

ENCLOSURE & CLIMATE CONTROL

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686.204



686.206



686.409



686.230



COMBI 308

Junction boxes for electrical installations (IP56)

The SCABOX series plastic boxes/enclosures are ideal for housing electrical accessories and terminals for household and fixed electrical installations and offer IP56 degree of protection.

- Max. operating temperature: 60°C
- Reference standards: EN 60439-1, EN 60670-1, EN60670-22
- Material: Engineering plastic RAL 7035 grey (*stabilised*)

type	IP rating	description	carton qty.	ext. dimension (mm)		
				(H)	(W)	(D)

Plastic housings (IP56)

Opaque cover/lid

686.204	IP56	PVC housing - opaque lid	40	100	100	50
686.205	IP56	PVC housing - opaque lid	42	120	80	50
686.206	IP56	PVC housing - opaque lid	48	150	110	70
686.207	IP56	PVC housing - opaque lid	30	190	140	70
686.208*	IP56	PVC housing - opaque lid	16	240	190	90
686.209*	IP56	PVC housing - opaque lid	8	300	220	120
686.210*	IP56	PVC housing - opaque lid	4	380	300	120
686.211*	IP56	PVC housing - opaque lid	1	450	370	130
686.404	IP56	PVC housing - opaque (<i>high</i>) lid	24	100	100	80
686.408*	IP56	PVC housing - opaque (<i>high</i>) lid	6	240	190	125
686.409*	IP56	PVC housing - opaque (<i>high</i>) lid	6	300	220	170
686.410*	IP56	PVC housing - opaque (<i>high</i>) lid	3	380	300	170
686.411*	IP56	PVC housing - opaque (<i>high</i>) lid	1	450	370	180

Transparent cover/ lid

686.226	IP56	PVC housing - transparent lid	48	150	110	70
686.227	IP56	PVC housing - transparent lid	30	190	140	70
686.228*	IP56	PVC housing - transparent lid	16	240	190	90
686.229*	IP56	PVC housing - transparent lid	8	300	220	120
686.230*	IP56	PVC housing - transparent lid	4	380	300	120
686.231*	IP56	PVC housing - transparent lid	1	450	370	130
686.428*	IP56	PVC housing - transparent (<i>high</i>) lid	6	240	190	125
686.429*	IP56	PVC housing - transparent (<i>high</i>) lid	6	300	220	170
686.430*	IP56	PVC housing - transparent (<i>high</i>) lid	3	380	300	170
686.431*	IP56	PVC housing - transparent (<i>high</i>) lid	1	450	370	180

Accessories for above enclosures

Chassis plates (steel)

			for enclosures			
654.0787	-	chassis plate for enc.	686.207/227	190	140	-
654.0788	-	chassis plate for enc.	686.208/408/228/428	240	190	-
654.0789	-	chassis plate for enc.	686.209/409/229/429	300	220	-
654.0790	-	chassis plate for enc.	686.210/410/230/430	380	300	-
654.0791	-	chassis plate for enc.	686.211/411/231/431	460	380	-
654.0080	-	sealing caps for internal mounting holes				(12 pcs)
654.0085	-	kit to hinge the lid on enclosures				(1 pair)
654.0021	-	plastic wall mounting brackets				set (4 pcs)

* Enclosures which accept 654.0085 hinge kit.

COMBI Junction boxes (IP66/67)

(see page L-29 for all sizes)

Wiska COMBI junction boxes provide ultimate protection from environmental conditions in a compact, very attractive format, suitable for extreme outdoor installations.

- Weather proof, ultraviolet resistant, shatterproof, impact resistant, flame retardant and halogen free
- Integrated thread for cable gland entry without locknuts (308/407/607/1210)

type	cable entry sides		thread Ø	description	colour	dimensions (mm)		
	rear					(H)	(W)	(D)

COMBI 308 IP66/67 (captive - quick release lid screws)

10060400	8	-	M20	weatherproof junction box	grey	85	85	51
10060581	8	-	M20	weatherproof junction box	black	85	85	51

see page L-29



M1N



M24N



M3N

Plastic enclosures (IP65)

Lovato M series enclosures are high quality, extremely robust housings ideally suited to indoor or outdoor installations, offering IP65 protection to internally mounted components.

- Protection degree: IP 65
- Operating temperature: -25 – +60°C
- Material: Made of UV protected Polycarbonate
- Colour: Black base and RAL7035 (light grey) cover

type	IP rating	cable entry	description	dimensions (mm)		
				(H)	(W)	(D)

M1 and M2 series - Housings (IP65) (light grey)

Slim, deep housings designed for compact but tall components such as contactors, timers, voltage, liquid level and phase failure relays etc. required to be housed in a protective enclosure without occupying much space.

- External mounting holes
- DIN rail incorporated into internal base of enclosure for mounting electrical components
- Two M20 knock-outs on top and bottom of enclosure (to accommodate gland for cable entry)

M1N	IP65	M20	slim polycarbonate housing	202	88	135
M2N	IP65	M20	slim polycarbonate housing	234	110	149

M24 and M25 series - Housings (IP65) (light grey)

Robust, heavy duty enclosures for mounting a variety of electrical components.

- Incorporated earth terminal
- Mounting holes within the enclosure (outside the sealing gasket)
- Supplied complete with internal metal chassis plate (156 x 148 mm)
- Moulded (alpha and numeric) grid on internal door for ease of mounting control devices
- Two M25/M32 knock-outs on top and bottom of enclosure (to accommodate gland for cable entry)

M24N	IP65	M25/32	shallow polycarbonate housing	210	175	99
M25N	IP65	M25/32	deep polycarbonate housing	210	175	165

M3 series - Housings (IP65) (light grey)

Robust, heavy duty enclosure with high impact resistance and incorporated hinge facility for mounting a variety of electrical components.

- Material: ABS plastic material
- Incorporated hinge facility (180° full opening) lid can be removed if required
- Mounting holes within the enclosure (outside the sealing gasket)
- Moulded (alpha - numeric) grid on internal door for easy alignment of control devices
- Internal ribbing in base for mounting components - DIN rail etc.
- Plain base (no knockouts) for easy configuration of cable entry/exits

M3N	IP65	–	ABS housing without chassis plate	280	220	170
MX30	chassis	–	metal chassis plate for M3 housing	244	185	–



Enclosures / Distribution boards

type	no. of ways	IP rating	description	dimensions (mm)		
				(H)	(W)	(D)
Mini gamma series (surface shrouds) (IP30)						
<ul style="list-style-type: none"> Incorporated DIN profile and labelling facility Hinged transparent doors available (<i>IP40 with door</i>) Lead seal-able housing 						
GD102B	2 way	IP30	surface mounting MCB shroud	160	55	82
GD104B	4 way	IP30	surface mounting MCB shroud	180	110	82
GD106B	6 way	IP30	surface mounting MCB shroud	180	146	82
GD110B	10 way	IP30	surface mounting MCB shroud	180	218	82

Accessories for above GD series boards

GP102T	door	–	transparent (<i>horizontally</i>) hinged door	for	GD102B	
GP104T	door	–	transparent (<i>horizontally</i>) hinged door	for	GD104B	
GP106T	door	–	transparent (<i>horizontally</i>) hinged door	for	GD106B	
GP110T	door	–	transparent (<i>horizontally</i>) hinged door	for	GD110B	
GZ104S	support	–	clip-in support for terminals GZ04E/N	for	GD104B	
GZ106S	support	–	clip-in support for terminals GZ04E/N	for	GD106B	
GZ110S	support	–	clip-in support for terminals GZ04E/N	for	GD110B	
GZ04E	4 way	terminal	insulated "earth" terminal (<i>clips onto above supports</i>)			
GZ04N	4 way	terminal	insulated "neutral" terminal (<i>clips onto above supports</i>)			

Golf series - Surface and flush-mount distribution boards

- Transparent door 180° opening (*hinged left or right*) / key-lock facility
- Internal cable tie fixing points / cable can be run behind breakers / optional cable retainer clips
- Supplied with earth / neutral terminals
- Colour: RAL9010 (*light grey*) / glow wire test to 650°C to UNE 60595-2-1

VS surface mounting enclosures - IP40 (with door)

- Pre-cut profiles for cable, conduit, trunking entry
- Enclosures can be joined together (*horizontally or vertically*)

VS104TJ	4 way	IP40	surface mounting distribution board	184	138	99
VS108TJ	8 way	IP40	surface mounting distribution board	184	210	99
VS112TJ	12 way	IP40	surface mounting distribution board	252	282	99
VS212TJ	24 (2 x 12)	IP40	surface mounting distribution board	377	282	99
VS118TJ	18 way	IP40	surface mounting distribution board	252	390	99
VS218TJ	36 (2 x 18)	IP40	surface mounting distribution board	377	390	99
VS318TJ	54 (3 x 18)	IP40	surface mounting distribution board	500	390	99

VF flush mounting enclosures - IP40 (with door)

- 72 mm installation depth, can be mounted into "hollow wall" with optional brackets

VF108TJ	8 way	IP40	flush mounting distribution board	225	275	98
VF112TJ	12 way	IP40	flush mounting distribution board	293	352	98
VF212TJ	24 (2 x 12)	IP40	flush mounting distribution board	418	352	98
VF118TJ	18 way	IP40	flush mounting distribution board	293	460	98
VF218TJ	36 (2 x 18)	IP40	flush mounting distribution board	418	460	98
VF318TJ	54 (3 x 18)	IP40	flush mounting distribution board	543	460	98

Accessories for Golf series (VS/VF) enclosures

VZ696N	bracket		hollow wall mounting brackets for flush enclosures			(4pcs)
VZ699N	retainer		cable retaining guides for all enclosures			(4pcs)
VZ786N	bracket		brick wall fixing brackets for flush enclosures			(4pcs)
VZ787N	label		spare transparent label holder for all enclosures			(5pcs)
VZ794N	key		key lock facility for all enclosures			(2pcs)

Volta series - "Exclusive" flush mounting boards IP41 (class II)

- Metallic front door and frame (*reversible - opening from left or right*)
- Integrated mini spirit level (*installation aid for alignment*)
- 30% more wiring space available
- Supplied with earth / neutral terminals
- Colour: RAL 9010 (*white*)
- IEC 60439-3

VU12NE	12 way		flush mount "exclusive" distribution board	356	348	96
VU24NE	24 (2 x 12)		flush mount "exclusive" distribution board	505	348	96
VU36NE	36 (3 x 12)		flush mount "exclusive" distribution board	630	348	96
VU48NE	48 (4 x 12)		flush mount "exclusive" distribution board	755	348	96



Vector series - Surface mount enclosures class II

- Compliant: IEC 61439-3
- Colour: RAL 7035 (light grey)
- Adjustable DIN rail depth (to fit products of different depth)
- Transparent hinged cover (2 - 10 way) or door (12 - 54 way)
- Rear adjustment screws for mounting on uneven/irregular wall surfaces (up to 3 mm)
- Premarked knock-outs for cable glands **M20, M25, M32, M40, M50** (size dependant)

type	number of ways	dimensions (mm)		
		(H)	(W)	(D)

Vector VE-L - Surface-mount distribution boards (IP55)

- Supplied with Earth/Neutral terminals

VE103L	3 way	surface mounting distribution board	175	111	93
VE106L	6 way	surface mounting distribution board	190	165	113
VE110L	10 way	surface mounting distribution board	210	237	114
VE112L	12 way	surface mounting distribution board	302	310	151
VE212L	24 (2 x 12)	surface mounting distribution board	427	310	151
VE118L	18 (1 x 18)	surface mounting distribution board	302	418	151
VE218L	36 (2 x 18)	surface mounting distribution board	452	418	151
VE318L	54 (3 x 18)	surface mounting distribution board	602	418	151

Vector VE-SN - Surface-mount boards for outdoor use (IP65)

UV stabilised and IP65 surface mounting enclosure range designed specifically for outdoor use and photovoltaic applications.

- Resistant to ultraviolet radiation, immersion in water in accordance with UL746C
- Dimensional stability up to 100°C, resistant to frost down to -25°C
- Plain base (no knockouts) for easy configuration of cable entry/exits
- Earth and neutral terminals to be ordered separately (see below)

VE112SN	12 way	surface mounting distribution board	302	310	151
VE212SN	24 (2 x 12)	surface mounting distribution board	427	310	151
VE312SN	36 (2 x 18)	surface mounting distribution board	552	318	151

Earth/Neutral terminal set for above VE...SN boards

VZ522	E/Neutral	terminals each with: (1x25 mm ² + 5x16 mm ² + 7x10 mm ²)
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VP series - Polycarbonate enclosures (IP65)

- IP65 protection / insulation class II
- Plain door 130° opening
- Supplied complete with chassis plate and mounting brackets
- Colour: RAL7035 (light grey)

VP20G	empty	polycarbonate surface mount enclosure	350	250	160
VP36G	empty	polycarbonate surface mount enclosure	500	300	160
VP54G	empty	polycarbonate surface mount enclosure	550	400	210
VP72G	empty	polycarbonate surface mount enclosure	650	400	210

Distribution boards (industrial) IP65 as above, including following accessories

- Fitted with DIN rail and modular covers (accepts modular devices and MCBs)
- With smoked transparent hinged door with 130° opening
- Included earth and neutral terminals

VP36M	36 (3 x 12)	polycarbonate surface mount enclosure	500	300	160
VP54M	54 (3 x 18)	polycarbonate surface mount enclosure	550	400	210
VP72M	72 (4 x 18)	polycarbonate surface mount enclosure	650	400	210

Accessories for polycarbonate enclosures

FL711E	blank front modular cover	for VP36M	150	300	—
FL712E	blank front modular cover	for VP54/72M	150	400	—
VP01Z	replacement key type locking handle for enclosures		—	—	—



Vega D series - Surface and flush mounting distribution boards IP41 (with optional door fitted)

Vega D enclosures are suitable for installations in residential and commercial buildings for supplies up to 250A. Delivered in a ready-to-mount configuration. All enclosures have 24 module rows.

- Material: Metallic enclosure
- Colour: RAL 9010 (light grey)
- Integrated quick connect earth terminals
- Removable front frame for optimal access to internal installed devices
- Doors sheet metal plain or with transparent window (to be ordered separately)
- Protection class: IP30/IK07 (without door) - IP41/IK08 (with door) - class II totally insulated



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type	number of modular ways	description	dimensions (mm)		
			(H)	(W)	(D)

Surface-mounting boards 48 way to 168 way

- Removable top and bottom plates for easier cable entry

FD22DN	48 (2 x 24)	surface mounting distribution board	450	550	193
FD32DN	72 (3 x 24)	surface mounting distribution board	600	550	193
FD42DN	96 (4 x 24)	surface mounting distribution board	750	550	193
FD52DN	120 (5 x 24)	surface mounting distribution board	900	550	193
FD62DN	144 (6 x 24)	surface mounting distribution board	1050	550	193
FD72DN	168 (7 x 24)	surface mounting distribution board	1200	550	193

Partially equipped surface enclosures

FD42AN*	96 (2 x 24)	surface mounting distribution board	750	550	193
FD52AN*	120 (3 x 24)	surface mounting distribution board	900	550	193
FD62AN*	144 (4 x 24)	surface mounting distribution board	1050	550	193
FD72AN*	168 (5 x 24)	surface mounting distribution board	1200	550	193

Flush-mounting boards 48 way to 168 way

- Metallic flush mounting tray (depth 110 mm with insulated cable entries top and bottom)
- Removable chassis with uprights accommodating modular devices
- Metallic (easily removable) finishing frame DN=40 / AN=72 mm depth

FU22DN	48 (2 x 24)	flush mounting distribution board	537	550	150
FU32DN	72 (3 x 24)	flush mounting distribution board	687	550	150
FU42DN	96 (4 x 24)	flush mounting distribution board	837	550	150
FU52DN	120 (5 x 24)	flush mounting distribution board	987	550	150
FU62DN	144 (6 x 24)	flush mounting distribution board	1137	550	150
FU72DN	168 (7 x 24)	flush mounting distribution board	1287	550	150

Partially equipped surface enclosures

FU42AN*	96 (2 x 24)	flush mounting distribution board	837	550	182
FU52AN*	120 (3 x 24)	flush mounting distribution board	987	550	182
FU62AN*	144 (4 x 24)	flush mounting distribution board	1137	550	182
FU72AN*	168 (5 x 24)	flush mounting distribution board	1287	550	182

* Supplied without top two rows. To be completed with internal modules of choice (below) to accept main switch MCCB (up to 250A) or two rows modular devices or chassis plate.

Doors for Vega D enclosures (sheet metal)

Plain doors

(left or right hinged 135° opening)

FD22PN	plain	sheet metal door for enclosures	FD/FU22	350	500	–
FD32PN	plain	sheet metal door for enclosures	FD/FU32	500	500	–
FD42PN	plain	sheet metal door for enclosures	FD/FU42	650	500	–
FD52PN	plain	sheet metal door for enclosures	FD/FU52	800	500	–
FD62PN	plain	sheet metal door for enclosures	FD/FU62	950	500	–
FD72PN	plain	sheet metal door for enclosures	FD/FU72	1100	500	–

Transparent doors

(left or right hinged 135° opening)

FD22TN	transparent	sheet metal door for enclosures	FD/FU22	350	500	–
FD32TN	transparent	sheet metal door for enclosures	FD/FU32	500	500	–
FD42TN	transparent	sheet metal door for enclosures	FD/FU42	650	500	–
FD52TN	transparent	sheet metal door for enclosures	FD/FU52	800	500	–
FD62TN	transparent	sheet metal door for enclosures	FD/FU62	950	500	–
FD72TN	transparent	sheet metal door for enclosures	FD/FU72	1100	500	–

Internal modules (to fill upper 2 spaces on FD/FU42,62,72AN enclosures)

FD01A1	1 row 24 way	standard chassis with modular DIN cover	150	–	–
FD01A2	1 row adj.	DIN rail kit for terminals with plain front cover	150	–	–
FD01K1	1 row	for 1x horizontally mounted 160A MCCB	150	–	–

See page H-6 for Vega D internal modules and accessories ➡



Quadro 5 series - Floor standing distribution board system IP55

- Nominal insulation voltage: $U_i = 690\text{ V}$
- Type tested nominal current: 630A, 35 kA
- Colour: RAL9010, (plinth RAL7042)
- Class of protection: IP55, IK10 (with door) to EN 60530

type	description	for enclosure	dimensions (mm)		
			(H)	(W)	(D)

Enclosures - Height: 1260 mm - Surface wall mount or (floor mount with optional plinth)

- Main frame with back plate, removable top and bottom plates and 4 lugs for wall mounting
- 1200 mm Internal height - accepts: - 8 rows (150 mm high) or 6 rows (200 mm high) 24 way

FM205	upright basic frame without plinth	(standard)	1260	700	260
FM405	pair of side plates (L and R) for enclosure	FM205	1260	–	260
FM450	plinth (optional) for floor mounting enclosure	FM205	150	700	260
FM535	transparent sheet metal hinged door for	FM205	1260	685	–
FM545	plain sheet metal hinged door for	FM205	1260	685	–

Enclosures - Height: 2010 mm (floor standing with back plate, removable top plate and plinth)

- Main frame with back plate, removable top plate and plinth with 2 wall securing lugs
- 1800 mm Internal height - accepts: - 12 rows (150 mm high) or 9 rows (200 mm high) 24 way

FM109	upright basic frame with back plate and plinth	(narrow)	2010	450	260
FM209	upright basic frame with back plate and plinth	(standard)	2010	700	260
FM409	pair of side plates (L and R) for enclosure	FM1/209	2010	–	260
FM519	plain sheet metal hinged door (narrow)	FM109	2010	435	–
FM539	plain sheet metal hinged door (standard)	FM209	2010	685	–
FM549	transparent sheet metal hinged door (standard)	FM209	2010	685	–

Equipment mounting kits - For Quadro 5 system

- Comprises: mounting rail + accessories and front covers for modular MCBs and MCCBs

For 700 mm wide (standard) panels

UC201	mounting kit for MCBs (150 mm)	24 modules	FM205/9	150	600	–
UC205	mounting kit for MCBs (200 mm)	24 modules	FM205/9	200	600	–
UC011H	mounting kit for MCCBs	25-160A	FM205/9	300	600	–
UC021H	mounting kit for MCCBs	250A	FM205/9	300	600	–
UC141H	mounting kit for MCCBs	400/630A	FM205/9	400	600	–
UC233EM	kit with knock-outs for 3 x 96 mm instruments		FM205/9	200	600	–

For 450 mm wide (narrow) panels

UC200	mounting kit for MCBs	10 modules	FM109	150	350	–
UC010H	mounting kit for MCCBs	125/160A	FM109	300	350	–
UC020H	mounting kit for MCCBs	250A	FM109	300	350	–
UC140H	mounting kit for MCCBs	400/630A	FM109	400	350	–

Accessories for Quadro 5 enclosures - (other common accessories see page H-13)

FM484	chassis plates for standard enclosures	FM205/9	300	500	–
FM635	horizontal joining kit (side by side mounting of frames)				
FM653	screw-in lifting ring set for Quadro 5 enclosures				(2pcs)
UC915	clip-in cable trunking support (60 mm vertical / 40 mm horizontal)				
JP024	blanking strip (24 modules wide) with breakable sections				
FZ517	replacement square 6 x 6 mm key lock insert				

(continued...) Vega D Internal modules

type	number of modular ways	description	dimensions (mm)		
			(H)	(W)	(D)
FD02A1	2 rows (24 way)	standard chassis with modular DIN cover	300	–	–
FD02K1	2 row	for 1 x vertically mounted 250A MCCB	300	–	–
FD02C2	2 row	perforated chassis plate + plain front cover	300	–	–
FD00C2	2 row	plain flat surface front cover for enclosures	300	–	–
FD00M2	2 row	chassis plate direct fixing on vert. supports	300	–	–

Accessories for Vega D enclosures

JP002	blanking strip	24 way blanking strip (breakable sections)			(ea)
FD00A1	label holder	24 way holder and paper strip for marking			(10 per pack)
FD00F1	bracket	for horizontal side by side mounting			(ea)
FD00F2	brackets	external wall mount for surface enclosures			(ea)
FZ794	pocket plan	self adhesive flexible A4 format pocket plan			(10 per pack)
FD00S1	key lock	key lock to replace original door latch			(ea)

quadro+

the complete solution




Our quadro enclosures are designed, manufactured and tested to the highest international standards. And they are available in a range of shapes and forms to fit any project.



Technical specifications to the highest standards

- Rated voltage UN 400 V a.c.
- Rated operational voltage Ue 400 V a.c.
- Rated current IN up to 1600 A
- Rated peak withstand current Ipk up to 105 kA
- Rated short-time withstand current Icw up to 50 kA
- Rated frequency fn 50 Hz
- Rated impulse withstand voltage Uimp 8 - 12 kV
- Rated insulation voltage Ui 800 - 1000 V
- Mechanical impact protection IK10
- Degree of protection IP30 / IP55

Proven planning tools

-  Project management software: hagercad
-  Technical handbook
-  Training



five key benefits of a fully-tested system

01
Tested quality

02
Trusted rigidity

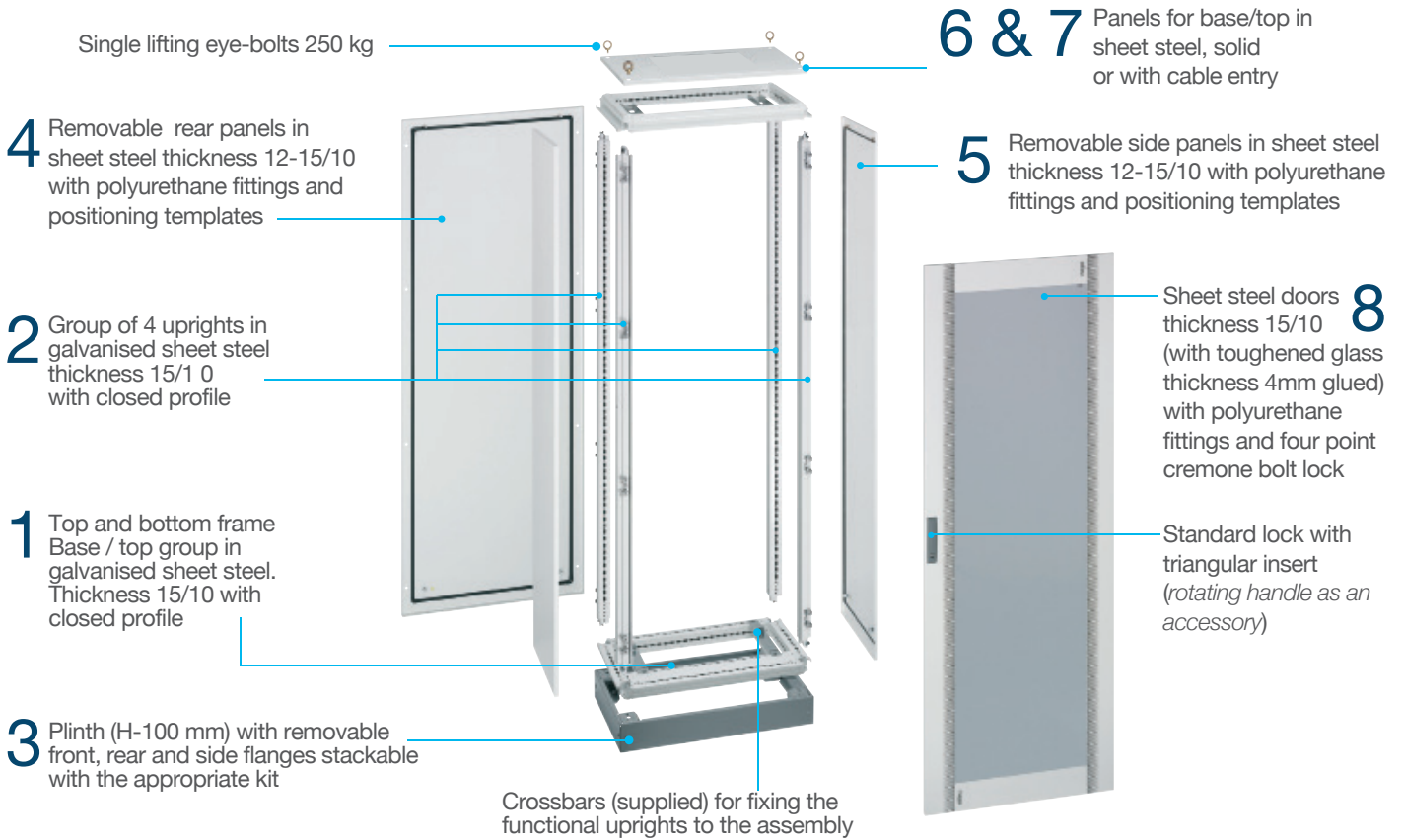
03
Reliable support

04
Unique ease
of mounting

05
Safe & convenient
transportation

quadro+

Hager's quadro boards and enclosures are user friendly when it comes to installation. Quick to assemble - the modular elements enable one to create boards according to your specific needs.



Examples of a 700 x 600 x 1900

Item	type	description	Qty
1	FN029E	top and bottom frame (set)	1
2	FN046E	4 uprights	1
3	FN451E	plinth (H=100 mm)	1
4	FN276E	back panel	1
5	FN366E	side panel	2
6	FN089E	plain top or bottom cable entry plates	1
7	FN109E	top or bottom cable entry plates	1
8	FN516E	transparent door	1
9	FN696E	functional uprights	1

- Add mounting kits to fit MCBs, MCCBs and ACBs
- Add blanking plates as needed
- Add chassis plate to fit other equipment (VSDs, inverters, Etc.)



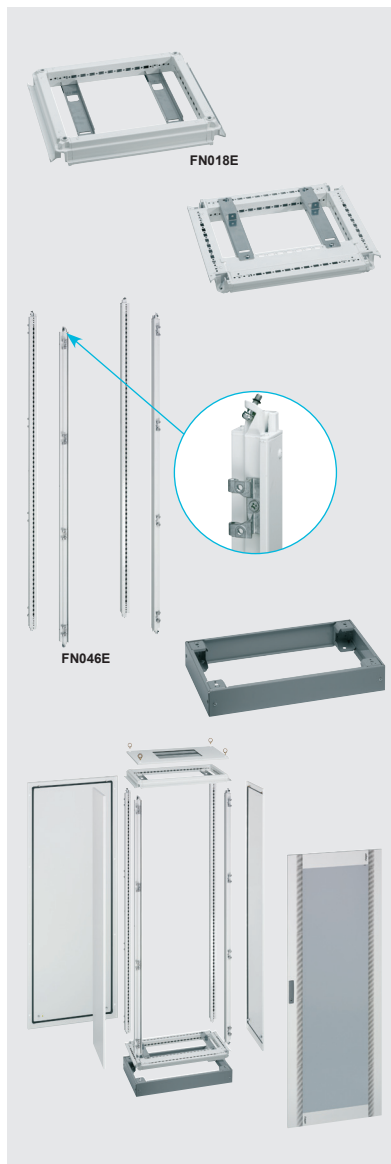
hagercad

Take low voltage distribution planning to the next level



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<ul style="list-style-type: none"> • Quick and easy to assemble • IP55 (with door) • Access from all sides • Sheet metal class I 	1		2		3	4	5
Dimension (mm)			Top and bottom frame (set)	4 uprights	plinth (H=100 mm)	back panel	side panel
width	depth	height					
450	400	1900	FN018E	FN046E	FN438E	FN216E	FN356E
450	600	1900	FN020E	FN046E	FN440E	FN216E	FN366E
450	800	1900	FN022E	FN046E	FN442E	FN216E	FN376E
700	400	1900	FN021E	FN046E	FN441E	FN276E	FN356E
700	600	1900	FN029E	FN046E	FN451E	FN276E	FN366E
700	800	1900	FN013E	FN046E	FN433E	FN276E	FN376E
900	400	1900	FN023E	FN046E	FN443E	FN296E	FN356E
900	600	1900	FN031E	FN046E	FN453E	FN296E	FN366E
900	800	1900	FN017E	FN046E	FN437E	FN296E	FN376E



Quadro+ distribution board system (IP55)

Quadro + enclosure systems are supplied in a “flat-pack” format for ease of transportation and on-site assembly. Cabinets can be joined horizontally to form complete multi-cabinet systems without limitations. Ideal for applications up to 4000A. Basic component requirement to assemble a single floor standing cabinet:

- Top and bottom frames • four uprights • plinth • side panels • back panel • top and bottom plates • door

type	description	dimensions (mm)		
		(H)	(W)	(D)
Top and bottom frame set (connects to uprights)				
FN018E	top and bottom set frame (connects to uprights)	–	450	400
FN020E	top and bottom set frame (connects to uprights)	–	450	600
FN022E	top and bottom set frame (connects to uprights)	–	450	800
FN021E	top and bottom set frame (connects to uprights)	–	700	400
FN029E	top and bottom set frame (connects to uprights)	–	700	600
FN013E	top and bottom set frame (connects to uprights)	–	700	800
FN023E	top and bottom set frame (connects to uprights)	–	900	400
FN031E	top and bottom set frame (connects to uprights)	–	900	600
FN017E	top and bottom set frame (connects to uprights)	–	900	800
Four uprights (connects to top and bottom frames with single captive screw)				
FN046E	set of 4 uprights (connects to top and bottom frame)	1900	–	–
Plinth (100 mm high)				
FN438E	plinth with removable front and rear inspection plates	100	450	400
FN440E	plinth with removable front and rear inspection plates	100	450	600
FN442E	plinth with removable front and rear inspection plates	100	450	800
FN441E	plinth with removable front and rear inspection plates	100	700	400
FN451E	plinth with removable front and rear inspection plates	100	700	600
FN433E	plinth with removable front and rear inspection plates	100	700	800
FN443E	plinth with removable front and rear inspection plates	100	900	400
FN453E	plinth with removable front and rear inspection plates	100	900	600
FN437E	plinth with removable front and rear inspection plates	100	900	800
Back panel (removable)				
FN216E	back panel for Quadro+ enclosures (removable)	1900	450	–
FN276E	back panel for Quadro+ enclosures (removable)	1900	700	–
FN296E	back panel for Quadro+ enclosures (removable)	1900	900	–
Side panels (removable) supplied individually				
FN356E	side panel for Quadro+ enclosures (removable)	1900	–	400
FN366E	side panel for Quadro+ enclosures (removable)	1900	–	600
FN376E	side panel for Quadro+ enclosures (removable)	1900	–	800

6		7		8		9	
top and bottom cable entry plates		doors		chassis plate full height		functional uprights	
plain plate	cable entry	plain	transparent				
FN078E	FN098E	FN546E	–	FN726E		FN696E	
FN080E	FN100E	FN546E	–	FN726E		FN696E	
FN082E	FN102E	FN546E	–	FN726E		FN696E	
FN081E	FN101E	FN506E	FN516E	FN736E		FN696E	
FN089E	FN109E	FN506E	FN516E	FN736E		FN696E	
FN073E	FN093E	FN506E	FN516E	FN736E		FN696E	
FN083E	FN103E	FN526E	FN536E	FN746E		FN696E	
FN091E	FN111E	FN526E	FN536E	FN746E		FN696E	
FN077E	FN097E	FN526E	FN536E	FN746E		FN696E	



type	description	dimensions (mm)			
		(H)	(W)	(D)	
Top and bottom cable entry plate					
FN078E	top (or) bottom plain plate	(plain)	–	450	400
FN080E	top (or) bottom plain plate	(plain)	–	450	600
FN082E	top (or) bottom plain plate	(plain)	–	450	800
FN081E	top (or) bottom plain plate	(plain)	–	700	400
FN089E	top (or) bottom plain plate	(plain)	–	700	600
FN073E	top (or) bottom plain plate	(plain)	–	700	800
FN083E	top (or) bottom plain plate	(plain)	–	900	400
FN091E	top (or) bottom plain plate	(plain)	–	900	600
FN077E	top (or) bottom plain plate	(plain)	–	900	800
FN098E	top (or) bottom cable entry plate	(sliding)	–	450	400
FN100E	top (or) bottom cable entry plate	(sliding)	–	450	600
FN102E	top (or) bottom cable entry plate	(sliding)	–	450	800
FN101E	top (or) bottom cable entry plate	(sliding)	–	700	400
FN109E	top (or) bottom cable entry plate	(sliding)	–	700	600
FN093E	top (or) bottom cable entry plate	(sliding)	–	700	800
FN103E	top (or) bottom cable entry plate	(sliding)	–	900	400
FN111E	top (or) bottom cable entry plate	(sliding)	–	900	600
FN097E	top (or) bottom cable entry plate	(sliding)	–	900	800
Doors (with hinges and locks)					
FN510E	door for Quadro+ system (reversible)	(transparent)	1900	450	–
FN516E	door for Quadro+ system (reversible)	(transparent)	1900	700	–
FN536E	door for Quadro+ system (reversible)	(transparent)	1900	900	–
FN546E	door for Quadro+ system (reversible)	(plain)	1900	450	–
FN506E	door for Quadro+ system (reversible)	(plain)	1900	700	–
FN526E	door for Quadro+ system (reversible)	(plain)	1900	900	–
Chassis plates (full height)					
FN726E	chassis plate, galvanized steel	(full height)	1900	450	–
FN736E	chassis plate, galvanized steel	(full height)	1900	700	–
FN746E	chassis plate, galvanized steel	(full height)	1900	900	–
* Partial chassis plates, see page H-12					
Functional uprights					
• Required for fixing mounting rails/chassis plates and front covers to support circuit breaker					
FN696E	functional uprights (to support CB mounting acc.)		1900	–	–
* Functional uprights partial height, see page H-12					



Equipment mounting kits (for Quadro 5 and Quadro+ systems)

- Comprises: mounting accessories and front covers for MCB's, MCCB's and ACB's

type	description	for components	dimensions (mm)	
			(H)	(W)
For 450 mm wide panels				
UC200	kit for mounting MCBs	10 modules	150	350
UC010H	kit for mounting 2 x MCCBs	vertical 125/160A	300	350
UC020H	kit for mounting 1 x MCCB	vertical 250A	300	350
UC140H	kit for mounting 1 x MCCB	vertical 400/630A	400	350
For 700 mm wide panels				
Vertical mounting (terminals top and bottom)				
UC201	kit for mounting MCBs	24 modules	150	600
UC205	kit for mounting MCBs	24 modules	200	600
UC011H	kit for mounting 5 x MCCBs	vertical 25 - 160A	300	600
UC021H	kit for mounting 2 x MCCBs	vertical 250A	300	600
UC141H	kit for mounting 2 x MCCBs	vertical 400/630A	400	600
UC050H	kit for mounting 1 x MCCB	vertical 800/1000A	600	600
UC060H	kit for mounting 1 x MCCB	vertical 1250/1600A	600	600
UC317S	kit for motorized C/overs	horizontal 125-400A	300	600
UC321S	kit for motorized C/overs	horizontal 125-630A	300	600
UC062HEM	kit for mounting ACBs	frame A 1250/1600A	700	600
UC233EM	kit with knock-outs for up to 3 x 96 mm ² instruments		700	200
Horizontal mounting (terminals left and right)				
UC127H	kit for mounting 1 x MCCB	horizontal 250A	200	600
UC147H	kit for mounting 1 x MCCB	horizontal 400/630A	200	600
UC054H	kit for mounting 1 x MCCB	horizontal 800/1000A	400	600
For 900 mm wide panels				
Vertical mounting (terminals top and bottom)				
UC203	kit for mounting MCBs	36 modules	150	800
UC207	kit for mounting MCBs	36 modules	200	800
UC012H	kit for mounting 8 x MCCBs	vertical 25 - 160A	300	800
UC022H	kit for mounting 3 x MCCBs	vertical 250A	300	800
UC142H	kit for mounting 2 x MCCBs	vertical 400/630A	400	800
UC051H	kit for mounting 1 x MCCB	vertical 800/1000A	600	800
UC061H	kit for mounting 1 x MCCB	vertical 1250/1600A	600	800
UC082HEM	kit for mounting ACBs	frame B 1000/4000A	900	600
UC328S	kit for motorized C/overs	horizontal 800-1600A	600	800
UC243EM	kit with knock-outs for up to 3 x 96 mm ² instruments		900	200
Horizontal mounting (terminals left and right)				
UC128H	kit for mounting 1 x MCCB	horizontal 250A	200	800
UC148H	kit for mounting 1 x MCCB	horizontal 400/630A	200	800
UC055H	kit for mounting 1 x MCCB	horizontal 800/1000A	400	800
Blanking plates (for Quadro 5 and Quadro+ systems)				
UC221	front blanking cover plate	(plain)	50	350
UC222	front blanking cover plate	(plain)	150	350
UC223	front blanking cover plate	(plain)	200	350
UC224	front blanking cover plate	(plain)	300	350
UC225	front blanking cover plate	(plain)	400	350
UC226	front blanking cover plate	(plain)	600	350
UC231	front blanking cover plate	(plain)	50	600
UC239	front blanking cover plate	(plain)	100	600
UC232	front blanking cover plate	(plain)	150	600
UC233	front blanking cover plate	(plain)	200	600
UC234	front blanking cover plate	(plain)	300	600
UC235	front blanking cover plate	(plain)	400	600
UC236	front blanking cover plate	(plain)	600	600
UC241	front blanking cover plate	(plain)	50	800
UC249	front blanking cover plate	(plain)	100	800
UC242	front blanking cover plate	(plain)	150	800
UC243	front blanking cover plate	(plain)	200	800
UC244	front blanking cover plate	(plain)	300	800
UC245	front blanking cover plate	(plain)	400	800
UC246	front blanking cover plate	(plain)	600	800



FN700E (Excluding frame)



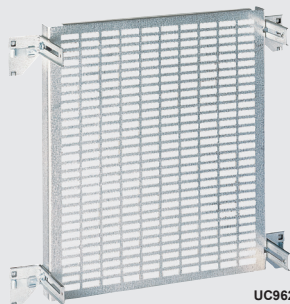
FN690E



FN877E



FN865E

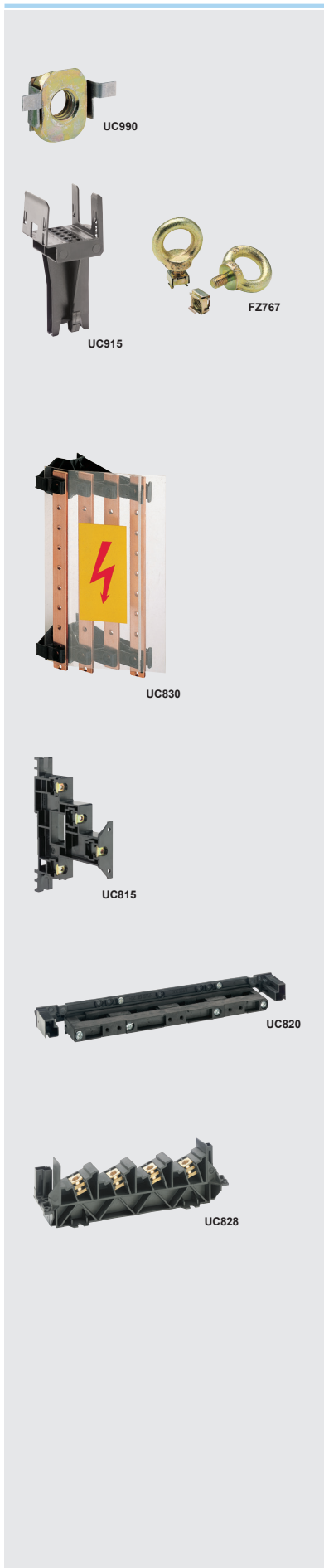


UC962

Equipment mounting kits (for Quadro 5 and Quadro+ systems)

type	description	dimensions (mm)		
		(H)	(W)	(D)
Internal door (sheet metal)				
FN700E	internal hinged door for Quadro+ cabinets	1900	600	–
FN706E	internal hinged door for Quadro+ cabinets	1900	800	–
Accessories for Quadro+				
All accessories are designed for adapting enclosures to accommodate a range of components. Perforations in profiles, brackets, rails are in steps 25 mm apart and accommodate cage nuts M6 (UC990).				
Perforated crossbars mounts (horizontally) directly onto side uprights of enclosure				
FN690E	perforated mounting rail for sides of enclosure	50	–	400
FN691E	perforated mounting rail for sides of enclosure	50	–	600
FN692E	perforated mounting rail for sides of enclosure	50	–	800
Perforated mounting rails mounts (horizontally) directly onto side uprights of enclosure				
FN873E	perforated mounting rail for back of enclosure	50	300	–
FN875E	perforated mounting rail for back of enclosure	50	450	–
FN877E	perforated mounting rail for back of enclosure	50	700	–
FN879E	perforated mounting rail for back of enclosure	50	900	–
Perforated brackets mounts (horizontally) directly onto crossbars FN690/1/2E				
FN863E	perforated mounting rail connects onto crossbars	50	450	–
FN865E	perforated mounting rail connects onto crossbars	50	700	–
FN867E	perforated mounting rail connects onto crossbars	50	900	–
Finishing frame required when no door is fitted to enclosure				
FN406E	finishing frame when no door is used on enclosures	1900	700	–
FN426E	finishing frame when no door is used on enclosures	1900	900	–
Horizontal joining kit for joining two enclosures side by side				
FN950	side connection kits (4 galvanised plates)	–	–	–
FN951	seal kit 10 x 6 mm for joining two enclosures (10 met)	–	–	–
Functional uprights (partial height)				
To accept mounting kits for circuit breakers / requires 4 x perforated crossbars + front cover fixing profile				
FN892E	functional uprights (supports mounting accessories)	200	–	–
FN893E	functional uprights (supports mounting accessories)	300	–	–
FN894E	functional uprights (supports mounting accessories)	400	–	–
FN895E	functional uprights (supports mounting accessories)	600	–	–
Front cover fixing profile for mounting front covers without full functional uprights				
FN696EP	profile for fixing front plates to enclosures	1900	–	–
FN696EX01	full vertical upright kit to accommodate rack system	1900	–	–
Partial chassis plate (adjustable depth) mounts onto functional uprights				
UC960	perforated partial chassis plate (depth adjustable)	300	600	–
UC962	perforated partial chassis plate (depth adjustable)	450	600	–
UC964	perforated partial chassis plate (depth adjustable)	600	600	–
Vertical dividing upright to create cable compartment in 900 wide enclosures				
FN286E	vertical dividing upright with fixing accessories	1900	–	–
Cable compartment cover to cover compartment section front/back				
FN266E	cover plate for cable compartment	1900	200	–
Cover plates (covers top joint when joining two enclosures)				
FN942E	plate to cover joint bet. two side by side enclosures	–	–	400
FN943E	plate to cover joint bet. two side by side enclosures	–	–	600
FN944E	plate to cover joint bet. two side by side enclosures	–	–	800

See overleaf (H-13) for more accessories.



Accessories for Quadro+

type	description	dimensions (mm)		
		(H)	(W)	(D)
UC268	hinge kit for modular covers (<i>hinge from left or right</i>)	-	-	-
UC990	clip-in M6 cage nuts for perforations in profiles	-	-	-
UC991	M6 x 12 mm screws for above cage nuts	-	-	-
UC915	clip-in cable trunking support (<i>Vert. 60 mm Hor. 40 mm</i>)	-	80	-
UZ25V1	rail mount cable clamp / guide	-	-	-
JP024	blanking strip (<i>24-way</i>) with breakable sections	-	-	-
JE003	spare transparent self-adhesive marking strips (<i>24-way</i>)	-	-	-
FZ516	replacement square 6 x 6 mm key-lock insert	-	-	-
FN952	door latch unit (<i>in open position</i>)	-	-	-
FZ767	lifting rings for enclosures	Quadro+ (2pcs)	-	-
FZ760E	lifting rings for double enclosures	Quadro+ (2pcs)	-	-

Busbar supports for Quadro system

All accessories are designed for adapting enclosures to accommodate a range of components. Perforations in profiles, brackets, rails are in steps 25 mm apart and accommodate cage nuts M6 (UC900).

type	current	bar size		pole	description	dimensions	
		width (mm)	thick (mm)			length (mm)	width (mm)

Side busbar support

UC830	250A	20	5	4	side mounting busbar supports kit (2)	-	-
UC834	-	-	-	-	protective screen for above supports	1000	-

Multi stage busbars support

UC815	400A	32	5	4	stepped busbar support (1)	-	-
UC288					universal crossbars for mounting UC815	-	185
UC289					universal crossbars for mounting UC816	-	500
UC988					universal crossbars for mounting UC815	-	250
UC816					protective screen for above supports	620	170

Flat busbar support

UC820	630A	20/30	5/10	4	busbar support for flat bars (1)	-	-
UC812					support kit for rear vertical mounting	-	250
UC289					universal crossbars for mounting	-	500
UC827					protective screen for above support	620	-

Inclined busbar supports

UC828	250A				protective screen for above support	990	212
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Universal busbar support (*adjustable*)

UC895E	3200A	30 - 120	5	4	support kit for 5 mm bars (<i>up to 4 bars per phase</i>)		
UC896E	3200A	30 - 120	10	4	support kit for 10 mm bars (<i>up to 2 x busbars per phase</i>)		
UC897E	3200A	30 - 120	10	4	support kit for 10 mm bars (<i>up to 3 x busbars per phase</i>)		
UC860E					perforated aluminium profile for support kit	2 met.	-
UC861E					bracket kits for above UC860E	-	-



type	description	
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Rail mountable earth/neutral terminals (clips vertically onto rail)

KM13N	rail mountable neutral terminal (blue)	6 x 16 + 7 x 10 mm ²
KM13E	rail mountable earth terminal (green)	6 x 16 + 7 x 10 mm ²

Terminal support (clips into various distribution boards)

KN00A	universal terminal support	Din rail mount (horizontal or vertical) 105 mm
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Distribution terminals (fully insulated clips onto above support)

Incoming	1.5..25 mm ² screw clamp terminal
Outgoing	1.5..4 mm ² connect cage clamp terminals (push-in)

type	supply	output	description	colour
	1.5..25 mm ²	1.5..4 mm ²		
KN10E	63A 2 x 25 mm ²	8 x 4 mm ²	insulated earth terminal	(green)
KN18E	63A 4 x 25 mm ²	14 x 4 mm ²	insulated earth terminal	(green)
KN26E	63A 6 x 25 mm ²	20 x 4 mm ²	insulated earth terminal	(green)
KN99E	earth insulated bridge piece for above terminals (push-in)			
KN10N	63A 2 x 25 mm ²	8 x 4 mm ²	insulated neutral terminal	(blue)
KN18N	63A 4 x 25 mm ²	14 x 4 mm ²	insulated neutral terminal	(blue)
KN26N	63A 6 x 25 mm ²	20 x 4 mm ²	insulated neutral terminal	(blue)
KN99N	neutral insulated bridge piece for above terminals (10pcs)			
KN10P	63A 2 x 25 mm ²	8 x 4 mm ²	insulated phase terminal	(brown)
KN18P	63A 4 x 25 mm ²	14 x 4 mm ²	insulated phase terminal	(brown)
KN26P	63A 6 x 25 mm ²	20 x 4 mm ²	insulated phase terminal	(brown)
KN99P	phase insulated bridge piece for above terminals (10 pcs)			
KN04N	90A 4 x 25 mm ²	screw clamp	insulated neutral terminal	(blue)
KN07N	90A 7 x 25 mm ²	screw clamp	insulated neutral terminal	(blue)
KN04P	90A 4 x 25 mm ²	screw clamp	insulated phase terminal	(brown)
KN07P	90A 7 x 25 mm ²	screw clamp	insulated phase terminal	(brown)

Single-pole distribution blocks (fully protected) Icc: 36kA

- Space saving
- IP20 protection
- DIN rail or bolt down mounting
- One main cable input - various cable outputs

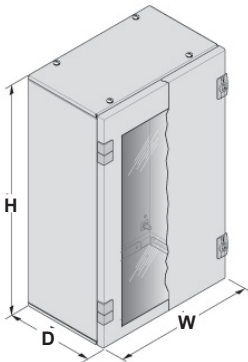
type	amps	incoming terminals	outgoing terminals (per phase) mm ²				Icc kA	poles
			1.5...6	2.5...10	2.5...16	2.5...25		
KJ02D	125A	1x35/1x16 mm ²			6		36	1 pole
KJ02C	160A	70 mm ²			6		36	1 pole
KJ02A	250A	95 mm ²		4	5	2	36	1 pole
KJ02B	400A	150 mm ²		4	5	2	36	1 pole

Multi-pole distribution blocks (3Ph+N distribution bars in modular format)

- Modular DIN rail mounting (mounts through modular front cut-out)
- High fault level
- IEC 60947-1

type	amps	incoming terminals	outgoing terminals (per phase) mm ²				Icc kA	poles
			1.5...6	2.5...10	2.5...16	2.5...25		
KJ01A	100A	35 mm ²			10	1	29	2 pole
KJ01B	80A	16 mm ²		8			21	4 pole
KJ01C	125A	35 mm ²			10	1	29	4 pole
KJ01D	160A	50 mm ²			8		20	4 pole
KJ02E	100A	25 mm ²	5/4*	2/6*			20	4 pole

*= Neutral terminals



Orion + Enclosures (IP65) (sheet metal and polyester)

Sheet steel or glass reinforced polyester - the **Orion Plus** enclosures are suited for the harshest conditions and can be applied for wet and mechanical use. Even under chemical use, Orion Plus offers the ideal solution with glass reinforced polyester. Flexibly is provided via mounting plate or DIN rail (*in 2 different versions*) and thus offers the suitable interior equipment system - both for the application in automation and for classical current distribution.

- Colour: RAL 7035 (*light grey*)
- Mounting: Surface mounting
- Certification: CEI EN 60439-1
- Material: Sheet steel - class I or polyester - class II
- IP Rating: (IP65/IK10) protection, insulation class I (*powder-coated epoxy polyester*)

General features:

- Size and depth adapted according to your need
- Front door with foamed gasket opening 140°, hinged left or right
- Interior kits for conversion to distribution facility (*for mounting MCBs and modular products*)
- Sheet metal enclosures for indoor application, Polyester enclosures for indoor and outdoor applications

Typical applications:

- Installation of automation products for the control of machines or small processes
- Installation of non modular products such as contactors, transformers, etc
- Cable termination and distribution



type	protection	description	dimensions (mm)		
			(H)	(W)	(D)

Sheet metal enclosures (surface mounting) colour: RAL 7035 (light grey)

- IP65 protection, insulation class I (*powder-coated epoxy polyester*)
- Full-sized top and bottom gland plates (*enclosures can be mounted on top of each other*)

FL102A	IP65	surface mount sheet metal enclosure	300	250	160
FL104A	IP65	surface mount sheet metal enclosure	350	300	160
FL110A	IP65	surface mount sheet metal enclosure	500	300	200
FL112A	IP65	surface mount sheet metal enclosure	500	400	200
FL117A	IP65	surface mount sheet metal enclosure	650	400	200
FL120A	IP65	surface mount sheet metal enclosure	650	500	250
FL124A	IP65	surface mount sheet metal enclosure	800	600	300
FL128AEM	IP65	surface mount sheet metal enclosure	950	800	300
FL130AEM	IP65	surface mount sheet metal enclosure	1250	800	300

Note: Above enclosures with transparent door (add suffix T to part no. - e.g **FL102AT**)

+ 15%

Polyester enclosures (surface mounting) colour: RAL 7035 (light grey)

- IP65 protection, insulation class II
- Waterproof hood, top and bottom (*incorporated*)

FL204B	IP65	surface mount polyester enclosure	350	300	160
FL209B	IP65	surface mount polyester enclosure	500	300	200
FL213B	IP65	surface mount polyester enclosure	500	400	200
FL216B	IP65	surface mount polyester enclosure	650	400	200
FL221B	IP65	surface mount polyester enclosure	650	500	250
FL229B	IP65	surface mount polyester enclosure	800	600	300

Chassis plates (supplied separately)

- Plain mounting plate mounted either directly
- Sheet metal thickness 2 mm
- Mounting either directly on the back of enclosure or on the integrated slides with brackets **FL450A** to adjust depth, see page **H-16**

type	description	for enclosures	
FL402A	internal sheet metal chassis plate	for enclosure	FL102
FL404A	internal sheet metal chassis plate	for enclosure	FL104/204
FL407A	internal sheet metal chassis plate	for enclosure	FL110/209
FL408A	internal sheet metal chassis plate	for enclosure	FL112/213
FL412A	internal sheet metal chassis plate	for enclosure	FL117/216
FL413A	internal sheet metal chassis plate	for enclosure	FL120/221/221B
FL415A	internal sheet metal chassis plate	for enclosure	FL124/229
FL417AEM	internal sheet metal chassis plate	for enclosure	FL128
FL419AEM	internal sheet metal chassis plate	for enclosure	FL130



FL544A



FL981A



FL713E



FL96Z



FL958A



FL85Z



FL670A

Orion + Enclosures (IP65) (sheet metal and polyester)

type	description		for enclosures
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Internal door assembly

- Internal doors, sheet metal reversible
- Delivered with fixing accessories mounting on slides with delivered fixing frame

FL544A	internal door mounting kit	for enclosure	FL104/204
FL547A	internal door mounting kit	for enclosure	FL110/209
FL548A	internal door mounting kit	for enclosure	FL112/213
FL551A	internal door mounting kit	for enclosure	FL117/216
FL552A	internal door mounting kit	for enclosure	FL120/221
FL555A	internal door mounting kit	for enclosure	FL124/229
FL557A	internal door mounting kit	for enclosure	FL128
FL559A	internal door mounting kit	for enclosure	FL130

Functional chassis (complete) for mounting modular products and MCBs

- To convert a surface mount enclosure into a distribution board
- Pre-assembled made up of: 2 Uprights, DIN guides and modular panels

type	number of modular ways	description		for enclosures
FL979A	24 (2x12)	complete modular chassis system		FL104A
FL980A	24 (2x12)	complete modular chassis system		FL204B
FL981A	36 (3x12)	complete modular chassis system		FL110/209
FL982A	54 (3x18)	complete modular chassis system		FL112/213
FL983A	72 (4x18)	complete modular chassis system		FL117/216
FL994A	88 (4x22)	complete modular chassis system		FL120A/221B
FL996A	140 (5x28)	complete modular chassis system		FL124A/229B
FL998A	216 (6x36)	complete modular chassis system		FL128A
FL000A	288 (8x36)	complete modular chassis system		FL130A

Kits for main incomer for enclosures

FL372A	(H) 300 mm	kit to mount 125/160A MCCBs	into	FL120/221
FL373A	(H) 300 mm	kit to mount 125/160A MCCBs	into	FL124/229
FL374A	(H) 300 mm	kit to mount 125/160A MCCBs	into	FL128/130

Above requires **HYA033H** DIN rail adaptor to mount onto rail in kit, see page **B-19**

Blank front covers

- Fixed by screws of 1/4 turn to replace modular covers

FL711E	150 mm	blank front cover for enclosures		FL104/10FL204/9
FL712E	150 mm	blank front cover for enclosures		FL112/17/FL213/16
FL713E	150 mm	blank front cover for enclosures		FL120A/221B
FL714E	150 mm	blank front cover for enclosures		FL124A/229B
FL715E	150 mm	blank front cover for enclosures		FL128/130A
FL733E	300 mm	blank front cover for enclosures		FL120A/221B
FL734E	300 mm	blank front cover for enclosures		FL124A/229B
FL735E	300 mm	blank front cover for enclosures		FL128/130A

Plinths for enclosures

FL958A	base mount plinth system	for enclosures		FL120/221
FL960A	base mount plinth system	for enclosures		FL124/229
FL962A	base mount plinth system	for enclosures		FL128/130

Accessories for enclosures

FL670A	seal kit for mounting enclosures one above another
FL85Z	metallic mounting brackets for sheet metal enclosures
FL863Z	plastic mounting brackets for polyester enclosures
FL871Z	blanking strip (grey) 6 x 4 way blanks in a pack
FL96ZX01	lever handle door lock (without key) for all enclosures
FL96Z	lever handle door lock (with key) for all enclosures
FL93Z	set of 2 locks triangular centre 8 mm
FL450A	4 brackets delivered with fixing screws



HE204

HE series - Sheet metal electrical enclosures

- Manufactured from high-grade mild steel, powder-coated
- Supplied with internal Aluzinc chassis plate (2 mm thick)
- Supplied with 6 mm square drive locks, key lock and mounting brackets
- Degree of protection: IP65 (continuous foam gasket)

type	IP rating	colour	description	dimensions (mm)		
				(H)	(W)	(D)

Sheet metal enclosures (IP65)

Orange enclosures - (RAL2000) electric orange

HE200	IP65	orange	wall mount sheet metal enclosure	250	200	170
HE201	IP65	orange	wall mount sheet metal enclosure	350	250	170
HE202	IP65	orange	wall mount sheet metal enclosure	450	300	220
HE203	IP65	orange	wall mount sheet metal enclosure	550	400	220
HE204	IP65	orange	wall mount sheet metal enclosure	650	450	270
HE205	IP65	orange	wall mount sheet metal enclosure	750	550	270
HE206	IP65	orange	wall mount sheet metal enclosure	850	600	270
HE206E	IP65	orange	wall mount sheet metal enclosure	850	600	330
HE206EGP2*	IP65	orange	as above with top/bottom gland plate	850	600	330
HE207	IP65	orange	wall mount sheet metal enclosure	950	700	270
HE207E	IP65	orange	wall mount sheet metal enclosure	950	700	330
HE208	IP65	orange	wall mount sheet metal enclosure	1150	850	270
HE208E	IP65	orange	wall mount sheet metal enclosure	1150	850	330

* GP2-(top/bottom gland plate)

Enclosures with transparent glass door

HE201T	IP65	orange	enclosure with transparent door	350	250	170
HE202T	IP65	orange	enclosure with transparent door	450	300	220
HE203T	IP65	orange	enclosure with transparent door	550	400	220
HE204T	IP65	orange	enclosure with transparent door	650	450	270
HE205T	IP65	orange	enclosure with transparent door	750	550	270
HE206T	IP65	orange	enclosure with transparent door	850	600	270
HE206ET	IP65	orange	enclosure with transparent door	850	600	330
HE207T	IP65	orange	enclosure with transparent door	950	700	270
HE207ET	IP65	orange	enclosure with transparent door	950	700	330
HE208T	IP65	orange	enclosure with transparent door	1150	850	270
HE208ET	IP65	orange	enclosure with transparent door	1150	850	330

Grey enclosures - (RAL7032) light grey (IP65)

HE200-G	IP65	grey	wall mount sheet metal enclosure	250	200	170
HE201-G	IP65	grey	wall mount sheet metal enclosure	350	250	170
HE202-G	IP65	grey	wall mount sheet metal enclosure	450	300	220
HE203-G	IP65	grey	wall mount sheet metal enclosure	550	400	220
HE204-G	IP65	grey	wall mount sheet metal enclosure	650	450	270
HE205-G	IP65	grey	wall mount sheet metal enclosure	750	550	270
HE206-G	IP65	grey	wall mount sheet metal enclosure	850	600	270
HE206E-G	IP65	grey	wall mount sheet metal enclosure	850	600	330
HE207-G	IP65	grey	wall mount sheet metal enclosure	950	700	270
HE207E-G	IP65	grey	wall mount sheet metal enclosure	950	700	330
HE208-G	IP65	grey	wall mount sheet metal enclosure	1150	850	270
HE208E-G	IP65	grey	wall mount sheet metal enclosure	1150	850	330

Enclosures with transparent glass door

HE201T-G	IP65	grey	enclosure with transparent door	350	250	170
HE202T-G	IP65	grey	enclosure with transparent door	450	300	220
HE203T-G	IP65	grey	enclosure with transparent door	550	400	220
HE204T-G	IP65	grey	enclosure with transparent door	650	450	270
HE205T-G	IP65	grey	enclosure with transparent door	750	550	270
HE206T-G	IP65	grey	enclosure with transparent door	850	600	270
HE206ET-G	IP65	grey	enclosure with transparent door	850	600	330
HE207T-G	IP65	grey	enclosure with transparent door	950	700	270
HE207ET-G	IP65	grey	enclosure with transparent door	950	700	330
HE208T-G	IP65	grey	enclosure with transparent door	1150	850	270
HE208ET-G	IP65	grey	enclosure with transparent door	1150	850	330



HE204T-G



type	IP rating	colour	description	dimensions (mm)		
				(H)	(W)	(D)
Internal door kit for HE enclosures						
ID02	-	white	internal door kit for enclosures	HE202	-	-
ID03	-	white	internal door kit for enclosures	HE203	-	-
ID04	-	white	internal door kit for enclosures	HE204	-	-
ID05	-	white	internal door kit for enclosures	HE205	-	-
ID06	-	white	internal door kit for enclosures	HE206	-	-
ID06E	-	white	internal door kit for enclosures	HE206E	-	-
ID07	-	white	internal door kit for enclosures	HE207	-	-
ID07E	-	white	internal door kit for enclosures	HE207E	-	-
ID08	-	white	internal door kit for enclosures	HE208	-	-
ID08E	-	white	internal door kit for enclosures	HE208E	-	-
Canopy for HE enclosures						
Orange - RAL2000 (electric orange)						
HC02	IP65	orange	steel canopy for enclosures	HE202	-	300 220
HC03	IP65	orange	steel canopy for enclosures	HE203	-	400 220
HC04	IP65	orange	steel canopy for enclosures	HE204	-	450 270
HC05	IP65	orange	steel canopy for enclosures	HE205	-	550 270
HC06	IP65	orange	steel canopy for enclosures	HE206	-	600 270
HC06E	IP65	orange	steel canopy for enclosures	HE206E	-	600 330
HC07	IP65	orange	steel canopy for enclosures	HE207	-	700 270
HC07E	IP65	orange	steel canopy for enclosures	HE207E	-	700 330
HC08	IP65	orange	steel canopy for enclosures	HE208	-	850 270
HC08E	IP65	orange	steel canopy for enclosures	HE208E	-	850 330
Grey - RAL7035 (light grey)						
HC02-G	IP65	grey	steel canopy for enclosures	HE202	-	300 220
HC03-G	IP65	grey	steel canopy for enclosures	HE203	-	400 220
HC04-G	IP65	grey	steel canopy for enclosures	HE204	-	450 270
HC05-G	IP65	grey	steel canopy for enclosures	HE205	-	550 270
HC06-G	IP65	grey	steel canopy for enclosures	HE206	-	600 270
HC06E-G	IP65	grey	steel canopy for enclosures	HE206E	-	600 330
HC07-G	IP65	grey	steel canopy for enclosures	HE207	-	700 270
HC07E-G	IP65	grey	steel canopy for enclosures	HE207E	-	700 330
HC08-G	IP65	grey	steel canopy for enclosures	HE208	-	850 270
HC08E-G	IP65	grey	steel canopy for enclosures	HE208E	-	850 330
Accessories						
16.4.431.01	16 mm	black	padlockable lever handle			for above enclosures
Special "extra deep" enclosures (IP65)						
<ul style="list-style-type: none"> • Ideal for changeover switch applications • Supplied with internal Aluzinc chassis plate (2 mm thick) • Degree of protection: IP65 (continuous foam gasket) • Colour : RAL2000 (electric orange) - other colours on request 						
HE09645	IP65	orange	extra deep sheet metal enclosures	900	600	450
HE12960GP2*	IP65	orange	as above with top/bottom gland plate	1200	900	600
* GP2-(top/bottom gland plate)						
Special "termination" enclosures (IP65)						
• Front cover secured by 4 x screws						
Sheet metal enclosures						
GAZM1E	IP65	grey	sheet metal enclosures	200	150	120
Stainless steel (AISI 304) enclosures						
GAZS1E	IP65	S/Steel	stainless steel enclosures	200	150	120



SE....



RGS....



RGS....

3CR12 series - Stainless steel enclosures(IP65)

- Manufactured from 3CR12 stainless steel and powder-coated
- Supplied with internal Aluzinc chassis plate (2 mm thick)
- Supplied with 6 mm square drive locks, key lock and mounting brackets
- Degree of protection: IP65 (continuous foam gasket)
- Colour: RAL2000 (electric orange) - other colours on request

type	IP rating	colour	description	dimensions (mm)		
				(H)	(W)	(D)

3CR12 stainless steel enclosures (IP65)

SE1030	IP65	orange	3CR12 stainless steel enclosure	350	250	170
SE1040	IP65	orange	3CR12 stainless steel enclosure	400	300	220
SE1050	IP65	orange	3CR12 stainless steel enclosure	500	400	220
SE1065	IP65	orange	3CR12 stainless steel enclosure	600	500	220
SE1070	IP65	orange	3CR12 stainless steel enclosure	700	600	270
SE1080	IP65	orange	3CR12 stainless steel enclosure	800	600	270
SE1090	IP65	orange	3CR12 stainless steel enclosure	900	700	330
SE1100	IP65	orange	3CR12 stainless steel enclosure	1000	800	330
SE1201	IP65	orange	3CR12 stainless steel enclosure	1200	800	330

Stainless steel enclosures with transparent glass door

SE1040T	IP65	orange	3CR12 enc. with transparent door	400	300	220
SE1050T	IP65	orange	3CR12 enc. with transparent door	500	400	220
SE1065T	IP65	orange	3CR12 enc. with transparent door	600	500	220
SE1070T	IP65	orange	3CR12 enc. with transparent door	700	600	270
SE1080T	IP65	orange	3CR12 enc. with transparent door	800	600	270
SE1090T	IP65	orange	3CR12 enc. with transparent door	900	700	330
SE1100T	IP65	orange	3CR12 enc. with transparent door	1000	800	330
SE1201T	IP65	orange	3CR12 enc. with transparent door	1200	800	330

Canopy for above enclosures

HC3CR-4	IP65	orange	canopy for stainless steel enclosures			SE1040
HC3CR-5	IP65	orange	canopy for stainless steel enclosures			SE1050
HC3CR-6	IP65	orange	canopy for stainless steel enclosures			SE1065
HC3CR-7	IP65	orange	canopy for stainless steel enclosures			SE1070/1080
HC3CR-9	IP65	orange	canopy for stainless steel enclosures			SE1090
HC3CR-10	IP65	orange	canopy for stainless steel enclosures			SE1100/1200

Add "-G" to the end of the above SE.. / HC3CR.. part numbers for grey (RAL 7035) enclosures.

304 stainless steel enclosures (IP65)

- Manufactured from high grade SS 304 stainless steel
- Supplied with internal Aluzinc chassis plate (2 mm thick)
- Supplied with bottom SS 304 gland plate and enclosure mounting brackets
- Degree of protection: IP65 (continuous foam gasket)
- Colour: Stainless Steel - "brushed" finish

RGS304-30	IP65	S/Steel	SS 304 stainless steel enclosure	350	250	170
RGS304-40	IP65	S/Steel	SS 304 stainless steel enclosure	400	300	220
RGS304-50	IP65	S/Steel	SS 304 stainless steel enclosure	500	400	220
RGS304-65	IP65	S/Steel	SS 304 stainless steel enclosure	600	500	220
RGS304-70	IP65	S/Steel	SS 304 stainless steel enclosure	700	600	270
RGS304-80	IP65	S/Steel	SS 304 stainless steel enclosure	800	600	270
RGS304-93	IP65	S/Steel	SS 304 stainless steel enclosure	900	700	330
RGS304-103	IP65	S/Steel	SS 304 stainless steel enclosure	1000	800	330
RGS304-123	IP65	S/Steel	SS 304 stainless steel enclosure	1200	800	330

Internal door kit for all above enclosures (mild steel)

ID3CR-4	-	white	internal door kit for above enclosures	400	300	170
ID3CR-5	-	white	internal door kit for above enclosures	500	400	220
ID3CR-6	-	white	internal door kit for above enclosures	600	500	220
ID3CR-7	-	white	internal door kit for above enclosures	700	600	270
ID3CR-8	-	white	internal door kit for above enclosures	800	600	270
ID3CR-9	-	white	internal door kit for above enclosures	900	700	330
ID3CR-10	-	white	internal door kit for above enclosures	1000	800	330
ID3CR-12	-	white	internal door kit for above enclosures	1200	800	330



7T8100002303



7T5102304360



7F2082302055



7F0200002000



7H5102300025



7H5182300400

7T series - Snap action thermostatic bimetal sensor (used to control temperatures within enclosures)

Bimetal thermostats to control temperatures inside enclosures. Suitable for different applications, with close-on-rise (NO) or open-on rise (NC) contact for regulation of heating and ventilation equipment or to activate signalling devices.

- Small, compact size, 17.5 mm wide
- Enclosure PA66 self-extinguishing to UL 94V-0
- DIN rail (EN 60715) mountable
- IP20 protected screw terminals
- Applied standards EN 60730-1, UL approved UL873 and C22.2

type	temperature range	elec. contact	description	dimensions (mm)		
				(H)	(W)	(D)

7T series - Modular rail mount panel thermostats (same dimensions as 1 pole MCB)

7T8100002303	0...+60°C	1 x NO	rail mnt panel thermostat (blue dial)	86	17.5	48
7T8100002401	-20...+40°C	1 x NC	rail mnt panel thermostat (red dial)	86	17.5	48

7T series electronic hygrostat humidity control

Hygrostats automatically regulate humidity inside enclosures, triggering a heater or fan when a preset relative humidity is exceeded, prevents condensation on internal electric and electronic components

- Electronic multi-functional control of temperature and humidity (4 functions)
- LED status indication (contact ON)
- Humidity range: 10...90%

7T5102304360	+10...+60°C	1 x NO	DIN rail mount panel hygrostat	110...240 VAC/DC		
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7F series - Filter Fans (IP54) (EN 60529)

New filter fan range from Finder ensures performance of internal components and instrumentation. Dedicated to maintaining a constant temperature in control panels and enclosures.

- Complete fan - with mounting frame, removable filter and metal finger guard
- Very low acoustic noise - minimal depth within enclosure
- Time-saving installation and maintenance - easily replaceable filter mat

type	voltage (V)	rated power	air flow m³/h	noise dB (A)	description	dimensions (mm²)		
						size	frame	cutout

7F2082301020	230 VAC	17 W	24	27	complete filter fan	1	120	92
7F2082302055	230 VAC	28 W	55	42	complete filter fan	2	155	125
7F2082303100	230 VAC	28 W	100	42	complete filter fan	3	209	177

Exhaust filter without fan - used as outlet or inlet

The exhaust filter should match the size of the filter fan to achieve optimal ventilation within the cabinet

7F0200001000	outlet/inlet	-	14	-	exhaust filter only	1	120	92
7F0200002000	outlet/inlet	-	40	-	exhaust filter only	2	155	125
7F0200003000	outlet/inlet	-	75	-	exhaust filter only	3	209	177

7H series - Panel heaters (anti-condensation)

For the thermal regulation of electrical cabinets. The heaters consist of a self-extinguishing PTC element in a touch safe, DIN rail mountable housing.

- Compact dimensions - DIN rail mounting - touch safe - self-regulating PTC resistance
- Screw terminal connection (250/400W heaters supplied with fast wiring screwless terminals)
- Complies with standards: IEC/EN 60335-1 and IEC 60004-1

type	voltage (V)	heating power	current (mA)	description	dimensions (mm)		
					(H)	(W)	(D)

7H5102300025	110...230V	25 W	130	rail mounting panel heater	102	61	64
7H5102300050	110...230V	50 W	200	rail mounting panel heater	117	61	64
7H5102300100	110...230V	100 W	450	rail mounting panel heater	167	61	64
7H5102300150	110...230V	150 W	700	rail mounting panel heater	242	61	64
7H5182300250	230 VAC	250W	1000	rail mounting panel heater	197	61	81
7H5182300400	230 VAC	400W	1700	rail mounting panel heater	272	61	81

new



FU-9801C1 P2D



FU-9803C1 P2A23



FU-9804C1 P2A40



FU-9804C2 P2A23

FU98 series - Complete filter/fan units

Complete filter fan assembly with fan, mounting frame, removable filter and internal finger guard. Mounts through panel wall or door for simple installation as a ventilator device for electrical cabinets and panels.

- Temperature: -10°C...+85°C
- Permanent sealing gasket in polyurethane foam
- Shielded self lubricating ball bearing fans

type	fan type	voltage (V)	power (W)	air flow (m³/h)	noise (dB/A)	dimensions (mm²)		
						size	frame	cutout

FU98A series - Panel fan/filter units (IP44)

- Material: ABS self-extinguishing - UL94V-0, RoHS

AC filter/fans

FU-9801C1 P2A23	KA8025	230 VAC	15.1	23	32	1	109	83
FU-9802C1 P2A23	KA9225	230 VAC	18.4	32	37	2	121	95
FU-9803C1 P2A23	KA1238	230 VAC	21.6	88	52	3	149	122
FU-9804C1 P2A23	KA1725	230 VAC	46.4	201	60	4	204	175
FU-9805C1 P2A23	KA2208	230 VAC	43.2	439	69	5	255	223
FU-9806C1 P2A23	KA2509	230 VAC	61.6	668	70	6	332	292
FU-9803C1 P2A40	KA1238	400 VAC	19.4	88	54	3	149	122
FU-9804C1 P2A40	KA1725	400 VAC	48.6	201	62	4	204	175

DC filter/fans

FU-9801C1 P2D	DC8025	24 VDC	4.1	38	38	1	109	83
FU-9802C1 P2D	DC9225	24 VDC	3.9	50	50	2	121	95
FU-9803C1 P2D	DC1225	24 VDC	8.3	85	85	3	149	122

Larger sizes available on request

Exhaust filter - Without fan - used as a matching air outlet

Exhaust filter should match the size of the filter/fan to achieve optimal ventilation within the cabinet.

FU9801A P2	outlet	-	-	exhaust filter only	1	109	83
FU9802A P2	outlet	-	-	exhaust filter only	2	121	95
FU9803A P2	outlet	-	-	exhaust filter only	3	149	122
FU9804A P2	outlet	-	-	exhaust filter only	4	204	175
FU9805A P2	outlet	-	-	exhaust filter only	5	255	223
FU9806A P2	outlet	-	-	exhaust filter only	6	332	292

FU98B series - Filter/fan units with rain hood (IP55)

- Material: PC - (Polycarbonate) UV protected - self-extinguishing - UL94V-0, RoHS

AC filter/fans - (with rain hood)

FU-9801C2 P2A23	KA8025	230 VAC	10	25	33	1	109	83
FU-9802C2 P2A23	KA9225	230 VAC	20	43	35	2	121	95
FU-9803C2 P2A23	KA1238	230 VAC	21	117	49	3	149	122
FU-9804C2 P2A23	KA1725	230 VAC	45	268	57	4	204	175
FU-9805C2 P2A23	KA2208	230 VAC	40	585	65	5	255	223
FU-9806C2 P2A23	KA2509	230 VAC	57	890	66	6	332	292
FU-9803C2 P2A40	KA1238	400 VAC	21	117	49	3	149	122
FU-9804C2 P2A40	KA1725	400 VAC	45	268	57	4	204	175

DC filter/fans - (with rain hood)

FU-9801C2 P2D	DC8025	24 VDC	4.1	49	32	1	109	83
FU-9802C2 P2D	DC9225	24 VDC	4.1	67	33	2	121	95
FU-9803C2 P2D	DC1225	24 VDC	6.5	113	40	3	149	122

Larger sizes available on request

Exhaust filter with rain hood - without fan - used as an air outlet

Exhaust filter should match the size of the filter/fan to achieve optimal ventilation within the cabinet.

FU9801B P2	outlet	-	-	exhaust filter only	1	109	83
FU9802B P2	outlet	-	-	exhaust filter only	2	121	95
FU9803B P2	outlet	-	-	exhaust filter only	3	149	122
FU9804B P2	outlet	-	-	exhaust filter only	4	204	175
FU9805B P2	outlet	-	-	exhaust filter only	5	255	223
FU9806B P2	outlet	-	-	exhaust filter only	6	332	292



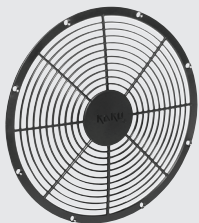
KA8025HA2B



FU9805A P2/P5-220



FU9805B P2/P5-220



FU-8825B



FG-80

KA series - Frame fans and accessories

- Temperature: -40°C...+60°C
- Shielded self lubricating ball bearing fans

type	voltage (V)	power (W)	air flow (m³/h)	noise (dB/A)	IP rating	dimensions (mm²)		
						size	□	(D)

AC frame fans only

KA8025HA2B	230 VAC	14	30	30	-	1	80	25
KA9225HA2B	230 VAC	17	43	35	-	2	92	25
KA1238HA2B	230 VAC	20	117	49	IP55	3	120	38
KA1725HA2B	230 VAC	43	268	57	IP55	4	172 x 150	51
KA2208HA2B 2P	230 VAC	40	585	65	IP55	5	Ø 222	60
KA2509HA2B 2P	230 VAC	57	890	66	IP55	6	Ø 255	89
KA1238HA3B	400 VAC	18	117	51	IP55	3	120	38
KA1725HA3B	400 VAC	45	268	59	IP55	4	172 x 150	51
KA2206HA3B	400 VAC	55	585	68	IP55	5	Ø 222	60
KA2509HA3B 2P	400 VAC	63	890	67	IP55	6	Ø 255	89

DC frame fans only

DC8025 24V	24 VDC	3.8	50	33	-	1	80	25
DC9225 24V	24 VDC	3.6	67	35	-	2	92	25
DC1225 24V	24 VDC	7.7	113	43	-	3	120	38
DC1725 24V	24 VDC	11	365	58	-	4	172 x 150	55

Panel mount filter units (to accommodate above fans) (IP44)

type	accepts fan type	with air duct	external material	IP rating	dimensions (mm²)		
					size	frame	cutout

FU9801A P2	KA8025	-	ABS	-	IP44	1	109	83
FU9802A P2	KA9225	-	ABS	-	IP44	2	121	95
FU9803A P2	KA1238	-	ABS	-	IP44	3	149	122
FU9804A P2/P4-172	KA1725	P4-172	ABS	-	IP44	4	204	175
FU9805A P2/P5-220	KA2206	P5-220	ABS	-	IP44	5	255	223
FU9806A P2/P6-250	KA2509	P6-250	PC+UV	-	IP44	6	332	292

All metallic version (ADC12 aluminium alloy material)

FU9803AM	KA1238	-	metal	-	IP44	3	149	122
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Panel mount filter units - With rain hood cover (IP55)

FU9801B P2	KA8025	-	PC+UV	-	IP55	1	109	83
FU9802B P2	KA9225	-	PC+UV	-	IP55	2	121	95
FU9803B P2	KA1238	-	PC+UV	-	IP55	3	149	122
FU9804B P2/P4-172	KA1725	P4-172	PC+UV	-	IP55	4	204	175
FU9805B P2/P5-220	KA2206	P5-220	PC+UV	-	IP55	5	255	223
FU9806B P2/P6-250	KA2509	P6-250	PC+UV	-	IP55	6	332	292

All metallic version (ADC12 aluminium alloy material)

FU9803BM	KA1238	-	metal	-	IP55	3	149	122
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Finger guards (internal) for fans

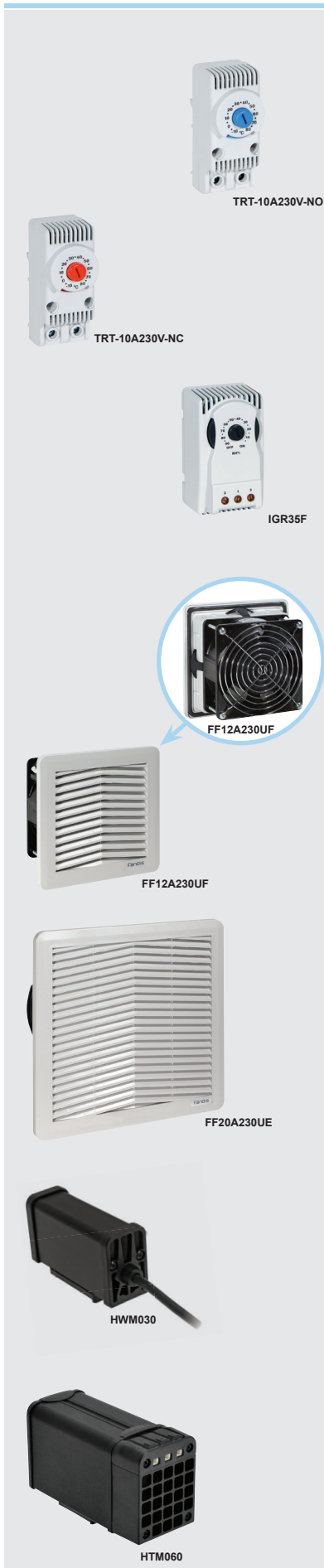
type	for fan	colour	material	description	size	H x W	
						H	W

FU-8808B	KA8025	black	ABS	finger guard	1	80	80
FU-8809B	KA9225	black	ABS	finger guard	2	92	92
FU-8812B	KA1238	black	ABS	finger guard	3	120	120
FU-8817B	KA1725	black	ABS	finger guard	4	172	150
FU-8822B	KA2206	black	ABS	finger guard	5	220	Ø
FU-8825B	KA2509	black	ABS	finger guard	6	250	Ø
FG-80	KA8025	chrome	metal	finger guard	1	80	80
FG-92	KA9225	chrome	metal	finger guard	2	92	92
FG-120	KA1238	chrome	metal	finger guard	3	120	120
FG-172	KA1725	chrome	metal	finger guard	4	172	150
FG-220	KA2206	chrome	metal	finger guard	5	220	Ø
FG-250	KA2509	chrome	metal	finger guard	6	250	Ø

3-in-1 econo filter - Comprising frame, low density fabric filter and cover guard

FU-8808A	KA8025	black	ABS	3-in-1 air outlet	1	80	80
FU-8809A	KA9225	black	ABS	3-in-1 air outlet	2	92	92
FU-8812A	KA1238	black	ABS	3-in-1 air outlet	3	120	120
FU-8817A	KA1725	black	ABS	3-in-1 air outlet	4	172	150

Note: Filter mats available on request.



TRT series - Mechanical bimetal thermostats (used to control temperatures within enclosures)

Bimetal thermostats used to control temperatures inside enclosures. Suitable for different applications, available with closed-on-rise (NO) or open-on rise (NC) contact for regulation of heating and ventilation equipment or for switching signalling devices.

- Compact dimensions - (H) 68 x (W) 29 x (D) 45 mm
- Enclosure PA66 self-extinguishing to UL 94V-0
- DIN rail mountable
- IP20 protected screw terminals
- Applied standards EN 60730-1, UL approved UL873 and C22.2

type	temperature range	contact	description	
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Thermostats (panel mount)

TRT-10A230V-NO	-10 - +80°C	1 x NO	DIN rail mount panel thermostat	(blue knob)
TRT-10A230V-NC	-10 - +80°C	1 x NC	DIN rail mount panel thermostat	(red knob)

IGR series - Mechanical hygrostat

Mechanical hygrometers automatically regulate humidity inside enclosures, triggering a heater or fan when a preset relative humidity is exceeded. To prevent condensation on electric and electronic components the relative humidity is raised above the dew point.

IGR35F	10 - 90% RH	ch/over	DIN rail mounting panel hygrometer	
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Panel ventilation

FF series - Complete fan-filter units (IP54)

Compact design, snap-on mounting, integrated sealing gasket preventing dust and water penetration. Ideal for all panel ventilation applications.

- Complete fan with mounting frame, removable filter and metal finger guard
- Screwless mounting (simply clips into panel cut-out)
- Plastic parts self extinguishing to UL 94V-0
- Permanent sealing gasket in polyurethane foam
- Shielded self lubricating ball bearing fans
- Filter replaceable from the front removable grill

FF series - Complete fan-filter units

type	voltage (V)	power (W)	air flow (m³/h)	noise (dB/A)	description	dimensions (mm²)	
						frame	cutout
FF08A230UN	230 VAC	10	10	33	complete fan filter	107	92
FF12A230UF	230 VAC	18	45	49	complete fan filter	150	124
FF15A230UF	230 VAC	32	230	50	complete fan filter	250	223
FF20A230UE	230 VAC	79	460	66	complete fan filter	325	291

Outlet filter grill/frame (without fan)

FF08U	separate panel mount ventilation outlet/filter unit	107	92
FF12U	separate panel mount ventilation outlet/filter unit	150	124
FF15U	separate panel mount ventilation outlet/filter unit	250	223
FF20U	separate panel mount ventilation outlet/filter unit	325	291

Panel heaters (anti-condensation) 15W - 400W

For the thermo regulation of electrical cabinets. The heaters consist of a self-extinguishing PTC element in a black anodized aluminium DIN rail mountable housing.

- Compact dimensions - DIN rail mounting
- Self-regulating PTC resistance
- Screw terminal connection (15/30W heaters supplied with 500 mm cable)
- Voltage range: 110 - 250 VAC
- Complies with standards: IEC/EN 60335-1 and IEC 60004-1

type	heating power	current mA	description	dimensions (mm)		
				(H)	(W)	(D)
HWM015	15 W	65	DIN rail mount panel heater	78	28	49
HWM030	30 W	130	DIN rail mount panel heater	108	28	49
HTM060	60 W	260	DIN rail mount panel heater	138	62	85
HTM100	100 W	475	DIN rail mount panel heater	188	62	85
HTM150	150 W	770	DIN rail mount panel heater	238	62	85



TP19U230B54

TP series - Roof mount exhaust fan units

Roof exhaust fan units used to directly extract heat from the upper region of the cabinet facilitating effective internal air flow. Equipped with a high-head radial fan.

- Mounting via 8 x Ø4 mm screws (*mounts through 175 mm² cutout*)
- Plastic parts in PC/ABS alloy and aluminium self extinguishing to UL 94V-0
- Permanent sealing gasket in polyurethane foam
- Compact dimensions, height: total 94 mm / hood 62 mm
- Colour: RAL 7035 (*others colours available on request*)

type	voltage (V)	power (W)	air flow (m ³ /h)	noise (dB/A)	description	dimensions (mm)		
						(H)	(W)	(D)
Exhaust Fan (roof mount) TP19U230B	230 VAC	70	500	68	roof exhaust fan	324	324	94
Exhaust Fan (roof mount) TP19U230B54	230 VAC	70	420	68	roof exhaust fan	324	324	94

LED Lamp for switchboards

During maintenance and inspection on switchboards it is essential for to have a good level of lighting LEDs provides effective illumination within electrical cabinets at significantly low consumption. Switching via a mounted switch or version with a PIR sensor which detects motion within 120° radius with delayed auto off with no detected presence.

type	power	supply voltage	description	dimensions (mm)		
				(H)	(W)	(D)

Fandis FLL - Panel lamps

Termination is via "push-in" cage clamp terminals on both sides with an incorporated release button
Magnetic fastening for simple positioning on metallic surfaces (*with optional magnet set*)
Lamp rotates to six different positions on base (*max. to 40°*)

- LED light output: 315 Lm (*luminous flux*), 120°, daylight, colour temperature 7.100K
- Operating temp: -30 to +60°C
- Lifetime: 160.000 h at 25°C
- Certification: CE; UL E237844 (UL 508 and CSA C22.2 No. 14)

FLL-300565U-S	5 Watt	115...230 VAC	LED panel lamp with switch	32	356	48
FLL-300565U-IR	5 Watt	115...230 VAC	LED lamp with PIR sensor	32	356	48
FLL-2MA	magnet	magnet mounting kit for lamps (<i>2 magnets</i>)				



FLL-300565U-IR



SlimLine Pro - 8500 series - Cabinet cooling units

SlimLine Pro series cabinet cooling air conditioners feature an innovative one man mounting system permitting screwless installation with maintenance free operation due to the eco-friendly filter less construction. The compact, slim construction combined with modern design features provide excellent size to performance ratio to meet modern day requirements. Providing improved cooling performance ensuring total reliability in all industrial applications.

- Innovative mounting system - (*screwless, one man mounting*)
- Simplified panel cutout - (*ease mounting even further*)
- Integrated condensate evaporation
- Temperature range 10°C to 60°C
- Standard material: Powder coated mild steel housing RAL 7035 (*light grey*)
- Enhanced protection class IP 56
- Compliance to NEMA / UL type 3, 3R, 12, 4 und 4X
- Can be mounted external or recessed (*with only 35-50 mm protruding*) into the panel

type	cooling capacity	supply voltage	description	dimensions (mm)			
				(H)	(W)	(D)	Ext.

SlimLine Pro 8500 series

850600001	670W	230 VAC	SlimLine Pro panel air conditioner	600	250	135	(25)
850800001	825W	230 VAC	SlimLine Pro panel air conditioner	950	305	210	(35)
851200001	1.2kW	230 VAC	SlimLine Pro panel air conditioner	950	305	210	(35)
851500001	1.5kW	230 VAC	SlimLine Pro panel air conditioner	1350	395	210	(35)
852000001	2.0kW	230 VAC	SlimLine Pro panel air conditioner	1350	395	210	(35)
852500001	2.5kW	230 VAC	SlimLine Pro panel air conditioner	1350	395	210	(35)
854000001	4.0kW	230 VAC	SlimLine Pro panel air conditioner	1550	455	270	(50)

SlimLine series - Filter less technology air conditioners

SlimLine series air conditioners provide maximum power-to-size ratio compatible with market standards ensuring simple integration with cabinet systems. Designed to operate with minimum maintenance, due to eco-friendly filter less construction. The optimised wide-ribbed aluminium condenser provides improved cooling performance ensuring total reliability in all industrial applications.

Can be mounted externally or internally (*with only 25 mm protruding when recess mounted*)

- Compressor type: Rotary piston compressor
- Mounting: Internal / External
- Supply: 230V - 50/60Hz (*others on request*)

42660001	320 W	230 VAC	SlimLine panel air conditioner	520	270	110	(25)
42700001	600 W	230 VAC	SlimLine panel air conditioner	810	395	145	(25)
42710001	820 W	230 VAC	SlimLine panel air conditioner	980	395	145	(25)
42720001	1100 W	230 VAC	SlimLine panel air conditioner	1250	395	145	(25)
42740001	1500 W	230 VAC	SlimLine panel air conditioner	1550	395	145	(25)

ComPact series - Economical all-round systems

ComPact series air conditioners optimise high efficiencies with outstanding COP values throughout the range, the built-in controller displays temperature, operating status and can be simply adjusted. Surface treated condenser with high fin separation provide virtually maintenance free service.

- Operating temp. range: 20°C - 55°C
- Compressor type: Reciprocating compressor
- Mounting: External mounting
- Colour: RAL 7035 (*other colours available on request*)

43040001	320W	230 VAC	ComPact panel air conditioner	500	280	200	-
43050001	550W	230 VAC	ComPact panel air conditioner	650	315	260	-
43080001	750W	230 VAC	ComPact panel air conditioner	650	315	260	-
43100001	1000W	230 VAC	ComPact panel air conditioner	650	315	260	-
43150001	1500W	230 VAC	ComPact panel air conditioner	980	395	260	-
43200001	2000W	230 VAC	ComPact panel air conditioner	980	395	260	-

SlimLine TOP series - Top mounted filter less air conditioners

- Compressor type: Rotary piston compressor
- Mounting: Roof mounting
- Supply: 230V - 50/60Hz

44820001	450 W	230 VAC	roof mount air conditioner	230	430	330	-
45550001	1100 W	230 VAC	roof mount air conditioner	400	600	400	-

Variable speed DC air conditioner

- Compressor type: Speed controlled rotary compressor
- Mounting: Internal / External

20250241	120 - 450W	24 VDC	SlimLine air conditioner	465	296	85	
20250481	120 - 450W	48 VDC	SlimLine air conditioner	465	296	85	



TG 3102-24V

TG series - Thermoelectric cooling units IP66

For cooling enclosures or electronic components

Thermoelectric cooling units are an effective solution for the conditioning of enclosures or electronic components. Electric energy transferred heat without the use of hazardous gases or liquids. The core of the system are the thermoelectric modules (*Peltier modules*), permitting heat absorption from one side (*cold side*) and heat expulsion to the ambient from the other side.

- External or recessed mounting in almost any position (*except roof mounting*)
- Suitable for indoor and outdoor application, ingress protection rating of IP66
- Stainless steel AISI 304 (V2A)
- Maintenance free
- Easy installation

type	voltage (V)	cooling power	rated current	cutout dimensions (mm)	dimensions (mm)		
					(H)	(W)	(D)

SoliTherm Peltier - Panel cooling units

- Temperature range: -20°C...+65°C

TG 3102-24V	24 VDC	100W	4.8A	260 x 160 mm	304	200	138
TG 3200-24V	24 VDC	200W	9.0A	370 x 155	400	180	171

Drip trays (to collect condensate from the cold internal dissipater)

1003303	drip tray	stainless steel for above TG 3102-24V thermoelectric units
1002303	drip tray	stainless steel for above TG 3200-24V thermoelectric units



1002303

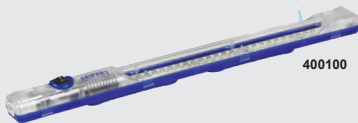
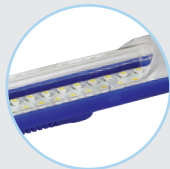
Seifert SL 4000 series - Panel lamps (IP20)

LED Lamp for switchboards

Maintenance/inspection of switchboards require a good level of lighting to clearly see components within the panel. LEDs provide effective illumination within electrical cabinets at significantly low consumption. Slimline design provides greater installation versatility and guarantee of safety. Switching is via a mounted ON/OFF switch or version with a PIR sensor which detects motion with delayed auto off.

- Operating voltage: 24 - 265 VAC/DC
- LED 400 Lm, 120°, daylight, colour temperature 6500K
- Operating temp: -30 to 70°C
- Approvals: CE, cURus

type	power	description	dimensions (mm)		
			(H)	(W)	(D)
400100	4 Watt	LED panel lamp with on/off rocker switch	32	350	28
400000	4 Watt	LED panel lamp with infrared sensor	32	350	33



400100

Plug-in connectors for above SL4000 panel lamps

91.921.3053.0	white	female connector plug for panel lamps	18	53	14
91.922.3053.0	white	male connector plug for panel lamps	18	53	14

Note: Termination via 2 pin latching plug (**supplied separately**) on both ends of the lamp. Mounting is via supplied mounting clips or incorporated magnets for simple positioning on metallic surfaces.

