



• Intermittent operation

Service intermittent

• Main contact

Contact principal

1 PNO - DM

1 T (DE)

• Coil supply

Alimentation bobine

Direct current

Courant continu

• Related standard

Normes de référence

AIR 7304

AIR 8456B

AIR 9456

Application notes:

102-Relays and temperature variations

PRINCIPAL TECHNICAL CHARACTERISTICS CARACTERISTIQUES TECHNIQUES PRINCIPALES

• Contacts rated at <i>Prévu pour commuter</i>	500 Amps 28 Vdc <i>500 A / 28 Vcc</i>	
• Weight <i>Masse</i>	P/N 509I	: 750 g ±5%
	P/N S509I	: 810 g ±5%
	P/N M509 I	: 830 g ±5%
	P/N CC0509I-SMR80A	: 810 g ±5%
• Overall size <i>Dimensions hors tout</i>	121 x 70 x 62.5 mm max	
• Metal body <i>Corp métallique</i>		
• Special models available upon request <i>Modèles spécifiques sur demande</i>		

CONTACT ELECTRICAL CHARACTERISTICS CARACTERISTIQUES ELECTRIQUES DES CONTACTS/POUVOIR DE COUPURE

Contact rating per load type, main contact <i>Contact principal par type de charge</i>	28 Vcc	
Resistive / Résistif Overload / Surcharge I minimum / I minimum	500 (In) [3] 5 000A 10A	
Contact rating per load type, auxiliary contact <i>Contact auxiliaire par type de charge</i>	28 Vcc	115 Vac – 400 Hz
Resistive / Résistif Inductive / Inductif (L/R=5ms) [1] Lamp / Lampe	5A 3A 1A	4A 2A 0.5A

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The technical information provided by Leach International Europe is to be used as a guide only, and is not meant for publication or as documentation for altering any existing specification. Dimensions are in millimeters unless otherwise specified. Rev. 03/2025.

COILS CHARACTERISTICS (Vdc) [1] CARACTERISTIQUES DES BOBINES (Vcc) [1]

	509I / S509I / M509I	CC0509I-SMR80A
Nominal voltage Tension nominale	28 Vdc	
Maximum voltage Tension maximum	32 Vdc	
Maximum pickup voltage Tension max. d'enclenchement assuré	12V at +20°C 15V at +80°C	
Dropout voltage Tension de déclenchement	3 Vdc min. 4.5 Vdc max.	4.5 Vdc max.
Inrush current Courant d'appel @ 25°C	<2.3A at 28 Vdc	
Coil suppression (max Vdc) Circuit écrêteur (Vcc max)	-80V	

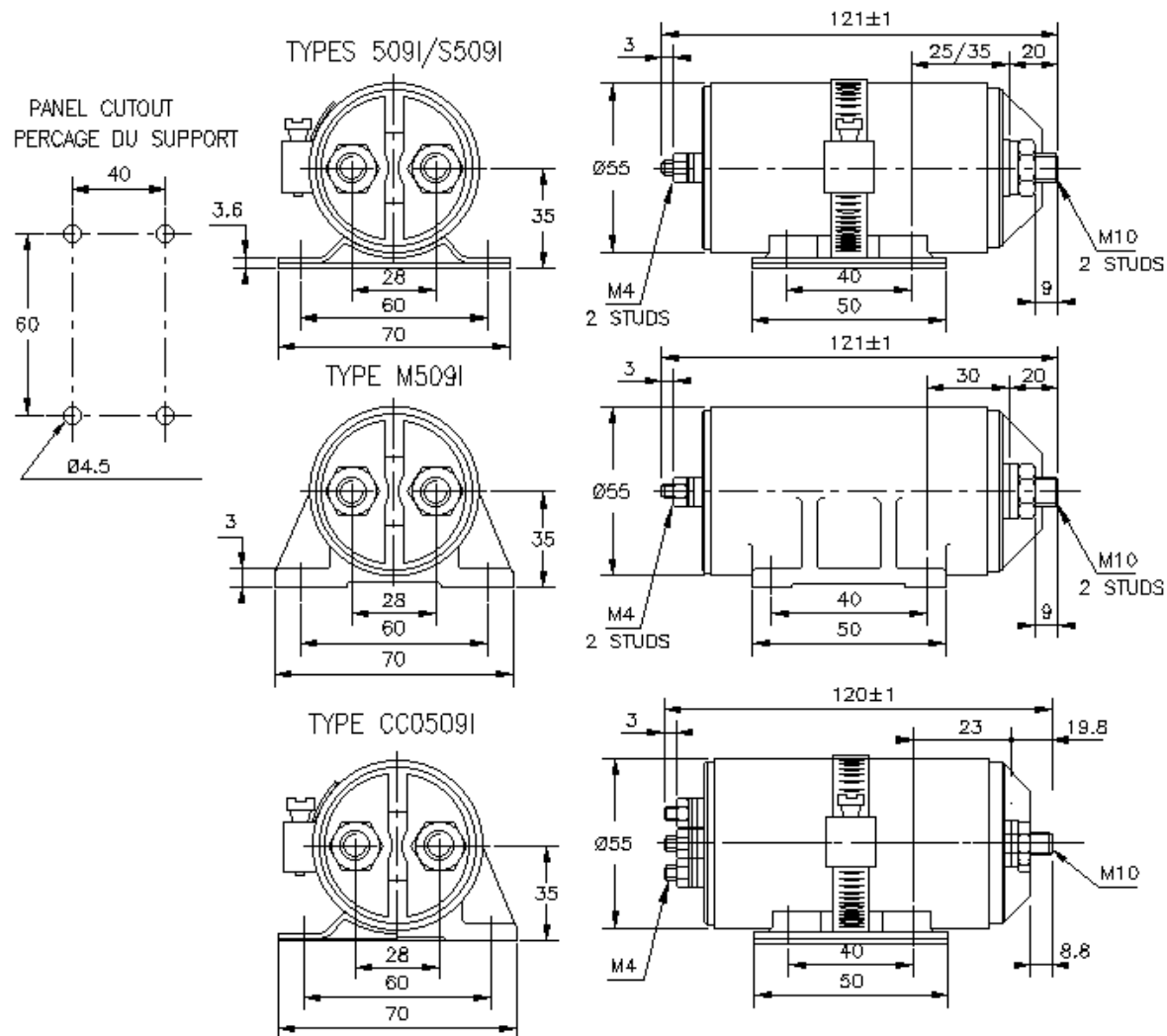
GENERAL CHARACTERISTICS CARACTERISTIQUES GENERALES

	509I / S509I / M509I	CC0509I-SMR80A
Temperature range Gamme de température	-55°C to +80°C	
Life at nominal load Durée de vie minimale sous charge nominale	50,000 cycles	
Dielectric strength at sea level, main contact Rigidité diélectrique au niveau de la mer, contact principal	1 500 Vrms	
Insulation resistance at 500 Vdc Résistance d'isolement sous 500 Vcc	100 M Ω min.	
Sinusoidal vibrations Vibrations sinusoïdales	10 G / 5 to 2000 Hz	
Shocks Chocs	30 G / 11 ms	
Maximum contact opening time under vibrations and shocks Durée max. d'ouverture des contacts sous l'influence des vibrations et chocs	10 μ s	
Maximum operate time at 28 Vdc Temps d'enclenchement sous 28 Vcc	35 ms max at 20°C	
Maximum dropout time at 28 Vdc Temps de déclenchement sous 28 Vcc	20 ms max at 20°C	
Main contact voltage drop Chute de tension dans le contact principal		
- Initial value Valeur initiale	120mV	
- After endurance test Après test d'endurance	240 mV	
Auxiliary contacts Contacts auxiliaires		
-Contact resistance (low level) Résistance de contact (bas niveau)	N/A	1 Ω
-I minimum I minimum	N/A	50 mA
Assembly torque Couple de serrage		
- Main contact terminals Bornes de puissance	14.7 Nm	
-Coil and auxiliary contact terminals Bornes de la bobine et des contacts auxiliaires	N/A	1.2 Nm

MOUNTING STYLES [2] TYPE DE CONFIGURATION [2]

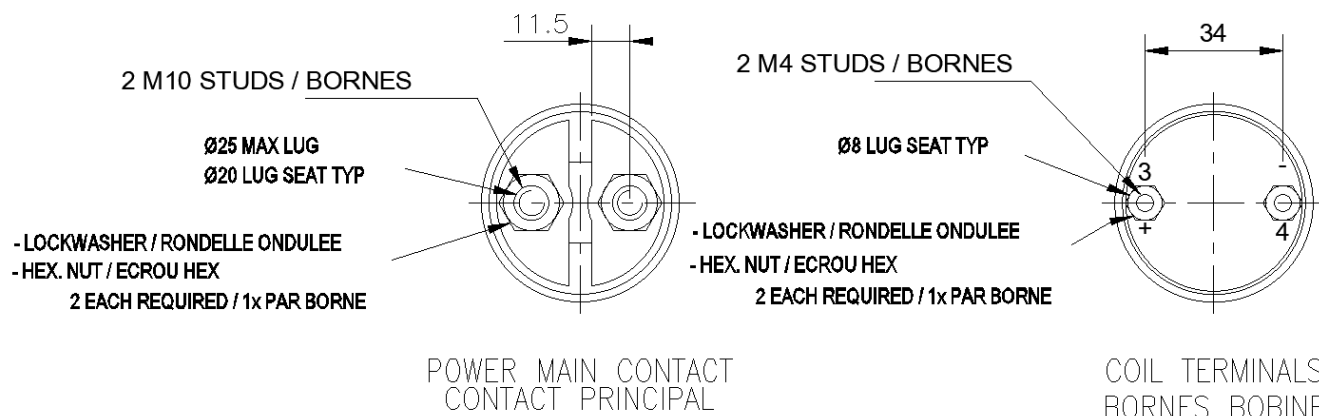
Dimensions in mm
Tolerances, unless otherwise specified, $\pm 0.5\text{mm}$

509I = WITHOUT BASE AND CLAMP/SANS SOCLE NI COLLIER
CC0509I & S 509I = WITH BASE AND CLAMP/AVEC SOCLE ET COLLIER
M 509I = WITH MOULDED BODY/AVEC SOCLE MONOBLOC

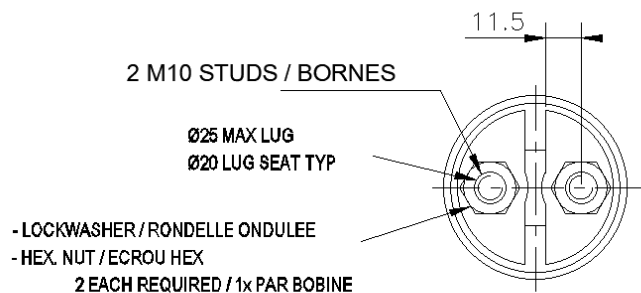


TERMINAL TYPES [2] RACCORDEMENT ELECTRIQUE [2]

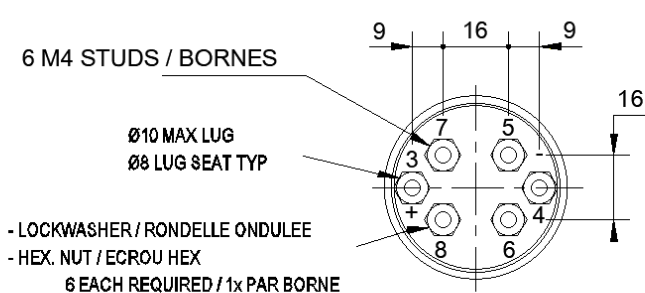
TYPE 509I / S509I / M509I



TYPE CC0509I-SMR80A

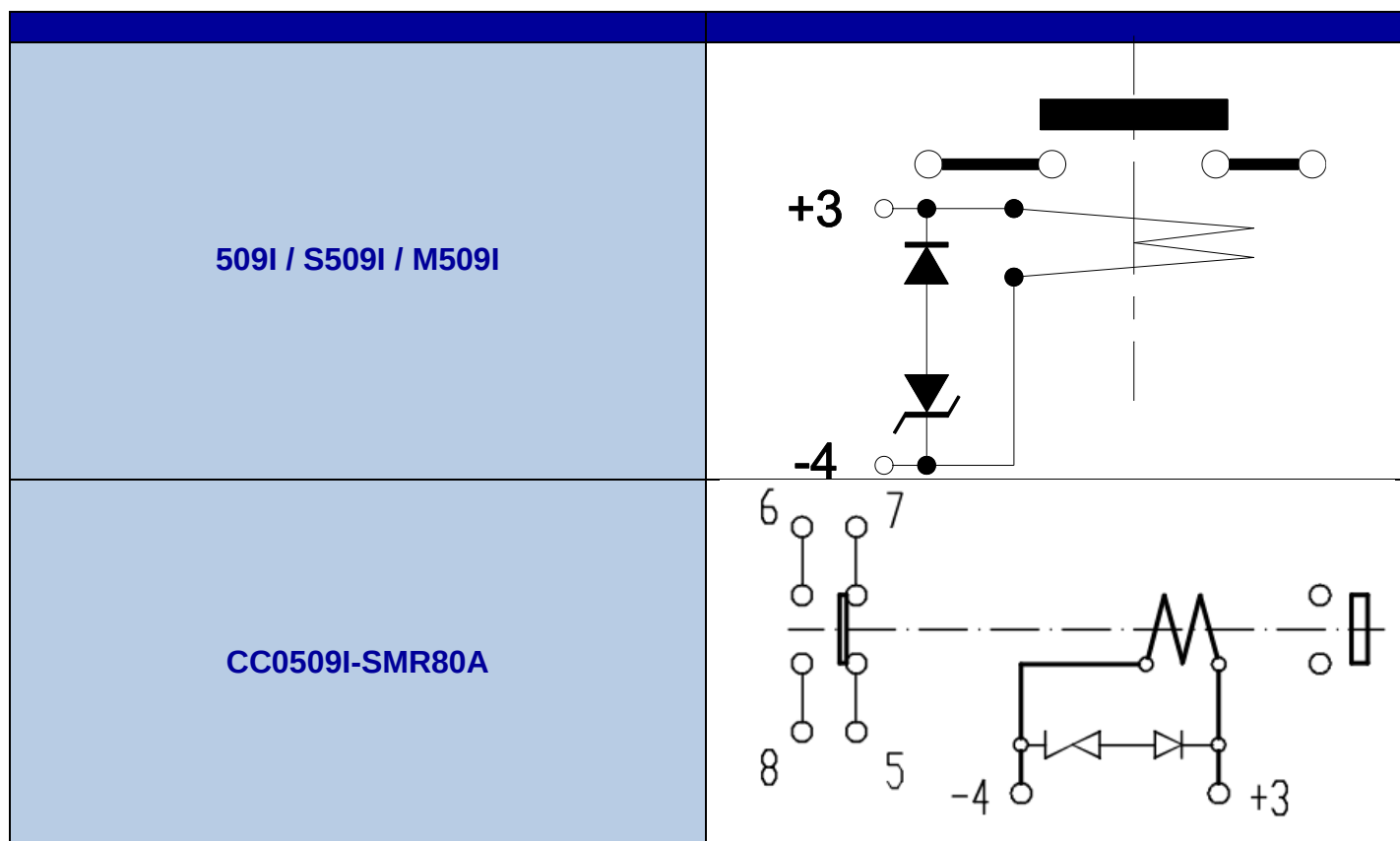


POWER MAIN CONTACT
CONTACTS PRICIPAL



COIL TERMINALS / AUXILIARY CONTACTS
BORNES BOBINE / CONTACTS AUXILIAIRES

SCHEMATIC DIAGRAM [2] SCHEMA [2]



REFERENCE SYSTEM SYSTEME DE REFERENCES

Mounting style | Code de fixation (M,S)

1. Basic series designation | Référence de base

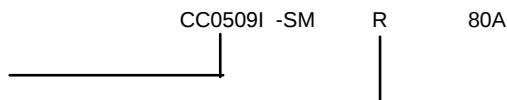
Exemple: M509I



Basic series designation / Référence de base

1. Coil voltage / Code bobine (R)

Exemple : CC0509I-SMR80A



NOTES REMARQUES

1. L/R 5ms, life 10 000 cycles.

L/R 5 ms, 10 000 cycles

2. Other configurations may be possible. Please contact factory

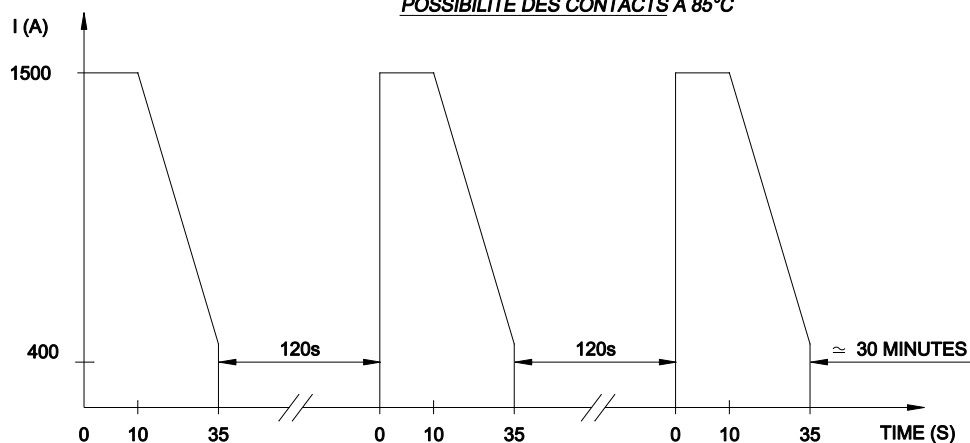
D'autres configurations peuvent être possibles : Nous consulter.

3. Start-up contactor (intermittent operation). See start-up curve below.

Contacteur de démarrage (service intermittent). Voir courbe de démarrage ci-dessous.

START CAPABILITIES SURCHARGES DE DEMARRAGE

CONTACT LOAD CAPACITY AT 85°C
POSSIBILITE DES CONTACTS A 85°C



I FROM T=0 TO T=+10s AT 1500A
I FROM 1500A TO 400A IN 25s

X 3 WITH 120 SECONDS GAPS
3 FOIS ESPACEES DE 120 SECONDES