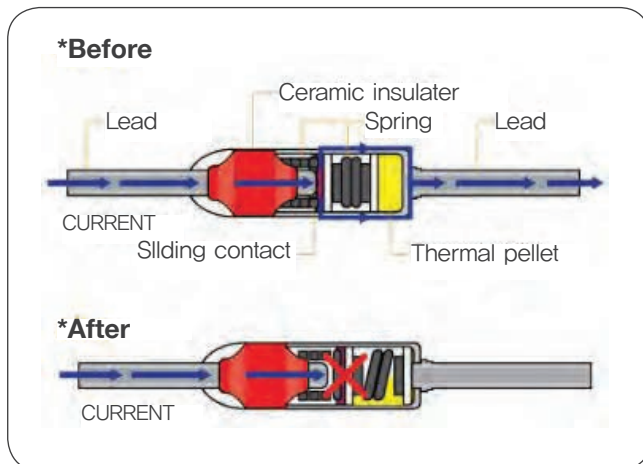


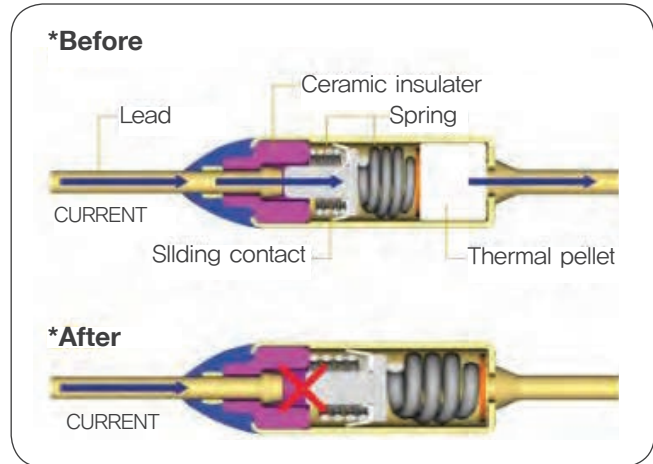
• SW-1,3,5 Series

S.W.C Thermal cutoff contains a sliding contact, spring, and electrically nonconductive thermal pellet. Under normal operating temperature, the solid thermal pellet holds spring-loaded contacts closed. So, Current flows from left lead to the sliding contact through the metal case. When the temperature reached to the designated functioning point, the thermal pellet melts, allowing the compression spring to relax. That is, spring expand, moving the sliding contact away from the left lead. The circuit is opened, breaking contact between the left lead and sliding contact.

(SW-1,5 Series)



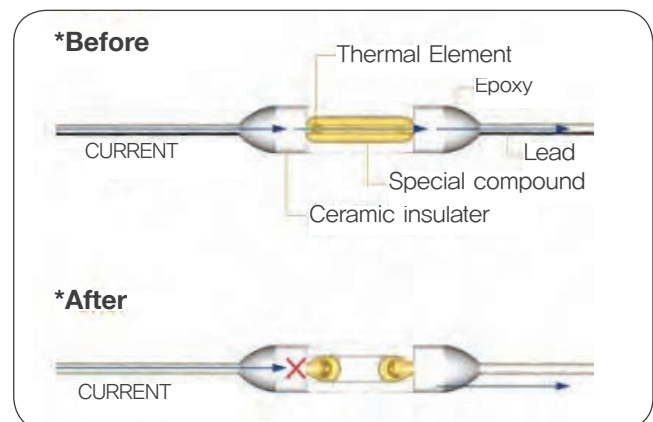
(SW-3 Series)



• SW-2 Series

Thermal Cutoff come with axial lead wires. It's coated with a special compound to protect it from oxidation. The coated element is housed in a special insulated container and is hermetically sealed.

The special resin compound liquefies beginning when the ambient temperature rises, as the temperature reaches the melting point of the thermal element, the resin compound generates a surface tension that causes it to form a bulb-like shape which pulls the liquefied element apart. The next, permanently breaks the electrical circuit.



• EXPLANATION OF RATINGS

– FUNCTIONING TEMPERATURE (TF, Tf)

The temperature at which a thermal cutoff changes its state of conductivity to open circuit with detection current as the only load. The tolerance according to ICE 60691 is + 0, - 10°C.

– HOLDING TEMPERATURE (TH, Tc)

The maximum temperature at which a thermal cutoff can be maintained while conducting rated current for 168 hours which will not cause a change in state of conductivity to open circuit.

– MAXIMUM TEMPERATURE LIMIT (TM, Tm)

The maximum temperature at which mechanical and electrical properties of thermal cut-off can be maintained for 10 minutes without resuming conductivity after functioning.

– RATED CURRENT

The maximum current which the thermal cutoff is able to carry for a specified time at Tc without alteration of its Functioning Temperature.

– INTERRUPTING CURRENT

The value of the current that the thermal cutoff is capable of interrupting safely at rated voltage and under specified circuit conditions.

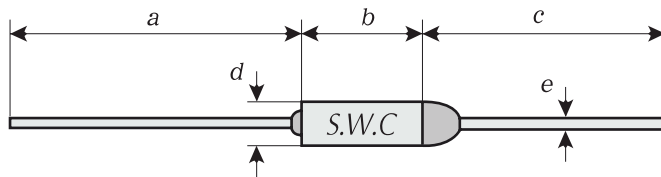
– TRANSIENT OVERLOAD CURRENT

A direct-current pulse train which the thermal cutoff is able to withstand without impairing its characteristics.

– RATED VOLTAGE

The voltage used to classify a thermal cutoff.

• DIMENSIONS



dimension(mm)	a	b	c	d	e
long	35.0±1.0	10.5±0.5	35.0±1.0	4.0±0.05	1.0(18AWG)
short	35.0±1.0	10.5±0.5	20.0±1.0	4.0±0.05	1.0(18AWG)
special	9.0 ~ 64.0	10.5±0.5	9.0 ~ 40.0	4.0±0.05	1.0(18AWG)

• MARKING

Each TCD shall be marked with:

Trade Name : S.W.C

Type No. : SW-1XXT

Ratings : Rated voltage(V), Rated current(A),
Functioning temperature(°C)

Approval Mark

Lot Code

• TEMPERATURE RATINGS

Cat NO.	Tf	Cutoff temperature	Th	Tm	K-mark	UL	C-UL	VDE	TUV	CCC	PSE
SW - 102 T	72℃	70℃ +2℃, - 2℃	57 ℃	200℃	●	●	●	●	●	●	●
SW - 105 T	77℃	77℃ +0℃, - 4℃	62 ℃	200℃	●	●	●	●	●	●	●
SW - 109 T	84℃	84℃ +0℃, - 5℃	69 ℃	180℃	●	●	●	●	●	●	●
SW - 152 T	90℃	90℃ +0℃, - 4℃	75 ℃	180℃	●	●	●	●		●	●
SW - 106 T	91℃	91℃ +0℃, - 4℃	76 ℃	180℃	●	●	●	●		●	●
SW - 153 T	93℃	93℃ +0℃, - 5℃	78 ℃	180℃	●	●	●	●		●	●
SW - 104 T	98℃	98℃ +2℃, - 2℃	83 ℃	190℃	●	●	●	●	●	●	●
SW - 108 T	100℃	100℃ +0℃, - 5℃	85 ℃	190℃	●	●	●	●	●	●	●
SW - 155 T	104℃	104℃ +0℃, - 5℃	89 ℃	190℃	●						
SW - 110 T	109℃	109℃ +0℃, - 5℃	94 ℃	190℃	●	●	●	●	●	●	●
SW - 136 T	110℃	110℃ +0℃, - 5℃	95 ℃	190℃	●						
SW - 119 T	115℃	119℃ +0℃, - 5℃	104 ℃	190℃	●						
SW - 111 T	121℃	121℃ +0℃, - 5℃	106 ℃	200℃	●	●	●	●	●	●	●
SW - 115 T	126℃	126℃ +0℃, - 4℃	111 ℃	200℃	●	●	●	●	●	●	●
SW - 129 T	128℃	128℃ +0℃, - 5℃	113 ℃	200℃	●	●	●	●	●	●	●
SW - 114 T	139℃	139℃ +0℃, - 4℃	124 ℃	200℃	●	●	●	●	●	●	●
SW - 130 T	141℃	141℃ +0℃, - 4℃	126 ℃	200℃	●						
SW - 138 T	144℃	144℃ +0℃, - 5℃	127 ℃	260℃	●	●	●	●	●	●	●
SW - 116 T	152℃	152℃ +0℃, - 4℃	137 ℃	270℃	●	●	●	●	●	●	●
SW - 120 T	167℃	167℃ +0℃, - 4℃	152 ℃	280℃	●	●	●	●	●	●	●
SW - 118 T	169℃	169℃ +0℃, - 5℃	154 ℃	280℃	●						●
SW - 127 T	184℃	184℃ +0℃, - 6℃	169 ℃	220℃	●	●	●	●	●	●	●
SW - 122 T	192℃	192℃ +0℃, - 3℃	177 ℃	220℃	●						●
SW - 125 T	195℃	195℃ +0℃, - 6℃	180 ℃	300℃	●	●	●	●	●	●	●
SW - 139 T	216℃	216℃ +0℃, - 6℃	200 ℃	370℃	●	●	●	●	●	●	●
SW - 124 T	228℃	228℃ +0℃, - 6℃	200 ℃	370℃	●	●	●	●	●	●	●
SW - 128 T	240℃	240℃ +0℃, - 6℃	200 ℃	370℃	●	●	●	●	●	●	●

UL file NO : E126429 ● =Approved



中国国家强制性产品认证证书

证书编号: 2003010205038994

委托人名称、地址

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea (韩国)

生产者(制造商)名称、地址

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea (韩国)

生产企业名称、地址

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea (韩国)

产品名称和系列、规格、型号

热熔断体

见附件

产品标准和技术要求

GB9816.1-2013

上述产品符合强制性产品认证实施规则
CNCA-C02-01: 2014的要求, 特发此证。

发证日期: 2016年07月06日

有效期至: 2021年07月06日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书为变更证书, 证书首次颁发日期: 2003年04月17日

本证书的相关信息可通过国家认监委网站www.cnca.gov.cn查询



主任:

中国质量认证中心

中国·北京·南四环西路188号9区100070

<http://www.cqc.com.cn>



Q 1457919



中国国家强制性产品认证证书

附录:

第 1 页 共 1 页

证书编号: 2003010205038994

纸号: 1457919

产品名称 (中文):

热熔断体

规格和型号:

SW-102T Tf:72℃, Th:57℃, Tm:200℃; SW-105T Tf:77℃, Th:62℃, Tm:200℃;
SW-109T Tf:84℃, Th:69℃, Tm:180℃; SW-152T Tf:90℃, Th:75℃, Tm:180℃;
SW-106T Tf:91℃, Th:76℃, Tm:180℃; SW-153T Tf:93℃, Th:78℃, Tm:180℃;
SW-104T Tf:98℃, Th:83℃, Tm:190℃; SW-108T Tf:100℃, Th:85℃, Tm:190℃;
SW-110T Tf:109℃, Th:94℃, Tm:190℃; SW-111T Tf:121℃, Th:106℃, Tm:200℃;
SW-115T Tf:126℃, Th:111℃, Tm:200℃; SW-129T Tf:128℃, Th:113℃, Tm:200℃;
SW-114T Tf:139℃, Th:124℃, Tm:200℃; SW-138T Tf:144℃, Th:127℃, Tm:260℃;
SW-116T Tf:152℃, Th:137℃, Tm:270℃; SW-120T Tf:167℃, Th:152℃, Tm:280℃;
SW-127T Tf:184℃, Th:169℃, Tm:220℃; SW-125T Tf:195℃, Th:180℃, Tm:300℃;
SW-139T Tf:216℃, Th:200℃, Tm:300℃; SW-124T Tf:228℃, Th:200℃, Tm:300℃;
SW-128T Tf:240℃, Th:200℃, Tm:300℃; 250V AC 10A/ 250V AC 15A 电阻性负载
PTI 250

注: 此附录与证书同时使用时有效。



主 任:

中国质量认证中心

中国 · 北京 · 南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>





CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No. : 2003010205038994

NAME AND ADDRESS OF THE APPLICANT

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea

NAME AND ADDRESS OF THE MANUFACTURER

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea

NAME AND ADDRESS OF THE FACTORY

Sung Woo Industrial Co.
(Jang-dong), 381, Seongseogongdanbuk-ro, Dalseo-gu, Daegu, Korea

NAME, MODEL AND SPECIFICATION

Thermal-links

See Appendix

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB9816.1-2013

This is to certify that the above mentioned products have met the requirements of implementation rules for compulsory certification(REF NO. CNCA-C02-01:2014).

Date of issue: Jul.06,2016 Date of expiry: Jul.06,2021

Validity of this certificate is subject to positive result of the regular follow up inspection by issuing certification body until the expiry date.

Date of original certification: Apr.17,2003

This certificate can be verified through CNCA's website: www.cnca.gov.cn



President:

Wang Kejiao

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P.R.China

<http://www.cqc.com.cn>



Q 1457919



中国国家强制性产品认证证书

附录:

第 1 页 共 1 页

证书编号: 2003010205038994

纸号: 1457919

产品名称 (中文):

热熔断体

规格和型号:

SW-102T Tf:72℃, Th:57℃, Tm:200℃; SW-105T Tf:77℃, Th:62℃, Tm:200℃;
SW-109T Tf:84℃, Th:69℃, Tm:180℃; SW-152T Tf:90℃, Th:75℃, Tm:180℃;
SW-106T Tf:91℃, Th:76℃, Tm:180℃; SW-153T Tf:93℃, Th:78℃, Tm:180℃;
SW-104T Tf:98℃, Th:83℃, Tm:190℃; SW-108T Tf:100℃, Th:85℃, Tm:190℃;
SW-110T Tf:109℃, Th:94℃, Tm:190℃; SW-111T Tf:121℃, Th:106℃, Tm:200℃;
SW-115T Tf:126℃, Th:111℃, Tm:200℃; SW-129T Tf:128℃, Th:113℃, Tm:200℃;
SW-114T Tf:139℃, Th:124℃, Tm:200℃; SW-138T Tf:144℃, Th:127℃, Tm:260℃;
SW-116T Tf:152℃, Th:137℃, Tm:270℃; SW-120T Tf:167℃, Th:152℃, Tm:280℃;
SW-127T Tf:184℃, Th:169℃, Tm:220℃; SW-125T Tf:195℃, Th:180℃, Tm:300℃;
SW-139T Tf:216℃, Th:200℃, Tm:300℃; SW-124T Tf:228℃, Th:200℃, Tm:300℃;
SW-128T Tf:240℃, Th:200℃, Tm:300℃; 250V AC 10A/ 250V AC 15A 电阻性负载
PTI 250

注: 此附录与证书同时使用时有效。



主 任:

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適合証明書

Certificate of Conformity



証明書番号 Certificate No.

JD 60076333

ページ Page

1

申請者照会番号 Applicant Reference

3047967

検査機関照会番号 Our Reference

AB-RS-21182907_001

発行年月日 Date of Issue

2012 年 05 月 31 日

申請者 Applicant

Sung Woo Industrial Co.

333-62, Jang-dong, Dalseo-gu, Daegu 704-190,
Rep. of Korea

製造工場 Manufacturing Plant

Sung Woo Industrial Co.

333-62, Jang-dong, Dalseo-gu, Daegu 704-190,
Rep. of Korea

届出事業者による適合性表示
Conformity Marking by Reporting Supplier



検査の方法 Inspection Method

- 技術基準 省令第2項: J60691-1 (H22):2010
Technical Requirements Clause 2: J60691-1 (H22):2010
- 施行規則別表第四 (ヒューズ)
Appendix 4 of the Enforcement Regulations (Fuses)

特定電気用品名

Name of Specified Electrical
Appliance and Material

: 温度ヒューズ

Thermal Links

型式の区分

Type Classification

: 「添付 1.0, CL-01, CL-02, CL-03, CL-04, CL-05, CL-06, CL-07, CL-08」参照)
(Refer to "Attachment 1.0", CL-01, CL-02, CL-03, CL-04, CL-05, CL-06, CL-07, CL-08)

海外製造事業者

Overseas Manufacturer

: Sung Woo Industrial Co.

333-62, Jang-dong, Dalseo-gu, Daegu 704-190, Rep. of Korea

客先名

Client

: Sung Woo Industrial Co.

333-62, Jang-dong, Dalseo-gu, Daegu 704-190, Rep. of Korea

証明書の有効期間

Validity of Certificate

: 本証明書は、施行令で規定された期間である 2019 年 05 月 30 日まで有効です。

This certificate is effective until 30. May 2019 being the period stipulated by the Enforcement Ordinance.

これは、上記申請者より申請のあった上記特定電気用品及び製造工場が、電気用品安全法第八条第一項に規定する技術基準及び同法第九条第二項の経済産業省令で定める基準に適合していることを証明するものです。

This is to certify that the above-mentioned Specified Electrical Appliances and Materials and the factory which the above-mentioned applicant applied for have been complied with the Technical Requirements stipulated by Article 8, Paragraph 1 of the Electrical Appliance and Material Safety Law and the requirements stipulated by the METI Ordinance specified in Article 9, Paragraph 2 of the said law.

テュフ・ラインランド・エルゲーアー・プロダクツ・ゲーエムベーハー
TÜV Rheinland LGA Products GmbH

Tillystr. 2
90431 Nuremberg, Germany

発行者 Issued by

氏名 Name

クラウス・ドラガ
Claus Draga



添付 Attachment : 1.0

発行日 Date of Issue : 2012 年 05 月 31 日

【型式の区分 Type Classification】

型式区分管理 No: (Type Classification Control No:) : CL-08

証明書番号 (Certificate No.) : JD 60076333

特定電気用品名 : 温度ヒューズ
(Name of Specified Electrical Appliance and Material) Thermal Links

申請者 (Applicant) : Sung Woo Industrial Co.

海外製造事業者 : Sung Woo Industrial Co.
(Overseas Manufacturer/factory)

客先名 (client) : Sung Woo Industrial Co.



要素 Factor	区分 Classification
定格電圧 (Rated input voltage)	125V を超えるもの (Exceeding 125V)
定格電流 (Rated current)	5A を超え 15A 以下のもの (Exceeding 5A and less than or equal to 15A)
公称動作温度 (Nominal Operating Temperature)	140°C を超え 160°C 以下のもの (Exceeding 140°C, and less than or equal to 160°C)
可溶体への通電 (Current to Fuse Element)	ないもの (No)
可溶体の主材料 (Fuse Element Materials)	合成樹脂又は有機化合物のもの (Plastic or organic compound)
容器 (Container)	あるもの (With container)
端子 (Terminals)	線付きのもの (Wire lead)
可溶体の形状 (Shape of Fuse Element)	塊状のもの (Block)

テュフ・ラインランド・エルゲーアー・プロダクツ・ゲーエムベーハー
TÜV Rheinland LGA Products GmbH

発行者 Issued by

氏名 Name

クラウス・ドラガ
Claus Draga



Tillystr. 2
90431 Nuremberg, Germany

XCMQ8.E126429
Thermal Links Certified for Canada - Component

[Page Bottom](#)

Thermal Links Certified for Canada - Component

[See General Information for Thermal Links Certified for Canada - Component](#)

SUNG WOO INDUSTRIAL CO

E126429

Thermal links, Model(s) SW-102T, SW-104T, SW-105T, SW-106T, SW-108T, SW-109T, SW-110T, SW-111T, SW-114T, SW-115T, SW-116T, SW-120T, SW-124T, SW-125T, SW-127T, SW-128T, SW-129T, SW-138T, SW-139T, SW-152T, SW-153T, SW-210T, SW-211T, SW-215T, SW-216T, SW-311T, SW-316T, SW-320T, SW-327T, SW-328T, SW-336T, SW-338T, SW-353T



Marking: Company name or tradename "S.W.C" or trademark  , model designation and Recognized Component Mark for

Canada,  .

[Last Updated](#) on 2010-07-30

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XCMQ2.E126429
Thermal Links - Component

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Thermal Links - Component

[See General Information for Thermal Links - Component](#)**SUNG WOO INDUSTRIAL CO**

E126429

Thermal links, Model(s) SW-102T, SW-104T, SW-105T, SW-106T, SW-108T, SW-109T, SW-110T, SW-111T, SW-114T, SW-115T, SW-116T, SW-120T, SW-124T, SW-125T, SW-127T, SW-128T, SW-129T, SW-138T, SW-139T, SW-152T, SW-153T, SW-210T, SW-211T, SW-215T, SW-216T, SW-311T, SW-316T, SW-320T, SW-327T, SW-328T, SW-336T, SW-338T, SW-353T



Marking: Company name or tradename "S.W.C" or trademark and model designation.

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ZEICHENGENEHMIGUNG MARKS APPROVAL

Sung Woo Industrial Co.
333-62 Jang-Dong
704-190 DALSEO-KU
Daegu
SOUTH KOREA

ist berechtigt, für ihr Produkt /
is authorized to use for their product

Temperatursicherung
Thermal link

die hier abgebildeten markenrechtlich geschützten Zeichen
für die ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 60691 (VDE 0821):2010-09; EN 60691:2003+ A1:2007+ A2:2010
IEC 60691(ed.3);am1;am2



VDE Prüf- und Zertifizierungsinstitut GmbH
VDE Testing and Certification Institute
Zertifizierungsstelle / Certification

[Handwritten signature]

Aktenzeichen: 2231400-1171-0003 / 168729

File ref.:

Ausweis-Nr. 40026132

Blatt 1

Certificate No.

Page

Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 2008-12-12

(letzte Änderung/updated 2012-06-26)

VDE Zertifikate sind nur gültig bei Veröffentlichung unter:
VDE certificates are valid only when published on:

<http://www.vde.com/zertifikat>
<http://www.vde.com/certificate>

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Sung Woo Industrial Co., 333-62 Jang-Dong, 704-190 DALSEO-KU, Daegu, SOUTH KOREA

Aktenzeichen / File ref.
2231400-1171-0003 / 168729 / FG32 / EUL

letzte Änderung / updated Datum / Date
2012-06-26 2008-12-12

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40026132
This supplement is only valid in conjunction with page 1 of the Certificate No. 40026132.

Temperatursicherung **Thermal link**

Typ(en) / Type(s):	Bemessungsschalt- Temperatur Rated functioning temperature	Max. Grenztemperatur Max. temperature limit
SW-102T	72 °C	200 °C
SW-104T	98 °C	190 °C
SW-105T	77 °C	200 °C
SW-106T	91 °C	180 °C
SW-108T	100 °C	190 °C
SW-109T	84 °C	180 °C
SW-110T	109 °C	190 °C
SW-111T	121 °C	200 °C
SW-114T	139 °C	200 °C
SW-115T	126 °C	200 °C
SW-116T	152 °C	270 °C
SW-120T	167 °C	280 °C
SW-124T	228 °C	300 °C
SW-125T	195 °C	300 °C
SW-127T	184 °C	220 °C
SW-128T	240 °C	300 °C
SW-129T	128 °C	200 °C
SW-138T	144 °C	260 °C
SW-139T	216 °C	300 °C
SW-152T	90 °C	180 °C
SW-153T	93 °C	180 °C

Bemessungsspannung AC 250 V
Rated voltage

Bemessungsstrom 10 A / 15 A
Rated current

Zur Verwendung in ohmschen Stromkreisen $\cos \phi > 0,9$
For use in resistive circuits $\cos \phi > 0,9$

Fortsetzung siehe Blatt 3 /
continued on page 3