

- **Permanent operation**  
*Service Permanent*

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- **Main contact**  
*Contact principal* **3 PST - N0**

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- **Auxiliary contact**  
*Contacts auxiliaires* **Up to 4 PDT form C**  
*Jusqu'à 4 inverseurs*

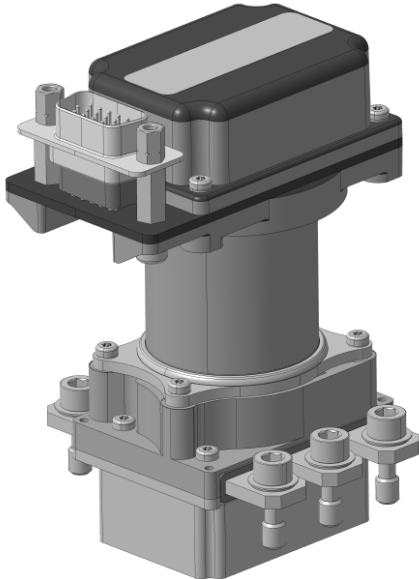
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- **Coil supply**  
*Service Permanent* **Direct current**  
*Courant continu*

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- **Related standard**  
*Normes de référence* **MIL-PRF-6106P**

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## PRINCIPAL TECHNICAL CHARACTERISTICS CARACTERISTIQUES TECHNIQUES PRINCIPALES

- **Contact rated at**  
*Prévu pour commuter* **90 Amps / 28 Vdc**  
*90 A / 28 Vcc*

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- **Overall size**  
*Dimensions hors tout* **58,5 x 65,25 x 84,45 mm**  
*58,5 x 65,25 x 84,45 mm*

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- **Metal body, thermoplastic cover for dust protection**  
*Corps métallique, capots thermoplastiques étanches à la poussière*

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- **Special models available upon request**  
*Modèles spécifiques sur demande*

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- **Weight**  
*Masse* **≤ 350g (CA090S-C4N)**  
**≤ 350g (CA090S-C4N)**

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## GENERAL CHARACTERISTICS CARACTERISTIQUES GENERALES

Contact rating per load type, main contact <i>Contact principal par type de charge</i>	28 Vcc
Resistive / Résistif Inductive / Inductif [1] Motor / Moteur	90A 60A 60A

Contact rating per load type, auxiliary contact <i>Contact auxiliaire par type de charge</i>	28 Vcc	115 Vac / 400Hz
	Resistive / Résistif Inductive / Inductif [1] Minimum current / Courant minimum	5A 2A 2mA

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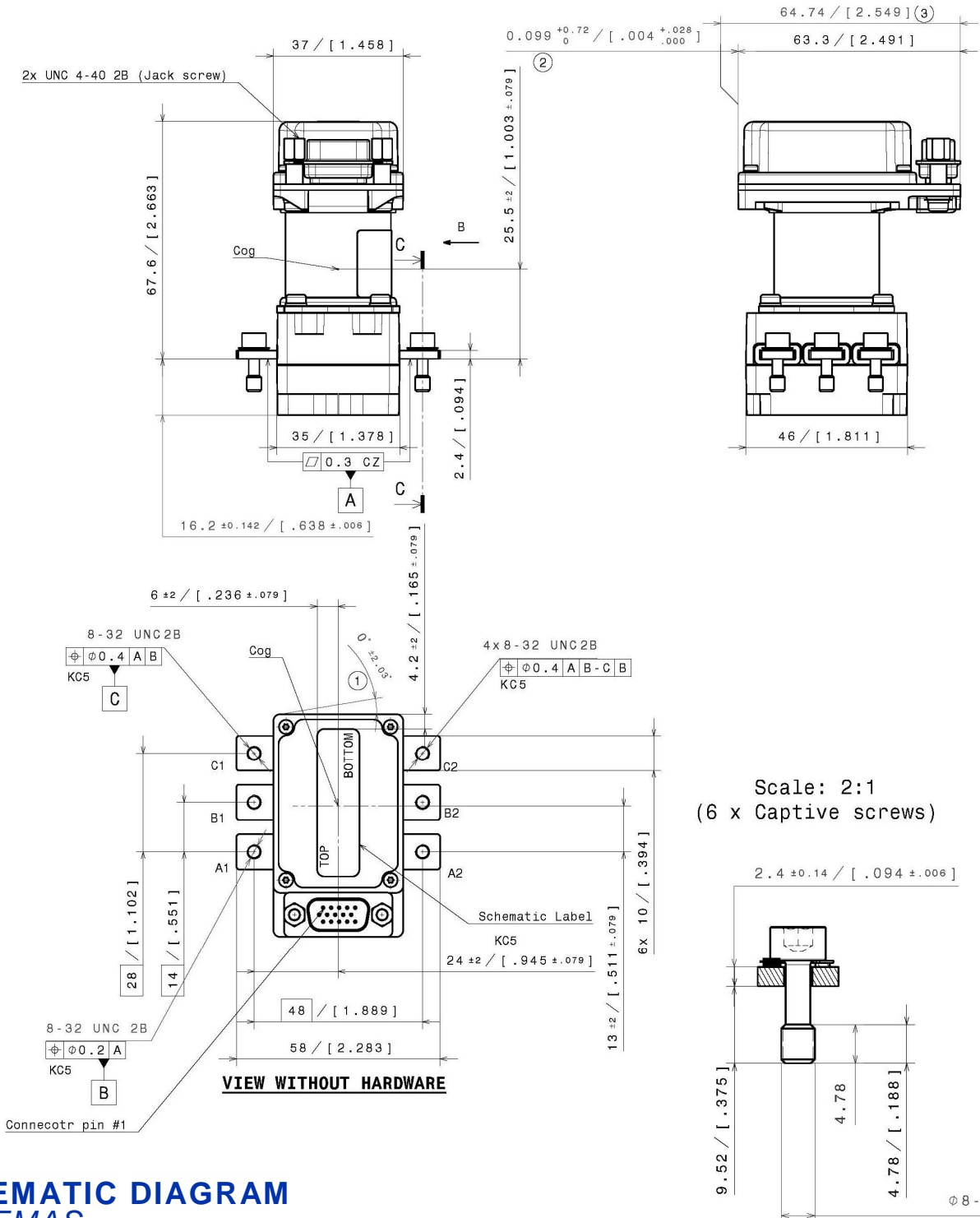
## COILS CHARACTERISTICS (Vdc) CARACTERISTIQUES DES BOBINES (Vcc)

Code	N
<b>Nominal voltage</b> Tension nominale	28Vdc
<b>Maximum voltage</b> Tension maximum	32,5Vdc
<b>Maximum pickup voltage</b> Tension max. d'enclenchement assuré	18Vdc
<b>Dropout voltage</b> Tension de déclenchement	TBD 4Vdc max at 25°C.
<b>Inrush current</b> Courant d'appel 25°C	5A max at 28Vcc
<b>Hold current</b> Courant de maintien 25°C	0,21A max at 28Vcc

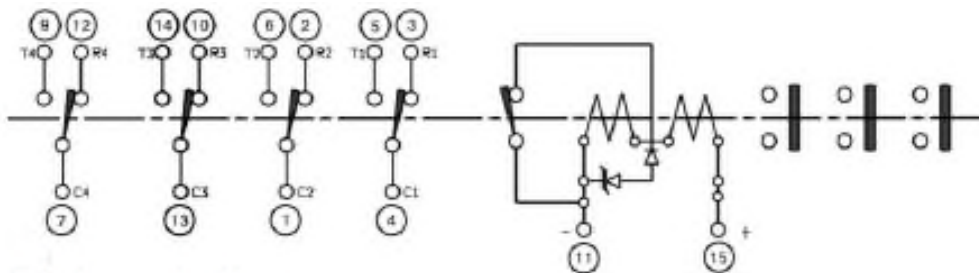
## GENERAL CHARACTERISTICS CARACTERISTIQUES GENERALES

<b>Temperature range</b>   Gamme de température	-55°C to +85°C
<b>Life at nominal load</b>   Durée de vie minimale sous charge nominale	50,000 cycles
<b>Dielectric strength at sea level (main contact)</b>   Rigidité diélectrique au niveau de la mer (contact principal)	1800 Vrms
<b>Insulation resistance at 500 Vdc</b>   Résistance d'isolement sous 500 Vcc	100 MΩ min.
<b>Sinusoidal vibrations</b>   Vibrations sinusoïdales	10G / 10 to 2000Hz
<b>Shocks</b>   Chocs	15G / 11ms
<b>Maximum contact opening time under vibrations and shocks</b> Durée maximum d'ouverture des contacts sous l'influence des vibrations et chocs	10 μs
<b>Maximum operate time at 28 Vdc</b>   Temps d'enclenchement sous 28 Vcc	10 ms max at 25°C
<b>Maximum dropout time at 28 Vdc</b>   Temps de déclenchement sous 28 Vcc	1 ms max at 25°C
<b>Power contact voltage drop</b>   Chute de tension, contact principal	
- <b>Initial voltage drop</b>   chute de tension initiale	110mVac max
- <b>End of life voltage drop</b>   chute de tension finale	150mVac max
<b>Auxiliary contacts</b>   Contacts auxiliaires	
- <b>Contact voltage drop initial at 1A</b>   Chute de tension de contact initiale sous 1A	105mVdc max
- <b>Contact voltage drop end of life at 1A</b>   Chute de tension de contact finale sous 1A	125mVdc max
- <b>Contact resistance initial (at low level)</b>   Résistance de contact initiale (bas niveau)	1 Ω max
- <b>Contact resistance end of life (at low level)</b>   Résistance de contact finale (bas niveau)	1 Ω max
- <b>Minimum current</b>   Courant minimum	2 mA [5]
<b>Coil transient voltage at 28 Vdc</b>   Ecrêtage bobine à 28 Vcc	60Vdc max at 25°C [2]
<b>Mounting torque (for C or D style)</b>   Couple de serrage (pour fixation de type C ou D)	1.7N.m±10% 40 cN.m +/-10% for the connector

## MOUNTING STYLES TYPES DE CONFIGURATION



## SCHEMATIC DIAGRAM SCHEMAS



## REFERENCE SYSTEM SYSTEME DE REFERENCES

CA	090	S	-	A	3	P	-	B	-	001
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### Contactor serie:

**CA** = Contacteur Alternatif

### Contactor rating :

Expressed in Amps with 3 digits (050, 400, ...)

### Contactor form :

**S** = Single Throw

**D** = Double Throw

**L** = Latch, Double Throw

**C** = Center-Off

### Mounting style (mechanical, electrical, PST, PDT):

**A** = Mounting holes without barriers

**B** = Mounting holes with barriers

**C** = Captive Hardware without barriers

**D** = Captive Hardware with barriers

**E** = Stud mounting

**Z** = For every specific request that cannot be expressed with a standard digit

### Terminal & Circuit :

**0 to 8** = number of auxiliaries

(default configuration = Form C, MIL-R 6106J)

### Coil voltage :

**N** = 28VDC + coil suppression

**I** = 28VDC + coil suppression Intermittent

**F** = 115VAC

**P** = 28VDC PWM

**Z** = For every specific request that cannot be expressed with a standard digit

### AUX and supply connection

Blank : Standard version = Straight D-SUB on PCB

**A** : right angle D-SUB on PCB

**B** : flying lead turn left, standard bundle with a D-SUB

**C** : flying lead turn right, standard bundle with a D-SUB

**Y** : For every specific request that cannot be expressed with a standard digit

Add 3 digits (chrono) to express other specific options requested or for a major evolution

## PRODUCTS LIST [3] [4]

### LISTE DE PRODUITS

	Fixing style Fixation	Auxiliary contacts Contacts auxiliaires	Bobine style Type de bobine	Poids Masse	Notes
CA090S-C4N	C	8	28Vdc + coil suppression	≤ 350 g	/

## NOTES REMARQUES

**1. PF=0.7, L/R 5ms**

*PF0.7, L/R 5ms,*

**2. Suppressor compatible with lightning test to DO 160C, section 22, level B4K4L4**

*Ecrêtage compatible avec DO 160C, section 22, niveau B4K4L4.*

*Before this measurement, the energy supplied by the contactor in the control circuit (unclipped spike) is less than 25 mJ over the entire range of temperature and voltage.*

**3. Other configurations may be possible. Please contact factory**

*D'autres configurations peuvent être possibles : Nous consulter.*

**4. Most standard and recommended part**

*Série standard la plus recommandée.*

**5. The use of the auxiliary contacts at low level current is possible only if they have never been previously used at high current level**

*L'utilisation des contacts auxiliaires en bas niveau n'est possible que s'ils n'ont jamais été utilisés auparavant en haut niveau.*