

# Relais Statique Triphasé

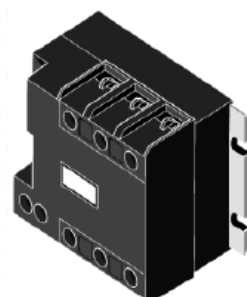
## Three Phase Solid State Relays

# SVT965760

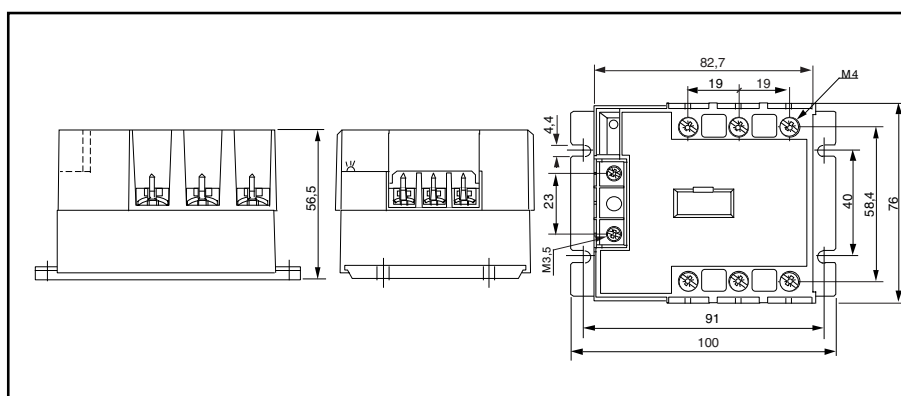
## 24 to 600 VAC - 50 ARMS

- Sortie AC pour charge résistives.
- Commande 10-30 VAC/8,5-30VDC avec LED.
- IP20.

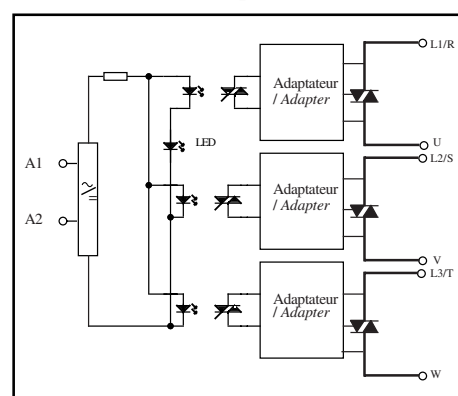
- AC output for resistive loads.
- 10-30 VAC/8,5-30VDC control voltage with LED.
- IP20.



### Dimensions / Dimensions:



### Circuit équivalent/Equivalent circuit :



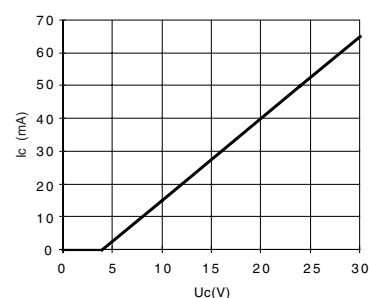
### Caractéristiques de commande (à 20°C) / Control characteristics (at 20°C)

| Paramètre / Parameter                              | Symbol       | Min | Nom | Max | Unit     |
|----------------------------------------------------|--------------|-----|-----|-----|----------|
| Tension de commande / Control voltage              | $U_c$        | 10  |     | 30  | V        |
| Courant de commande / Control current (@ $U_c$ )   | $I_c$        | 11  |     | 55  | mA       |
| Tension de relachement/Release voltage             | $U_{c\ off}$ | 4   |     |     | V        |
| Résistance interne / Input internal resistor fig.1 | $R_c$        |     | 400 |     | $\Omega$ |
| Tension inverse / Reverse voltage                  | $U_{rv}$     |     |     |     | V        |

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

|                                                       |           |  |      |  |      |
|-------------------------------------------------------|-----------|--|------|--|------|
| Isolément entrée-sortie/Input-output isolation @ 500m | $U_i$     |  | 4000 |  | VRMS |
| Isolément 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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All technical characteristics are subject to change without previous notice.  
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                    |                       | Uemin-max                    | 24-600 | V rms            |
| Tension crête / Peak voltage                                         |                       | Up                           | 1200   | V                |
| Niveau de synchronisation / Synchronizing level                      |                       | Usync                        | 24     | 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 de surcharge non répétitif / Non repetitive overload current | tp=10ms (Fig. 3)      | Itsm                         | 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            | Ilk                          | 1      | 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                      | 30     | ms               |
| Temps d'ouverture/ Turn off time                                     | Uc nom DC ,f=50Hz     | toff max                     | 30     | 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 <sup>2</sup> t (<10ms)                                             |                       | I <sup>2</sup> t             | 1500   | A <sup>2</sup> 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 crit.A with external VDR |        |                  |
| Conformité / Conformity                                              | EN60947-4-x           |                              |        |                  |

**Caractéristiques thermiques /**  
**thermal curves :**

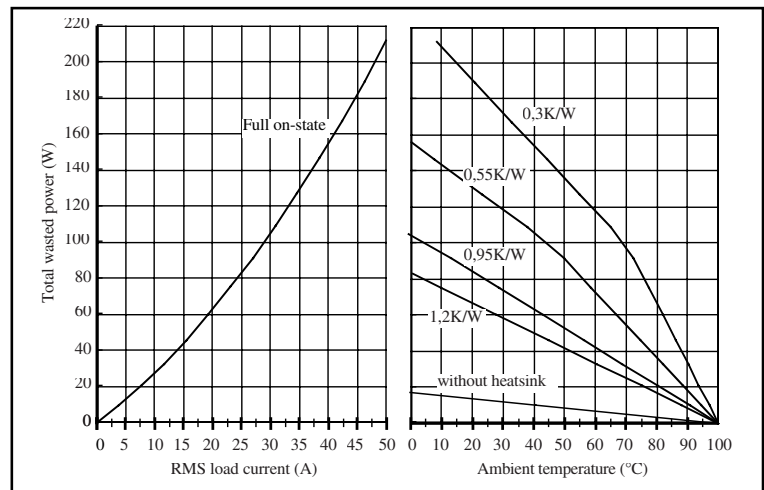
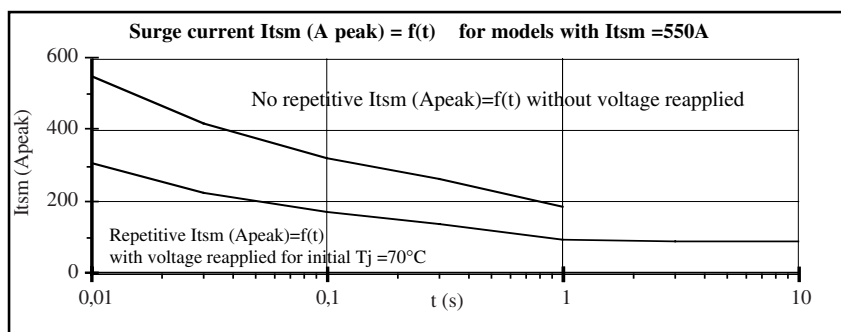


Fig.3 Courbes de surcharge de courant /  
 Overload current curves



1 - Itsm non répétitif sans tension réappliquée est donné pour la détermination des protections.  
 No repetitive Itsm is given without voltage reapplied for the determination of the protection.

2 - Itsm répétitif est donné pour des surcharges de courant (Tj initiale=70°C). La répétition de ces surcharges de courant diminue la durée de vie du Relais.

Repetitive Itsm is given for inrush current with initial Tj = 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 :**

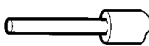
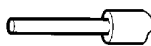
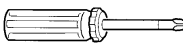
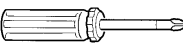
\* Semiconductor relays don't provide any galvanic insulation between the load and the mains.

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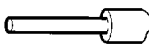
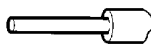
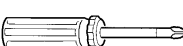
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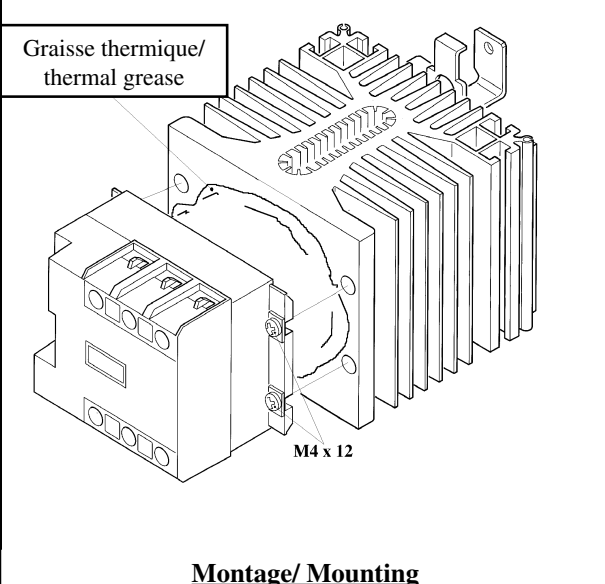
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**SVT****Cablage commande / Wiring of the control circuit:**

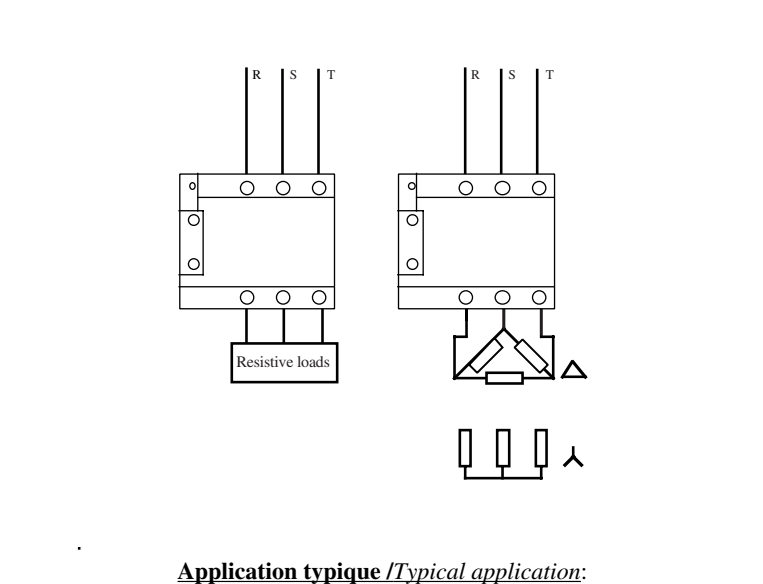
| nombre de fils/ NUMBER OF WIRES                                                   |                                                                                   |                                                                                   |                                                                                   | SCREWDRIVER TYPE                                                                   |                                                                                     | MINIMUM<br>TORQUE<br>couple serrage |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------|
| 1                                                                                 |                                                                                   | 2                                                                                 |                                                                                   | tournevis                                                                          | tournevis                                                                           |                                     |
| SOLID<br>(No ferrule)<br>rigide sans embout                                       | FINE STRANDED<br>(With ferrule)<br>multibrins avec<br>embouts                     | SOLID<br>(No ferrule)<br>rigide sans embout                                       | FINE STRANDED<br>(With ferrule)<br>multibrins avec<br>embouts                     |                                                                                    |                                                                                     |                                     |
|  |  |  |  |  |  |                                     |
| 0,75 ... 2,5 mm <sup>2</sup>                                                      | 0,75 ... 2,5 mm <sup>2</sup>                                                      | 0,75 ... 2,5 mm <sup>2</sup>                                                      | 0,75 ... 2,5 mm <sup>2</sup>                                                      | 0,8 x 5,5 mm                                                                       | POZIDRIV 2                                                                          | N.m<br>1,2                          |

**SVT****Cablage puissance / Wiring of the power circuit:**

| NUMBER OF WIRES                                                                     |                                                                                     |                                                                                     |                                                                                     | SCREWDRIVER TYPE                                                                     |                                                                                       | MINIMUM<br>TORQUE<br>couple serrage |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------|
| 1                                                                                   |                                                                                     | 2                                                                                   |                                                                                     | tournevis                                                                            | tournevis                                                                             |                                     |
| SOLID<br>(No ferrule)<br>rigide sans embout                                         | FINE STRANDED<br>(With ferrule)<br>multibrins avec<br>embouts                       | SOLID<br>(No ferrule)<br>rigide sans embout                                         | FINE STRANDED<br>(With ferrule)<br>multibrins avec<br>embouts                       |                                                                                      |                                                                                       |                                     |
|  |  |  |  |  |  |                                     |
| 1,5 ... 10 mm <sup>2</sup>                                                          | 1,5 ... 6 mm <sup>2</sup>                                                           | 1,5 ... 10 mm <sup>2</sup>                                                          | 1,5 ... 6 mm <sup>2</sup>                                                           | 0,8 x 5,5 mm                                                                         | POZIDRIV 2                                                                            | N.m                                 |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       | 1,8                                 |



**Montage/ Mounting**



**Application typique /Typical application:**



ISO 9001  
N° 1993/1106a

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