

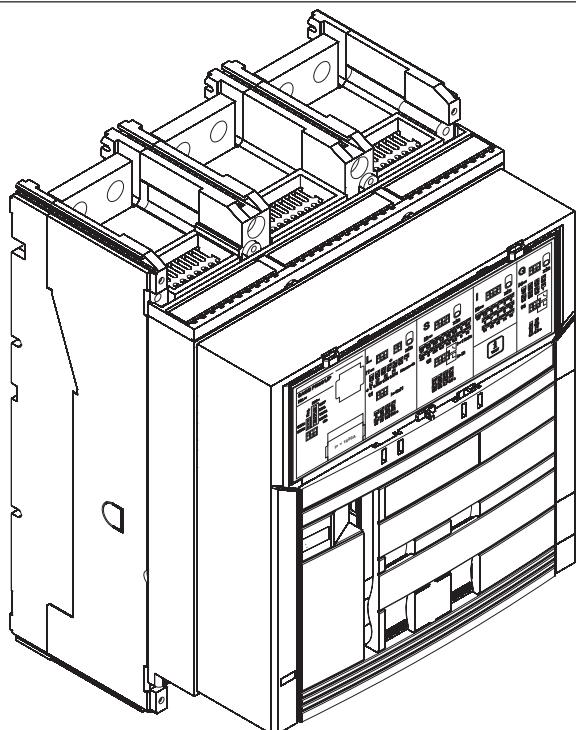
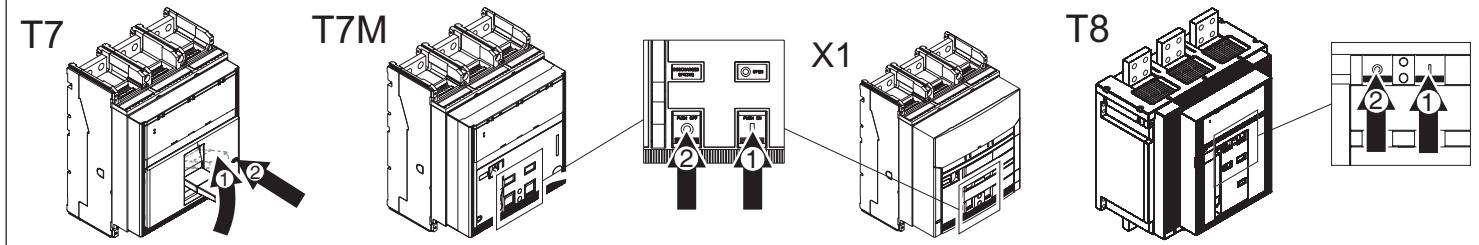
PR331 Getting started

PR331 Getting started

PR331 Erste Schritte

PR331 Guide de démarrage

PR331 Getting started



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.

2 Alimentazione-Power supply- Stromversorgung-Alimentation-

Alimentación

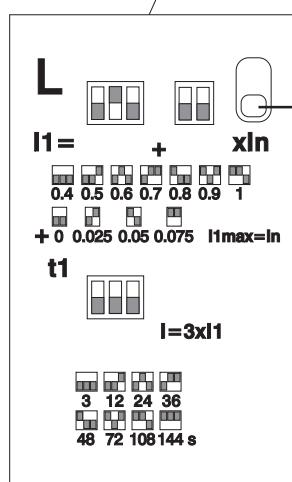
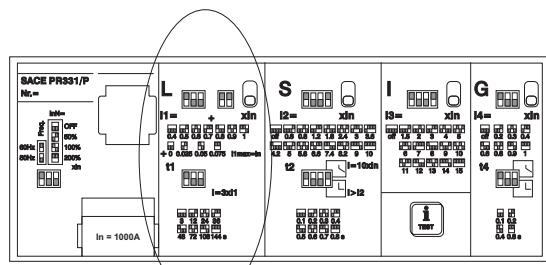
- Lo sganciatore elettronico PR331/P funziona con una corrente trifase di almeno 80A e/o con tensione ausiliaria (24Vdc + 20% isolata).
- The PR331/P electronic release is running at a three-phase current of at least 80A or auxiliary voltage (24VDC + 20% insulated).
- Der elektronische Auslöser PR331/P funktioniert mit einer Dreiphasenspannung von mindestens 80 A oder mit einer Hilfsspannung (24VDC + 20% isoliert).
- Le déclencheur électrique PR331/P fonctionne avec un courant triphasé d'au moins 80 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 80A o tensión auxiliar (24Vcc + 20% aislada).

3 Note-Notes-Anmerkungen-Nota-Notas

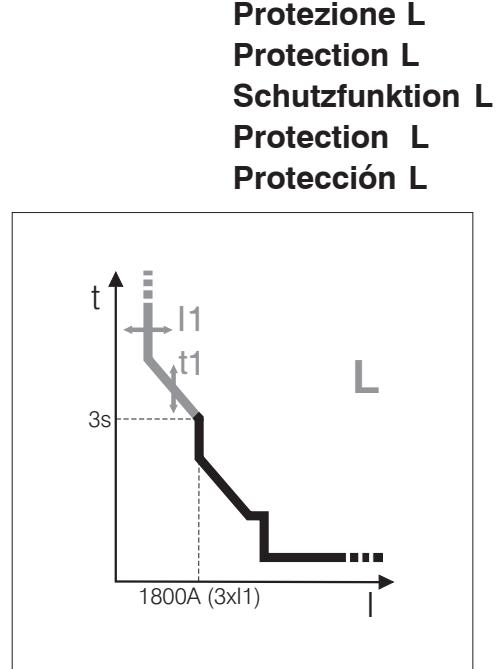
A) If = Ifault

- B) I 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



Note-Notes-Anmerkungen-Nota-Notas
 $If > 0,9 I_1 \rightarrow \text{pre-Alarm}$
 $If > 1,05 \div 1,2 \times I_1 = \text{Alarm}$



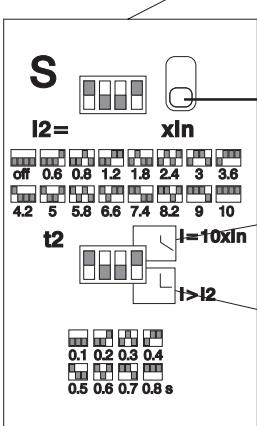
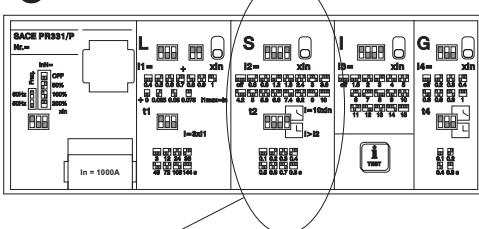
Esempio-Example-Beispiel-Exemple-Ejemplo

$$I_n = 1000A$$

$$I_1 = 1000 \times 0,6 = 600A$$

$$t_1 = 3s @ 1800A (3 \times I_1)$$

5



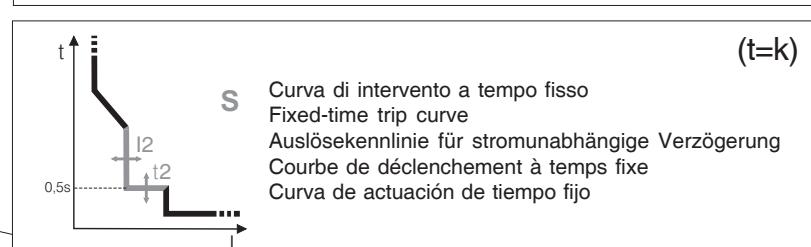
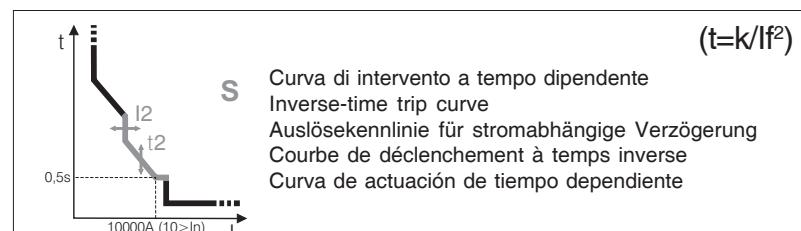
Esempio-Example-Beispiel-Exemple-Ejemplo

$$I_n = 1000A$$

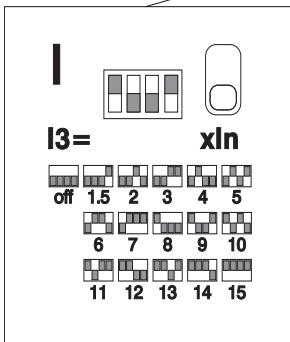
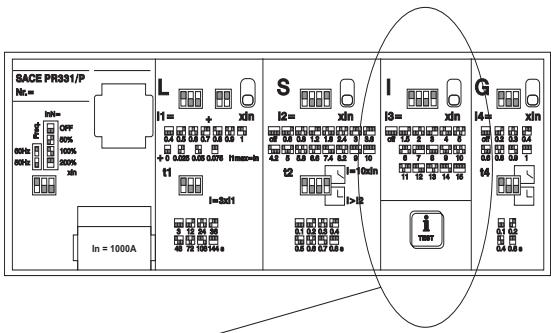
$$I_2 = 1000 \times 5 = 5000A$$

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

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



6

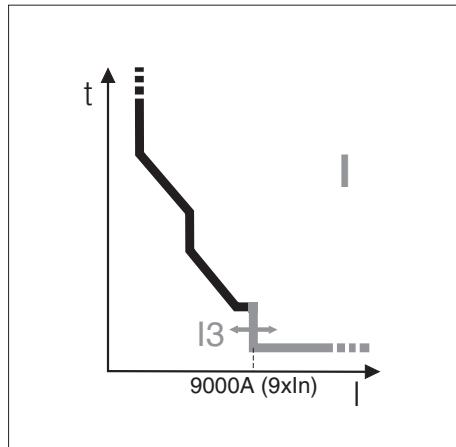


**Protezione I
Protection I
Schutzfunktion I
Protection I
Protección I**

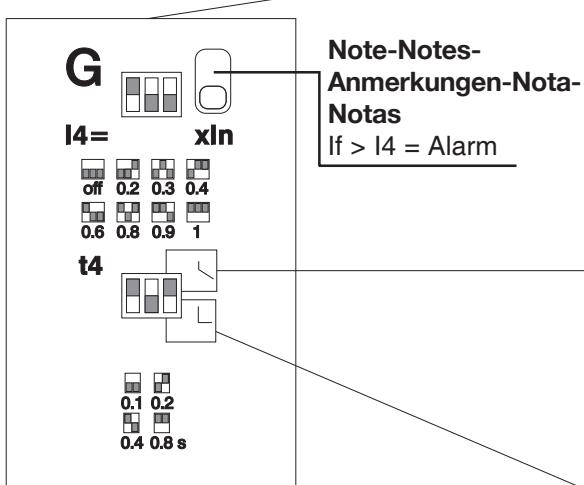
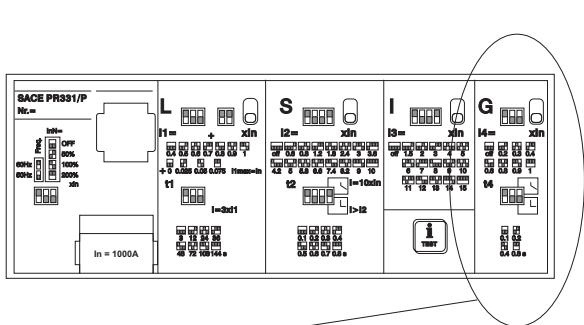
Esempio-Example-Beispiel-Exemple-Ejemplo

$$I_n = 1000A$$

$$I_3 = 1000 \times 9 = 9000A$$



7



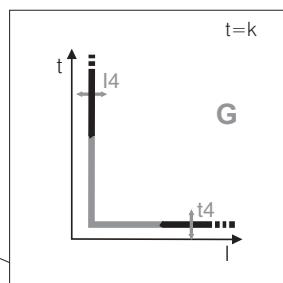
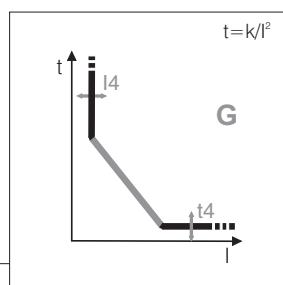
**Potezione G
Protection G
Schutzfunktion G
Protection G
Protección G**

Esempio-Example-Beispiel-Exemple-Ejemplo

$$I_n = 1000A$$

$$I_4 = 1000 \times 0,6 = 600A$$

$$t_4 = 0,4s @ 1344A (2,24 \times I_4)$$



$$t_4 = 0,1s @ 4,47 I_4$$

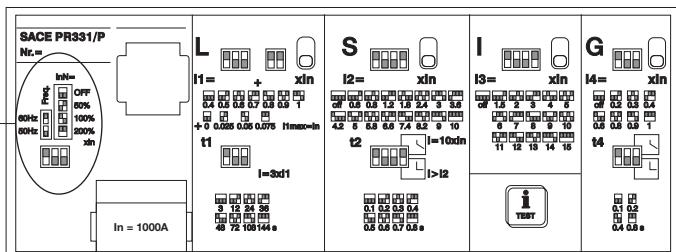
$$t_4 = 0,2s @ 3,16 I_4$$

$$t_4 = 0,4s @ 2,24 I_4$$

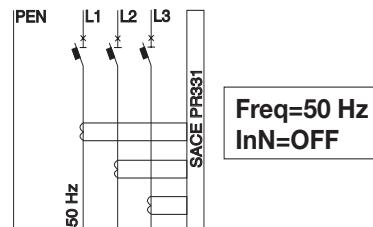
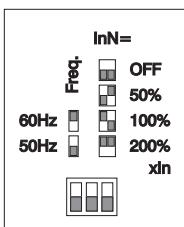
$$t_4 = 0,8s @ 1,58 I_4$$

$$t_4 = \begin{cases} 0,1s \\ 0,2s \\ 0,4s \\ 0,8s \end{cases} @ I > I_4$$

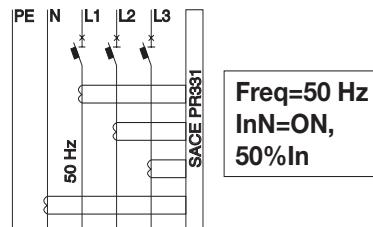
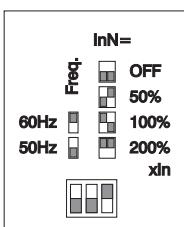
Settaggio Frequenza e Neutro
Setting Frequencies and Neutral
Einstellung Frequenzen und Neutralleiter
Réglages Fréquences et Neutre
Configuraciones Frecuencias y Neutro



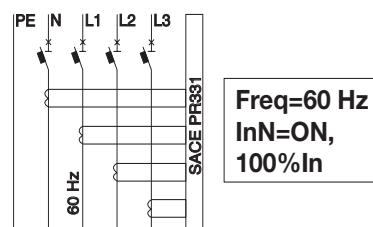
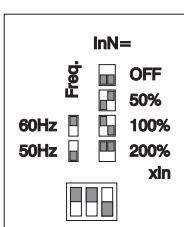
Esempio-Example-Beispiel-Exemple-Ejemplo



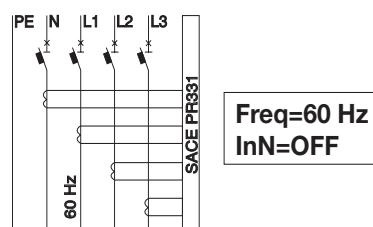
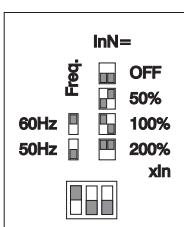
Interruttori tripolari
 Three-pole circuit breakers
 Dreipolige Leistungsschalter
 Disononcteurs tripolaires
 Interruptores automáticos tripolares



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



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



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

Note-Notes-Anmerkungen-Nota-Notas

La regolazione del valore di neutro (InN) deve rispettare la seguente formula: $I_1 \times InN \leq I_u$

Settings of neutral value (InN) to be obtained according to the following formula : $I_1 \times InN \leq I_u$

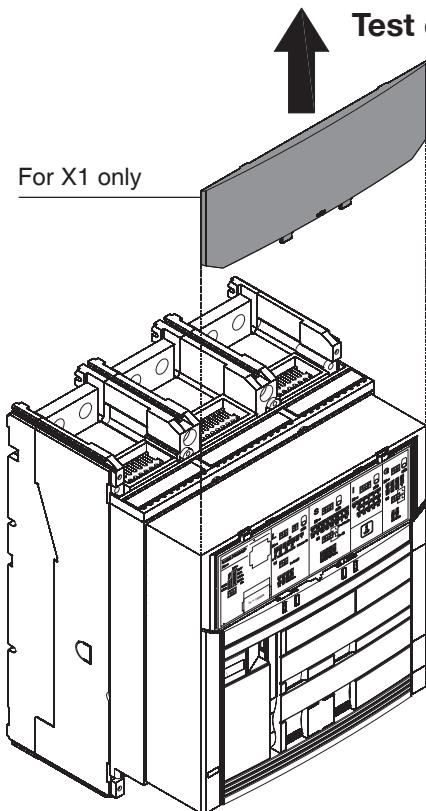
Die Einstellung des Werts des Neutralleiters (InN) anhand der folgenden Formel ausführen: : $I_1 \times InN \leq I_u$

Le réglage de la valeur de neutre (InN) doit respecter la formule suivante : $I_1 \times InN \leq I_u$

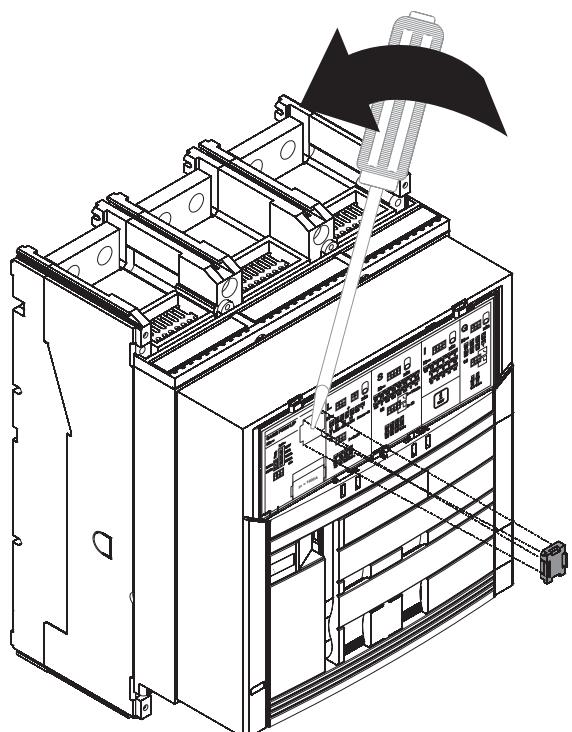
El ajuste del valor del neutro (InN) debe cumplir con la siguiente formula: $I_1 \times InN \leq I_u$

9

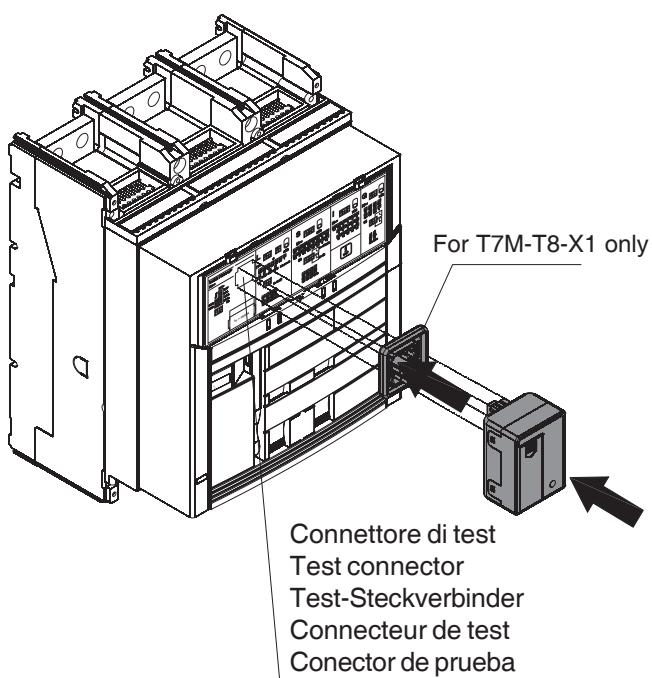
Trip test
Trip test
Auslöseprüfung
Test de déclenchement
Test de disparo



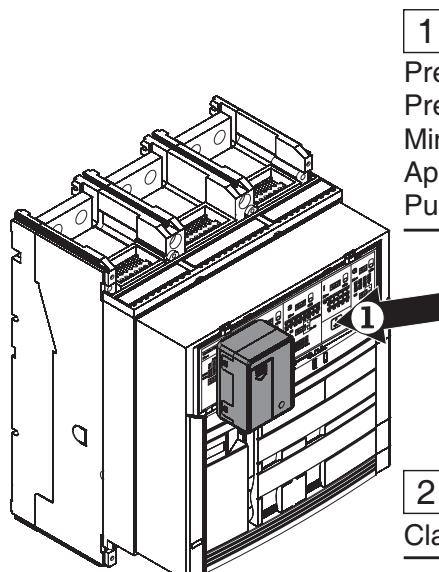
10



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. Mín.

2

Clack! CB OPEN

ABB

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

1. Collegare 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.



**ABB S.p.a.
ABB SACE Division**

Via Baioni, 35
24123 Bergamo Italy
Tel. +39 035 395.111 - Telefax +39 035 395.306-433

<http://www.abb.com>