

TRIVER

Vertical design fuse switch disconnecter
GENERAL PRODUCT HANDLING INSTRUCTIONS



BTVC

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PRODUCT DESCRIPTION

Closed vertical triple pole fuse switches, BTVC, are fuse holding assemblies, which are mounted on three phase busbars and house three fuse links, one between both fuse holder contacts. Top contacts are linked through link bars to the above-mentioned busbars and bottom contacts are linked through link bars to the outgoing line cables.

Bases are also provided with a mobile element that holds the fuse cartridge for its operation by an authorised operator, with a particular using category (see technical data table).

BTVC is a "manual dependent" handling device, as defined by 2.13 of EN60947-3.

PRODUCT DEFINITION

TRIVER BTVC: The switch element that is installed in the base is a FUSE and the base corresponds to the product definition: "fuse-switch-disconnector" as defined by IEC 60947-3

TRIVER BTVC-S: The switch element that is installed in the base is a SOLID LINK and the base corresponds to the product definition: "disconnector" as defined by IEC 60947-3.

SPECIFICATIONS

The 438 TRIVER family products Are in accordance with the requirements of the Low Voltage Directive 2006/95/EC And with the Electromagnetic Compatibility Directive 2004/108/CE. According to the UNE - EN 60947-3 harmonised standard.

The 438 TRIVER family products don't contain any Hazardous substances according to RoHS directive 2002/95/CE

APPROVALS

Confirmation of approvals, test certificates, and characteristics can be obtained by contacting to Pronutec.

TECHNICAL DATA

		250 A	400A	630 A
Manufacturer's name		PRONUTEC	PRONUTEC	PRONUTEC
Manufacturer's type designation		BTVC NH1	BTVC NH2	BTVC NH3
Applied standard		IEC 60947-3		
Utilization Category		AC 22B	AC 22B	AC 22B
Rated operational voltage	Ue	500 AC	500 AC	500 AC
Rated operational current	Ie	160 A	400A	630 A
Rated operational thermal current (fuse)	Ith	160 A	400A	630 A
Rated operational thermal current(solid links)	Ith	210 A	510 A	800 A
Rated operational insulation voltage Ui	Ui (V)	1000 AC	1000 AC	1000 AC
Rated frequency	f (Hz)	50	50	50
Rated impulse withstand voltage	Uimp	8 kV	8 kV	8 kV
Power frequency withstand voltage	Between phases	10 kV	10 kV	10 kV
Power frequency withstand voltage	Between phases and mass	2,5 kV	2,5 kV	2,5 kV
Rated conditional short circuit current		50 kA	50 kA	50 kA
Rated short circuit making capacity		50 kA	50 kA	50 kA
Max. permission power loss per fuse link		12 w	34 w	48 w
Rated making capacity		750	1200	1890
Rated breaking capacity		750	1200	1890
Number of operating cycles without current		1400	800	800
Number of operating cycles with current		200	200	200
Method of operation		<i>Manual dependiente</i> / Dependent manual		
Degree of protection in closed position	IP	ip 30	ip 30	ip 30
Degree of protection in open position	IP	ip 20	ip 20	ip 20
Protection against mechanical impacts	IK	ik 08	ik 08	ik 08
Distance between busbars	(mm)	185	185	185
Main busbar terminals,				
Busbar cross-section	mm x mm	30x2,5	30x3	30x5
Coating		Sn	Sn	Sn
Coating thickness (average)	µm	6 µm	6 µm	6 µm
Cable terminals,				
Coating		Sn	Sn	Sn
Coating thickness (average)	µm	6 µm	6 µm	6 µm
Contacts				
Coating		Ag	Ag	Ag
Coating thickness (average)	µm	5 µm	5 µm	5 µm
Isolation Resistance	MOhm	min 5	min 5	min 5

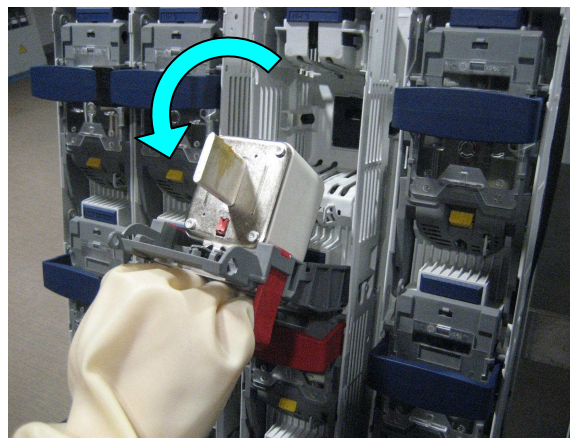
UNINSTALL FUSE SWITCH FROM BUSBAR

Pronutec recommends using insulated tools and gloves for all the operations.

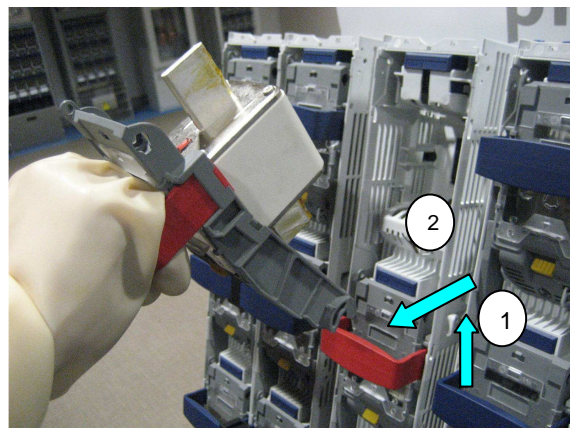


1 PULL THE HANDLES (x3)

MOVE LEVER QUICKLY!

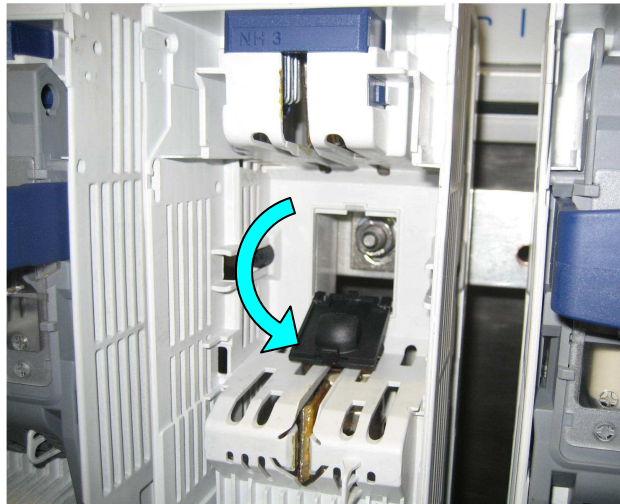
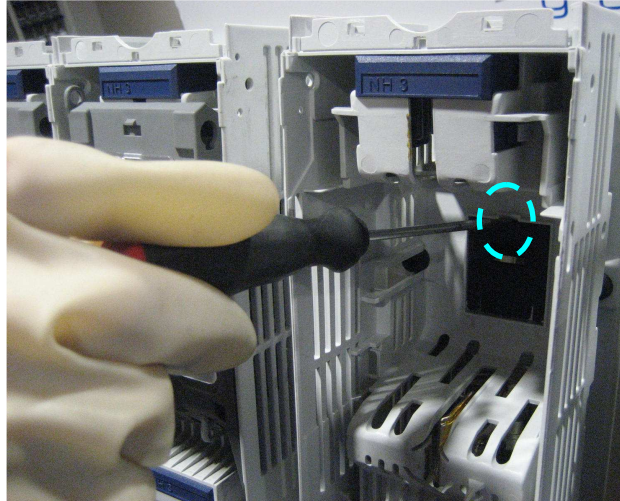


2 REMOVE THE HANDLES (x3)



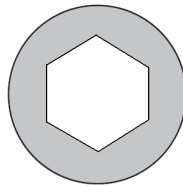
3 OPEN THE BUSBAR ACCESS COVERS (x3)

By insert and rotating the screw driver, on the slot on top of the black piece.



4 UNFASTEN THE NUTS BY USING AN INSULATED TOOL (x3)

M12



19mm



5 REMOVE THE FUSE SWITCH



INSTALL FUSE SWITCH ON BUSBAR

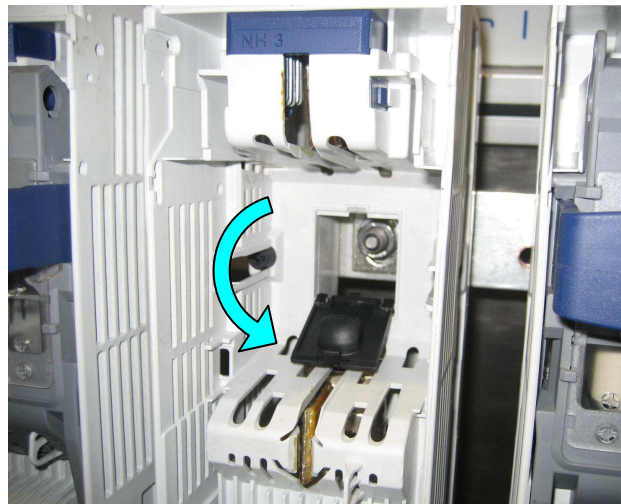
Pronutec recommends using insulated tools and gloves for all the operations.



1 INSTALL A NEW FUSE SWITCH DISCONNECTOR ON BUSBARS

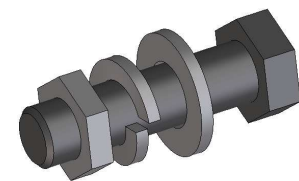
2 OPEN THE BUSBAR ACCESS COVERS (x3)

By insert and rotating the screw driver, on the slot on top of the black piece.

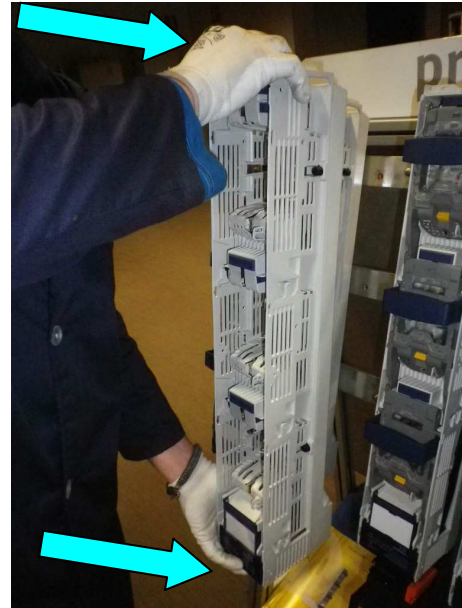
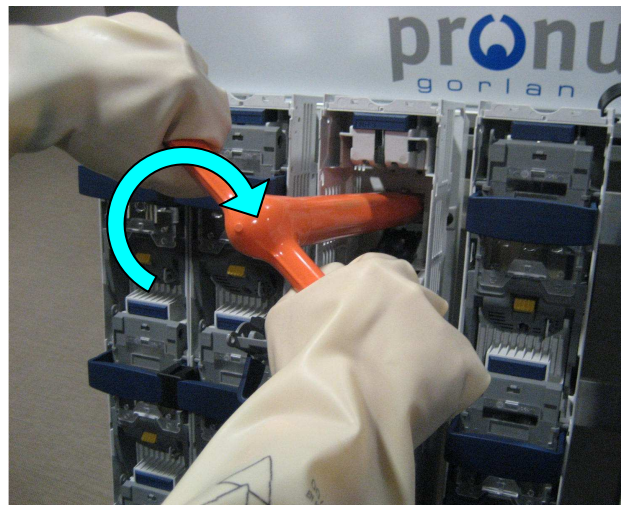


3 FASTEN THE NUTS BY USING AN INSULATED TOOL (x3)

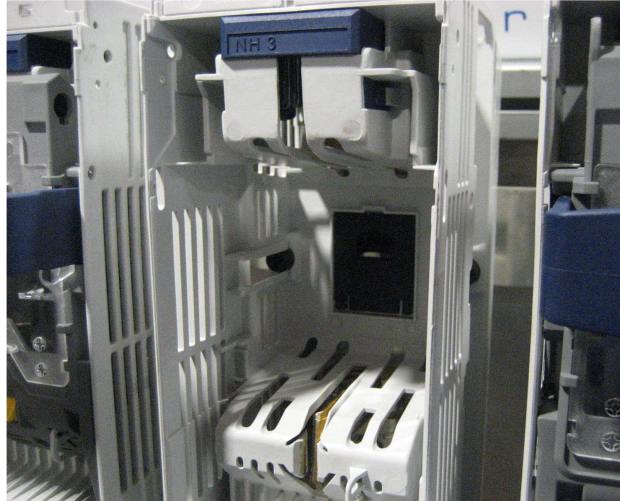
32 N·m



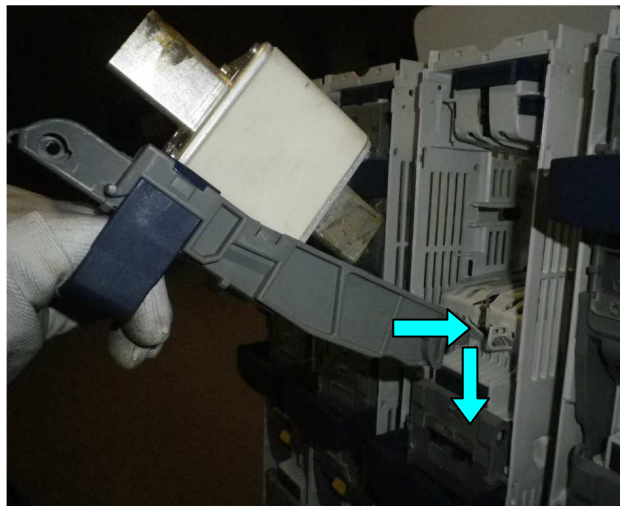
M12



4 CLOSE THE BUSBAR ACCESS COVERS (x3)

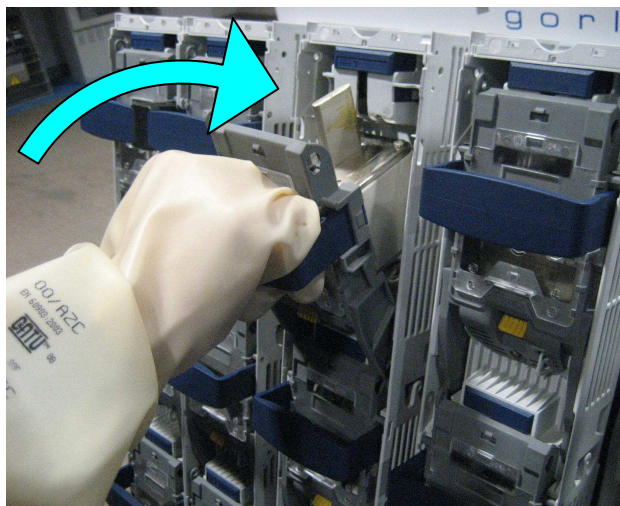


5 INSERT THE HANDLES (x3)



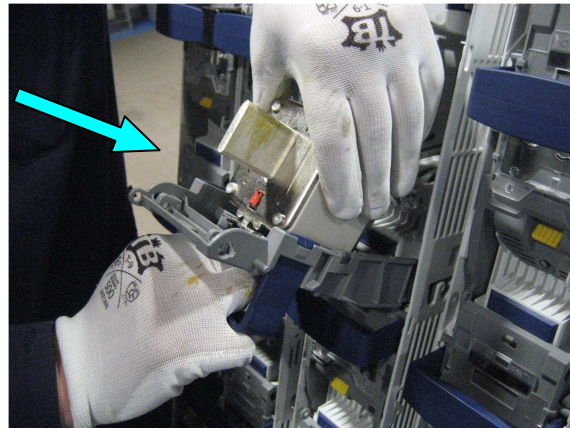
6 CLOSE THE COVERS (x3)

MOVE LEVER QUICKLY!

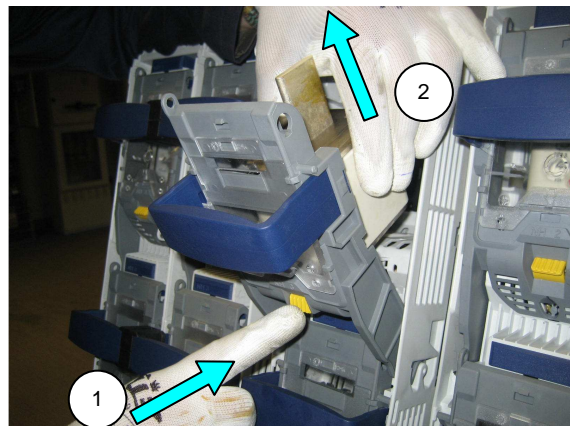


ESTANDAR OPERATIONS ON FUSE SWITCHES

FUSE INSTALATION

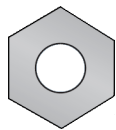


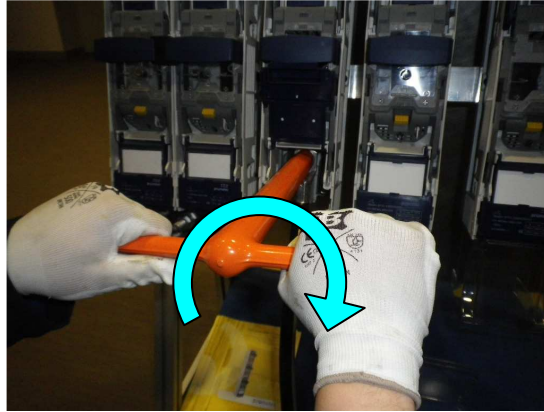
UNINSTAL FUSE



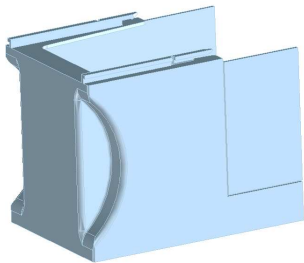
CONNECT TERMINALS

For proper torque values, refer to general instructions for product handling (delivered together with the product).

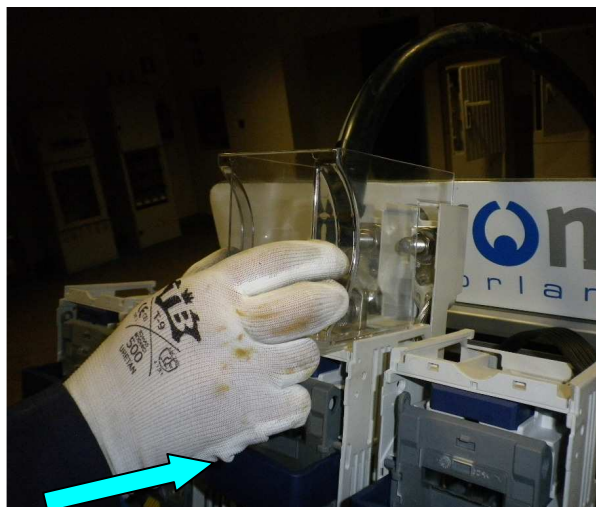
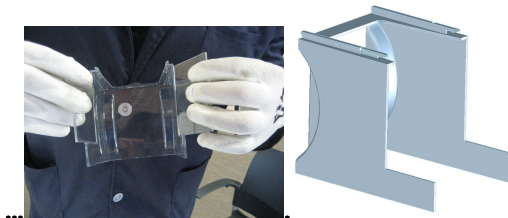




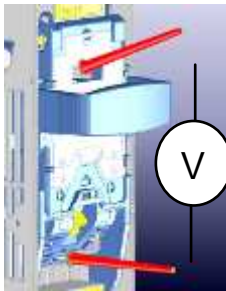
INSTALL CONNECTION COVER



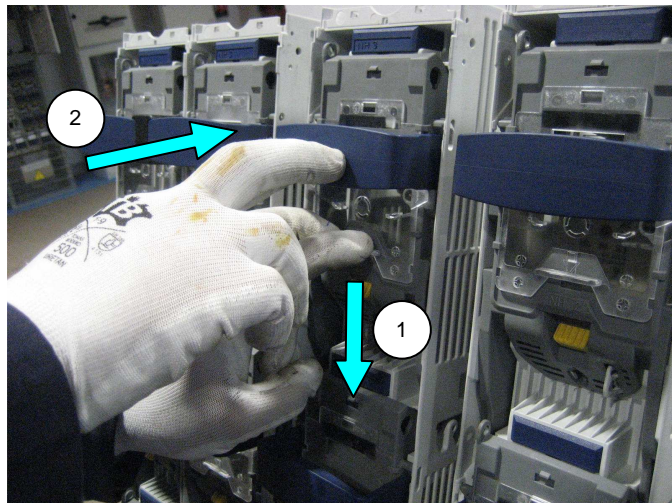
FOR UPPER OUTGOING



VOLTAGE MEASUREMENT



RETRACT HANDLE



PULL OUT HANDLE

