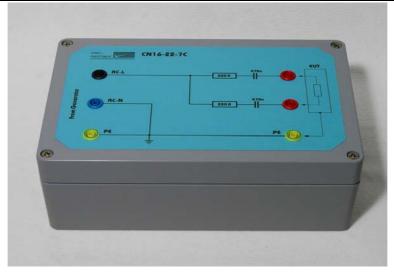


# CN16-22-7C for use with TRA3000 C, EXT-TRA3000 C-SHORT and PS3 Power Supply PN: 105840

Revised: 14.May 2012

#### 1 General Information

To generator CN16-22-7C To EUT



#### 1.1 Technical data

Serial resistor	220 Ohm	± 5%
Serial capacitance	0.47uF	± 5%
Maximum Test Voltage	300V	± 10%
Standard	IEC60255-22-7	

For further information see "Verification Protocol".

# 2 Application of the CN16-22-7C:

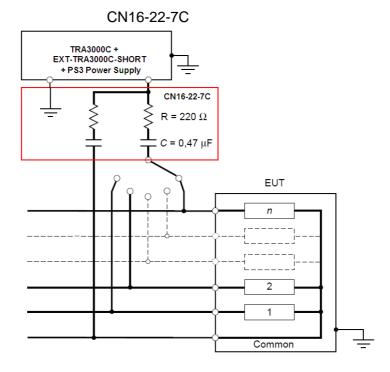
- The coupler is used together with the TRA3000C or EXT-TRA3000C-SHORT and PS3 Power supply to perform Common mode tests according to IEC60255-22-7 for Measuring relays and Protection equipment in power sub stations.
- A voltage source (PS3) used to generate the 300V output shall be connected to the CN16-22-7C black and blue terminals..
- For each of the voltages of Class A and Class B the level is set on TRA3000 and generated by EXT-TRA3000C-SHORT.

	Differential mode tests			Common mode tests			
Test level	Open circuit	Coupling network		Open circuit	Coupling network		
	test voltage ± 10 %	R ± 5 %	C ± 5 %	test voltage C ± 5 % ± 10 %		C ± 5 %	
	V r.m.s.	Ω	μF	V r.m.s.	Ω	μF	
Class A	150	100	0,1	300	220	0,47	
Class B	100	100	0,047	300	220	0,47	

# 2.1 Application of the CN16-22-7C:

Setup diagram for Common mode tests according to Figure 4 of IEC60255-22-7

TRA3000 generator with 50 Ohm source impedance



Connections between the CN16-22-7C and the EUT should be less than 2m. Switch on and switch off should be synchronized with the power frequency to avoid disturbance transients.

# 3 Standard accessory, dimensions

### 3.1 Included articles, dimensions

CN16-22-7C (Article No. 105840)

Mechanical DimensionsUnit Height:BLength:28 cmWidth:18 cmHeight:11 cmNet Weight:3 kg

#### **Included Articles**

According to STL-Variante 20, STL-Version 1

Qty PN Description

1 104801 Brochure TRANSIENT 3000 1 104802 Standard calibration cerificate 1 103191 Standard accessories pack

1 103194 CD-UM-IN-ALL includes all User Manuals and Instruction sheets

of all EMC PARTNER AG sales products.

#### 3.2 Standard Accessories

Accessories to CN16-22-7C (Article No. 105840)

Qty 1	<b>PN</b> 100261	Description MC protected banana plug, yellow/green	Weight (kg) 0	Length (cm)	Width (cm)	Height (cm)
1	100280	MC protected banana plug, yellow	0	0	0	0
2	100283	MC protected banana plug, red	0	0	0	0
1	103026	Plastic pack small	0.01	25	15	0
1	103063	MC safety cable with protected banana plug, blue	0	25	0	0
1	103067	MC safety cable with protected banana plug, black	0	25	0	0
1	103089	MC safety cable with protected banana plug, yellow	/green 0	50	0	0

# 4 Recycling / Disposal

#### 4.1 RoHS directive 2002/95/EG

The CN16-22-7C complies with the directive 2002/95/EG (RoHS - Restriction of certain Hazardous Substances).

From December 2005, all EMC Partner products either hand soldered or by machine are produced using lead-free solder.

#### 4.2 WEEE directive 2002/96/EG

The EMC Partner CN16-22-7C, is exempted from the directive 2002/96/EG (WEEE) under category 9.

The product should be recycled through a professional organisation with appropriate experience for the disposal and recycling of electronic products. EMC Partner are also available to help with questions relating to the recycling of this product.

#### 4.3 Information for dismantling



Remove always power cord fist.

There is no special danger involved in dismantling the CN16-22-7C.

#### 4.4 Parts which can be recycled

The CN16-22-7C contains parts made from steel, aluminium, PVC, two-component sealing compound. The impulse capacitors are filled with non-poisonous mineral oil. The various parts can be separated and recycled.

#### 4.5 Parts which can not be recycled

All parts in the CN16-22-7C can be recycled.

# **5 Service Information**

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#### Multi-Contact France S.A.

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#### Montageanleitung

#### Sicherheitsverbindungsleitungen SLK425-K, SLK425-K Sil, SLK410-K Sil

Bei der Benutzung von anderen als von MC angegebenen Einzelteilen und Werkzeugen, kann bei der Selbstkonfektionierung weder die Sicherheit, noch die Einhaltung der technischen Daten gewährleistet werden. Silikonleitungen sollten nach Möglichkeit konfektioniert bei MC bezogen werden.

#### **Assembly Instructions**

#### Safety Connecting Leads SLK425-K, SLK425-K Sil, SLK410-K Sil

The use of parts and tools other than those stated by MC® can have an effect on the safety and quality of the do-it-yourself leads and therefore the tech-nical data cannot be guaranteed. When possible, leads made with silicon cable should be ordered ready-made

#### Instructions de montage

#### Cordons de sécurité SLK425-K, SLK425-K Sil, SLK410-K Sil

Ni la sécurité, ni les données techniques ne sont garanties, si lors de la conception personelle, des pièces et outillages autre que MC³ sont utilisés.

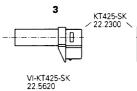
Les cordons en silicone devront dans la mesure du possible être acheté, confec-tionné par MC°.

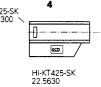






2





# ill.1

(ill.2) - Lötkolben 60 VA Lötdraht

z.B. Elsold Ø 1,5 mm DIN 8516 (L-Sn60PbCuZ)

**Notwendiges Werkzeug** 

Abisolierzange "Stripax" Bestellnr. 25.0015

#### **Tools required**

Cable stripper "Stripax" Order No. 25.0015

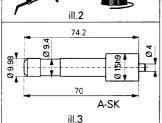
(ill.2) - Soldering iron 60 VA - Solder e.g. Elsold Ø 1,5 mm DIN 8516 (L-Sn60PbCuZ) (ill.2)

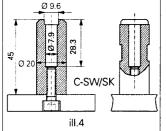
- Fers à souder 60 VA - Fil de soudure p.e. Elsod Ø 1,5 mm DIN 8516 (L-Sn60PbCuZ)

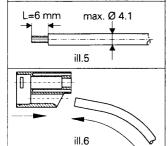
Outillage nécessaire

(ill.1) Pince à dénuder "Stripax"

No. de Cde 25.0015







#### (ill.3) Hilfswerkzeug A-SK Empfohlenes Material:

(ill.3) Auxiliary tool A-SK Recommended material: Steel

(ill.3) L'outil A-SK Matériel recommandé: Acier

(ill.4)Hilfswerkzeug C-SW/SK Empfohlenes Material: Messing.

(iII.4)Auxiliary tool C-SW/SK Recommended material: Brass.

(ill.4) L'outil C-SW/SK Matériel recommandé: Laiton.

#### Vorbereitung der Leitung

Leitung 2 auf gewünschte Nennlänge ablängen.

Leitung 2 durch Isolierteil 4 schieben.

#### Preparation of the cable

Cut the cable 2 to the desired nominal length

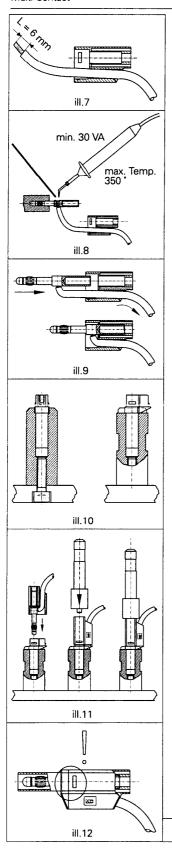
Couper le câble 2 à la longueur prévue.

Préparation du câble

Feed cable 2 through insulator 4.

(ill.6) Glisser le câble 2 à travers l'isolant 4.





(ILL.7) Leitung mittels Abisolierzange auf Länge L = 6 mm abisolieren.

Leitung 2 in Stecker 1 löten. Beim Löten darf der Stecker

wegen dem Kunststoffkopf

Stecker und Lötstelle müssen

frei von austretendem Lötzinn

Ø 4.2 mm hält den Stecker 1

Stecker 1 zurück in Isolierteil 4

einschieben und gleichzeitig die Leitung leicht nachziehen.

Isolierteil 3 in Hilfswerkzeug

Isolierteil 4 (+2+1) in Isolier-

teil 3 einschieben und mittels Hilfswerkzeug A-SK und einer

Tischbohrmaschine oder Knie-

hebelpresse bis zum Einras-

ten einpressen.

ILL. 12)

C-SW/SK einlegen.

nicht zu heiss werden .

Ideale Löttemperatur:

MC\*-Empfehlung:

beim Löten fest.

(ILL. 10)

Ein Block mit Bohrung

(ILL, 8)

ca. +350°C.

(ILL. 7) Strip cable insulation to length L = 6 mm with cable stripper.

(ILL. 8) Solder cable 2 in plug 1. When soldering the plug should not get too hot because of the plastic head. Ideal soldering temperature: approx. + 350° C.

Plug and solder area should be free from excess solder.

MC\*-Recommendation: For soldering purposes a block with a drilled hole Ø 4.2 mm should be used to hold the plug 1 in position.

Push plug 1 back into insulator 4 and at the same time take-up the wire.

(ILL. 10) Place insulator 3 into the auxiliary tool C-SW/SK.

Insert insulator 4 (+2+1)

(ILL.12)

Control snap in.

into insulator 3 and with auxiliary tool A-SK mounted in a lever press or bench drilling machine, press and snap into position.

d une petite presse.

(ILL. 7) Dénuder le câble sur la longueur L = 6 mm avec la pince à dénuder.

(ILL, 8) Souder le câble 2 dans la fiche 1. Lors de la soudure la température ne doit pas être excessive à cause de la tète en plastique. Température idéale de soudure: env. +350°

La fiche et l'endroit de soudure doivent être exempt de coulure de soudure.

Recommandation MC<sup>e</sup>: Utiliser un bloc avec un perçage Ø 4,2 mm pour maintenir la fiche 1 lors de la soudure.

Insérer la fiche 1 dans l'isolant 4 et en mème temps tirer légèrement le câble.

Mettre l'isolant 3 dans l'outil

ILL. 10)

C-SW/SK.

(ILL.11)

Insérer l'isolant 4 (+2+1) dans l'isolant 3 et presser jusqu'au point d'arrêt avec l'outil A-SK à l'aide d'une perceuse ou

Contrôler l'enclenchement

**MA 105** 

Einrasten kontrollieren.

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