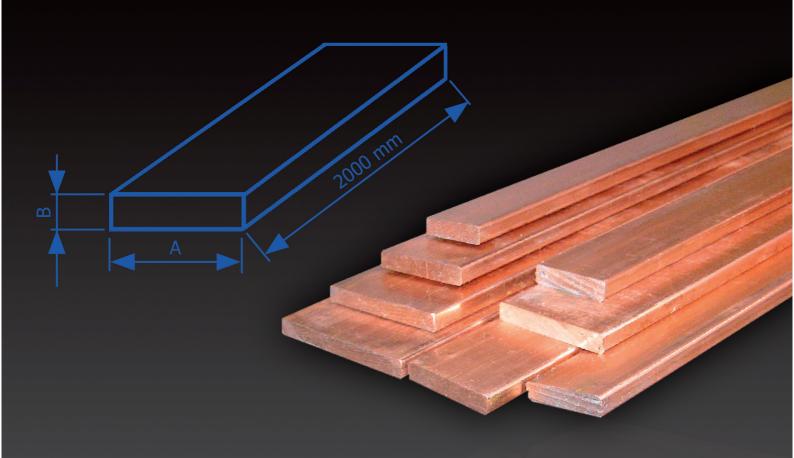
SQ ERGOM®



Switchgears and enclosures





Busbars and mounting elements

System BB-M4000A – mounting busbars

Accessories for BB-M system 415
Busbar modules 416
Complete sets of busbar modules 419

Copper busbars

Flat copper busbars, PMP type

420

Aluminium profile, M-Al/2

FEATURES & BENEFITS



made of non-magnetic material



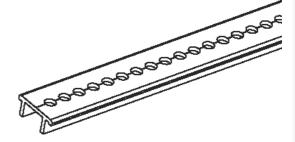
can be easily cut to given size

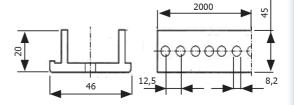
LOGISTIC DATA

Туре	M-Al/2
Quantity in package [pcs]	1



Dimension Imm	1	46x20x2000
	l	TUNZUNZUUU





Horizontal holder

FEATURES & BENEFITS



to install ready-made busbar bridges in horizontal layouts

LOGISTIC DATA

Туре	M-UH
Quantity in package [pcs]	1



Vertical holder

FEATURES & BENEFITS



to install ready-made busbar bridges in vertical layouts

LOGISTIC DATA

LOGIOTIO DATA		
Туре	M-UV	
Quantity in package [pcs]	1	



Busbar modules, M-2/5TN

FEATURES & BENEFITS

V

holders made of polyamide reinforced with glass fibres



for 5 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles

LOGISTIC DATA

Type

M-2/5TN

MECHANICAL DATA

Insulating holder length [mm]

Busbar dimensions, width x thickness [mm]

30÷125x5

SET CONTAINS

Quantity included [pcs.]

8
5
2
1

Busbar modules, M-1/10T

FEATURES & BENEFITS



holders made of polyamide reinforced with glass fibres



for 10 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles

LOGISTIC DATA

Туре

M-1/10T

MECHANICAL DATA

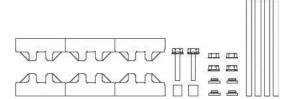
Insulating holder length [mm]

Busbar dimensions, width x thickness [mm] $30 \div 120 x 10$

SET CONTAINS

Quantity included [pcs.]

	•	
Insulation handles	6	
Threaded rods	4	
Screws	2	
Installation c-parts (set)	1	



Busbar modules, M-1/10TN

FEATURES & BENEFITS

V

holders made of polyamide reinforced with glass fibres



for 10 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles

LOGISTIC DATA

Type M-1/10TN

MECHANICAL DATA

Insulating holder length [mm]	50
Busbar dimensions, width x thickness [mm]	30÷120x10

SET CONTAINS	Quantity included [pcs.]
Insulation handles	8
Threaded rods	5
Screws	2
Installation c-parts (set)	1

Busbar modules, M-2/10T

FEATURES & BENEFITS



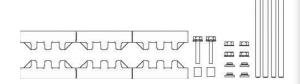
holders made of polyamide reinforced with glass fibres



for 10 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles



LOGISTIC DATA

T	NA OZAOT
IVne	1/1-2/101
.,,,,	111 27 10 1

MECHANICAL DATA

Insulating holder length [mm]	75
Busbar dimensions, width x thickness [mm]	30÷120x10

SET CONTAINS	Quantity included [pcs.]
Insulation handles	6
Threaded rods	4
Screws	2
Installation c-parts (set)	1

Busbar modules, M-2/10TN

FEATURES & BENEFITS

V

holders made of polyamide reinforced with glass fibres



for 10 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles

vooroono II II III

LOGISTIC DATA

Type

M-2/10TN

MECHANICAL DATA

Insulating holder length [mm]

75

Busbar dimensions, width x thickness [mm]

30÷120x10

SET CONTAINS Quantity included [pcs.] Insulation handles 8 Threaded rods 5 Screws 2 Installation c-parts (set) 1

Busbar modules, M-3/10TN

FEATURES & BENEFITS



holders made of polyamide reinforced with glass fibres



for 10 mm thick busbar installation



latches in insulating elements ensure fast installation on profiles

LOGISTIC DATA

Type

M-3/10TN

MECHANICAL DATA

Insulating holder length [mm] 100

Busbar dimensions, width x thickness [mm] $30 \div 120 \times 10$

SET CONTAINS	Quantity included [pcs.]
Insulation handles	8
Threaded rods	5
Screws	2
Installation c-parts (set)	1



Complete sets of busbar modules, M-1/10TN

FEATURES & BENEFITS

V

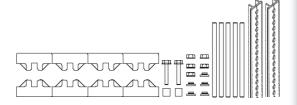
busbar holders for 10 mm thick busbar installation



max. current-current capacity: up to 4,000 A



busbar holder made of polyamide; mounting rails made of structural aluminium



LOGISTIC DATA

Type

M-1/10TN SET

MECHANICAL DATA

Insulating holder length [mm]	50
Al profile (module) length [mm]	400
Busbar dimensions, width x thickness [mm]	30÷120x10

SET CONTAINS	Quantity included [pcs.]			
Aluminium sections	2			
Insulation handles	8			
Threaded rods	5			
Screws	2			
Installation c-parts (set)	1			

Complete sets of busbar modules, M-2/5TN

FEATURES & BENEFITS



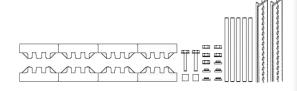
busbar holders for 5 mm thick busbar installation



max. current-current capacity: up to 4,000 A



busbar holder made of polyamide; mounting rails made of structural aluminium



LOGISTIC DATA

Туре	M-2/5TN SET
------	-------------

MECHANICAL DATA

Insulating holder length [mm]	50
Al profile (module) length [mm]	400
Busbar dimensions, width x thickness [mm]	30÷125x5

SET CONTAINS	Quantity included [pcs.]
Aluminium sections	2
Insulation handles	8
Threaded rods	5
Screws	2
Installation c-parts (set)	1

Flat copper busbars, PMP type

FEATURES & BENEFITS

 \mathbf{V}

busbars made of ECu-58 type electrochemical copper



busbars dedicated to LV systems



in non-tin-plated and tin-plated version

APPLICATION

Energy distribution in LV switchboards and electrical cabinets.

MECHANICAL DATA

Material

copper M1E (ECU-58)

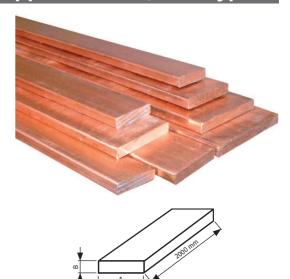
CERTIFICATES & STANDARDS

Standards

PN-77/H-82120; PN-82/H-93620

NOTE!

On request, we can provide busbars: AL, AL tinned, copper tin-plated.



Туре	I _{max} (65°C) (DIN 43671) [A]	Cross-section [mm²]	A	В	Weight [kg]
PMP 10X10/2	274	100	10	10	1,78
PMP 12X4/2	162	48	12	4	0,86
PMP 15X4/2	204	60	15	4	1,07
PMP 20X5/2	274	100	20	5	1,78
PMP 20X10/2	484	200	20	10	3,56
PMP 25X5/2	327	125	25	5	2,23
PMP 30X5/2	379	150	30	5	2,68
PMP 30X10/2	573	300	30	10	5,35
PMP 40X5/2	482	200	40	5	3,57
PMP 40X10/2	715	400	40	10	7,14
PMP 50X5/2	583	250	50	5	4,46
PMP 50X10/2	852	500	50	10	8,92
PMP 60X5/2	688	300	60	5	5,35
PMP 60X10/2	985	600	60	10	10,7
PMP 80X5/2	715	400	80	5	7,12
PMP 80X10/2	1240	800	80	10	14,27
PMP 100X5/2	855	500	100	5	8,9
PMP 100X10/2	1490	1000	100	10	17,48
PMP 120X10/2	1740	1200	120	10	21,41
PMP 125X5/2	1000	625	125	5	11,2
PMP 200X10/2	2690	2000	200	10	35,6

52 ERGOM®



Insulators and holders for rails and cables

Low-voltage support insulators, IWN, IWS, IWP

LV support insulators, IWN2 type 423
LV support insulators, IWS type 424

Cable holders, UPC, UKR

Cable holders, UPC type	425
Cable fixing clamps, UKR type	426

LV insulators IWN2 type

FEATURES & BENEFITS

V

new, reinforced type series of popular IWN insulators



crimping made of zinc-coated steel



body made of polyester reinforced with glass fibres



LOGISTIC DATA

Quantity in package [pcs]

10

APPLICATION

Mounting busbar supports in switchboards and control boards.

MECHANICAL DATA

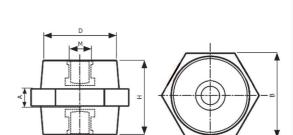
Material	body – polyester reinforced with fibreglass (20%); threaded insert – zinc-coated steel
Operating temp. [°C]	-40 ÷ +140
Colour	RAL 3031



Test voltage [kV]	5
Rated voltage [V AC]	1000

CERTIFICATES & STANDARDS

Flammability class	UL 94 V0
Standards	EN-91062-1; RoHS





Туре	А	В	D	н	M	Strength [daN] (tension)	Strength [daN] (flexion)	Strength [Nm] (torsion)	Max. recommended tightening torque [Nm]	Weight [g]
IWN2-25M5/22	6,0	22,0	18,0	25,0	M5	220	240	6,0	2,6	20
IWN2-25M6/22	6,0	22,0	18,0	25,0	M6	220	340	10,0	3,0	20
IWN2-30M6/30	7,0	30,0	25,0	30,0	M6	460	580	10,0	3,0	61
IWN2-30M8/30	7,0	30,0	25,0	30,0	M8	390	580	25,0	6,0	67
IWN2-35M6/32	10,0	32,0	28,5	35,0	M6	400	710	10,0	3,0	84
IWN2-35M8/32	10,0	32,0	28,5	35,0	M8	510	710	25,0	6,0	75
IWN2-35M10/32	10,0	32,0	28,5	35,0	M10	480	710	50,0	10,0	76
IWN2-40M8/41	12,0	41,0	34,0	40,0	M8	500	900	25,0	3,0	125
IWN2-40M10/41	12,0	41,0	34,0	40,0	M10	500	800	50,0	10,0	117
IWN2-45M10/46	13,0	46,0	39,5	45,0	M10	650	1100	50,0	10,0	159
IWN2-50M6/36	12,0	36,0	29,0	50,0	M6	460	1100	20,0	3,0	129
IWN2-50M8/36	12,0	36,0	29,0	50,0	M8	460	1100	25,0	6,0	126
IWN2-50M10/36	12,0	36,0	29,0	50,0	M10	460	1100	50,0	10,0	112
IWN2-50M10/46	10,0	46,0	37,0	50,0	M10	550	1100	50,0	10,0	164
IWN2-50M10/50	15,0	50,0	45,0	50,0	M10	720	1250	50,0	10,0	209
IWN2-75M8/50	16,0	50,0	38,5	75,0	M8	800	1500	25,0	6,0	273
IWN2-75M10/50	16,0	50,0	38,5	75,0	M10	800	1500	50,0	10,0	268
IWN2-75M12/50	16,0	50,0	38,5	75,0	M12	650	1500	85,0	14,0	298

LV insulators, IWS type

FEATURES & BENEFITS

V

full type examination



body made of polyester reinforced with glass fibres



short-circuit strength, as per EN61439-1, confirmed by test results

LOGISTIC DATA

Quantity in package [pcs]

10

APPLICATION

Mounting busbar supports in switchboards and control boards.

MECHANICAL DATA

Material	body – polyester resin; threaded rods – stainless steel
Strength [daN] (tension)	222
Strength [daN] (flexion)	166

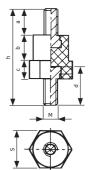


Test voltage [kV]	5	
Rated voltage [V AC]	1000	

CERTIFICATES & STANDARDS

Standards insulators were tested according to EN -91062-1, RoHS







Туре	а	b	С	d	h	М	s	Max. recommended tightening torque [Nm]	Screw	Recommended maximum bus width [mm]	Weight [g]
IWS-14/M6	12	7	7	16,7	38	6	13,8	3	6	14	110
IWS-24/M8	14,5	14	9,8	21,3	52,8	8	19,4	6	8	20	300

Cable holders, UPC type

FEATURES & BENEFITS

 \mathbf{V}

mechanically reliable connection with C30/15 profile rail

V

additional cable protection with holding inserts

V

clamps made of galvanised steel

 \checkmark

fast and intuitive installation

LOGISTIC DATA

Quantity in package [pcs]

10

APPLICATION

Mounting wires in switchgear, electrical cabinets. Cable holders are designed for mounting on rails, type ${\rm C30/15}$.

MECHANICAL DATA

Material	Clamp's body is made from galvanized steel, inserts which hold the cable are made from plastic
Operating temp. [°C]	-25 ÷ +85

DIMENSIONS

S 22







Туре	Cable external diameter [mm]	G	н	Weight [g]
UPC6-14	6÷14	21	39	33
UPC12-18	12÷18	23	43	36
UPC18-22	18÷22	26	46	39
UPC22-32	22÷32	39	62	53
UPC32-38	32÷38	42	69	73
UPC38-42	38÷42	47	74	82
UPC42-50	42÷50	54	89	108
UPC50-64	50÷64	68	101	133



Cable fixing clamps, UKR type

FEATURES & BENEFITS



mechanically reliable connection of terminal and base



high mechanical impact strength

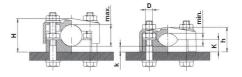
APPLICATION

Mounting cables in switchgear and control cabinets

MECHANICAL DATA

Material	polypropylene
Colour	black
Ambient temperature [°C]	-30 ÷ +85

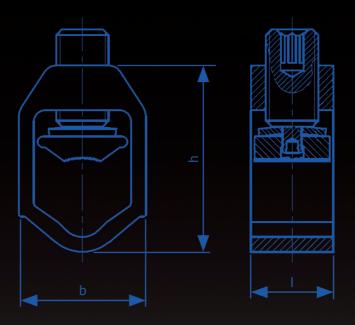






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Туре	A	В	С	D	h	н	K	k	Cable external diameter [mm]	Quantity in package [pcs]	Weight [g]
UKR 0	68	45	39	9	30	40	15	7	16÷27	10	44
UKR 1	98	69	59	11,7	48	62	25	12	27÷40	10	153
UKR 2	127	94	59	12,7	67	94	31	8	48÷75	10	210
UKR 3	157	120	69,5	12,7	91	116	45	18	65÷90	1	388





Busbar connectors

V, VD terminals and accessories

V-clamps with standard screws	429
Double V-clamps, VD type	430
Insulation covers, VPI type	430
Terminal plates, PV type	431

Clamps for connecting busbars

Busbar clamps, C2 type 432



V-clamps with standard screws

FEATURES & BENEFITS

V

clamps for mounting cables with SM, SE, RM, RE profile conductors



cables with multi-wire conductors can be connected directly



body made of aluminium alloy

LOGISTIC DATA

Туре	VN 300 (16-300)	(12 PCS)
Quantity in package [pcs]	12	

APPLICATION

connecting single cores of Al and Cu cables, round and sector-shaped, 90° and 120° types.

MECHANICAL DATA

Material	Body: high strength Al-alloy (AlMgSi), corrosion resistant, uncoated. Pressure pad: brass, electro tinned. Screw: brass, electro tinned. Belleville spring: spring steel, galvanized
Nominal cross-section, rm [mm2]	16÷185
Cross-section, re [mm²]	16÷240
Cross-section, sm [mm²]	25÷240
Cross-section, se [mm²]	25÷300
Tightening torque [Nm]	25÷30

ELECTRICAL DATA

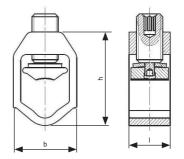
Nominal cross-section [mm ²]	300
I _{pk} [kA]	55
Effective IRMS value, 1 s [kA]	25

DIMENSIONS

b	34
h	50
I	22







Double V-clamps, VD type

FEATURES & BENEFITS



clamps for mounting cables with SM, SE, RM, RE profile conductors



cables with multi-wire conductors can be connected directly



body made of aluminium alloy

LOGISTIC DATA

Quantity in package [pcs]

12

APPLICATION

Connecting 1÷2 cores of Al and Cu power cables with busbars, terminals of disconnectors, fuse bases etc. Clamps are suitable for all the kinds of cable cores, i.e. sector stranded (sm), sector solid (se), round stranded (rm), round solid (re).

MECHANICAL DATA

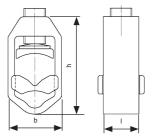
Design VD cl Appro	mplete clamp set consists of lamp and PV terminal plate. opriate combination can be se
-----------------------	--

CERTIFICATES & STANDARDS

Standards EN 60947-7-1 (IEC 60947-7-1)







Туре	b	h	ı	Nominal cross-section, rm [mm2]	Cross-section, re [mm²]	Cross-section, sm [mm²]	Cross-section, se [mm²]	Tightening torque [Nm]
VD 120 (10-120)	27	54	20	10÷50	16÷50	35÷95	50÷120	17,5±2,5
VD 300 (50-240)	34	74	22	50÷185	70÷240	70÷240	95÷240	30±5

set

Insulation covers, VPI type

FEATURES & BENEFITS



enhance operation safety



intuitive and fast installation

LOGISTIC DATA

Туре	VPI-3 (12 PCS)
Quantity in package [pcs]	12
Weight [g]	20

APPLICATION

Insulation covers have a hole for an Allen wrench to enhance personnel safety.

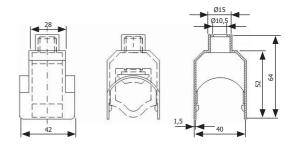
MECHANICAL DATA

Material	polyamide 6.6
Colour	black

NOTE!

On request, other colours are available (yellow, blue, red, green).







Terminal plates, PV type

FEATURES & BENEFITS

V

terminal plates for mounting cables with SM, SE, RM, RE profile conductors $\,$

Y

cables with multi-wire conductors can be connected directly

V

made of tin-plated copper; compatible with V type terminals

LOGISTIC DATA

Quantity in package [pcs]

12

APPLICATION

Connecting V (VD) clamps to busbars and flat terminals.

MECHANICAL DATA

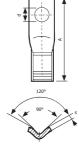
Material Cu, electro tinned

CERTIFICATES & STANDARDS

Standards EN 60947-7-1 (IEC 60947-7-1)









Туре	A	В	d	s	Clamp type	Cross-section [mm²]	I _{max} (35°C) (DIN 43670) [A]
PV 1/8	65	20	8,5	3	VD 120 (10-120)	60	237
PV 1/10	65	20	10,5	3	VD 120 (10-120)	60	237
PV 2/8	72	25	8,5	3	VN 300 (16-300) VD 300 (50-240)	75	287
PV 2/10	72	25	10,5	3	VN 300 (16-300) VD 300 (50-240)	75	287
PV 2/12	72	25	13	3	VN 300 (16-300) VD 300 (50-240)	75	287
PV 3/8	72	25	8,5	4	VN 300 (16-300) VD 300 (50-240)	100	319
PV 3/10	72	25	10,5	4	VN 300 (16-300) VD 300 (50-240)	100	319
PV 3/12	72	25	13	4	VN 300 (16-300) VD 300 (50-240)	100	319

Busbar clamps, C2 type

FEATURES & BENEFITS

 \mathbf{V}

new, upgraded design of popular C-type terminals.



pressing plate facilitating terminal pre-fitting on the busbars



clamps for direct mounting on 5 or 10 mm thick busbars



cables with multi-wire conductors can be connected directly

LOGISTIC DATA

Quantity in package [pcs]

12

APPLICATION

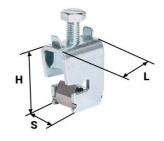
Connecting cables to busbars in LV switchboards.

MECHANICAL DATA

Material

galvanized steel





Туре	Tightening torque [Nm]	Cross-section [mm²]	Rated busbar thickness [mm]	н	L	s
C2-5/16	3	1,5÷16	5	26	22	12
C2-5/35	6÷8	4÷35	5	31	29	16
C2-5/70	10÷12	16÷70	5	39	31	21
C2-5/120	12÷15	16÷120	5	44	34	24
C2-5/185	12÷15	50÷185	5	55	35	29
C2-10/16	3	1,5÷16	10	31	22	12
C2-10/35	6÷8	4÷35	10	37	29	16
C2-10/70	10÷12	16÷70	10	43	31	21
C2-10/120	12÷15	16÷120	10	48	34	24
C2-10/185	12÷15	50÷185	10	55	35	29

