



TERMINAL TYPE 3

- 1 POLARITY INDICATION APPLIES TO D.C. COILS ONLY
- | | |
|---------------------------|-------------------|
| AUXILIARY CONTACT RATING | 28 VDC OR 115 VAC |
| RESISTIVE | 5 AMP |
| INDUCTIVE | 3 AMP |
| LAMP | 1 AMP |
| BOUNCE AT NOMINAL VOLTAGE | .004 SEC MAX |

NOTE: OTHER AUXILIARY CONTACT FORMS AVAILABLE. PLEASE CONTACT FACTORY.

- 2 COIL TERMINALS MAY BE IDENTIFIED AS A-B, X1-X2, Y1-Y2 OR X-Y.

NOTE: Although all configuration and/or terminal type options are available, some combinations may require a setup charge and be subject to minimum order size.