

Relais Statique Triphasé

Three Phase Solid State Relays

Entraxe 47,5mm / 4,7,5mm mounting

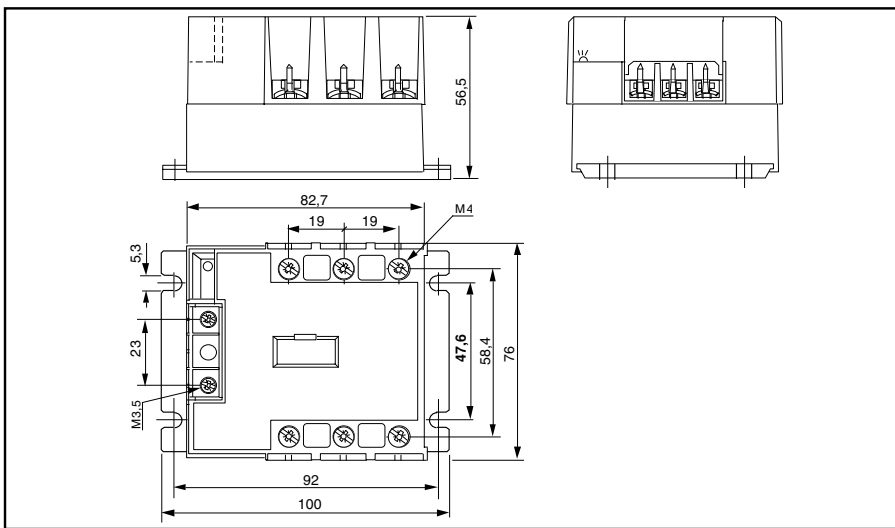
SVT864394E

24 to 520 VAC - 50ARMS

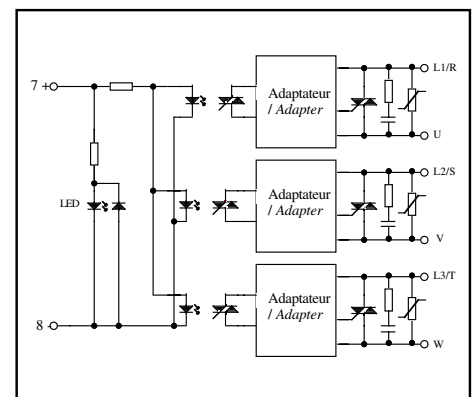


- Sortie AC Synchrones. / Pilotage de tout type de charge .
- Commande 8,5-30VDC - LED
- IP20 - protection par réseau RC et VDR -
- Technologie thyristors
- Zero cross AC output . / Designed for all type of load.
- 8,5-30VDC control voltage - LED
- IP20 - RC and VDR protection
- Thyristors technology

Dimensions / Dimensions:



Circuit équivalent/Equivalent circuit :



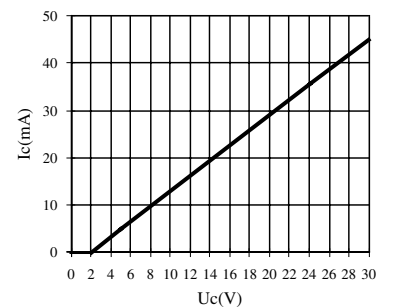
Caractéristiques de commande (à 20°C) / Control characteristics (at 20°C)

| Paramètre / Parameter | Symbol | DC | | | Unit |
|---|--------------------|-----|-----|-----|------|
| | | Min | Nom | Max | |
| Tension de commande / Control voltage | Uc | 8,5 | 24 | 30 | V |
| Courant de commande / Control current (@ U _c) | I _c | 10 | 35 | 45 | mA |
| Tension de relâchement/Release voltage | U _{c off} | 4 | | | V |
| Résistance interne / Input internal resistor fig.1 | R _c | | 620 | | Ω |
| Tension inverse / Reverse voltage | U _{rv} | | 30 | | V |

Caractéristiques d'entrée-sortie (à 20°C) / Input-output characteristics (at 20°C)

| | | | | | |
|--|------------------|--|------|--|------|
| Isolement entrée-sortie/Input-output isolation @500m | U _i | | 4000 | | VRMS |
| Isolement sortie-semelle/Output-case isolation @500m | U _i | | 3300 | | VRMS |
| Tension assignée isolement/ Rated impulse voltage | U _{imp} | | 4000 | | V |

fig. 1 : Caractéristique d'entrée / Control characteristic



Caractéristiques générales / General characteristics

| Paramètre / Parameter | Conditions | Symbol | Typ. | Unit |
|--|------------|--------|------------|------|
| Poids/Weight | | | 410 | g |
| Plage de température de stockage / Storage temperature range | | | -40 / +100 | °C |
| Plage de température de fonctionnement/Operating temperature range | | | -40 / +100 | °C |

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Caractéristiques sujettes à modifications sans préavis.

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Caractéristiques de sortie (à 20°C) / Output characteristics (at 20°C)

| Paramètre / Parameter | Conditions | Symbol | Typ. | Unit |
|--|-----------------------|------------------|--------|------------------|
| Tension de charge / Load voltage | | Ue | 400 | V rms |
| Plage tension de fonctionnement / Operating range | (480Vrms + 10%) | Uemax | 530 | V rms |
| Tension crête / Peak voltage | | Up | 1200 | V |
| Niveau de synchronisation / Synchronizing level | | Usync | 12 | V |
| Tension d'amorçage / Latching voltage | Ie nom | Ua | 10 | V |
| Courant nominal AC-51/ AC-51 nominal current | (see Fig. 2) | Ie AC-51 | 50 | A rms |
| Courant nominal AC-53/ AC-53 nominal current | (see Fig. 2) | Ie AC-53 | 12 | A rms |
| Courant de surcharge non répétitif / Non repetitive overload current | tp=10ms (Fig. 3) | I _{tsm} | 550 | A |
| Chute tension directe crête/ On state voltage drop | @ Ie nom | Vd | 1,4 | V |
| Courant de fuite état bloqué/ Off state leakage current | @Ue, 50Hz | I _{lk} | 5 | mA |
| Courant de charge minimum / Minimum load current | | Ie min | 5 | mA |
| Temps de fermeture/ Turn on time | Uc nom DC ,f=50Hz | ton max | 10 | ms |
| Temps d'ouverture/ Turn off time | Uc nom DC ,f=50Hz | toff max | 10 | ms |
| Plage de fréquence / Operating frequency range | | f | 10-440 | Hz |
| dv/dt état bloqué / Off state dv/dt | | dv/dt | 500 | V/μs |
| dI/dt maximum non répétitif/ Maximum di/dt non repetitive | | di/dt | 50 | A/μs |
| I ² t (<10ms) | | I ² t | 1500 | A ² s |
| EMC Test d'immunité conduite / Conducted immunity level | IEC 1000-4-4 (burst) | | 2kV | criterion A |
| EMC Test d'immunité conduite / Conducted immunity level | IEC 1000-4-5(schocks) | | 2kV | criterion A |
| Conformité / Conformity | EN60947-4-x | | | |

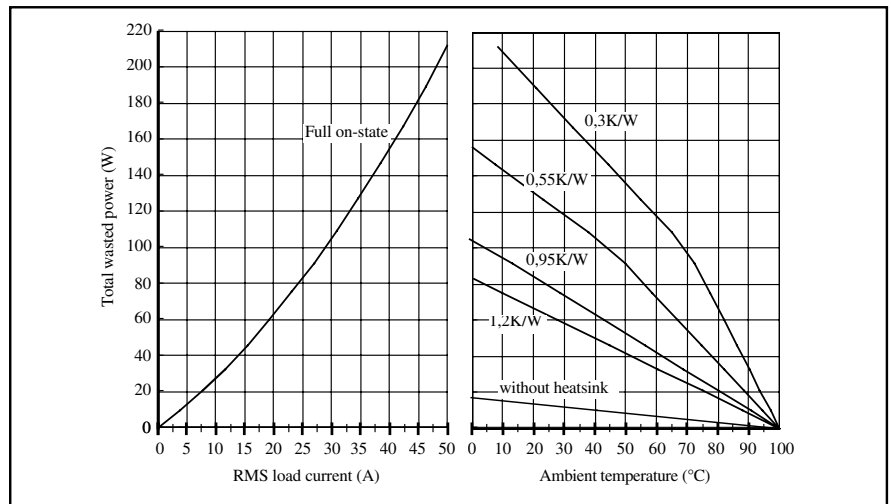
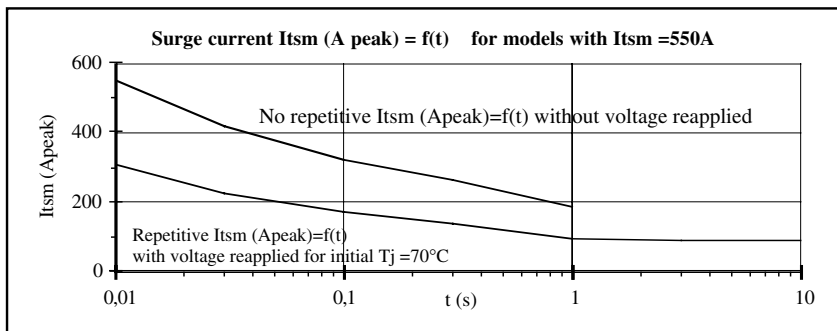
Caractéristiques thermiques / thermal curves :

Fig.3 Courbes de surcharge de courant / Overload current curves



1 -I_{tsm} non répétitif sans tension réappliquée est donné pour la détermination des protections.

No repetitive I_{tsm} is given without voltage reappplied for the determination of the protection.

2 -I_{tsm} répétitif est donné pour des surcharges de courant (T_j initiale=70°C). La répétition de ces surcharges de courant diminue la durée de vie du Relais.

Repetitive I_{tsm} is given for inrush current with initial T_j = 70°C. The repetition of the surge current decrease the lifetime SSR's .

Précautions :

* Les relais à semiconducteurs ne procurent pas d'isolation galvanique entre le réseau et la charge.

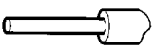
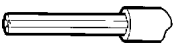
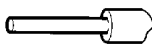
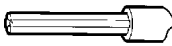

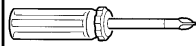
Cautions :

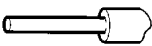

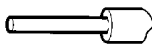
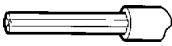

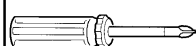
* Semiconductor relays don't provide any galvanic insulation between the load and the mains.

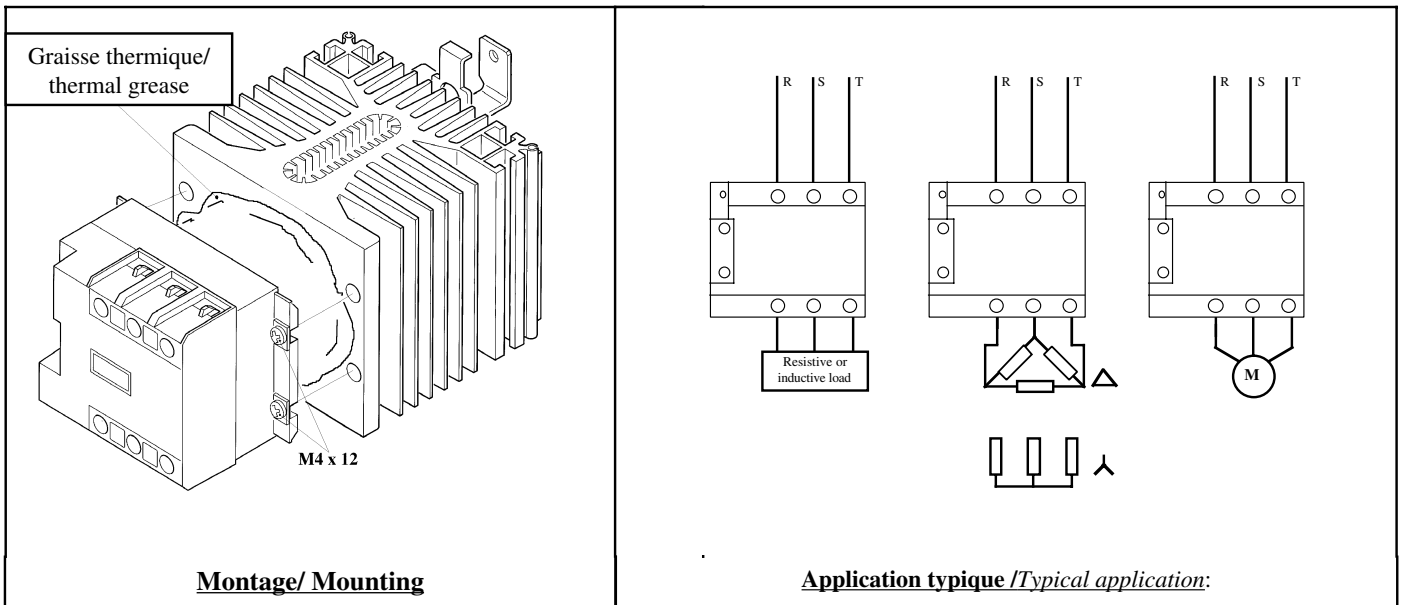
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| SVT Cablage commande / Wiring of the control circuit: | | | | | | |
|---|---|---|---|--|---|----------------------------------|
| nombre de fils/ NUMBER OF WIRES | | | | SCREWDRIVER TYPE | | MINIMUM TORQUE couple serrage |
| 1 | | 2 | | tournevis | tournevis | |
| SOLID (No ferrule) rigide sans embout | FINE STRANDED (With ferrule) multibrins avec embouts | SOLID (No ferrule) rigide sans embout | FINE STRANDED (With ferrule) multibrins avec embouts | | | N.m |
|  |  |  |  |  |  | 1,2 |
| 0,75 ... 2,5 mm ² | 0,75 ... 2,5 mm ² | 0,75 ... 2,5 mm ² | 0,75 ... 2,5 mm ² | 0,8 x 5,5 mm | POZIDRIV 2 | |

| SVT Cablage puissance / Wiring of the power circuit: | | | | | | |
|---|---|---|---|--|---|----------------------------------|
| NUMBER OF WIRES | | | | SCREWDRIVER TYPE | | MINIMUM TORQUE couple serrage |
| 1 | | 2 | | tournevis | tournevis | |
| SOLID (No ferrule) rigide sans embout | FINE STRANDED (With ferrule) multibrins avec embouts | SOLID (No ferrule) rigide sans embout | FINE STRANDED (With ferrule) multibrins avec embouts | | | N.m |
|  |  |  |  |  |  | 1,8 |
| 1,5 ... 10 mm ² | 1,5 ... 6 mm ² | 1,5 ... 10 mm ² | 1,5 ... 6 mm ² | 0,8 x 5,5 mm | POZIDRIV 2 | |



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