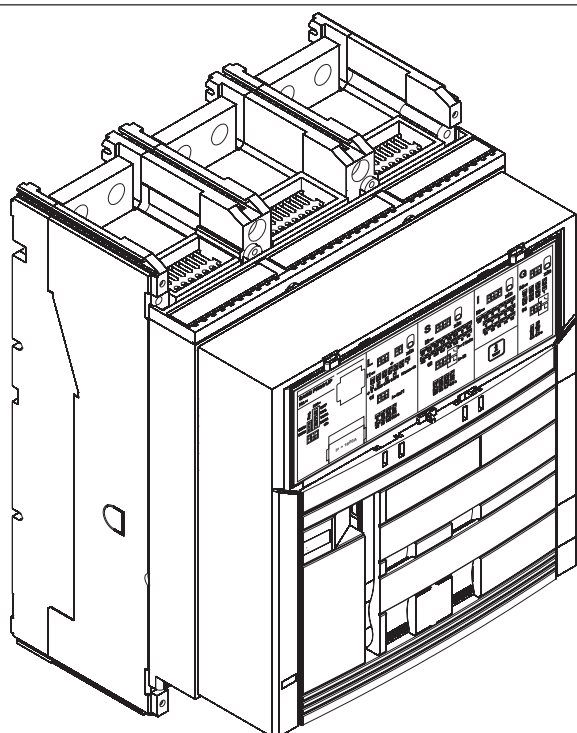
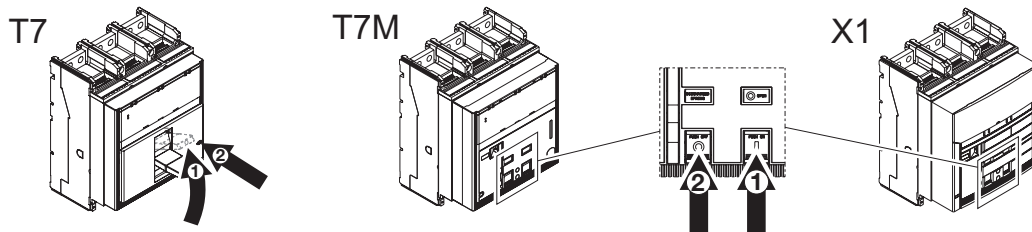


PR331 Getting started  
 PR331 Getting started  
 PR331 Erste Schritte  
 PR331 Guide de démarrage  
 PR331 Getting started



## 2 Alimentazione-Power supply- Stromversorgung-Alimentation- Alimentación

- Lo sganciatore elettronico PR331/P funziona con una corrente trifase di almeno 70A e/o con tensione ausiliaria (24Vdc + 20% isolata).
- The PR331/P electronic release is running at a three-phase current of at least 70A or auxiliary voltage (24VDC + 20% insulated).
- Der elektronische Auslöser PR331/P funktioniert mit einer Dreiphasenspannung von mindestens 70 A oder mit einer Hilfsspannung (24VDC + 20% isoliert).
- Le déclencheur électronique PR331/P fonctionne avec un courant triphasé d'au moins 70 A ou avec une tension auxiliaire (24 V CC + 20% isolée).
- El relé electrónico PR331/P funciona con una corriente trifásica de por lo menos 70A o tensión auxiliar (24Vcc + 20% aislada).

## 1

### Attenzione-Warning-Achtung-Attention Atención

Prima di ogni operazione sull'interruttore leggere attentamente il presente documento, operare i settaggi del caso correttamente e verificare che il relè non visualizzi alcuna segnalazione anomala. Per qualsiasi nota o informazione aggiuntiva consultare il doc. 1SDH000587R0001.

Prior to each action on the CB, carefully read the documentation, correctly set as required and check that the relay does not display any irregular signal. For any additional note or information, see document 1SDH000587R0002.

Vor Eingriffen jeder Art am Leistungsschalter die Dokumentation aufmerksam lesen, die erforderlichen Einstellungen richtig ausführen und sicherstellen, dass das Relais keine Anomalien signalisiert. Für alle weiteren Informationen das Dok. 1SDH000587R0003 konsultieren.

Avant toute opération sur le disjoncteur, lire attentivement la documentation, effectuer correctement les réglages nécessaires et vérifier que le relais ne signale rien d'anormal. Pour toute remarque ou information supplémentaire, consulter le document 1SDH000587R0004.

Antes de realizar cualquier operación sobre el interruptor, leer atentamente la documentación, realizar correctamente las configuraciones que hicieran falta y controlar que el relé no visualice señalización anómala alguna. Para cualquier nota o información adicional, consultar el doc. 1SDH000587R0005.

### 3 Note-Notes-Anmerkungen-Nota-Notas

A)  $I_f = I_{\text{fault}}$

B) I settaggi delle funzioni di protezione devono essere effettuati secondo la seguente formula  $I_3 > I_2 > I_1$

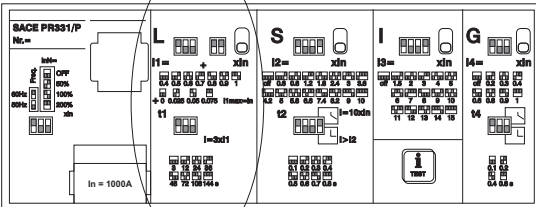
Settings of protection functions to be obtained according to the following formula  $I_3 > I_2 > I_1$

Die Einstellungen der Schutzfunktionen anhand der folgenden Formel ausführen:  $I_3 > I_2 > I_1$

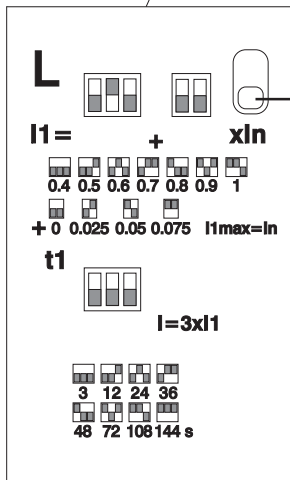
Les réglages des fonctions de protection doivent être effectués selon la formule suivante  $I_3 > I_2 > I_1$

Las configuraciones de las funciones de protección deben realizarse de acuerdo a la siguiente fórmula  $I_3 > I_2 > I_1$

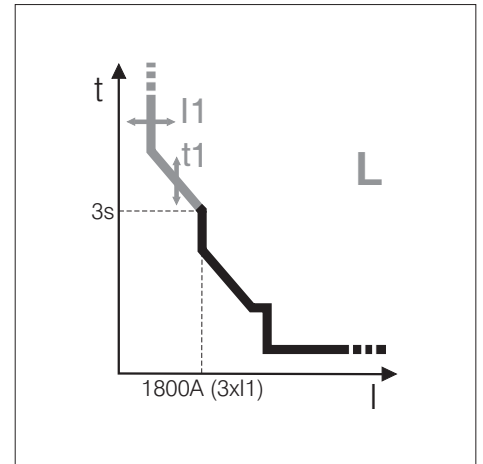
4



**Protezione L**  
**Protection L**  
**Schutzfunktion L**  
**Protection L**  
**Protección L**



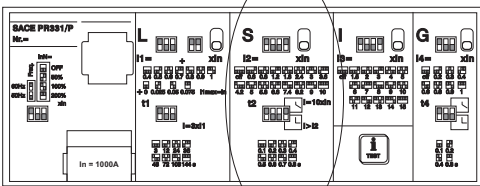
**Note-Notes-Anmerkungen-Nota-Notas**  
 $I_f > 0,9I_1 \rightarrow$  pre-Alarm  
 $I_f > 1,1 \div 1,3 \times I_1 =$  Alarm



**Esempio-Example-Beispiel-Exemple-Ejemplo**

$I_n = 1000A$   
 $I_1 = 1000 \times 0,6 = 600A$   
 $t_1 = 3s @ 1800A (3 \times I_1)$

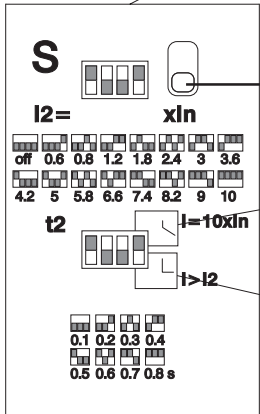
5



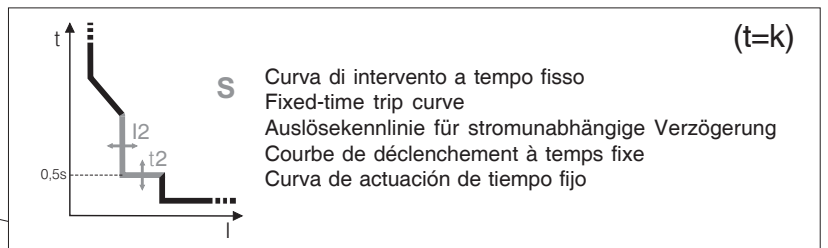
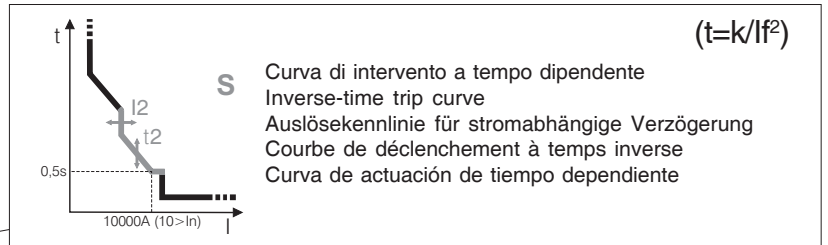
**Protezione S**  
**Protection S**  
**Schutzfunktion S**  
**Protection S**  
**Protección S**

**Esempio-Example-Beispiel-Exemple-Ejemplo**

$I_n = 1000A$   
 $I_2 = 1000 \times 5 = 5000A$   
 $t_2 = 0,5s @ 10000A (10 \times I_n)$

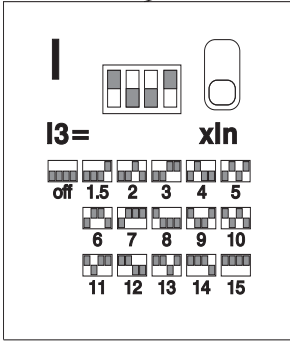
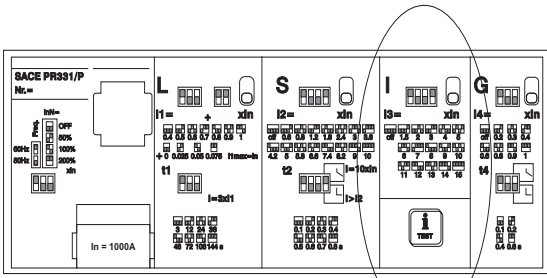


**Note-Notes-Anmerkungen-Nota-Notas**  
 $I_f > I_2 =$  Alarm



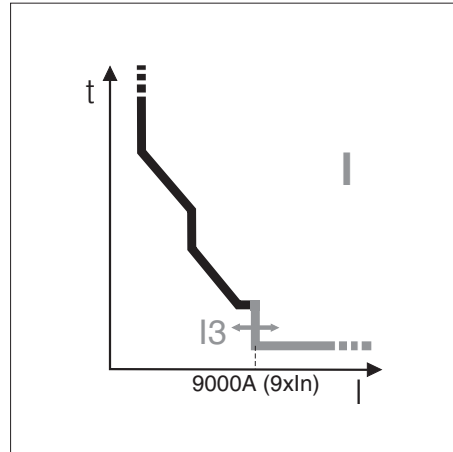
6

Protezione I  
Protection I  
Schutzfunktion I  
Protection I  
Protección I



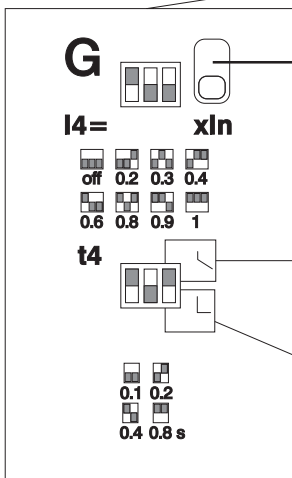
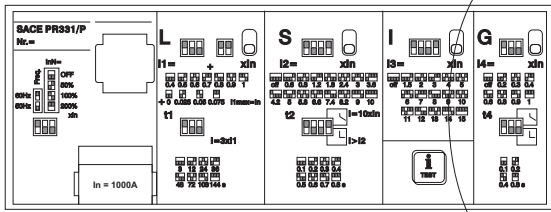
Esempio-Example-Beispiel-Exemple-Ejemplo

In=1000A  
I3=1000 x 9 = 9000A



7

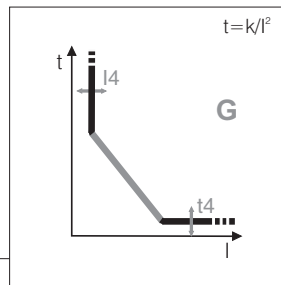
Potezione G  
Protection G  
Schutzfunktion G  
Protection G  
Protección G



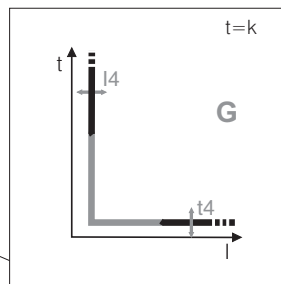
Note-Notes-  
Anmerkungen-Nota-  
Notas  
If > I4 = Alarm

Esempio-Example-Beispiel-Exemple-Ejemplo

In=1000A  
I4=1000 x 0,6 = 600A  
t4= 0,4s @ 1344A (2,24xI4)

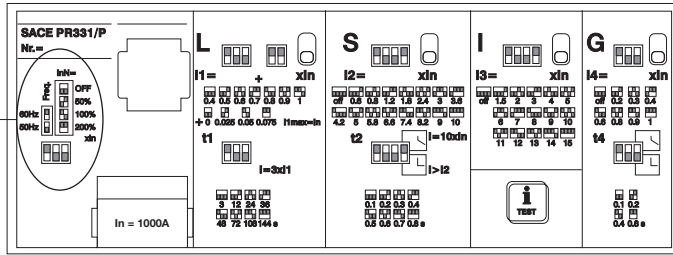


t4 = 0,1s @ 4,47 I4  
t4 = 0,2s @ 3,16 I4  
t4 = 0,4s @ 2,24 I4  
t4 = 0,8s @ 1,58 I4

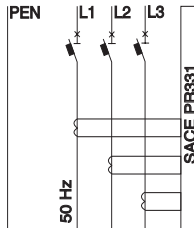
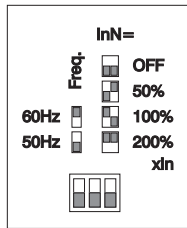


t4 =  $\left. \begin{matrix} 0,1s \\ 0,2s \\ 0,4s \\ 0,8s \end{matrix} \right\} @ I_f > I4$

# Settaggio Frequenza e Neutro Setting Frequencies and Neutral Einstellung Frequenzen und Neutralleiter Réglages Fréquences et Neutre Configuraciones Frecuencias y Neutro

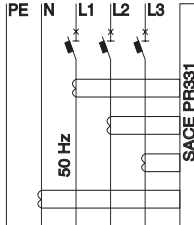
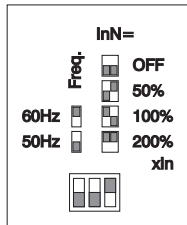


*Esempio-Example-Beispiel-Exemple-Ejemplo*



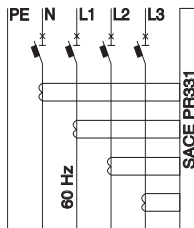
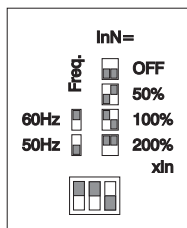
**Freq=50 Hz  
InN=OFF**

Interruttori tripolari  
Three-pole circuit breakers  
Dreipolige Leistungsschalter  
Disjoncteurs tripolaires  
Interruptores automáticos tripolares



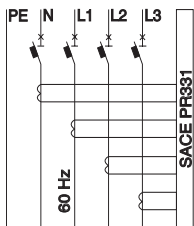
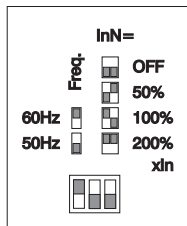
**Freq=50 Hz  
InN=ON,  
50% In**

Interruttori tripolari con neutro esterno  
Three-pole circuit breakers with external neutral  
Dreipolige Leistungsschalter mit externem Neutralleiter  
Disjoncteurs tripolaires avec neutre extérieur  
Interruptores tripolares con neutro externo



**Freq=60 Hz  
InN=ON,  
100% In**

Interruttori tetrapolari  
Four-pole circuit breakers  
Vierpolige Leistungsschalter  
Disjoncteurs tétrapolaires  
Interruptores automáticos tetrapolares



**Freq=60 Hz  
InN=OFF**

Interruttori tetrapolari senza lettura neutro  
Four-pole circuit breakers with no reading of neutral  
Vierpolige Leistungsschalter ohne Abtastung des Neutralleiters  
Disjoncteurs tétrapolaires sans lecture neuter  
Interruptores tetrapolares sin lectura neutron

## Note-Notes-Anmerkungen-Nota-Notas

La regolazione del valore di neutro (InN) deve rispettare la seguente formula:  $I1 \times InN \leq Iu$

Settings of neutral value (InN) to be obtained according to the following formula :  $I1 \times InN \leq Iu$

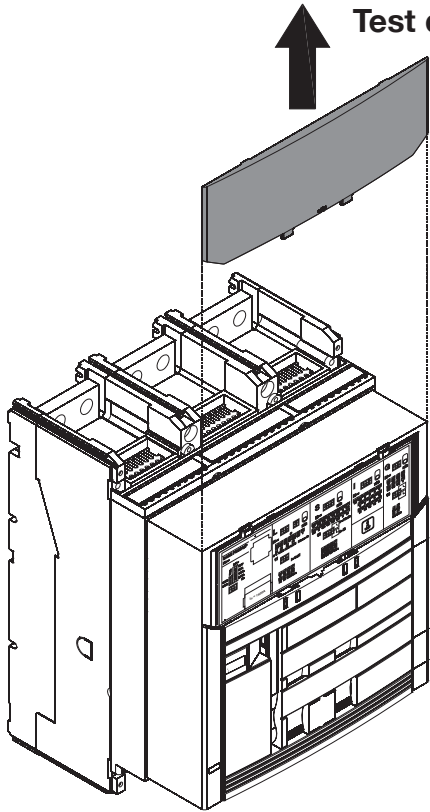
Die Einstellung des Werts des Neutralleiters (InN) anhand der folgenden Formel ausführen: :  $I1 \times InN \leq Iu$

Le réglage de la valeur de neutre (InN) doit respecter la formule suivante :  $I1 \times InN \leq Iu$

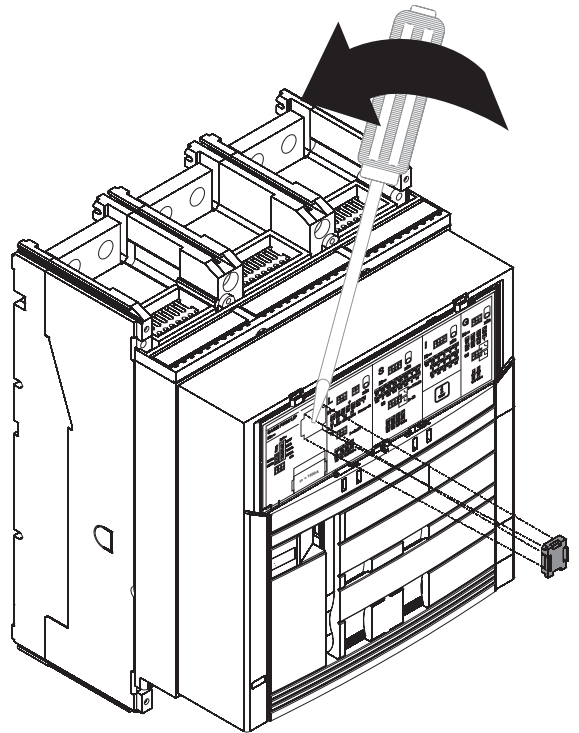
El ajuste del valor del neutro (InN) debe cumplir con la siguiente formula:  $I1 \times InN \leq Iu$

9

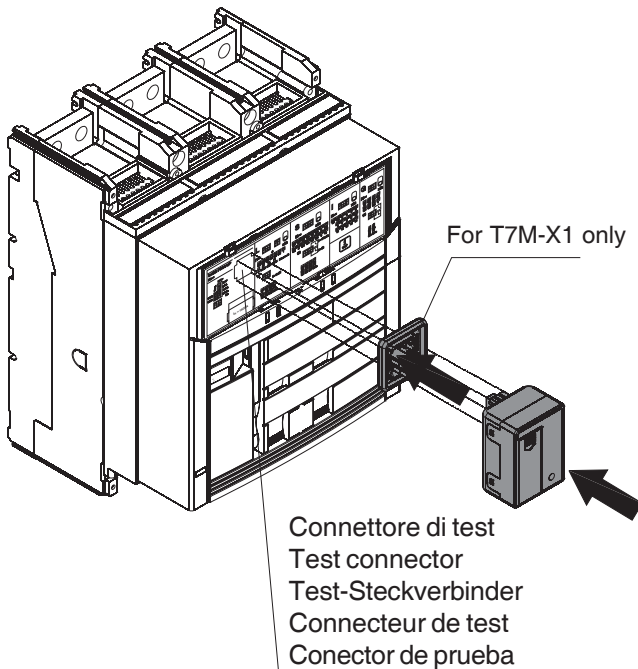
Trip test  
 Trip test  
 Auslöseprüfung  
 Test de déclenchement  
 Test de disparo



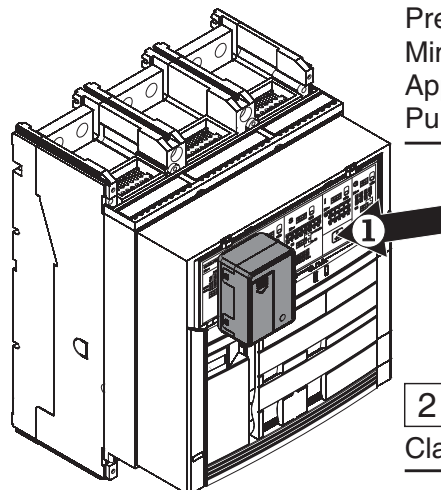
10



11



12



1

Premere per 7s min.  
 Press for 7 sec min.  
 Mindestens 7 s gedrückt halten  
 Appuyer pendant 7 s mini  
 Pulsar por 7 seg. Min.

2

Clack! CB OPEN

Prima della messa in servizio con corrente dell'interruttore, effettuare le seguenti verifiche:

1. Connettere l'unità PR030/B al connettore di test;
2. Verificare che il Led arancione lampeggi ogni 3 secondi (Led Alive);
3. Nel caso il relè presenti altre segnalazioni fare riferimento al manuale d'uso 1SDH000587R0001.

Prior to putting CB into service alive, check as follows:

1. It connects the PR030/B unit to the test connector;
2. Check that the orange LED flashes every 3 sec. (Led Alive);
3. Should the relay show other indications, refer to user manual 1SDH000587R0002.

Vor der Inbetriebnahme der Leistungsschalters mit Strom, die folgenden Kontrollen durchführen:

1. Die Stromversorgungseinheit PR030/B an den Test-Steckverbinder anschließen;
2. Kontrollieren, ob die orangefarbene LED alle 3 Sekunden blinkt (Betriebs-LED);
3. Wenn das Relais andere Meldungen ausgibt, siehe die Bedienungsanleitung 1SDH000587R0003.

Avant la mise en service du disjoncteur avec du courant, effectuer les vérifications suivantes:

1. Raccorder l'unité PR030/B au connecteur de test;
2. Vérifier que la LED orange clignote toutes les 3 secondes (LED Alive);
3. Dans le cas où le relais présenterait d'autres signalisations, se référer au manuel d'utilisation 1SDH000587R0004.

Antes de la puesta en servicio con corriente del interruptor, realizar los siguientes controles:

1. Conectar la unidad PR030/B con el conector de prueba;
2. Controlar que el LED anaranjado se ilumine de forma intermitente cada 3 segundos (LED Alive);
3. Si el relé presentara otras señalizaciones, hacer referencia al manual de uso 1SDH000587R0005.



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