# PRODUCT RANGE



## Size 000 gG 400VAC

					フ		
		Rated voltage AC., TIEG)	Rated conjent is	Powerds align		A	Woblit
NH000GG40V2	Z223674	400 V	2A	0.7 W	20,8 mp	8	0,13 kg
NH000GG40V4	A223675	400 V	4 A	0.9 W	20:8 mm	3	0.13 kg
NH000GG40V6	B223676	400 V	6A	1.2 W	20,8 mm	3	0.13 kg
NH000GG40V10	C223677	400 V	10 A	1.3 W	20,8 mm	3	0,13 kg
NH000GG40V16	D223678	400 V	16 A	1.6 W	20,8 mm	9	0.13 kg
NH000GG40V20	E223679	400 V	20 A	1.9 W	20,8 mm	9	0,13 kg
NH000GG40V25	F223680	400 V	25 A	2.2 W	20.8 mm	9 .	0.13 kg
NH000GG40V32	G223681	400 V .	32 A	2.7 W	20.8 mm	9	0.13 kg
NH000GG40V35	H223682	400 V	35 A	3.1 W	20.8 mm	9	0.13 kg
NH000GG40V40	J223683	400 V	40 A	3.5 W	20.8 mm	9	0.13 kg
NH000GG40V50	K223684	400 V	50 A	3.9 W	20.8 mm	9	0.13 kg
NH000GG40V63	L223685	400 V	63 A	5.2 W	20;8 mm	9	0,13 kg
NH000GG40V80	M223686	400 V	80 A	5,3 W	20.8 mm	9	0,13 kg
NH000GG40V100	N223687	400 V	100 A	5.7 W	20,8 mm	9	0.13 kg



#### Size 00 gG 400VAC

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NH00GG40V125 E223702	400 V	125 A	7.4 W	29.5 mm	3	0.2 kg
NH00GG40V160 F223703	400 V	160 A	8.3 W	29.5 mm	3	0,2 kg



## Size 1 gG 400VAC

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humber	annungi)	((40)	Action of the contract of the	who -		1000000	
NH1GG40V35	J223706	400 V	35 A	4 W	29,5 mm	3	0.28 kg
NH1GG40V50	K223707	400 V	50 A	5.2 W	29.5 mm	3	0.28 kg
NH1GG40V63	L223708	400 V	63 A	6.8 W	29,5 mm	3	0.28 kg
NH1GG40V80	M223709	400 V	80 A	6.2 W	29.5 mm	3	0.28 kg
NH1GG40V100	N223710	400 V	100 A	8.6 W	29.5 mm	3	0.28 kg
NH1GG40V125	P223711	400 V	125 A	9.8 W	29.5 mm	3	0,28 kg
NH1GG40V160	Q223712	400 V	160 A	12.4 W	39.5 mm	3	0.41 kg
NH1GG40V200	R223713	400 V	200 A	14.4 W	39.5 mm	 3	0.41 kg
NH1GG40V224	S223714	400 V	224 A	15.6 W	39,5 mm	3	0.41 kg
NH1GG40V250	T223715	400 V	250 A	17,6 W	39.5 mm	3	0.41 kg



#### Size 2 aG 400VAC

5128 Z 90 400	JVAC				) OHYK		***************************************
(Gableg Dunber	ilem nimbir	Rateo Voltago AC ( (ISG)	Raicalouiténti	TO PERSONAL PROPERTY.			watab:
NH2GG40V35	T227257	400 V	35 A	4.1 W	29.5 mm	<del>[                                    </del>	0.42 kg
NH2GG40V50	V227258	400 V	50 A	5.4 W	29.5 mm	3	0.42 kg
NH2GG40V63	W227259	400 V	63 A	6.8 W	29.5 mm	130	0.42 kg
NH2GG40V80	F223726	400 V	A 08	6.4 W	29.5 m/n, 8	34	0.42 kg
NH2GG40V100	G223727	400 V	100 A	8.1 W	29.5 mrf	32	0,42 kg
NH2GG40V125	H223728	400 V	125 A	10.2 W	29.5 mm	Put	0.42 kg
NH2GG40V160	J223729	400 V	160 A	10.8 W	29.5 mm • AL	19/2	0.42 kg
NH2GG40V200	K223730	400 V	200 A	15.2 W	29.5 mm		Q.42 kg
NH2GG40V224	L223731	400 V	224 A	14.7 W	29.5 mm	3.37	0.42 kg
NH2GG40V250	M223732	400 V	250 A	17.1 W	29,5 mm	3	0.42 kg
NH2GG40V315	N223733	400 V	315 A	20.1 W	39,5 mm	3	0,64 kg
NH2GG40V355	P223734	400 V	355 A	22.6 W	39,5 mm	3	0.64 kg
NH2GG40V400	Q223735	400 V	400 A	25.4 W	39.5 mm	3	0.64 kg

## PRODUCT RANGE

#### Size 3 gG 400VAC

					4-/-		_
Catalog number	lton ការសេខ៖	Halestyn)lage AC (IEG)	Reflect conventes	Power dissipation and the			Welght
NH3GG40V250		400 V	250 A	15.4 W	39.5 mm	1	0.65 kg
NH3GG40V315	\$223737	400 V	315 A	19.8 W	39.5 mm	1	0.65 kg
NH3GG40V400	T223738	400 V	400 A	25.1 W	39,5 mm	1	1.05 kg
NH3GG40V500	V223739	400 V	500 A	31.1 W	51 mm	1	1.05 kg
NH3GG40V630	W223740	400 V	630 A	39 W	51 mm	1	1.05 kg

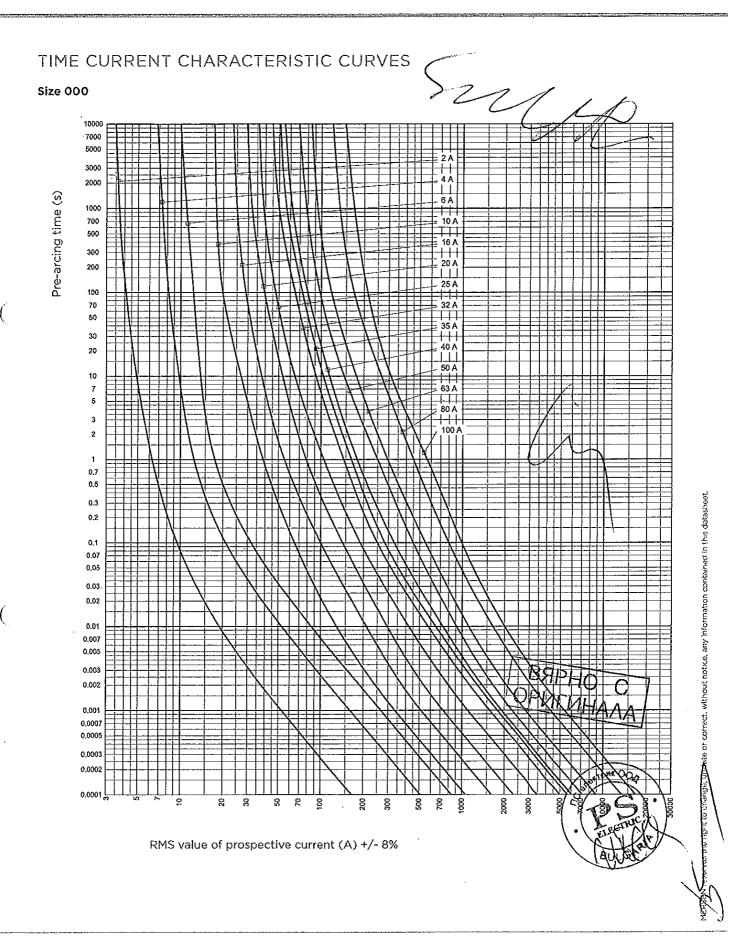
## TECHNICAL DATA

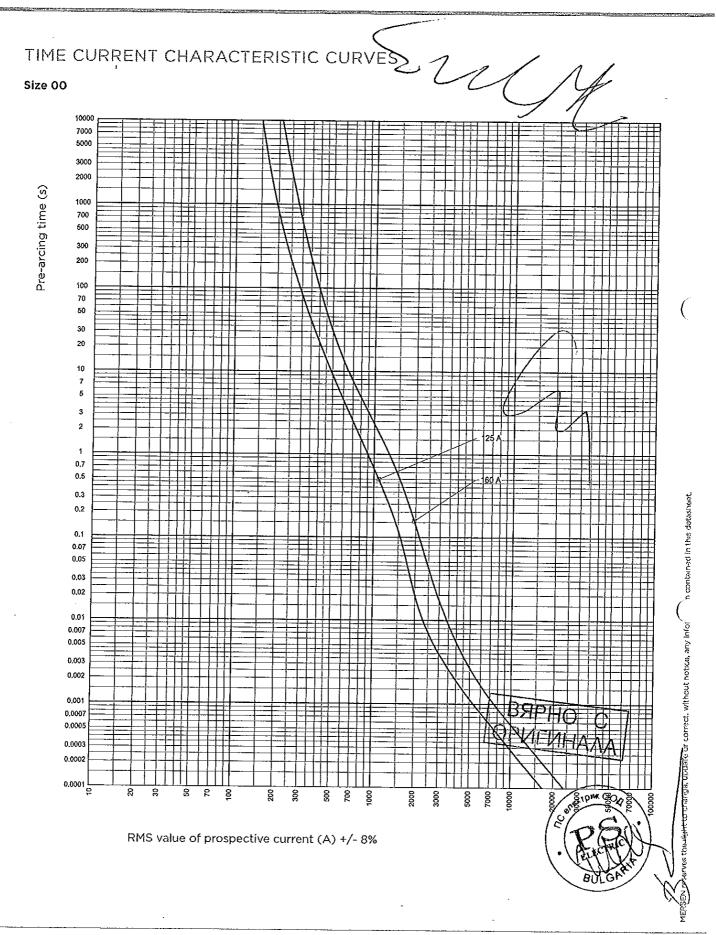
# Size 000 gG 400VAC Size 00 gG 400VAC Size 1 gG 400VAC Size 2 gG 400VAC Size 3 gG 400VAC

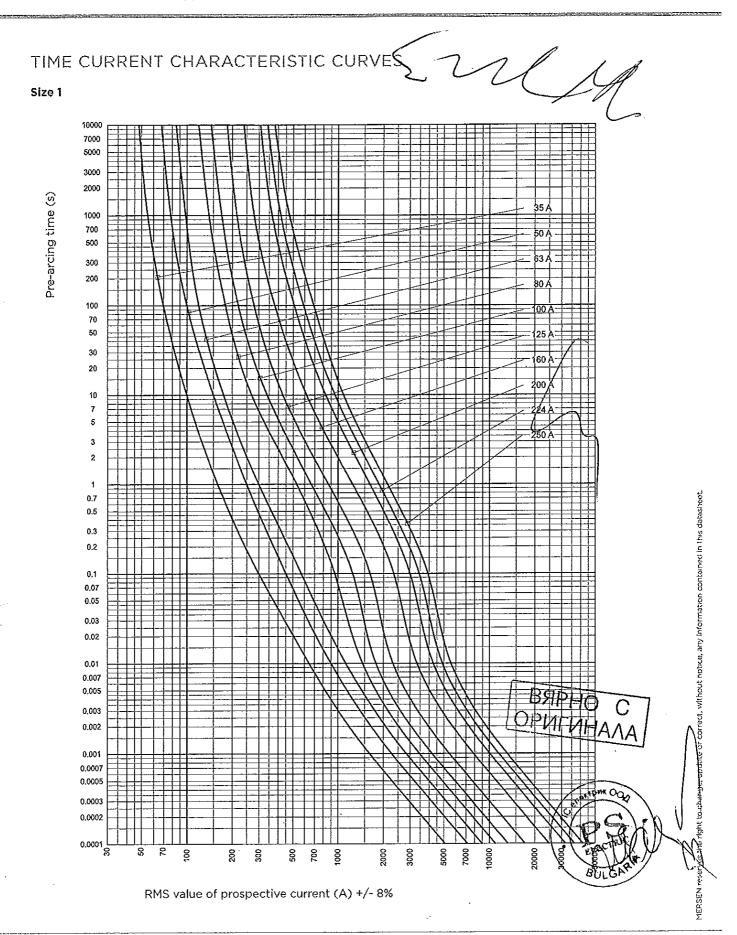
Rated current	2 100 A	125 160 A	35 250 A	35 400 A	250 630 A
Rated breaking capacity AC	100 kA				
Rated voltage AC	400 V				
Indication System	double indicator				
Width	21 mm	30 mm	40 mm	51 mm	70 mm





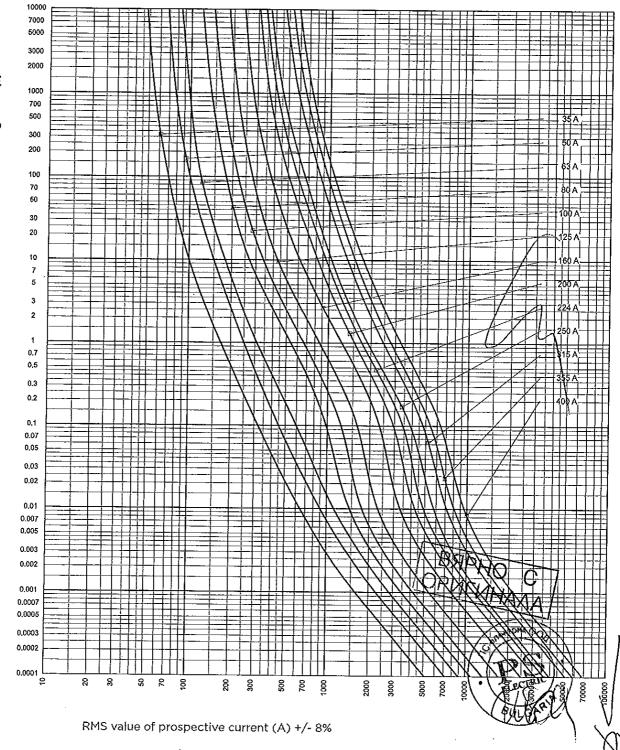






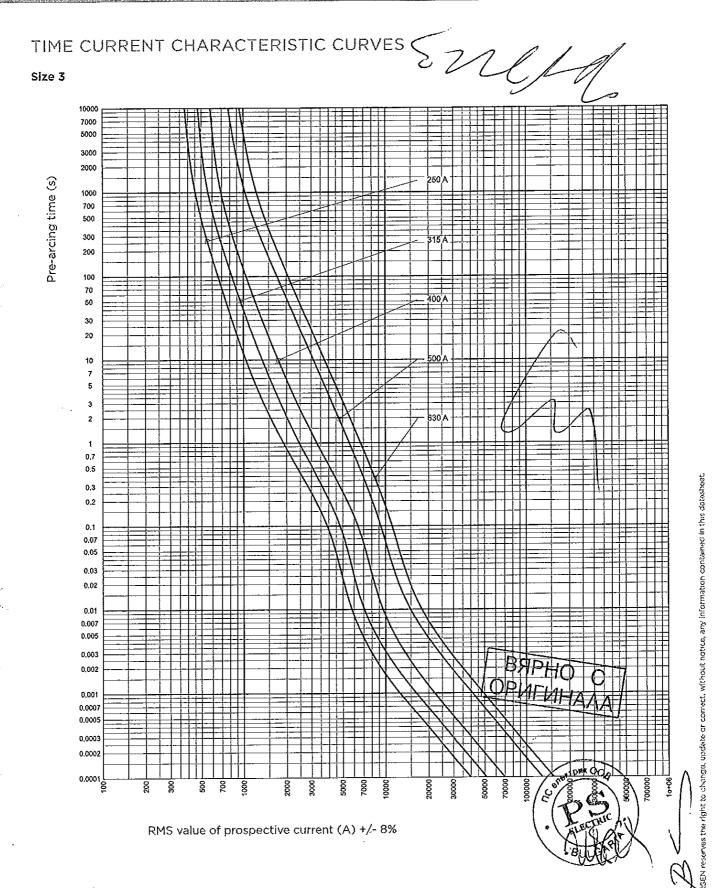
TIME CURRENT CHARACTERISTIC CURVES LA



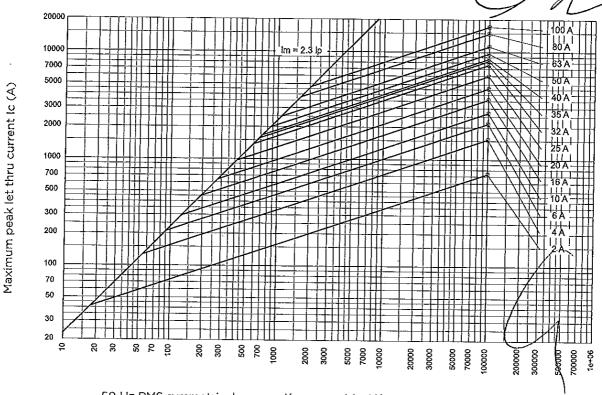


MERSEN reserves the right to change, update or correct, without notice, any info

n contained in this datasheet.



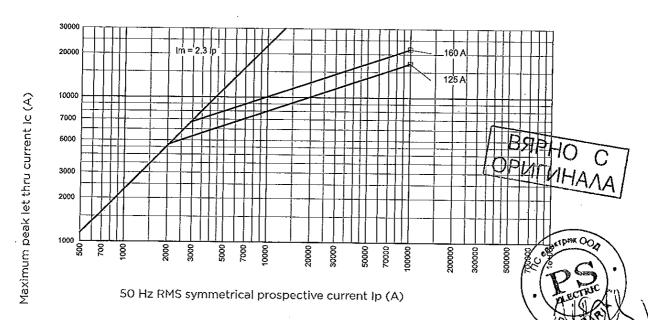
Size 000



Sul

50 Hz RMS symmetrical prospective current lp (A)

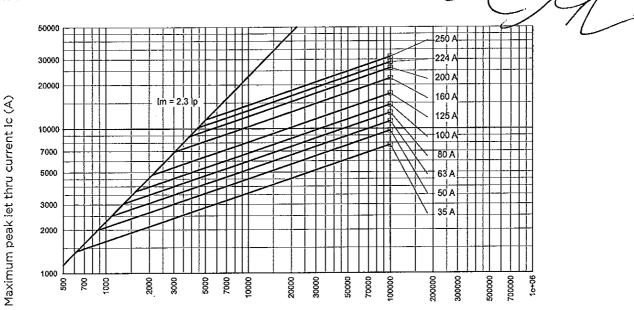




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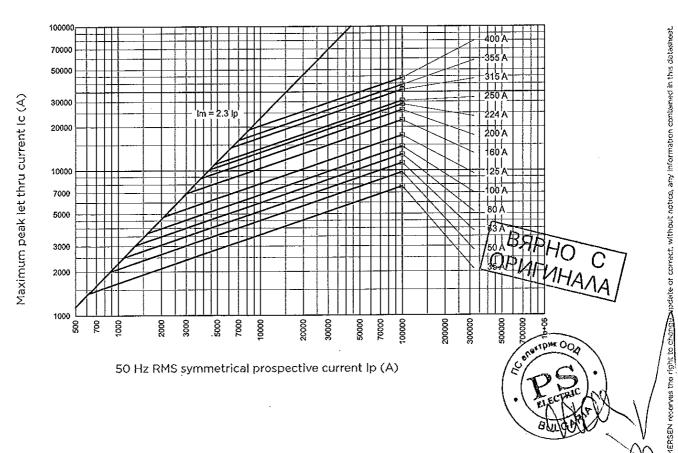
eserves the right to changer apparte or correct, without notice, any info

Size 1



50 Hz RMS symmetrical prospective current lp (A)

Size 2



Size 3

Maximum peak let thru current Ic (A)

50 Hz RMS symmetrical prospective current lp (A)

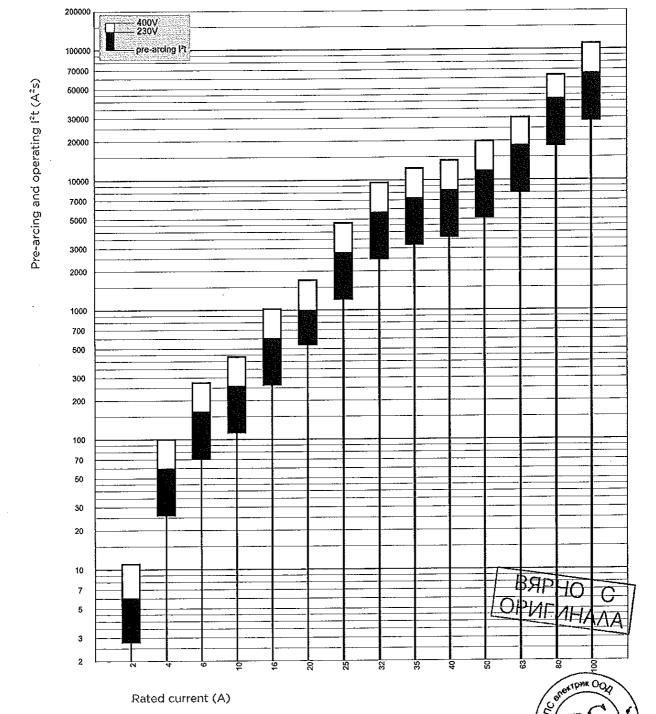
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PRE-ARCING AND OPERATING I'T CHARACTERIST

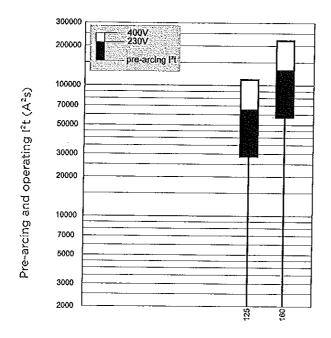




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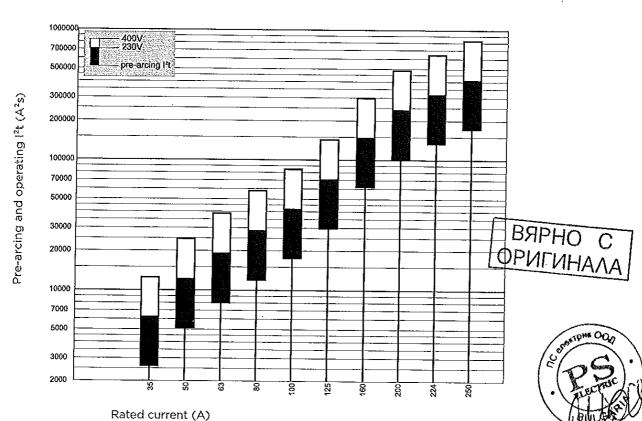
PRE-ARCING AND OPERATING I'T CHARACTERISTICS

Size 00



Rated current (A)

Size 1

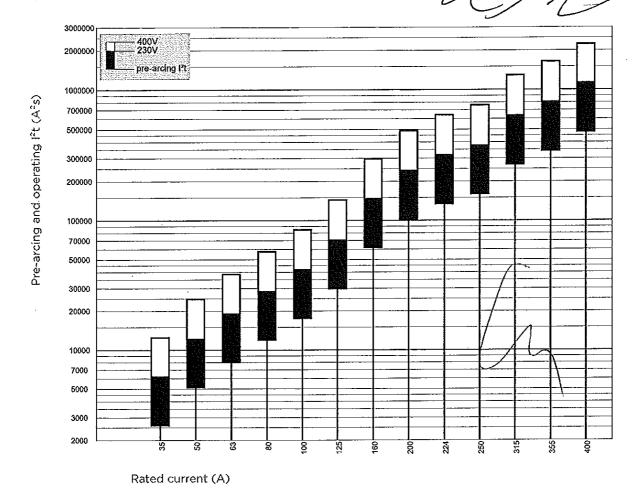


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PRE-ARCING AND OPERATING 12T CHAPACTERISTICS

Size 2



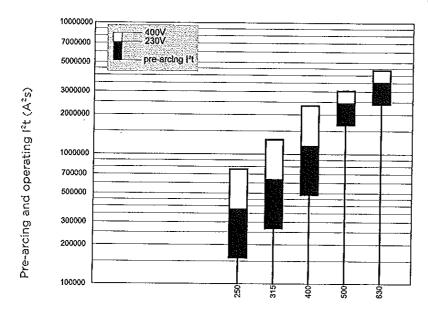


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PRE-ARCING AND OPERATING I'T CHARACTERISTICS



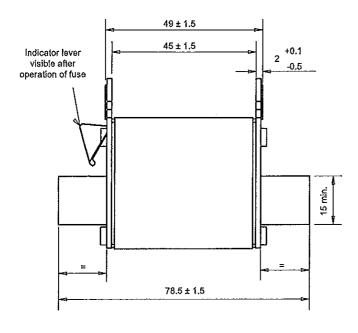


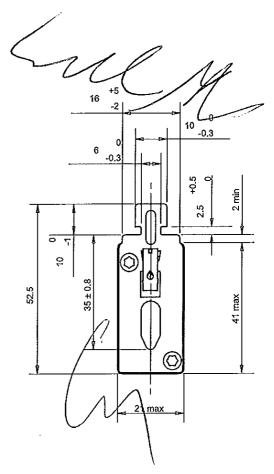
Rated current (A)



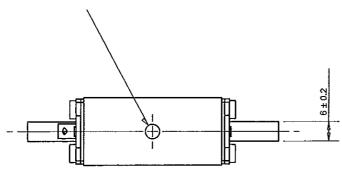


Size 000 with double indicator (0118997C)





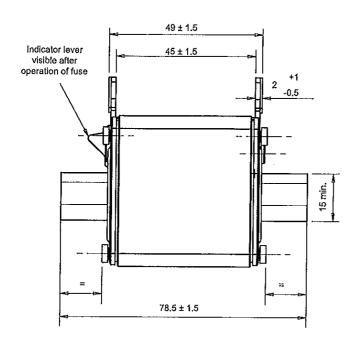
Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible

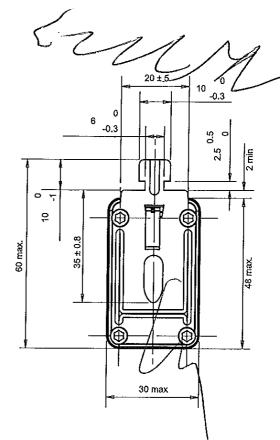


Dimensions in mm

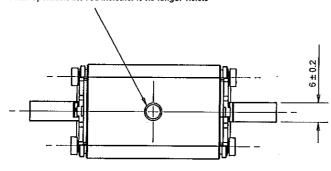


Size 00 with double indicator (118998 D)

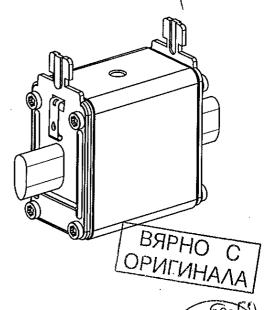




Visibility of red indicator signals conduction of the fuse-link.
 After operation the red indicator is no longer visible

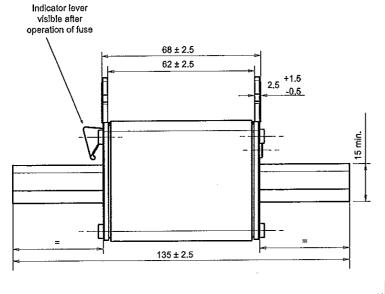


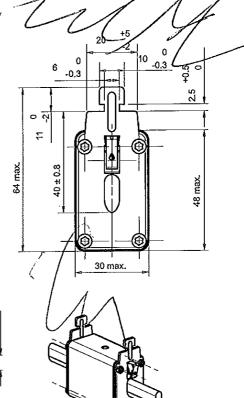
Dimensions in mm

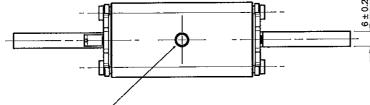


ange, undate of correct, without notice, any infor-

Size 1 compact with double indicator (35-125A) (1000413B)







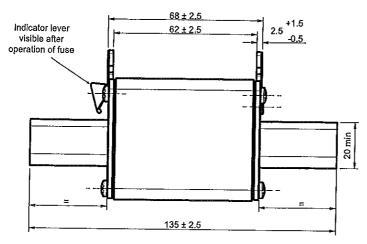
Visibility of red Indicator signals conduction of the fuse-link.

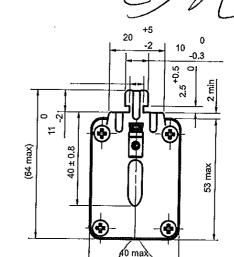
After operation the red indicator is no longer visible

Dimensions in mm

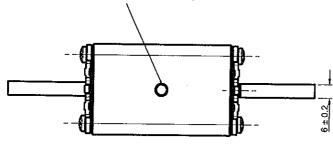


Size 1 with double indicator (160-250A) (118997 D)

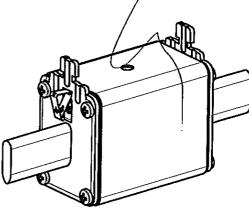




Visibility of red Indicator signals conduction of the fuse-link. After operation the red Indicator is no longer visible

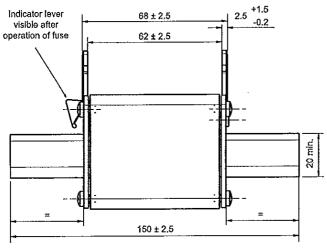


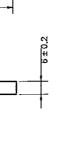




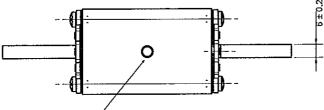


Size 2 compact with double indicator (35-250A) (1000412C)



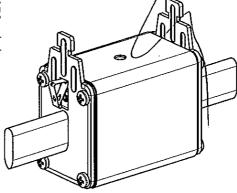


74 max.



Visibility of red indicator signals conduction of the fuse-link.

After operation the red indicator is no longer visible



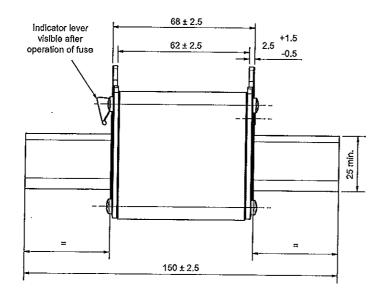
Dimensions in mm

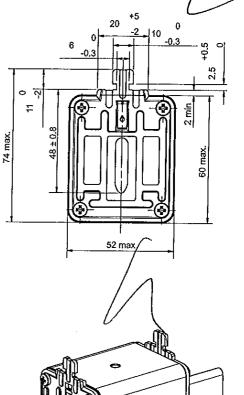


10 0 -0.3



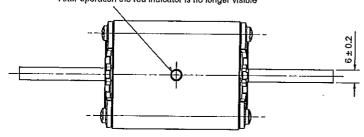
Size 2 with double indicator (315-400A) (119001 C)





Visibility of red indicator signals conduction of the fuse-link.

After operation the red indicator is no longer visible

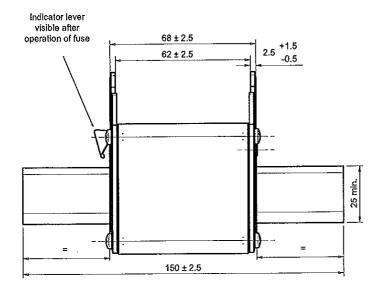


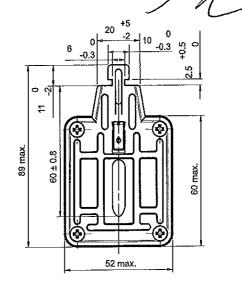
Dimensions in mm

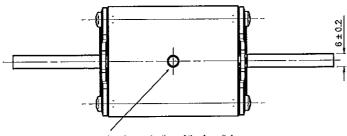




Size 3 compact with double indicator (250-400A) (1000411B)

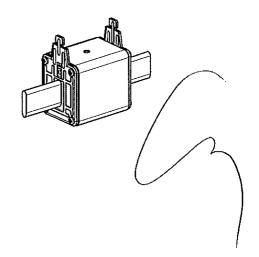






Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible

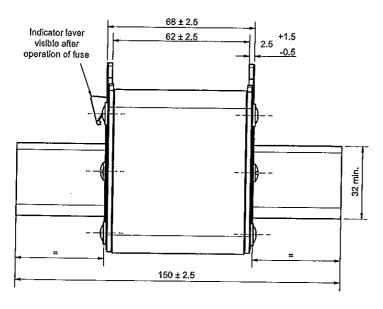
Dimensions in mm

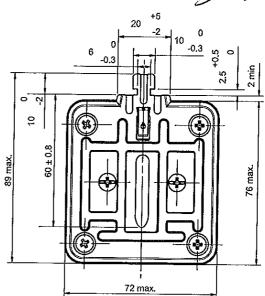




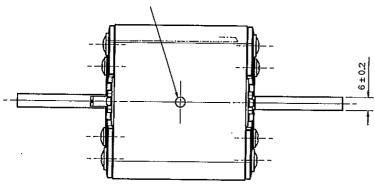


Size 3 with double indicator (500-630A) (119002 C)

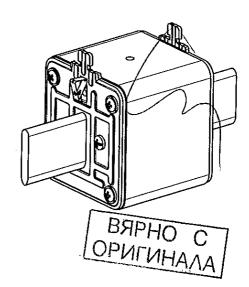




Visibility of red indicator signals conduction of the fuse-link, After operation the red indicator is no longer visible



Dimensions in mm





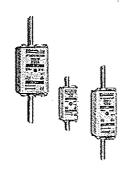
NH fuse-links gG 400VAC

double indicator/live gripping-lugs size 000, 00, 1, 2, 3

LOW VOLTAGE IEC FUSES

IEC NH FUSE-LINKS





The NH system is classified among plug-in fuse systems and is composed of:

- fuse-base (possibly including terminal covers and phase barriers)
- · fuse-link with blade contact
- fuse-link replacement device (LV HRC fuse puller)

Since the design of this system cannot guarantee non-interchangeability of rated current it must be handled by a qualified professional.

Type "gG" NH fuse-links are full range breaking capacity fuse-links and are used to protect cables and equipment. They can interrupt any current surge, from the lowest fusing current up to their breaking capacity, and so can be used alone as protection. They also protect electrical devices and industrial set-ups from the electrodynamic effects of very high short-circuit currents.

Rated Power Dissipation values of Mersen NH fuse-links 400VAC are below the maximum values required by standard IEC 60269.

#### TECHNICAL DATA OVERVIEW

Voltage AC	400 VAC
Ampere Range (A)	2 630 A
Size per Standard	Sizes 000 to 3
Speed/Characteristic	gG
I.R. AC (IEC)	100 kA
Body Material	ceramic
Contact Materials	copper, silver-plated

## FEATURES & BENEFITS

- Dimensions according to DIN 43 620 Parts 1 to 4
- Non-isolated gripping lugs
- · Double indicator.
- Lead free contact blades
- 0% cadmium

#### **APPLICATIONS**

• gG: general purpose cable and line protection

#### STANDARDS

- · VDE 0636 Par 201
- IEC 60269-1 and -2





# PRODUCT RANGE



## Size 000 gG 400VAC

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Camber Thinber	mumber =	(((d))	Balcal currentals	Power Mesipation (	Width	Paielouje	Nejone
NH000GG40V2	Z223674	400 V	2 A	0,7 W	20.8 m/n	3	0, <b>3</b> 3 kg
NH000GG40V4	A223675	400 V	4 A	0,9 W	20.8 mm	3	9.13 kg
NH000GG40V6	B223676	400 V	6 A	1.2 W	20,8 mm	3	9/13/kg
NH000GG40V10	C223677	400 V	10 A	1.3 W	20.8 mm	3	0/3 kg
NH000GG40V16	D223678	400 V	16 A	1.6 W	20.8 mm	9	6:10 kg
NH000GG40V20	E223679	400 V	20 A	1.9 W	20.8 mm	9	0,13 kg
NH000GG40V25	F223680	400 V	25 A	2.2 W	20.8 mm	9	0.13 kg
NH000GG40V32	G223681	400 V	32 A	2.7 W	20,8 mm	9	0.13 kg
NH000GG40V35	H223682	400 V	35 A	3,1 W	20.8 mm	9	0.13 kg
NH000GG40V40	J223583	400 V	40 A	3.5 W	20.8 mm	9	0.13 kg
NH000GG40V50	K223684	400 V	50 A	3.9 W	20.8 mm	9	0.13 kg
NH000GG40V63	L223685	400 V	63 A	5.2 W	20.8 mm	9	0.13 kg
NH000GG40V80	M223686	400 V	80 A	5.3 W	20.8 mm	9	0.13 kg
NH000GG40V100	N223687	400 V	100 A	5.7 W	20/8 mm	9	0.13 kg



#### Size 00 gG 400VAC

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NH00GG40V125 E223702	400 V	125 A	7.4 W	/	29,5 mm	$\overline{}$	3	0.2 kg
NH00GG40V160 F223703	400 V	160 A	8.3 W		29.5 mm	$\neg \vdash$	3	0.2 kg



## Size 1 gG 400VAC

Catalog number	item number	Rated-classes (EG)	Ratedeva(nje)	Powerdisipation, alth	Width	Pockage	a. Weigili
NH1GG40V35	J223706	400 V	35 A	4 W	29.5 mm	3	0.28 kg
NH1GG40V50	K223707	400 V	50 A	5.2 W	29.5 mm	3	0.28 kg
NH1GG40V63	L223708	400 V	63 A	6.8 W	29.5 mm	3	0.28 kg
NH1GG40V80	M223709	400 V	80 A	6.2 W	29.5 mm	3	0.28 kg
NH1GG40V100	N223710	400 V	100 A	8.6 W	29.5 mm	3	0.28 kg
NH1GG40V125	P223711	400 V	125 A	9.8 W	29.5 mm	3	0.28 kg
NH1GG40V160	Q223712	400 V	160 A	12.4 W	39.5 mm	3	0.41 kg
NH1GG40V200	R223713	400 V	200 A	14.4 W	39.5 mm	3	0.41 kg
NH1GG40V224	S223714	400 V	224 A	15.6 W	39.5 mm	3	0.41 kg
NH1GG40V250	T223715	400 V	250 A	17.6 W	39.5 mm	3	0.41 kg



NH2GG4QV250

## Size 2 gG 400VAC

GNAIDO ENTINOS A	attorn numbers	Hated vollage AU: (GEU)	Ratedaumontin	Power distinction at the		Yorkon	Wolobe
NH2GG40V35	T227257	400 V	35 A	4.1 W	OPMEN	<b>K</b> 0	0.42 kg
NH2GG40V50	V227258	400 V	50 A	5.4 W	29.5 mm	AA	0 42 kg
NH2GG40V63	W227259	400 V	63 A	6.8 W	29.5 mm	3	d.42 kg
NH2GG40V80	F223726	400 V	80 A	6.4 W	29.5 mm	3	0.42 kg
NH2GG40V100	G223727	400 V	100 A	8.1 W	29.5 mm	3	0.42 kg
NH2GG40V125	H223728	400 V	125 A	10.2 W	29.5 mm	3	0.42 kg
NH2GG40V160	J223729	400 V	160 A	10.8 W			0.42 kg
NH2GG40V200	K223730	400 V	200 A	15.2 W	29.5 mm 10HK O	- A	0.42 kg
NH2GG40V224	L223731	400 V	224 A	14.7 W	29.5/m/	13 Je 3)	0.42 kg
NH2GG40V250	M223732	400 V	250 A	17.1 W	201		0.42 kg
NH2GG40V315	N223733	400 V	315 A	20.1 W	39.5 mm	WY	0.64 kg
NH2GG40V355	P223734	400 V	355 A	22.6 W	39.5 nm		0.64 kg
NH2GG40V400	Q223735	400 V	400 A	25,4 W	39.5 mm 8UL		0.64 kg

## PRODUCT RANGE

Size 3 gG 400VAC

estalog number		KI TO THE RESERVE TO THE	natestantes (ch	Power dissipation	-With	Packáge	:Welohit
NH3GG40V250	R223736	400 V	250 A	15.4 W	39.5 mm	1	0,65 kg
NH3GG40V315	\$223737	400 V	315 A	19.8 W	39.5 mm	1	0.65 kg
NH3GG40V400	T223738	400 V	400 A	25. W	39.5 mm	1	1.05 kg
NH3GG40V500	V223739	400 V	500 A	31.1 W	5#mm	1	1.05 kg
NH3GG40V630	W223740	400 V	630 A	39 W	51 mm	1	1.05 kg
			·			1	

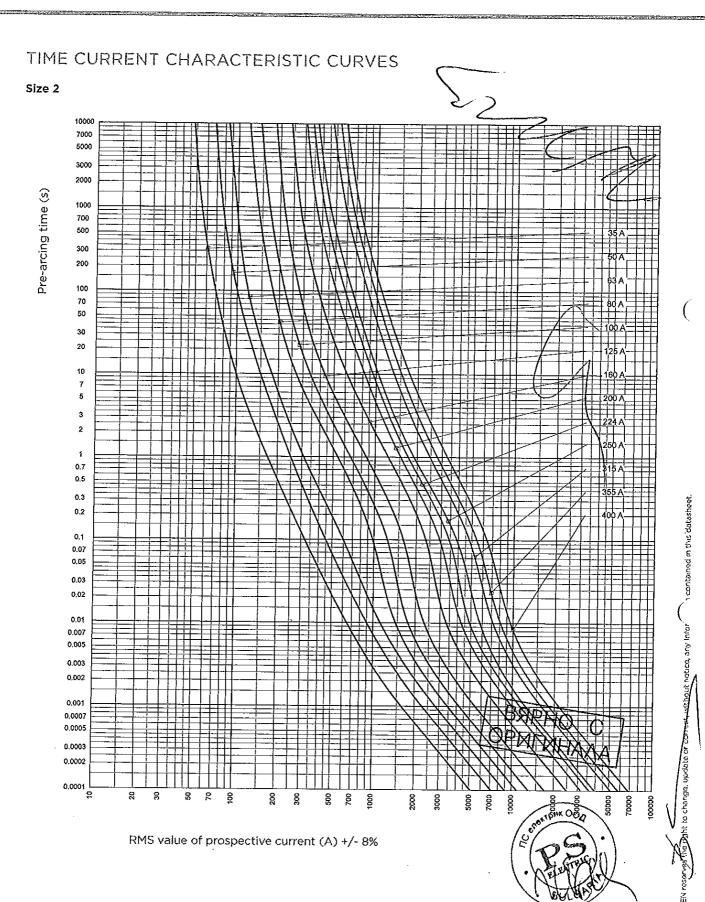
## TECHNICAL DATA

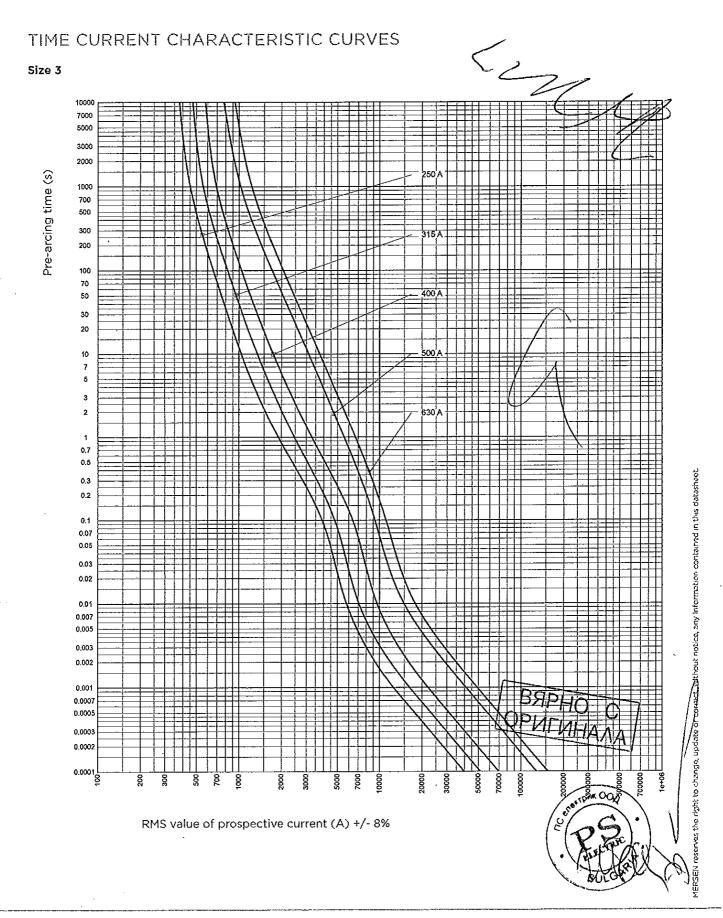
Size 000 gG 400VAC Size 00 gG 400VAC Size 1 gG 400VAC Size 2 gG 400VAC Size 3 gG 400VAC

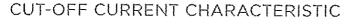
		· ·				
Rated current	2 100 A	125 160 A	35 250 A	35 400 A		250 630 A
Rated breaking capacity AC	100 kA	100 kA	100 kA	100 kA	Δ.	100 kA
Rated voltage AC	400 V	400 V	400 V	400 V		400 V
Indication System	double indicator	double indicator	double indicator	double indigator		double indicator
Width	21 mm	30 mm	40 mm	51 mm		70 mm



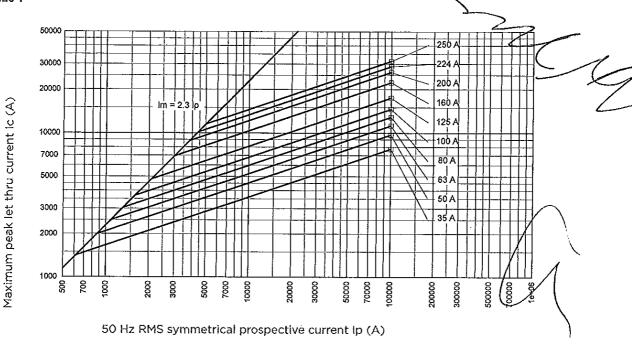




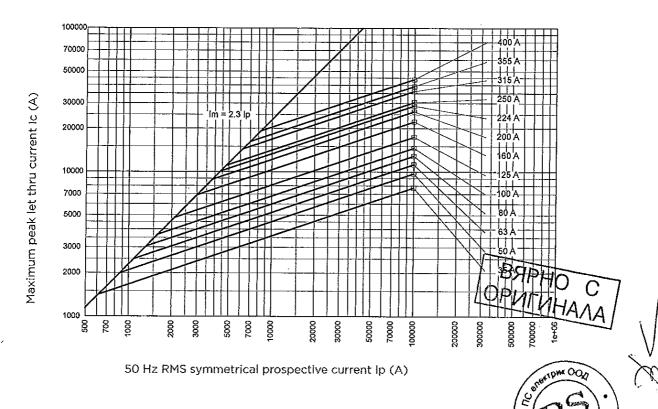








Size 2

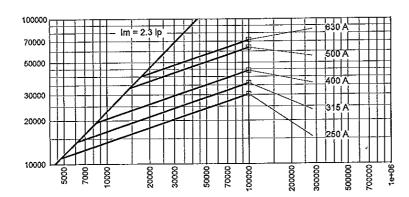


MERSEly reserves the right to change, update or correct, without notice, any infor

's contained in this datasheet.

#### Size 3

Maximum peak let thru current Ic (A)



50 Hz RMS symmetrical prospective current lp (A)

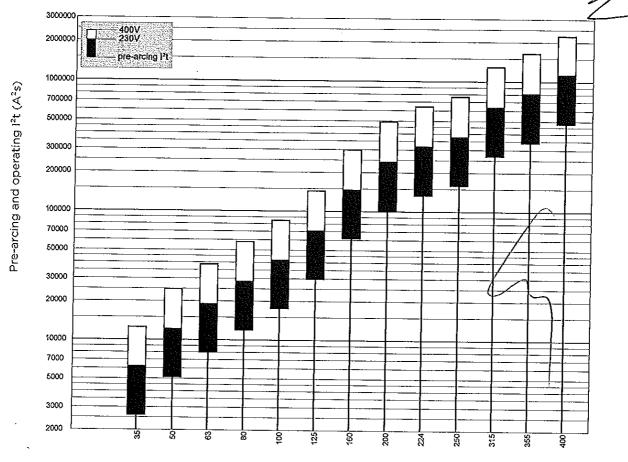






PRE-ARCING AND OPERATING I'T CHARACTERISTICS

Size 2



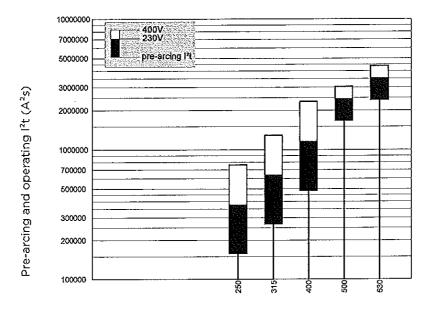
Rated current (A)





PRE-ARCING AND OPERATING I'T CHARACTERISTIC

Size 3



Rated current (A)

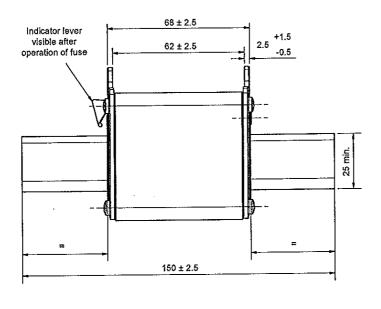


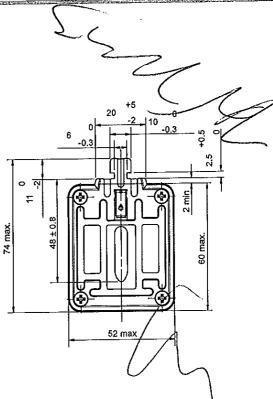




# **DIMENSIONS** Size 2 compact with double indicator (35-250A) (1000412C) 2.5 +1.5 -0.2 Indicator lever 68 ± 2.5 visible after operation of fuse 74 max. 150 ± 2.5 40 max. Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible Dimensions in mm MERSEN reserves the right to change funding or

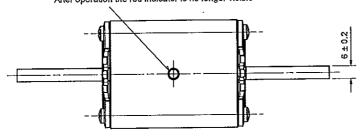
Size 2 with double indicator (315-400A) (119001 C)



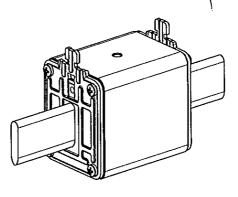


Visibility of red indicator signals conduction of the fuse-link.

After operation the red indicator is no longer visible



Dimensions in mm

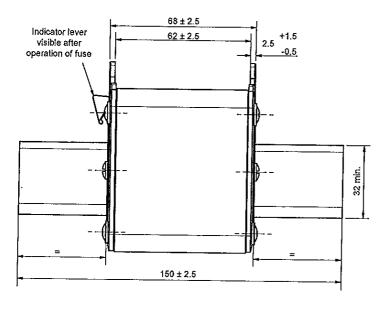


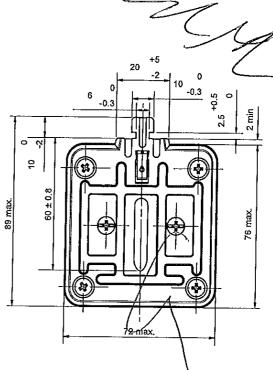




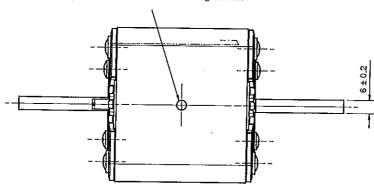
ics, any information contained in this datasheet.

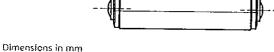
Size 3 with double indicator (500-630A) (119002 C)

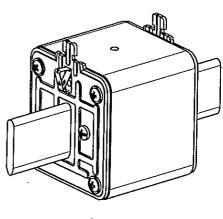




Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible









's contained in this datasheet.



## EU DECLARATION OF CONFORMITY / DECLARATION DE CONFORMITE UE

We / Nous Mersen France SB sas 15, Rue Jacques Vaucanson 69720 Saint Bonnet de Mure France Website / Site web ep-fr.mersen.com (this declaration is downloadable / cette déclaration est téléchargeable)

Certify that products with the registered trade mark / Certifions que les produits de la marque Mersen ® or / ou FERRAZ SHAWMUT ® ,

Blade type fuses w-w/o indicator- striker / Fusibles à couteaux avec-ou sans indicateur-percuteur NH000, NH00, NH0, NH1, NH2, NH3, NH4, NH4a, AM, GG, GTR & accessories / et accessoires

Provided that they are installed, maintained and used as intended and in accordance with the current installation standards according to manufacturer's recommendations, comply with the following Directives

Sous réserve d'installations, d'entretien et d'utilisation conformes à leur destination, aux normes d'installations applicables et aux instructions du constructeur, satisfont aux exigences des Directives suivantes:

Low Voltage 2014/35/EU Rohs 2011/65/EU Basse Tension 2014/35/UE Rohs 2011/65/UE

And are in compliance with the following standards / et sont conformes aux normes suivantes;

EN 60269-1 Ed.2007 / A1:2009 / A2:2014 HD 60269-2 Ed.2013 DIN 43620 Ed. 1984

на основание чл. 2 от ЗЗЛД

Saint Bonnet de Mure le 05 Septembre 2017 Name / Nom

Position / Fonction

: Product Certification Man

<sub>е</sub> на основание чл. 2 от 33ЛД

Signature / Signature

DECLARATION CE N° 0 0 3 4



Декларация за съответствие Hue Mersen france SB интернет страница ep-fr.mersen.com

че продуктите с регистрирана търговска марка Mersen или FERRAZ SHAWMUT

Ножови предпазители със и/или без индикатори-ударник типове

NH000, NH00, NH0, MH1, MH2, NH3, NH4, NH4a, AM, GG, GTR и аксесоарите към тях

При условие че са инсталирани, поддържани и използвани по предназначение и в съответствие с стандарти и препоръки на производителя, отговарят на следните директиви:

Ниско напражение 2014/35/EU Rohs 2011/65/EU

И отговарят на изчистванията на следните стандарти: EN 60269-1 ed.2007 / A1 : 2009 / A2 : 2014 DIN 43260 ed. 1984 HD 60269-2 ed.2013

Дата 05.09.2017 Подписи и печати

16:03,2018 г. гр. Шумен на основание чл. 2 от ЗЗЛД

/инж. Н.Николов/



### Reach status DECLARATION

Mersen France SB SAS 15, Rue de Vaucanson 69720 Saint Bonnet de Mure Cedex France Nous/We

Hereby declare that products with the registered trade mark FERRAZ SHAWMUT ®, or Mersen Certifions par ce document que les produits de la marque FERRAZ SHAWMUT ®, or Mersen

Blade type fuses , fusibles à couteaux (catalog number structure)										
type	size/taille	class/classe	voltage/tension	rating/calibre (A or KVA)	suffixes					
NH-	000 or 00 or 0 or 1 or 2 or 3 or 4 or 4a	AM or GG or GTR	xxV	xxx	divers					

Neutral blade type NH sizes / Cartouches neutres à couteaux NH tailles : 0, 00, 1, 2, 3, 4

do not contain any of the 174 SVHC substances at a rate of more than 0.1% by weight according to the current valid candidate list nor any substance of Annex 17, according to ECHA since July 07, 2017.

The present declaration is based on a permanent communication with our suppliers . In case of any change, we would inform ECHA and our customers according to Reach requests.

Mersen France SB is not concerned by the Reach registration procedure, (being neither a producer nor an importer of substances/preparations).

We periodically review the ECHA candidate list, and we ask our suppliers to commit to deliver pieces, parts and products , free of SVHC substances at a rate of more than 0.1% by weight, for every order.

As an article Downstream user in the value chain, Mersen will:

- Continue to drive a strict policy of Occupational Health and Safety based on up to date versions of Safety Data Sheets.
- Monitor by-the-supplier-identified uses of Substances and Preparations contained in our products,
- Seek out possibilities to substitute or reformulate in anticipation of possible disappearances of Substances or products.

Mersen's active communication policy with our suppliers and customers may help avoid any adverse effect of the Reach Regulation on our products, in order to continue ensuring and enhancing the safety of people and property.

Ne contiennent aucune des 174 substances SVHC à plus de 0,1% en masse de la liste candidate, ni substance de l'Annexe 17 de l' ECHA depuis le 07 juillet 2017.

La déclaration présente est basée sur une communication permanente avec nos fournisseurs . En cas de changement, nous informerions l'ECHA et nos clients selon les exigences Reach.

Mersen France SB n'est pas concernée par la procédure d'enregistrement (ni producteur ni importateur de substance/préparation).

Nous vérifions périodiquement la liste candidate de l'ECHA, et demandons à nos fournisseurs leur engagement de nous livrer des pièces/produits libres de substance SVHC à plus de 0,1% en masse à chaque commande.

En tant qu'utilisateur avai d'articles dans la chaine d'approvisionnement , Mersen - Poursuit avec rigueur une politique de Santé/Sécurité sur la base des versions à jour des E - Surveille les usages identifiés par les fournisseurs des Substances et Préparations utilisées dans nes - S'informe des possibilités de substitution/reformulation pour anticiper d'éventuelles disparitions de Substances/P négatif de

La politique active de communication de **Mersen** avec ses fournisseurs et clients de la communication de **Mersen** avec ses fournisseurs et clients de la continuer à servir la Sécurité des biens et des per la communication de Continuer à servir la Sécurité des biens et des per la communication de Mersen avec ses fournisseurs et clients de la continuer à servir la Sécurité des biens et des per la communication de Mersen avec ses fournisseurs et clients de la continuer à servir la Sécurité des biens et des per la communication de Mersen avec ses fournisseurs et clients de la continuer à servir la Sécurité des biens et des per la communication de la continuer à servir la Sécurité des biens et des per la continuer à servir la Sécurité des biens et des per la continuer à servir la continuer à continuer à servir la continuer à con

Saint Bonnet de Mure le : 19 juillet 2017 Nom / Name

Fonction / Position : Europe Product Certification and High Concerne

BULG

Signature / Signature

на основание чл. 2 от ЗЗЛД

DECLARATION REACH N° 0 0 0 3



Marine & Offshore Division Certificate number: 03924/E1 BV

File number: ACE 03/017/01

Product code: 2645H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

#### TYPE APPROVAL CERTIFICATE

This certificate is issued to

#### MERSEN FRANCE SB S.A.S

SAINT BONNET DE MURE - FRANCE

for the type of product

#### FUSES / FUSES COMBINATION UNITS (LOW VOLTAGE)

Fuse links with indicator NH00, NH0, NH1, NH2, NH3 series (aM, qG),

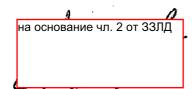
Requirements:

BV Rules for the Classification of Steel Ships. IEC 60269-1 (2009).

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 23 Dec 2020

For BUREAU VERITAS, At BV LYON, on 03 Apr 2017, Jean-Marc Cabuzel







STREKTORK COD

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page of ater turning with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the applyored product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the very this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply this certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com.

Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: http://www.veristarpm.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=oi3jmgxt2y BV Mod. Ad.E 530 October 2014 This certificate consists of 3 page(s)

#### THE SCHEDULE OF APPROVAL

#### 1. PRODUCT DESCRIPTION:

Designation/Fuse-link	Rated voltage(V)	Rated current (A)	Breaking capacity (kA)	سر
Knife-Cartridge			]	S
NH00 gG	690	8-100		<u></u>
NH00 gG	500	125-160	120 kA	
			400/500V	
NH00 aM	690	16-100		
NH00 aM	500	125-160	·	
NH0 gG	690	10-100	80 kA	
NH0 gG	500	125-160	690V	
NH0 aM	690	40-160		
NH1 gG	690	16-200		
NH1 gG	500	224-355	]	
NH1 aM	690	50-250		
			]	
NH2 gG	690	32-315	J	
NH2 gG	500	355-500	J	
NH2 aM	690	100-400	]	
NH3 gG	690	315-500		
NH3 gG	500	630-800		,
NH3 aM	690	315-500	]	
NH3 aM	500	630	<u> </u>	

#### 2. DOCUMENTS AND DRAWINGS:

Specfication ref. DS-LFBCA5-05-0416\_EN, dated 21.Jun.2016. Specfication ref. DS-LFBCA54-03-0616\_EN, dated 21.Jun.2016. Specfication ref. DS-LFBCA6-05-0416\_EN, dated 21.Jun.2016. Specfication ref. DS-LFBCS4-06-0616\_EN, dated 21.Jun.2016. Specfication ref. DS-LFBCG5-04-0416\_EN, dated 22.Jun.2016. Specfication ref. DS-LFBCG6-04-0416\_EN, dated 21.Jun.2016.

#### 3. TEST REPORTS:

According to test reports filed in ACE 03/017/01.

#### 4. APPLICATION / LIMITATION:

4.1 - BV Rules for the Classification of Steel Ships.

4.2 - Approval also valid for ships to be granted with the notations: AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.

#### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The NH series are to be supplied by MERSEN FRANCE SB S.A.S in compliance with the type descertificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such product certificate.

5.3 - MERSEN FRANCE SB S.A.S has to make the necessary arrangements to have its works recognised by Bureau Veritas In compliance with the requirements of NR320 for HBV products.

Certificate number: 03924/E1 BV

#### 6. MARKING OF PRODUCT:

The items prescribed below shall be marked on a easily visible place of fuse surface in an indelible way.

- 1 Rated voltage (V)
- 2 Rated current (A)
- 3 Rated breaking capacity
- 4 Fusing Factor
- 5 Manufacturer's name
- 6 Model N°
- 7 Approved class name.

#### 7. OTHERS:

7.1 - It is MERSEN FRANCE SB S.A.S responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 03924/E0 BV issued on 23 Dec. 2015. by the Society.

\*\*\* END OF CERTIFICATE \*\*\*







Ref. Certif. No.

DE1-58281

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

#### **CB TEST CERTIFICATE**

Product

Name and address of the applicant

Name and address of the manufacturer

Name and address of the factory

Note: When more than one factory, please report on page 2

Ratings and principal characteristics

Trademark (If any)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

Additional information (if necessary may also. be reported on page 2)

A sample of the product was tested and found to be in conformity with

As shown in the Test Report Ref. No. which forms part of this Certificate

Fuse-link, NH-System

Mersen France SB S.A.S.

15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE

FRANCE

Mersen France SB S.A.S.

15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE

FRANCE

FUSETECH Kft.

Guba Sandor ut. 38, 7400 KAPOSVAR

HUNGARY

Additional Information on page 2

see additional information on page 2

NH3GG50Vxxx; NH3GG50Vxxx-1 NH32GG50Vxxx; NH32GG50Vxxx-1

Additional Information on page 2

IEC 60269-1:2006

IEC 60269-1:2006/AMD1:2009

IEC 60269-1:2006/AMD2:2014

IEC 60269-2:2013

IEC 60269-2:2013/AMD1:2016

230314-CC2-1 to -2

This CB Test Certificate is issued by the National Certification Body

VDE Prüf- und Zertifizierungsinstitut GmbH

VDE Testing and Certification Institute

Zertifizierung Produkte I. Certification Products

Date: 2017-01-30

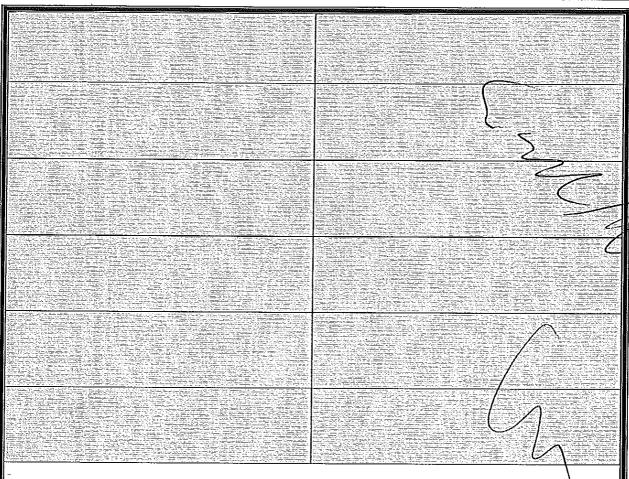
на основание чл. 2 от ЗЗЛД

Signature: J. Richter





DE1-58281



Additional information (if necessary)

Un: 500V a.c.

Breaking capacity: 120 kA

Characteristic: gG

Size 3 Type / In:

NH3GG50Vxxx (energized / compact size) 250 ... 400A NH3GG50Vxxx-1 (de-energized / compact size) 250 ... 400A NH32GG50Vxxx (energized / normal size) 250 ... 400A NH32GG50Vxxx-1 (de-energized / normal size) 250 ... 400A NH3GG50Vxxx (energized / normal size) 500 ... 630A NH3GG50Vxxx-1 (de-energized / normal size) 500 ... 630A





VDE Prüf- und Zertifizierungsinstitut GmbH

**VDE** Testing and Certification Institute
Zertifizierung Produkte / Certification Products

Date: 2017-01-30

на основание чл. 2 от ЗЗЛД

J. Richter

Signature:

#### Списък на изпитанията

Към Сертификат №DE1-58281 с тестови протокол №230314-СС2-1:2

На Високомощни ножови предпазители NH3 500V

- 1. Изпитания съгласно стандарт IEC 60269-1:2006;
- 2. Изпитания съгласно стандарт IEC 60269-1:2006/AMD1:2009;
- 3. Изпитания съгласно стандарт IEC 60269-1:2006/AMD2:2009;
- 4. Изпитания съгласно стандарт IEC 60269-2:2013;
- 5. Изпитания съгласно стандарт IEC 60269-2:2013/AMD2:2006;







DE1-58279

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

#### **CB TEST CERTIFICATE**

Product

Name and address of the applicant

Name and address of the manufacturer

Name and address of the factory

Note: When more than one factory, please report on page 2

Ratings and principal characteristics

Trademark (If any)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

Additional information (if necessary may also be reported on page 2)

A sample of the product was fested and found to be in conformity with

As shown in the Test Report Ref. No. which forms part of this Certificate

Fuse-link, NH-System

Mersen France SB S.A.S. 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Mersen France SB S.A.S. 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

FUSETECH Kft. Guba Sandor ut. 38, 7400 KAPOSVAR HUNGARY

☐ Additional Information on page 2

see additional information on page 2

NH2GG50Vxxx; NH2GG50Vxxx-1 NH22GG50Vxxx; NH22GG50Vxxx-1

see additional information on page 2

Additional Information on page 2

IEC 60269-1:2006

IEC 60269-1:2006/AMD1:2009

IEC 60269-2:2013

IEC 60269-2:2013/AMD1:2016

230292-CC2-1; 230292-CC2-2

This CB Test Certificate is issued by the National Certification Body

VDE Prüf- und Zertifizierungsinstitut GmbH-

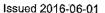
VDE Testing and Certification Institute Zertifizierung Produkte / Certification Products

Date: 2017-01-30

на основание чл. 2 от ЗЗЛД

Signature:

J. Richter





DE1-58279



#### Additional information (if necessary)

Un: 500V a.c.

Breaking capacity: 120 kA

Characteristic: gG

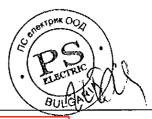
Size: 2 Type / in:

NH2GG50Vxxx (energized / compact size) 35 ... 250A NH2GG50Vxxx-1 (de-energized / compact size) 35 ... 250A

NH2GG50Vxxx (energized / normal size) 315 ...400A NH2GG50Vxxx-1 (de-energized / normal size) 315 ...400A

NH22GG50Vxxx (energized / normal size) 63 ...250A NH22GG50Vxxx-1 (de-energized / normal size) 63 ...250A





**VDE** Prüf- und Zertifizierungsinstitut GmbH **VDE** Testing and Certification Institute Zertifizierung Produkte / Certification Products

Date: 2017-01-30

на основание чл. 2 от 33ЛД

Signature:

J. Richter

#### Списък на изпитанията

Към Сертификат №DE1-58279 с тестови протокол №230292-СС2-1; №230292-СС2-2

На Високомощни ножови предпазители NH2 500V

- 1. Изпитания съгласно стандарт IEC 60269-1:2006;
- 2. Изпитания съгласно стандарт IEC 60269-1:2006/AMD1:2009;
- 3. Изпитания съгласно стандарт IEC 60269-2:2013;
- Изпитания съгласно стандарт IEC 60269-2:2013/AMD2:2006;

4





## DE Prüf- und Zertifizierungsinstitut

# ZEICHENGENEHMIGUNG MARKS APPROVAL

Mersen France SB S.A.S. 15 Rue Jacques de Vaucanson 69720 SAINT BONNET DE MURE **FRANCE** 

ist berechtigt, für ihr Produkt / is authorized to use for their product Sicherungseinsatz, NH-System

> Fuse-link, NH-System NH3GG40Vxxx NH3GG40Vxxx-1

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 60269-1 (VDE 0636-1);2015-05; EN 60269-1:2007 + A1:2009 + A2:2014 DIN VDE 0636-2 (VDE 0636-2):2014-09 HD 60269-2:2013



VDE Prüf- und Zertifizierungsinstitut GmbH VDE Testing and Certification Institute

Zertifizierungsstelle / Certification

на основание чл. 2 от ЗЗЛД

ntlichung unter:

Aktenzeichen: 5003214-1150-0012 / 2178 File ref.: Bla

Ausweis-Nr.: 40041833

Certificate No.

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

Offenbach, 2015-03-05

(letzte Änderung / updated 2015-12-21)

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





## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833

Blatt / Page 2

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

letzte Änderung / updated 2015-12-21

Datum / Date 2015-03-05

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40041833. This supplement is only valid in conjunction with page 1 of the Certificate No. 40041833.

#### Sicherungseinsatz, NH-System

Fuse-link, NH-System NH3GG40Vxxx NH3GG40Vxxx-1

Typ(en) / Type(s)

#### NH3GG40Vxxx NH3GG40Vxxx-1

Bemessungsspannung Rated voltage

400 V a.c.

Bemessungsstrom Rated current

250 A; 315 A; 400 A; 500 A; 630 A

Bemessungsfrequenz Rated frequency

45 bis/to 62 Hz

Bemessungsausschaltvermögen Rated breaking capacity

100 kA

Baugröße Size

3

Abmessung

Dimension

Typen mit Maßen der kleineren Baugröße: NH3GG40V250(-1); NH3GG40V315(-1); NH3GG40V400(-1)

Typen mit Standardmaßen:

NH3GG40V500(-1); NH3GG40V630(-1) Types with dimensions of smaller size:

NH3GG40V250(-1); NH3GG40V315(-1); NH3GG40V400(-1)

Types with standard dimensions: NH3GG40V500(-1); NH3GG40V630(-1)

Betriebsklasse Utilization category

gG

Grifflasche

spannungsführend (NH3GG40Vxxx) spannungsfrei (NH3GG40Vxxx-1) energized (NH3GG40Vxxx) de-energized (NH3GG40Vxxx-1)

Gripping lug

Anzeiger vorne und oben

Anzeigevorrichtung Indicating device

Indicator in front and at the top

Fortsetzung siehe Blatt 3 / continued on page 3

VDE Prüf- und Zertifizierungsinstitut GmbH \* Testing and Certification Institute





## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833 Blatt / Page 3

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

letzte Änderung / updated 2015-12-21

Datum / Date 2015-03-05

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This Marks Approval is a basis for the EC Declaration of Conformity and the CE Marking by the manufacturer or his agent and proves the conformity with the essential safety requirements of the EC Low-Voltage Directive (2006/95/EC until 2016-04-19, 2014/35/EU from 2016-04-20).

VDE Prüf- und Zertifizierungsinstitut GmbH VDE Testing and Certification Institute Fachgebiet CC2 Section CC2







## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833

Beiblatt / Supplement

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref.

letzte Änderung / updated 2015-12-21

Datum / Date 2015-03-05

5003214-1150-0012 / 217877 / CC2 / KOH

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40041833. This supplement is part of the Certificate No. 40041833.

Sicherungseinsatz, NH-System

Fuse-link, NH-System NH3GG4ÓVxxx NH3GG40Vxxx-1

Fertigungsstätte(n) Place(s) of manufacture

Referenz/Reference

30008637

FUSETECH Kft. Guba Sandor ut. 38 H-7400 KAPOSVAR

VDE Prüf- und Zertifizierungsinstitut GmbH VDE Testing and Certification Institute Fachgebiet CC2 Section CC2





## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833 Infoblatt /
Info sheet

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

letzte Änderung / updated

2015-12-21

Datum / Date 2015-03-05

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Genehmigung zum Benutzen des auf Seite 1 abgebildeten markenrechtlich geschützten Zeichens des VDE:

Grundlage für die Benutzung sind die Allgemeinen Geschäftsbedingungen (AGB) der VDE Prüf- und Zertifizierungsinstitut GmbH (www.vde.com\AGB-Institut). Das Recht zur Benutzung erstreckt sich nur auf die bezeichnete Firma mit den genannten Fertigungsstätten und die oben aufgeführten Produkte mit den zugeordneten Bezeichnungen. Die Fertigungsstätte muss so eingerichtet sein, dass eine gleichmäßige Herstellung der geprüften und zertifizierten Ausführung gewährleistet ist.

Die Genehmigung ist so lange gültig wie die VDE-Bestimmungen gelten, die der Zertifizierung zu- grunde gelegen haben, sofern sie nicht auf Grund anderer Bedingungen aus der VDE Prüf- und Zertifizierungsordnung (PM102) zurückgezogen werden muss.

Der Gültigkeitszeitraum einer VDE-GS-Zeichengenehmigung kann auf Antrag verlängert werden. Bei gesetzlichen und / oder normativen Änderungen kann die VDE-GS-Zeichengenehmigung ihre Gültigkeit zu einem früheren als dem angegebenen Datum verlieren.

Produkte, die das Biozid Dimethylfumarat (DMF) enthalten, dürfen gemäß der Kommissionsent-/scheidung 2009/251/EG nicht mehr in den Verkehr gebracht oder auf dem Markt bereitgestellt werden.

Der VDE-Zeichengenehmigungsausweis wird ausschließlich auf der ersten Seite unterzeichnet.

#### Approval to use the legally protected Mark of the VDE as shown on the first page:

Basis for the use are the general terms and conditions of the VDE Testing and Certification Institute (www.vde.com\terms-institute). The right to use the mark is granted only to the mentioned company with the named places of manufacture and the listed products with the related type references. The place of manufacture shall be equipped in a way that a constant manufacturing of the certified construction is assured.

The approval is valid as long as the VDE specifications are in force, on which the certification is based on, unless it is withdrawn according to the VDE Testing and Certification Procedure (PM102E).

The validity period of a VDE-GS-Mark Approval may be prolonged on request. Incese of changes in legal and / or normative requirements, the validity period of a VDE-GS-Mark Approval may be storage available on the EC Products containing the biocide dimethylfumarate (DMF) may not be marketed of make available on the EC

The approval is solely signed on the first page.

market according to the Commission Decision 2009/251/EC.





## **WDE** Prüf- und Zertifizierungsinstitut

## ZEICHENGENEHMIGUNG MARKS APPROVAL

Mersen France SB S.A.S. 15 Rue Jacques de Vaucanson 69720 SAINT BONNET DE MURE FRANCE

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

Sicherungseinsatz, NH-System

Fuse-link, NH-System NH3GG40Vxxx NH3GG40Vxxx-1

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 60269-1 (VDE 0636-1):2015-05; EN 60269-1:2007 + A1:2009 + A2:2014 DIN VDE 0636-2 (VDE 0636-2):2014-09 HD 60269-2:2013



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

на основание чл. 2 от ЗЗЛД

ntlichung unter: shed on: Aktenzeichen: 5003214-1150-0012 / 217

Ausweis-Nr. 40041833

Certificate No.

Weltere Bedingungen siehe Rücksette und Folgeblätter i funher conditions see overleaf and following pages

Offenbach, 2015-03-05

(letzte Änderung / updated =2015-12-21:)

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





### VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833

Blatt / Page

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH letzte Änderung / updated 2015-12-21

Datum / Date 2015-03-05

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40041833. This supplement is only valid in conjunction with page 1 of the Certificate No. 40041833.

#### Sicherungseinsatz, NH-System

Fuse-link, NH-System NH3GG40Vxxx NH3GG40Vxxx-1

Typ(en) / Type(s)

NH3GG40Vxxx NH3GG40Vxxx-1

Bemessungsspannung Rated voltage

400 V a.c.

Bemessungsstrom Rated current

250 A; 315 A; 400 A; 500 A; 630 A

Bemessungsfrequenz Rated frequency

45 bis/to 62 Hz

Bemessungsausschaltvermögen Rated breaking capacity

100 kA

Baugröße Size

3

Abmessung

Dimension

Typen mit Maßen der kleineren Baugröße: NH3GG40V250(-1); NH3GG40V315(-1); NH3GG40V400(-1)

Typen mit Standardmaßen:

NH3GG40V500(-1); NH3GG40V630(-1) Types with dimensions of smaller size: NH3GG40V250(-1); NH3GG40V315(-1); NH3GG40V400(-1)

Types with standard dimensions: NH3GG40V500(-1); NH3GG40V630(-1)

Betriebsklasse Utilization category gG

Grifflasche Gripping lug spannungsführend (NH3GG40Vxxx) spannungsfrei (NH3GG40Vxxx-1) energized (NH3GG40Vxxx) de-energized (NH3GG40Vxxx-1)

Anzeigevorrichtung Indicating device

Anzeiger vorne und oben Indicator in front and at the top

Fortsetzung siehe Blatt 3 / continued on page 3

VDE Prüf- und Zertifizierungsinstitut GmbH \* Testing and Certification Institute







## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833

Blatt / Page 3

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

letzte Änderung / updated

Datum / Date

2015-12-21

2015-03-05

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VDE Prüf- und Zertifizierungsinstitut GmbH VDE Testing and Certification Institute Fachgebiet CC2 Section CC2







## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833 Beiblatt / Supplement

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

letzte Änderung / updated 2015-12-21

Datum / Date 2015-03-05

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40041833. *This supplement is part of the Certificate No. 40041833*.

#### Sicherungseinsatz, NH-System

Fuse-link, NH-System NH3GG40Vxxx NH3GG40Vxxx-1

Fertigungsstätte(n)
Place(s) of manufacture

Referenz/Reference 30008637

FUSETECH Kft. Guba Sandor ut. 38 H-7400 KAPOSVAR

VDE Prüf- und Zertifizierungsinstitut GmbH VDE Testing and Certification Institute Fachgebiet CC2 Section CC2







## VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No. 40041833

Infoblatt / Info sheet

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 SAINT BONNET DE MURE, FRANCE

Aktenzeichen / File ref. 5003214-1150-0012 / 217877 / CC2 / KOH

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Die Genehmigung ist so lange gültig wie die VDE-Bestimmungen gelten, die der Zertifizierung zu- grunde gelegen haben, sofern sie nicht auf Grund anderer Bedingungen aus der VDE Prüf- und Zeftifizierungsordnung (PM102) zurückgezogen werden muss.

Der Gültigkeitszeitraum einer VDE-GS-Zeichengenehmigung kann auf Antrag verlängert werden. Bei gesetzlichen und / oder normativen Änderungen kann die VDE-GS-Zeichengenehmigung ihre Gültigkeit zu einem früheren als dem angegebenen Datum verlieren.

Produkte, die das Biozid Dimethylfumarat (DMF) enthalten, dürfen gemäß der Kommissionsent- scheidung 2009/251/EG nicht mehr in den Verkehr gebracht oder auf dem Markt bereitgestellt werden. Der VDE-Zeichengenehmigungsausweis wird ausschließlich auf der ersten Seite unterzeichnet.

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shall be equipped in a way that a constant manufacturing of the certified construction is assurbed to the certification of the approval is valid as long as the VDE specifications are in force, on which the certification is passed on, unless it is withdrawn according to the VDE Testing and Certification Procedure (PM102E).

The validity period of a VDE-GS-Mark Approval may be prolonged on request. In case of changes in legal and / or normative requirements, the validity period of a VDE-GS-Mark Approval may be shortened to

Products containing the biocide dimethylfumarate (DMF) may not be marketed or made available on the EC market according to the Commission Decision 2009/251/EC.

The approval is solely signed on the first page.

### "ПС електрик" ООД

#### Рутинни изпитания

Предпазители със стопяема вложка ниско напрежение NH2 и NH 3

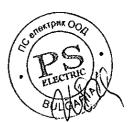
1. Измерване на съпротивлението, проверка за функция на непрекъснатост на стопяемата нишка.

2. Визуална проверка за наранявания, пукнатини и счупвания по тялото.

Дата: 14.03.2018 г

Съставил: Н. Николог

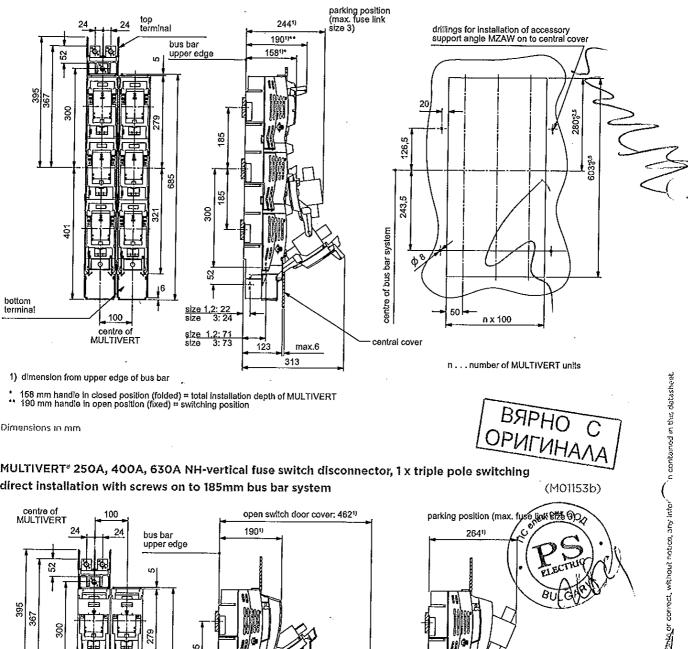
на основание чл. 2 от ЗЗЛД





MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 3 x single pole switching. direct installation with screws on to 185mm bus bar system

(M01152b)



- 158 mm handle in closed position (folded) = total installation depth of MULTIVERT 190 mm handle in open position (fixed) = switching position

Dimensions in mm



MERSEN reserves the right to change up

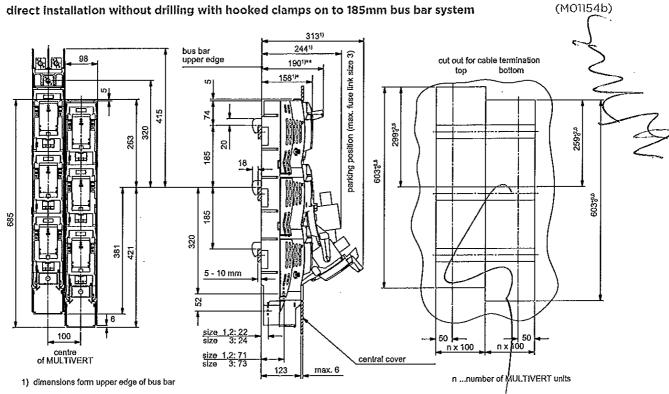
5

MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 1 x triple pole switching direct installation with screws on to 185mm bus bar system

(M01153b) centre of MULTIVERT open switch door cover: 4621 parking position (max. fuse link 8726 9) 1901) 2641) bus bar upper edge 22 395 367 185 300 5 IEC Fuse Switch Disconnector 6111V2-09-0617-E central cover **EP.MERSEN.COM** MERS

max. 6

MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 3 x single pole switching direct installation without drilling with hooked clamps on to 185mm bus bar system

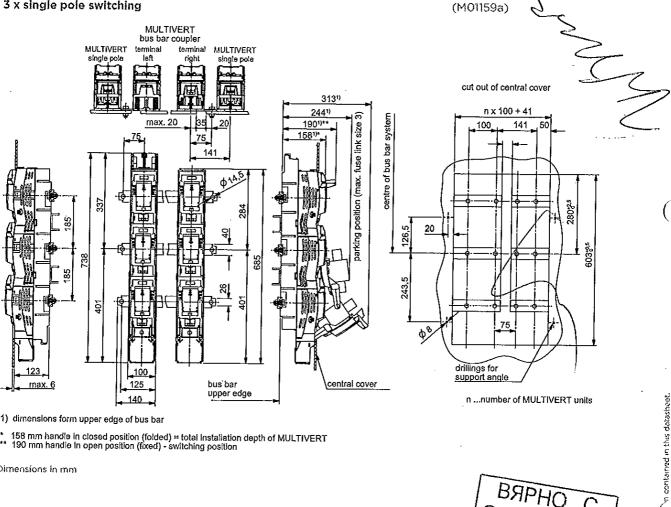


158 mm handle in closed position (folded) = total installation depth of MULTIVERT
 190 mm handle in open position (fixed) - switching position

Dimensions In mm



MULTIVERT\* 250A, 400A, 630A bus bar coppler switch with lateral terminals 3 x single pole switching



- 1) dimensions form upper edge of bus bar
- 158 mm handle in closed position (folded) = total installation depth of MULTIVERT
   190 mm handle in open position (fixed) switching position

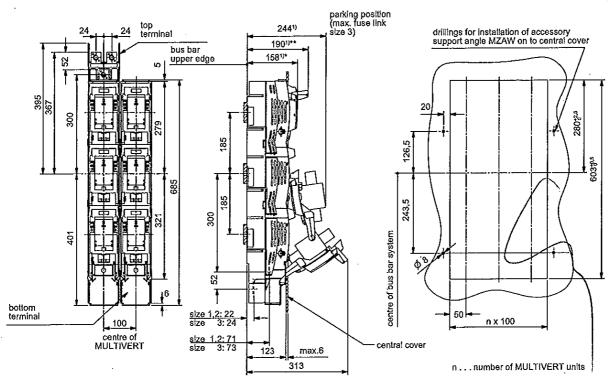
Dimensions in mm







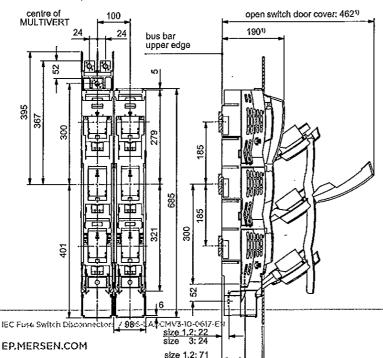
MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 3 x single pole switching direct installation with screws on to 185mm bus bar system



- 1) dimension from upper edge of bus bar
- 158 mm handle in closed position (folded) = total installation depth of MULTIVERT
   190 mm handle in open position (fixed) = switching position

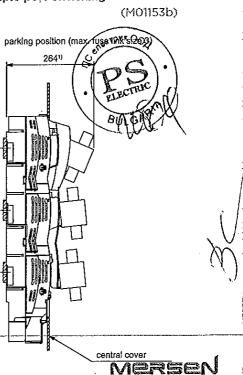
Dimensions in mm

MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 1 x triple pole switching direct installation with screws on to 185mm bus bar system



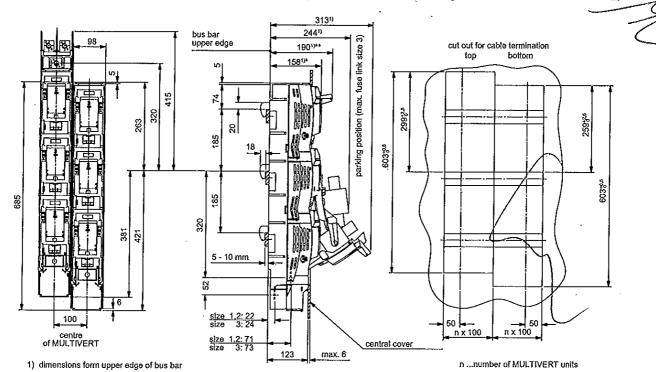
123

max. 6



Jodaka or correct, without nobce, any Information contained in this datasheat.

MULTIVERT\* 250A, 400A, 630A NH-vertical fuse switch disconnector, 3 x single pole switching direct installation without drilling with hooked clamps on to 185mm bus bar system



158 mm handle in closed position (folded) = total Installation depth of MULTIVERT
 190 mm handle in open position (fixed) - switching position

Dimensions in mm

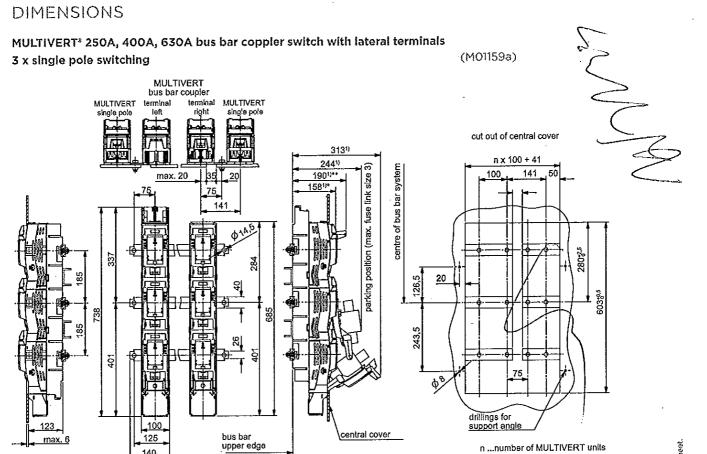
ВЯРНО С ОРИГИНАЛА

(MO1164b)



MULTIVERT\* 250A, 400A, 630A bus bar coppler switch with lateral terminals 3 x single pole switching

(M01159a)



- 1) dimensions form upper edge of bus bar
- 158 mm handle in closed position (folded) = total installation depth of MULTIVERT
   190 mm handle in open position (fixed) switching position

Dimensions in mm





#### ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ

Долуподписаният, "ПС електрик" ООЛ.

(име на производителя или неговия упълномощен представител, наименование на дружеството /фирмата производител или негов представител)

> 9700 гр. Шумен, бул. "Мадара" № 12. (адрес)

декларирам на собствена отговорност, че продуктът

Предпазители със стопяема вложка ниско напрежение размер NH-2 250A, NH-2 400A, NH3-650FF, характеристика gG

(наименование и търговска марка, тип или модел, предназначение)

произведен от

#### Mersen France SB

(място на производство на разглеждания продукт)

за който се отнася тази декларация, е произведен в условията на въведена и поддържана от производителя система за производствен контрол и е в/съответствие със следния(те) стандарт(и), Българско техническо одобрение (БТО) или друг/и) нормативен(ни) акт(актове):

- БДС EN 60269-1:2007 "Стопяеми предпазители за ниско напрежение. Част 1: Общи изисквания (ІЕС 60269-1:2006)
- БДС EN 60269-2:2013 "Стопяеми предпазители за ниско напрежение. Част 2: Допълнителни изисквания за стопяеми предпазители, предназначени за използване от квалифицирани лица (стопяеми предпазители предимно за промишлено приложение). (наименование и/или номер и дата на издаване на стандарта(тите), БТО или друг(и) нормативен(ни) акт (актове)

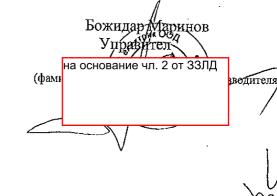
и е оценен положително по реда и условията на Нарадбата за съществените изисквания и оценяване на съответствието на електрически съоръжения, предназначени за използване в определени граници на напражението, приета с ПСМ№182 от 06.07.2001г., обн. ДВ, бр.62 от 13.07.2001г.

Продуктът отговаря на Техническата спецификация на стандарта за материал, вкл. на "Характеристика на материала" и "Съответствие на предложеното изпълнение с нормативнотехническите документи.

Декларирам, че ми е известна отговорността, която нося съгласно чл. 313 от НК.

13.03.2018 год. гр. Шумен

(място и дата на издаване)





EMA

### ΠΑΠΚΑ 10

ПРИЛОЖЕНИЕ 10 Други документи за

Позиция 1 и Позиция 2

ПРИЛОЖЕНИЕ 10.5 Други

Приложение 1

Приложение 2

Приложение 3

Приложение 4

Приложение 5



## МИНИСТЕРСТВО НА ВЪТРЕШНИТЕ РАБОТИ

## ІЛАВНА ДИРЕКЦИЯ "ПОЖАРНА БЕЗОПАСНОСТ И ЗАЩИТА НА НАСЕЛЕНИЕТО"

#### , ОТДЕЛ "ЦЕНТЪР ЗА ИВСЛЕДВАНИЯ И ЕКСПЕРТИЗИ"

1619 -София, ул. "Огнеборец" №1, тел.: 857 03 26, 857 46 89, факс: 857 02 14

2000

## класификационен протокол

№ 3/11.06.2012 г.

## Класификация за реакция на огън

**Заявител:** "ПАВЕЛ И СИНОВЕ ЕЛЕКТРИК" ООД, гр. Шумен9700, област Шумен, община Шумен, бул. "Мадара", № 12

Писмо вх. № 12569/08.06.2012 г.

Подготвен от: ОТДЕЛ "ЦЕНТЪР ЗА ИЗСЛЕДВАНИЯ И ЕКСПЕРТИЗИ" П ГДПБЗН-МВР, 1619 София, ул. "Огнеборец" № 1.

BSPHO C OPWEWHAAA

Име на продукта: Полиестер Menzolit SMC 0200, марка Incobex, тип електрически табла ST, SST, STN, SSTN, KK и KKD.

### Издание номер: 1

Този класификационен протокол съдържа 3 (три) страници и може да бъде използван или издаден отново само в пълния си вид.

Класификационен протокол № Лист 1 от 3 НАЧАЛ КОМИ Екземпляр № 2

НАЧАЛНИК НА ОЦИЕ: КОМИСАР

/ Хрисими

2. Детайли на класифицирания продукт

Полиестер Menzolit SMC 0200, марка Incobex тип за електрически табла ST, SST, STN, SSTN, KK и KKD. Състав: стъклонапълнен полиестер със съдържание на стъклени влакна 23%, производство на Incobex Sp.zoo, ul Grazynskiego 71, 43-300 Bielsko-Biala, Poland.

3. Протоколи от изпитванията и резултати от изпитванията в съответствие с класификацията.

#### 3.1 Протоколи от изпитванията

Име на лабораторията	Име на заявителя	Изпитване и дата	Метод на изпитване
Изпитвателен център по "Пожарна и аварийна безопасност"	"ПАВЕЛ И СИНОВЕ ЕЛЕКТРИК" ООД, гр. Шумен	Протокол № ИЦ-62-122 23.12.2010 г.	БДС EN 60695-11-10 :

## 3.2 Резултати от изпитванията

Метод и номер	Параметър	Протокол	Резултати			
на изпитването	. ,	.№	Постоянен параметър – означение	Съответствие с параметрите		
БДС EN 60695-11-10	t <sub>1</sub> и t <sub>2</sub> по-малко от 10 s;	№ ИЦ-62-122/ 23.12.2010 г.	$t_1 u t_2 = 0 s$	Съответства		
•	t <sub>f</sub> по-малко от 50 s;	·	$t_f = 0 \text{ s}$	Съответства .		
	(t <sub>2</sub> +t <sub>3</sub> ) по-малко от 30 s ;		$(t_2+t_3)=0 \underbrace{0}$	DNId*######		
	достигане до мястото на закрепване;	÷	. не	Сьответства		
	запалване на памучния тампон.		не	Съответства ОИСА Д		

				1 (27) Lea	_
-	Класификационен протокол № 3/11.06,2012 г	Лист 2 от 3	НАЧАЛНИК НА ОЦИ	на основание чл. 2 от ЗЗЛД	ľ
- {	Екзсмиляр № 2		КОМИСАР		l
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				· Fac 32 O OPROMINITAL K-IRS	J

#### 4 Класификация и област на приложение

4.1 Съответствие на класификацията:

Полиестер Menzolit SMC 0200, марка Incobex тип за-електрически табла ST, SST, STN, SSTN, KK и KKD със състав: стъклонапълнен полиестер със съдържание на стъклени влакна 23%, производство на Incobex Sp.zoo, ul Grazynskiego 71, 43-300 Bielsko-Biala, Poland се класифицира в категория V-0, съгласно БДС-EN 60695-11-10.

4.2 Класификация

## Класификация за реакция на огвн КАТЕГОРИЯ V-0

#### 4.3 Област на приложение

Тази класификация е валидна за полиестер Menzolit SMC 0200, марка Incobex тип за електрически табла ST, SST, STN, SSTN, КК и ККD със състав: стъклонапълнен полиестер със съдържание на стъклени влакна 23%, производство на Incobex/Sp.zoo, dl Grazynskiego 71, 43-300 Bielsko-Biala, Poland

#### 5. Ограничения

Този класификационен документ не представлява вид одобрение или сертификация на продукта.

Изпитвателната лаборатория обаче не взема участие при вземането на пробиют С изпитвания продукт, въпреки че притежава съответните препоръки, предоставени огдо производителя за осигуряване на проследимост на изпитваните проби.

на основание чл. 2 от ЗЗЛД на основание чл. 2 от ЗЗЛД ИЗВЪРШИЛ АЛНИК НА ОЦИЕ: КЛАСИФИКАЦИЯТА: ИСАР / инж. Е. Хлебарова/ на основание чл. 2 от ЗЗЛД на основание чл. 2 от ЗЗЛД Класификационен протокол № 3/11.06.2012 г НАЧАЛНИК НА О Лист 3 от 3 Екземпляр № 2 КОМИСАР БЕЗОПАСНОСТ AH ATRIMAS N **ACEMENIETO** 

#### МИНИСТЕРСТВО НА ВЪТРЕШНИТЕ РАБОТИ ГЛАВНА ДИРЕКЦИЯ "ПОЖАРНА БЕЗОПАСНОСТ И СПАСЯВАНЕ"

ИЗПИТВАТЕЛЕН ЦЕНТЪР ПО ПОЖАРНА И АВАРИЙНА БЕЗОПАСНОСТ 1619 - София, ул. "Огиеборец" №1, тел.: 857 03 26, 857 46 89, факс: 857 02 14

Лист I Велиста 3

протокол

ОТ ИЗПИТВАНЕ

№ ИЦ-62-122/23.12.2010 г.

Сертификат

им "БСА"

Рег. № 51 - пи

массилатор и в та
иминдани

валиден до 28,02,2014 г.

1. МАТЕРИАЛИ КОНСТРУКТИВНИ И ЗА ВЪТРЕШНО ОВЗАВЕЖДАНЕ /ПЛАСТМАСИ И ДРУГИ НЕМЕТАЛНИ МАТЕРИАЛИ/

Полнестер Menzolit SMC 0200. марка Incobex тип за слектрически табла ST, SST. STN, SSTN, KK и KKD. с дебелина 8,5 mm. Състав: стъклонапълнен полнестер със съдържание на стъклени влакна 23%. Производител на продукта е Incobex Sp.zoo. ul Grazynskiego 71. 43-300 Bielsko-Biala. Poland.

- 2. ЗАЯВИТЕЛ НА ИЗПИТВАНЕТО: фирма "ПАВЕЛ И СИНОВЕ <u>ЕЛЕКТРИК" ООД.</u> гр. Шумен. Писмо вх. № ИЦ-62/09.11.2010 г. ВЯРНО С ОРИГИНАЛА
- 3. МЕТОД ЗА ИЗПИТВАНЕ И СПЕЦИФИЧНИ УСЛОВИЯ:

  БДС EN 60695-11-10 "Изпитване на опасност от пожар. Част 11-10. Изпитвателни пламъци. 
  Хоризоптален и вертикален метод за изпитване е пламък с мощност 50W".

  Образците за изпитване са кондиционирани при Rh=(50±5)% и температура (23±2)°С за 48h.
- 4. ДАТА НА ПОЛУЧАВАНЕ НА ОБРАЗЦИТЕ ЗА ИЗПИТВАНЕ: 20.12/2010
- 5. КОЛИЧЕСТВО НА ИЗПИТВАНИТЕ ОБРАЗЦИ: 5 бр. от проба № ИЦ 62/2010 г. 62-1 до № 62-5.

  на основание чл. 2 от 33ЛД
- 6. ДАТА НА ИЗВЪРШВАНЕ НА ИЗПИТВАНЕТО: 22.12.201

РЪКОВОДИТЕЛ НА ИЦ по ПАБ:

Анж. Б. Розапов/

Лист 2 Вс. листове 3

Contraction of the Contraction o	J CHOKBA	излитванс	OT		8							t°=26°C±0,\ 4°C RH=60.0%+1	\$		1	
c						Категория V-2 съгласно БДС EN 60695- 11-10		EJC EN 60695- 11-10	r.9.4	t, <30		t, ≤30	t, \$250		(1+7)	
Croimor w nomer us	показателя					Катстория V-1 съгласно БДС EN 60695- 11-10		БДС. EN 60695- 11-10	r.9.4	t, <30		t, ≤30	t, <250		$(t_{\lambda} + t_{\gamma}) \leq 60$	
٢						Қатегория V-0 сълласно БДС EN 60695- 11-10	1	54C EN 60695- 11-10	1.9.4	t, ≤10		t <sub>2</sub> ≤10	t, 550		(t <sub>2</sub> + t <sub>3</sub> ) ≤30	
Резултати	от изпит-	ването	(стойност,	неопределе ност)	9				0	0000	,	0000	poop.	>	000	0 0
Nº Ha	образеца	IIO BX	изх.днев-	HIK	5				ИЦ-62-1	ИЦ-62-2 ИЦ-62-3 ИЦ-62-4 ИЦ-62-5		иц-62-1 иц-62-2 иц-62-3 иц-62-4 иц-62-4 иц-62-5	иц-62-1 иц-62-2 иц-62-3 иц-62-4		ИЦ-62-1 ИЦ-62-2 ИЦ-62-3	ИЦ-62-4 ИЦ-62-5
); Стандарти/	валицирани	методи			4							БДС EN 60695-11-10	! ! 	B. 0.0	ярн Иги	O C
INTBAHETC Edmenada	на	величи-	ната		3							Ø	is after TOI	1700		
/. РЕЗУЛЛАТИ ОТ ИЗПИТВАНЕТО: Наименование на Единица	показателя				2	Категория на горимост	- Продължителност на	пламъка;	↓	Ĝ	4	, , ,	election of the state of the st	GP	· 1+1:	
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Лист 3 Вс.листа 3

8		,	-		10=250+01	4 °C	R14=60 0%+1	3%	3				
	БДС EN 60695-	11-10	r.9.4		He			BAC EN 60695.	11-10	r.9.4		да	
7	5AC EN 60695-	11-10	T.9.4		не			БДС EN 60695-	11-10	т.9.4		не	
	БДС EN 60695-	11-10	T.9.4		He			BAC EN 60695-	11-10	T.9.4		не	
9		He	He	He	же	He		не	не	He	не	He	
5		ИЦ-62-1	ИЦ-62-2	ИЦ-62-3	ИЦ-62-4	ИЦ-62-5		ИЦ-62-1	ИЦ-62-2	ИЦ-62-3	ИЦ-62-4	ИЦ-62-5	
4						БДС ЕМ	60695-11-10						
3		1								ŧ			
2	- Достигане до мястото	на закрепване;						- Запалване на	памучния тампон.				
r													

ЗАБЕЛЕЖКА I: Ако е необходимо, протоколът от изпитване може да включва мнения и интерпретации за определени изпитвания (заключения не се допускат) само в съответствие с изискванията на т. 5.10.5 от БДС EN ISO/IEC 17025:2006

не могат да се размножават без на основание чл. 2 от ЗЗЛД ЗАБЕЛЕЖКА П: Резултатите от изпитванията се отнасят само за изпитваните образци. Извлечения от изпитвателни РЪКОВОДИТЕЛ НА ИЦ по ПАБ на основание чл. 2 от ЗЗЛД X провели изпитването:1. .....(\_ 2..... писмено съгласие на ИЩ по ПАБ.

лабаналитак Д. Дончева/

SUBRIBIN DO

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61. [6] (7)

TEN POLICE





STOWARZYSZENIE ELEKTRYKÓW POLSKICH

## BIURO BADAWCZE DS. JAKOŚCI

04-703 Warszawa, ul. Mieczysława Pożaryskiego 28 tel.: +48 22 812 69 38; fax: +48 22 815 65 80; e-mail: bbj@bbj.pl

## CERTYFIKAT ZGODNOŚCI CE

CE CERTIFICATE OF CONFORMITY

nr CE/040/12. No. CE/04<del>0</del>/12

Dostawca: (Nazwa I adres)

Supplier: (Name and address)

INCOBEX Sp. z o.o. ul. Grażyńskiego 71

43-300 Bielsko-Biała, Poland

Producent: (Nazwa I adres)

Manufacturer: (Name and address) INCOBEX Sp. z o.o. ul. Grażyńskiego 71

43-300 Bielsko-Biała, Poland

Nazwa wyrobu: Name of the product: Obudowy do rozdzielnic niskiego napięcia z materialu

izolacyjnego termoutwardzalnego.

Empty enclosures for low-voltage switchgear and controlgear assemblies made of insulating thermohardening material.

Typ (model): Type (model):

STN..., SSTN...

(wykaz odmian na odwrocie)

(list of variations on the back page)

Dane techniczne: Technical data:

Stopień ochrony: IP44; IK10 Degree of protection: IP44; IK10

Wymieniony powyżej wyrób spełnia wymagania norm(-y) zharmonizowanych(-ej): Aforesaid product complies with the regulrements of the harmonized standard(s):

Norma(-y)	Raport(-y) z badań nr	Wydany(-e) przez
Standard(s)	Test report(s) No.	Issued by
PN-EN 62208:2006 (EN 62208:2003)	LA-07.193/1, LA-07.193/2, LA-11.040/1, LA-11.040/2	ввј

Spełnienie wymagań powyższych(-ej) norm(-y) daje domniemanie zgodności z zasadniczymi wymaganiami określonymi

Compliance with the requirements of the aforesald standard(s) gives presumption of conformity with the essentials requirements specified in:

Dyrektywie LVD 2006/95/WE (wdrożonej do prawa polskiego rozporządzeniem Ministra Gospodarki z 2007-08-21, Dz. U. nr 155, poz.-1089);

LVD Directive 2006/35/EC (implemented into Polish law by MG decree of 2007-08-21, OJ No. 155, item 1089): stanowiąc niezbędny warunek dla oznakowania C C.

accomplishing mandatory terms of CE marking.

Ninlejszy certyfikat dotyczy wyłącznie wyrobów mających identyczne wiaściwości (parametry) przedstawiony do badań wzór i spelniających wymagania ww. norm(-y).

This certificate covers only the products with characteristics same as of the tested sample and those complying with the requirements of the aloresald standard(s).

Ponadto, znakowanie CE powinno być umleszczone na wyrobach po sporządzeniu niezbędnej dokumentacji technicznej oraz wystawieniu deklaracji zgodności WE, zgodnie z postanowieniami www. (rozporządzenia/ustawy).

Moreover, C € marking shall be affixed on the products after technical documentation was prepared and EQ issued, according to the aforesaid directive(s) (decree) regulations.

Niniejszy certyfikat traci ważność z datą ustania domniemania zgodpości ww. noim(-) z zasadniczymi wymaganiami ww. dyrektyw(-y) (rozporządzenia/ustawy).

This certificate is valid until the date of cessation of presumption of conformit the aforesaid han the eforesaid directive(s) (decree/act).



на основание чл. 2 от ЗЗЛД Kie

BAPHO

Teodor Pyszniak

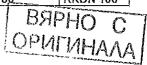


Warszawa i 2012-10-01

## Informacje dodatkowe: Additional information:

## Wykaz odmian: List of variations:

Informacje dodat Additional informatio				Section 1	
Wykaz odmian: List of variations:				de sel	11
Obudowy: cabinets:					
STN 26x42	SSTN 26×42	STN 26×58	SSTN 26×58	STN 26×84	SSTN 26×84
STN 40x42	SSTN 40x42	STN 40x58	SSTN 40x58	STN 40x84	SSTN 40x84
STN 53x42	SSTN 53x42	STN 53x58	SSTN 53x58	STN 53x84	SSTN 53x84
STN 53x42/2	SSTN 53x42/2	STN 53x58/2	SSTN 53x58/2	STN 53x84/2	SSTN 53x84/2
STN 66x42	SSTN 66x42	STN 66x58	SSTN 66x58	STN 66x84	SSTN 66x84
STN 66x42/2L	SSTN 66x42/2L	STN 66x58/2L	SSTN 66x58/2L	STN 66x84/2L	SSTN 66x84/2L
STN 66x42/2P	SSTN 66x42/2P	STN 66x58/2P	SSTN 66x8/2P	STN 66x84/2P	SSTN 66x84/2P
STN 80x42	SSTN 80x42	STN 80x58	SSTN 80x58	STN 80x84	SSTN 80x84
STN 80x42/2	SSTN 80x42/2	STN 80x58/2	SSTN 80x58/2	STN 80x84/2	SSTN 80x84/2
STN 80x42/2L	SSTN 80x42/2L	STN 80x58/2L	SSTN 80x58/2L	STN 80x84/2L	S\$TN 80x84/2L
STN 80x42/2P	SSTN 80x42/2P	STN 80x58/2P	SSTN 80x58/2P	STN 80x84/2P	SSTN 80x84/2P
STN 80x42/3	SSTN 80x42/3	STN 80x58/3	SSTN 80x58/3	STN 80x84/3	SSTN 80x84/3
STN 106x58	SSTN 106x58	STN 106x84	SSTN 106x84	STN 106x58/2/	SSFN 106x58/2
STN 106x84/2	SSTN 106x84/2	STN 106x58/3L	SSTN 106x58/3L	STN 106x58/3P	SSTN 106x58/3P
STN 106x84/3L	SSTN 106x84/3L	STN 106x84/3P	SSTN 106x84/3P	STN 106x58/4	SSTN 106x58/4
STN 106x84/4	SSTN 106x84/4	STN 40x84/2	SSTN 40x84/2		
Fundamenty; pedestals:					
FTN 26	FTN 40	FTN 53	FTN 66	FTN 80	FTN 106
Kieszenie kablov	ve:				
KKN 26	KKN 40	KKN 53	KKN 66	KKN 80	KKN 106
KKDN 26	KKDN 40	KKDN 53	KKDN 66	KKDN 80	KKDN 106



CW-TA 12,318 Nr rej. S-A-12-037 Reg. No. S-A-12-037

#### Rozdzielnik:

Copy to:

INCOBEX Sp. z o.o.
 ul. Grażyńskiego 71
 43-300 Bielsko-Biała, Poland

2. CW





## ASSOCIATION OF POLISH ELECTRICIANS QUALITY TESTING OFFICE

ul. M. Pożaryskiego 28, 04-703 Warszawa, Poland

tel./fax: +48 22 815 65 80

Since 1933 r.

### TESTING LABORATORY





TCM.

AB 044

# **TEST REPORT EN 60695-11-10**

Title of the Standard: Fire hazard testing

Part 11-10: Test flames - 50 W horizontal and vertical flame test methods

				<del></del>	-1
Report reference No	LA-12,088/1/E				
Date of issue	2012-09-28				
Total number of page	9 pages				
Tested by (name + function + signature)	***************************************	Zbigniew C Senior Specia		на основание чл. 2 от 3	ззлд
Authorizing by (name + function + signatu	ire):	Dariusz Sz Manager of L	czepanowsk A Laboratory	ŧ	
Testing application number:	N-A-12-8163				
Test items reference:					}
Scope of test			partia	l test	]
Test specification:		,		TRans	] _
Standard/procedure			3,	OPMINHANA	-
	☑ IEC 60695-11-10: 1	999+A1:200	03 Ed. 1	JUMPAN	<b>/</b>
Non-standard test methods:	N/A			AVY	Į
Non-accredited test method	N/A				<u> </u>
Applicant's name	INCOBEX sp. z o.o.			Conexipue	
Address	43-300 Bielsko-Biała, ul. Grażyńskiego 71.			(PS)	
Test item description:	The sample of isolating	material		/ >VINO?	<u>}</u>
Trade Mark	INCOBEX				]\
Manufacturer	INCOBEX sp. z o.o. 43-300 Bielsko-Biała, ul. Grażyńskiego 71.				
Model/Typ reference	Thermosetting material,	glass-fiber	reinforced/po	olyester (SMC 190).	

STOWARZYSZENIE ELEKTRYKÓW POLSKICH BIURO BADAWCZE d/s JAKOŚCI O/Lublin ZAKŁAD APARATÓW NISKIEGO NAPIĘCIA 20-150 Lublin, ul. Rapackiego 13/15

~ · · · · · · · · · · · · · · · · · · ·	. 484 %				
Ratings	; V-0 ca	ategory of flammability or determinatio	n of other		
List of Attachme	ents:				
Attachment	Name of Attachments		Page number		
No. 1	Summary of testing		1		
No. 2	List of test equipment used		1		
No. 3	The photos		11		
Summary of tes					
Testing perform	ed (in the case of partial tests):	Testing location:/address (if different from page 1) Zakład Aparatów Niskiego Napięcia 20-150 Lublin ul. M. Rapackiego 13, POLAND			
Number of tests	with F (Fail) verdict	0			
	rmity/non-conformity with document (if apply)	N/A			
Summary of con (if apply):—	npliance with National Differences	N/A			
	terpretation, if needed:	N/A			
Other additional applicant): —	information (as requested by the	N/A	· · · · · · · · · · · · · · · · · · ·		
Copy of marking	plate:	/	•		
Selected bar test  Date(s) of receip	nens cut by milling method from one s specimens were marked as samples t of test item				
Possible test cas			· · · · · · · · · · · · · · · · · · ·		
	ot apply to the test object	N/A			
	neet the requirement	P(Pass)			
	ot meet the requirement	F(Fail)			
Test report gene		y to the object tested. vithout the written approval of the is	ssuing testing		
2. "(See Enclosu	re #)" refers to additional informatio	on appended to the report.	MINHAMA		
l. "(See appende	d table)" refers to a table appended	to the report.	- and and		
. Throughout thi	is report a comma is used as the de	ecimal separator.	Section DO		
	rm is based on TRF No.: N/A		(/mag/		
roduction place	(s) N/A		PLECTERC M		
Reneral product in the samples of the local loca	information: ermosetting isolating material made of	glass-fiber reinforced polyester (SMC	190 salphas		

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STOWARZYSZENIE ELEKTRYKÓW POLSKICH BIURO BADAWCZE d/s JAKOŚCI O/Lublin ZAKŁAD APARATÓW NISKIEGO NAPIĘCIA 20-150 Lublin, ul. Rapackiego 13/15

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	IEC/EN 60695-11-10		
Clause	Requirement + Test	Result - Remark	Verdict
			3
	MARKING	- CAA	Р
7	Specimens		Р
7.1	Test specimens shall be cut from a representative sample of the moulded material taken from a product;	Test specimens cut from a representative sample of the moulded material taken from a product	P
	Or the specimens shall be produced using the same fabrication process as would be used to mould a part of a product		N/A
	Or using the appropriate ISO method		N/A
	If above methods are not possible perform the needle flame test in accordance with IEC 60695-2-2		N/A
	After any cutting operation, all dust and any particles shall be taken from surface.		Р
	Cut edges shall be fine sanded to a smooth finish		Р
7.2	Material testing	· /	₽
	Specimens of different colors, thicknesses, densities, molecular masses, anisotropy directions, or different addition, fillers	Homogeneous samples	Р
	Testing the specimens of different density, fillers content are representative,		N/A
	When the flame test classification are different estimation is limited to the tested materials	,	N/A
	Specimens not dyed and specimens with maximum pigment content are to be representative, when test results give the same flame test classification		N/A
	If some pigments influence flame burning characteristic the specimens with this pigments shall be tested	Вярно	) NA
· · · · · · · · · · · · · · · · · · ·	There shall be tested specimens:	OPMIM	1AWA
	a) Without dyeing means		N/A
	b) With maximum organic pigments		N/A
	c) With maximum inorganic pigments	(1) e	NA
	d) With pigments influencing flame burning characteristic	C ELECTI	
7.3	Bar-shaped specimen		M A
•	Bar-shaped specimens shall be:	Bar-shaped specimens	Р
	125 mm ± 5 mm long	/125 mm	Р
	13 mm ± 5 mm wide	/ 13 mm	P

<u>.                                    </u>	Page 4 of 9	Report No. LA-12.088/1/E			
	IEC/EN 60695-11-10				
Clause	Requirement + Test	Result - Remark	Verdict		
	Provided with the minimum normally supplied thickness	22/	Р		
	Edges shall to be smooth, and the radius of the corners shall not exceed 1,3 mm.		4		
	Other thickness may be used by agreement between interested parties and noticed in test report	·	NA		
	Minimum 6 specimens shall be prepared for A method test		N/A		
,	Minimum 20 specimens for method B	20 specimens	Р		
3	Method A horizontal burning test		N/A		
	This clause is not involved in the scope of testing				
,	Method B vertical burning test		P		
3.1	Conditioning .		P		
	Unless otherwise required by relevant specification, following requirements apply		P .		
).1.1 -	Sets of five bar test specimens shall be conditioned for minimum 48 hours at 23 °C ± 2 °C and 50 % ± 5 %	23 °C; 55 % RH; 48 h	Р		
	Once removed from conditioning chamber specimens shall be tested within no longer than 1 h	No longer than 1 h	Р		
.1.2	Sets of five bar test specimens shall be aged in the air-circulated oven for 168 h $\pm$ 2 h at 70 °C $\pm$ 2 °C and then cooled in the desiccator chamber for at least 4 hour	70 °C; 168 h	P .		
	Once removed from desiccator chamber specimens shall be tested within no longer than 30 min	No longer than 30 min	P		
1.3	Alternatively for aged method given in 9.1.2 industrial laminates may be conditioned for 24 h in temperature 125 °C ± 2 °C		N/A		
1.4	All the test specimens shall tested in a laboratory atmosphere of 15 °C to 35 °C and 45 % to 75 % relative humidity	23 °C; 55 % RH	P		
2	Procedure		80P-AIX		
2.1	Clamp the bar test specimen using the upper 6 mm of its length with longitudinal axis vertical so that the lower end of the bar test specimen is 300 mm ±10 mm above a horizontal layer of cotton which is approximately 50 mm x 50 mm x 6 mm uncompressed and has a maximum mass of 0,08 g (see figure 3)	ВЯРН	O C HAMA		

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<u> </u>	Page 5 of 9 Report No. LA-12.088							
	IEC/EN 60695-11-10							
Clause	Requirement + Test	Result - Remark	Verdict					
9.2.2	With the central axis of the burner tube vertical, burner placed remote from the bar test specimen and set the burner to produce a standardized 50 W nominal test flame, conforming to IEC 60695-11-4, flames A, B or C.	552CM	7 p					
	Wait for a minimum of 5 min. to allow the burner conditions to reach equilibrium	5 minutes	. Р					
	In case a dispute flame A shall be used as the reference test flame.	Flame: A has been used	P					
9.2.3	Emplacement of bar test specimen and the burner shall be as in figure 6		Р					
9.2,4	Keeping the central axis of the burner tube vertically, apply the flame of the burner centrally to the lower front of the bar test specimen, so that the end of the burner tube is 10 mm ± 1 mm below that point.	Distance between the lower front of the bar test specimen and the end of the burner tube: 10 mm	Р					
	Apply the flame for $5 \pm 0.5  \text{s}$ . If the bar test specimens shrinks or elongates during the test, adjust the burner position vertically.	The flame applied for 5 s	Р					
	If, when applying the flame, the bar test specimens drips particles, shrinks or elongates during the test, to avoid dropping into the tube, position the burner tube at angle 45° and carefully remove it, keeping 10 mm ± 1 mm distance between nozzle center and the specimen.	Elongation and position changes of the specimen was not noticed	. N/A					
	Immediately after 10 s $\pm$ 0,5 s flame facing the specimen withdraw the burner sufficiently so that there is no effect on bar test specimen and begin the measurement of time $t_1$	Time of flame facing the specimen: 10 s	P					
	Read and record time t <sub>1</sub>	See appended Table 9	P					
	NOTE: Withdrawing the burner a distance of 150 mm from the bar test specimen following flame application has been found satisfactory	Junter	100 P					
9.2.5	Once the flame on the specimen extinguishes, face the test burner flame to the bar test specimen for 10 s ± 5 s keeping the central axis of burner tube vertically in a distance of 10 mm ± 1 mm below lower part of specimen	10 s,10 mm						
	If necessary, move burner to avoid from dripping particles into burner tube as in 9.2.3	ВЯРНО	] NA					
	Immediately after second facing flame to the specimen for 10 s ± 5 s extinguish the burner or withdraw the burner from the bar test specimen for satisfactory distance and start:	The burner-was withdrawn to distance of 150 mm	р					
	- measure afterflame time t <sub>2</sub>	[	P					

|--|

	IEC/EN 60695-11-10		
Clause	Requirement + Test	Result - Remark	Verdict
	- and afterglow time t <sub>3</sub>		N/A
	Read and record values: t2, t3 and t2 + t3	See appended Table 9	Р
	Note and record whether any flaming particles or drops fall from bar test specimen		N/A
	And, if so, whether they ignite the cotton		N/A
	NOTE1: Measuring and recording the afterflame time to, and then continuing the measurement of the sum of the afterflame time to and afterglow to time, specifically to plus to (without resetting the time device) has been found satisfactory in the recording of to	or Ch	, P
	NOTE 2: Withdrawing the burner a distance of 150 mm from the bar test specimen while measuring t <sub>2</sub> and t <sub>3</sub> has been found satisfactory	·	Р
9.2.6	Repeat the procedure until five bar test specimens conditioned in accordance with 9.1.1 has been tested		Р
	And five bar test specimens conditioned in accordance with 9.1.2 has been tested as well		Р
9.2.7	If only one test specimen from a set of five specimens for a given conditioning treatment does not conform to all the criteria for a category, another set of five bar test specimens, subjected to the same conditioning, shall be tested	Repeated the procedure until five test specimens conditioned in accordance with 9.1.2 were tested	P
	To measure the total time t <sub>i</sub> [s] additional set of five test specimens shall be tested if the total times for category:		
	V-0 are in a range from 51 s to 55 s	See appended Table 9	Р
	or for category V-1 and V-2 form 251 s to 255 s	-	N/A
	All specimens from the second set shall conform to all the criteria for a category	(Š)	N/A?
9.2.8	Some materials, due to its thickness, may during testing get deformed, shrinks or burning up to clamps. These materials may be tested according to ISO 9773, under condition that there is a possibility of shaping the specimen		ELECTRIC )
).3	Counting the results	DATE:	O <sub>P</sub> C
	For each set of five test bar specimen taken from both ways of conditioning, the total time t <sub>t</sub> , in seconds, shall be counted from equation		HAMA
	$t_f = \sum_{i=1}^{S} \left( t_{1,i} + t_{2,i} \right) \text{ where}$		P
	t <sub>i</sub> - total time of flaming of five specimens set	. /\	Р



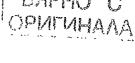
	Page 7 of 9	Report No. LA-12	.000/ 1/12
	· IEC/EN 60695-11-10		
Clause	Requirement + Test	Result - Remark	Verdict
	t <sub>1,i</sub> – first time of flaming, in seconds, of i-numbered specimen	2	Р
	t <sub>2,i</sub> – second time of flaming, in seconds, of i- numbered specimen	2/1	Р
9.4	Classification	14	Р
	Material shall be classified as V-0, V-1 or V-2 (V-vertical burning), according to criteria given in table 1, based on specimen behavior		Р
9.5	Test report		Р
	The test report shall include the following particulars:		Р (
	a) a reference to this international standard	EN 60695-11-10	P
	b) all details necessary to identify the product tested, including the manufacturer's name, number or code, and color	· M.	P
	c) the thickness, to the nearest 0,1 mm, of the test specimen,	See appended Table 9	Р
	d) the nominal apparent density (cellular materials only)		N/A
	e) the direction of any anisotropy relative to the dimensions of the test specimen		N/A
	f) the conditioning treatment	Climatic chamber	Р
	g) any treatment before testing, other than cutting, trimming and conditioning	The specimens has been cut by milling method. Specimen sanded using P180, P600 and P2000 sandpaper in turns	( ₹ P
	h) the individual values of afterflame time $t_1$ , $t_2$ and afterglow time $t_3$ , and $t_2+t_3$	See appended Table 9	ms
	i) total flaming time t <sub>f</sub> for each set of five specimens from two ways of conditioning (see 9.1.1 and 9.1.2)	See appended Table 9	P
	j) a note as to whether any particles or drops. fell from the bar test specimen and whether they ignited the cotton	OPUTUHANA	N/A
	k) a note as to whether any specimen showed . burning up to clamp		N/A
	l) the assigned classification acc. 9.4	V-0 after conditioning the specimens acc. cl.9.1.1 and cl.9.1.2	P .

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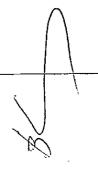
				IEC/EN	60695-11-1	0			
Clause	Req	uireme	ent + T	est		Result - Re	mark		Verdict
9				Vertical burning test		<u></u>			Р
				of flammability: V-0 or diditioning the specimen	<del></del>	mined 23 °C, 55 %, 7	729		P
	9.1.1.0	f stanc	dard E	N 60695-11-10:1999+/	A1:2003.		-		
	Enviror	nmenta	al cond	dition		23 °C, 55 % R	H		
	Nomina	al pow	er of tl	ne flame		50 W		4	
	Test fla	ime; h	eight c	of the flame		A; 20 mm			
	Time o	f flame		The same of the sa		10 s		NA PROPERTY.	
Number of special men		1. The second se		sured time in s $T_{f} = \sum_{i=1}^{r} \left( t_{ip} + I_{ip} \right)$	Single speciment afterflam filme (1, 1 & 1),	a afterglow time of	Did the burning of glowing broaden up to the clamps?		Cate- gory
1/A1 1A/2 1A/3	3,47 3,30	0,0	2,0 1,5 1,2	7 <b>,</b> 5	≤ 10 s	≤ 30 \$	No	≤50 s	V-0 <sup>1)</sup>
1A/4 1A/5	3,60 3,28 3,26	0,0 0,0	1,2 1,1 1,7	7,3	2108	2 00 9	110	3000	ribin. Do

Note: 1) cut surfaces of bar test specimen sanded using P180, P600 and P2000 sandpaper in turns,



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	iE(	C/EN 60695-11-10		
Clause	Requirement + Test	Resu	ılt - Remark	Verdict
		2	5	<u> </u>

						2	<b>ー</b> フ /		
9	TABLE	∃ Meti	nod B -	- Vertical burning test			4	1	Р
	Declai	ed ca	tegory	of flammability: V-0 or	other deter	mined			P
	Enviro 9.1.2 c	nmen f stan	t of co dard E	nditioning the specime EN 60695-11-10:1999+	ns acc. cl. A1:2003.	70° C, 168 h			
	Enviro	nmen	tal con	dition	23° C, 53 % F	₹H			
	Nomin	al pov	ver of t	he flame	11	50 W			
	Test flame; height of the flame A; 20 mm								
	Time o	Time of flame facing 10 s							
			Me	isured time in s		Crife	ria 🤚 🕬 🚉		
Number of speci- men	Thick- ness		.b. (1)	$t_{f} = \sum_{i=1}^{5} \left( t_{ii} + t_{2i} \right)$	Single specimen afterflam time (t <sub>1,1</sub> & t <sub>2,1</sub>	a afferglow time of	Did the burning or glowing broaden up to the clamps?	ti.	Cate: gory
1/B1	3,39	1,0	0,0					- Children	tidaspi para ang mag
1/B2	3,49	1,0	1,0	-				encianic	
1/B3	3,46	0,0	2,5	7,0	≤10 s	≤30 s	No /	≤ 50 s	°(0.0)
1/B4	3,23	1,0	0,0				/ /		(6)
1/B5	3,51	0,5	0,0				\ \	ELECTE	8/16

Note: 1) cut surfaces of bar test specimen sanded using P180, P600 and P2000 sandpaper in t





Firma / company: INCOBEX Sp.z.o.o

Fax / facsimile: 0048 338227063

Datum / date: 28.07.2013

Betr. /Subj.: Menzolit SMC 0200 3311- Color index 735

Confirmation for SMC Menzolit

Menzolit confirmed that SMC contains the following material properties:

the length of the glass fibers = 25 mm

• the density of the glass fibers =  $2,45 - 2,58 \text{ g/cm}^3$ 

the density of the material SMC = 1,8 g/cm<sup>3</sup>

Person:

Jiri Rysanek Handelsvertretung Menzolit, s.r.l

на основание чл. 2 от ЗЗЛД







#### PS ELECTRIC LTD.

12, Madara Blvd., 9700 Shumen, Bulgaria

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

### ISO 9001:2008

Scope of certification

Design, manufacturing, supply and service of complete transformer substation and switching devices (switching boards).

Certification cycle start date: 01 May 2015

Subject to the continued satisfactory operation of the organization's Management System this certificate expires on: 01 May 2018

Original certification date: 02 May 2006

Certificate No: BG120487Q

Version 1, Revision date

на основание чл. 2 от ЗЗЛД

Signed on behalf of BVCH SAS UK Branch

Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom Local Office: 81A, Bulgaria Blvd., 1404 Sofia, Bulgaria

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call: +359 (2) 983 60 44

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ПС ЕЛЕКТРИК ООД

бул. Мадара 12, 9700 Шумен, България

Bureau Veritas Certification Holding SAS – UK Branch удостоверяеря че системата за управление на горепосочената организация е оценена и е установено нейното съответствие с изискванията на стандарта за управление, указан по-долу

ISO 9007:2008

Обхват на сертификация

Проектиране, изработка, доставка и поддръжка на комплексни трансформаторни подстанции и комутационни устройства (комутационни табла).

Начало на сертификационния цикъл: 01 Май 2015

При постоянно поддържане на системата за управление, този сертификат е валиде до: 01 Май 2018

Първоначална дата на сертификация: 02 Май 2006

Сертификат №: BG120487Q

Версия 1, Дата на ревизия: 29 Април 20

на основание чл. 2 от ЗЗЛД

Signed on behalf of BVCH SAS UK Branch

Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom Local Office: 81A, Bulgaria Blvd., 1404 Sofia, Bulgaria

Информация за обхвата на сертификата и приложението на изискванията на системата за управление могат да бъдат получени от организацията. За валидностіпа на настоящия сертификат моля обадете се на: +359 (2) 983 60 44

MANAGEMENT SYSTEMS

008

Стр. 1 от 1



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