

## RAILWAY RELAY WITH ATTRACT AND HOLD COIL 2 PDT, 1 AMP / 72VDC RAILWAY RELAY WITH ATTRACT AND HOLD COIL 2 PDT, 1 AMP / 72VDC



- The hermetically sealed relays for railway application series F470, F670, FD\*70, F\*70S1 and F670S2 may be equipped with attract and hold coils.

*Les relais hermétique de la gamme ferroviaire des séries F470, F670, FD\*70 F\*70S1 et F670S2 peuvent être équipés de bobines appel-maintien.*

- For all switching and environmental characteristics, see the technical data sheet of the basic relay.

*Pour l'ensemble des caractéristiques de commutation et d'environnement, se reporter à la fiche Technique du modèle de base.*

- The following pages show terminal and schematic arrangements as well as coil characteristics.

*Les pages suivantes donnent les schémas de raccordement et les caractéristiques de bobine.*

- Qualified or in accordance with

*Qualifié selon ou en accord avec*

### PRINCIPAL TECHNICAL CHARACTERISTICS CARACTERISTIQUES TECHNIQUES PRINCIPALES

#### Application notes:

001  
003  
004  
007

- **Contact rating** **1 Amps/ 72 Vdc**

*Prévu pour commuter 1 A / 72 Vcc*

- **Weight**

*Masse 110 g max*

- **Dimensions of case**

*Dimensions du boîtier 26.7 x 25.7 x 37.7 mm max*

- **Balanced-force design, all welded construction**

*Armature à forces équilibrées*

- **Hermetically sealed, corrosion protected metal can**

*Boîtier métallique hermétique protégé anti-corrosion*

- **No make before break**

*Non chevauchement des contacts*

- **Special models available upon request**

*Modèles spécifiques sur demande*

### CONTACT ELECTRICAL CHARACTERISTICS / CONTACT RATING CARACTERISTIQUES ELECTRIQUES DES CONTACTS / POUVOIR DE COMMUTATION

Minimum operating cycles <i>Durée de vie minimale</i>	Nominal contact voltage (Vdc) <i>Tension aux bornes du contact (Vcc)</i>	Simple break / <i>Simple coupure</i>		Double break / <i>Double coupure</i>		Level <i>Niveau</i>
		Resistive load <i>sur charge résistive</i>	Inductive load <i>sur charge inductive load (L/R=30ms)</i>	Resistive load <i>sur charge résistive</i>	Inductive load <i>sur charge inductive load (L/R=30ms)</i>	
1 000 000 cycles	72 V	1A	0.6A	3A	1.2A	Fort niveau
2 000 000 cycles	5 ≤ U ≤ 90 V	1 à 20mA	-	-	-	Bas niveau
2 000 000 cycles	15 < U ≤ 35 V	-	10 mA à 1,50 A	-	10 mA à 2,50 A	Fort niveau
2 000 000 cycles	35 < U ≤ 90 V	-	10 mA à 0,50 A	-	10 mA à 1,00 A	Fort niveau
2 00 0000 cycles	90 < U ≤ 140 V	-	10 mA à 0,35 A	-	10 mA à 0,70 A	Fort niveau

#### AMERICAS.

Tel: +1 714-736-7599

<http://www.esterline.com/powersystems>

#### EUROPE.

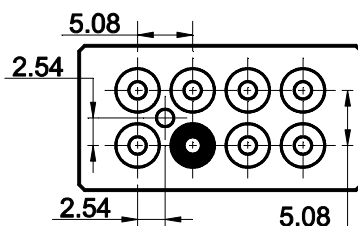
Tel: +33 3 87 97 31 01

Fax: +33 3 87 97 96 86

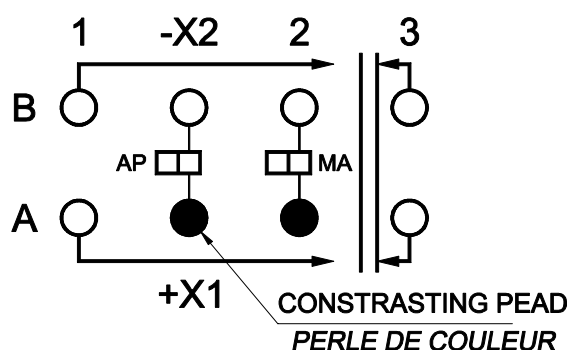
#### ASIA

Tel: +852 2 191 3830

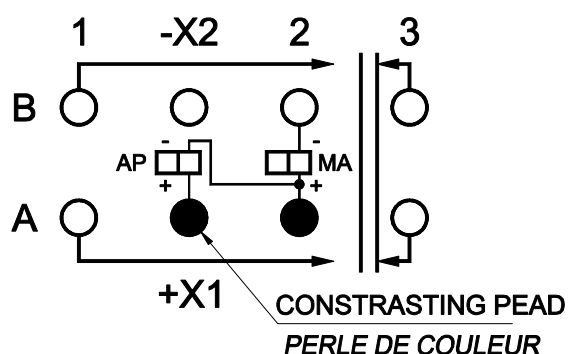
Fax: +852 2 389 5803



**FD370**



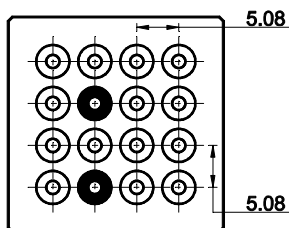
**M06**



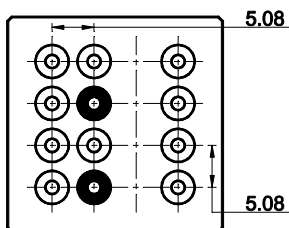
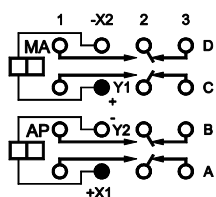
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## COIL CHARACTERISTICS (Vdc) CARACTERISTIQUES DES BOBINES (Vcc)

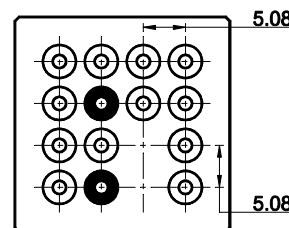
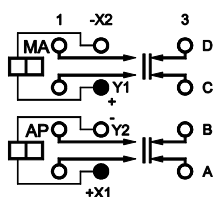
CODE	D	W
<b>Nominal operating voltage</b> <i>Tension nominale (Un)</i>	36	72
<b>Maximum pick-up voltage for attract coil for 20 ms at +25°C</b> <i>Tension maximale d'enclenchement avec la bobine d'appel pendant 20 ms à +25°C</i>	20	20
<b>Minimum holding voltage for hold coil at +25°C</b> <i>Tension minimale de maintien avec la bobine de maintien à +25°C</i>	15	30
<b>Minimum drop out voltage for hold coil at +25°C</b> <i>Tension minimale de déclenchement avec la bobine de maintien à +25°C</i>	7.5	15
<b>Attract coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine d'appel en ohms ±10% à +25°C</i>	62	250
<b>Holding coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine de maintien en ohms ±10% à +25°C</i>	2300	9150



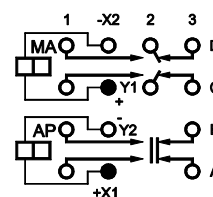
F470



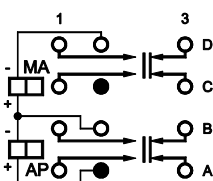
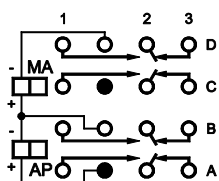
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F470S1



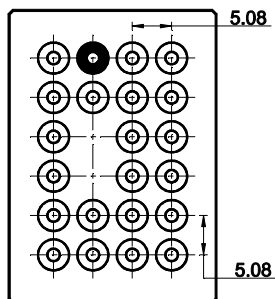
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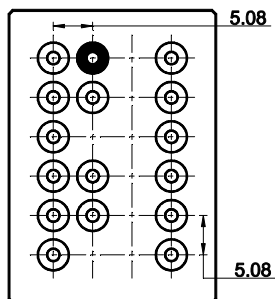
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### COIL CHARACTERISTICS (Vdc) CARACTERISTIQUES DES BOBINES (Vcc)

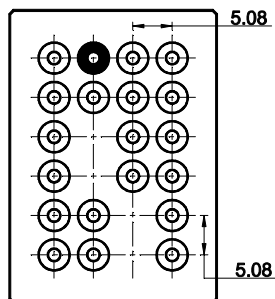
CODE	D	W	V
<b>Nominal operating voltage</b> <i>Tension nominale (Un)</i>	36	72	110
<b>Maximum pick-up voltage for attract coil for 20 ms at +25°C</b> <i>Tension maximale d'enclenchement avec la bobine d'appel pendant 20 ms à +25°C</i>	20	40	61
<b>Minimum holding voltage for hold coil at +25°C</b> <i>Tension minimale de maintien avec la bobine de maintien à +25°C</i>	15	30	35
<b>Minimum drop out voltage for hold coil at +25°C</b> <i>Tension minimale de déclenchement avec la bobine de maintien à +25°C</i>	7.5	15	15
<b>Attract coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine d'appel en ohms ±10% à +25°C</i>	55	220	1100
<b>Holding coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine de maintien en ohms ±10% à +25°C</i>	2500	10000	18000



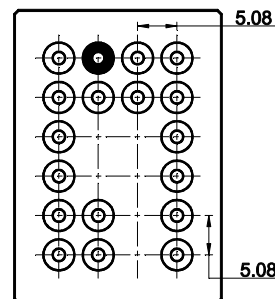
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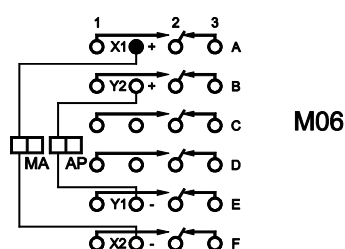
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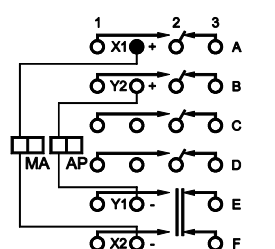
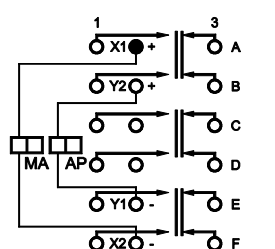
F670S1



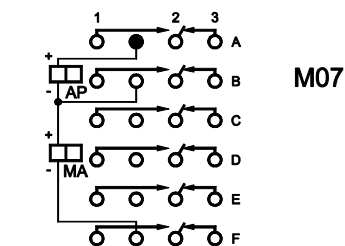
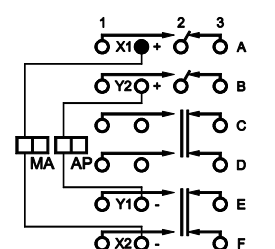
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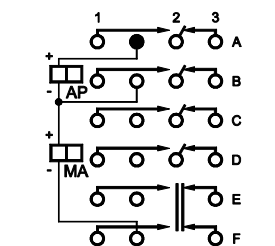
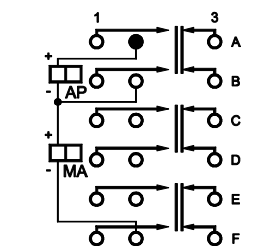
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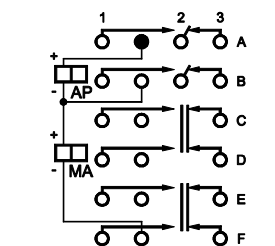
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M07



M07



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

CODE	D	W
<b>Nominal operating voltage</b> <i>Tension nominale (Un)</i>	36	72
<b>Maximum pick-up voltage for attract coil for 20 ms at +25°C</b> <i>Tension maximale d'enclenchement avec la bobine d'appel pendant 20 ms à +25°C</i>	20	40
<b>Minimum holding voltage for hold coil at +25°C</b> <i>Tension minimale de maintien avec la bobine de maintien à +25°C</i>	15	30
<b>Minimum drop out voltage for hold coil at +25°C</b> <i>Tension minimale de déclenchement avec la bobine de maintien à +25°C</i>	7.5	15
<b>Attract coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine d'appel en ohms ±10% à +25°C</i>	15	180
<b>Holding coil resistance in Ohms ±10% at +25°C</b> <i>Résistance de la bobine de maintien en ohms ±10% à +25°C</i>	1820	6500