

CONNECT AND PROTECT

AdvancedCM Modules

01 / 2023


nvent

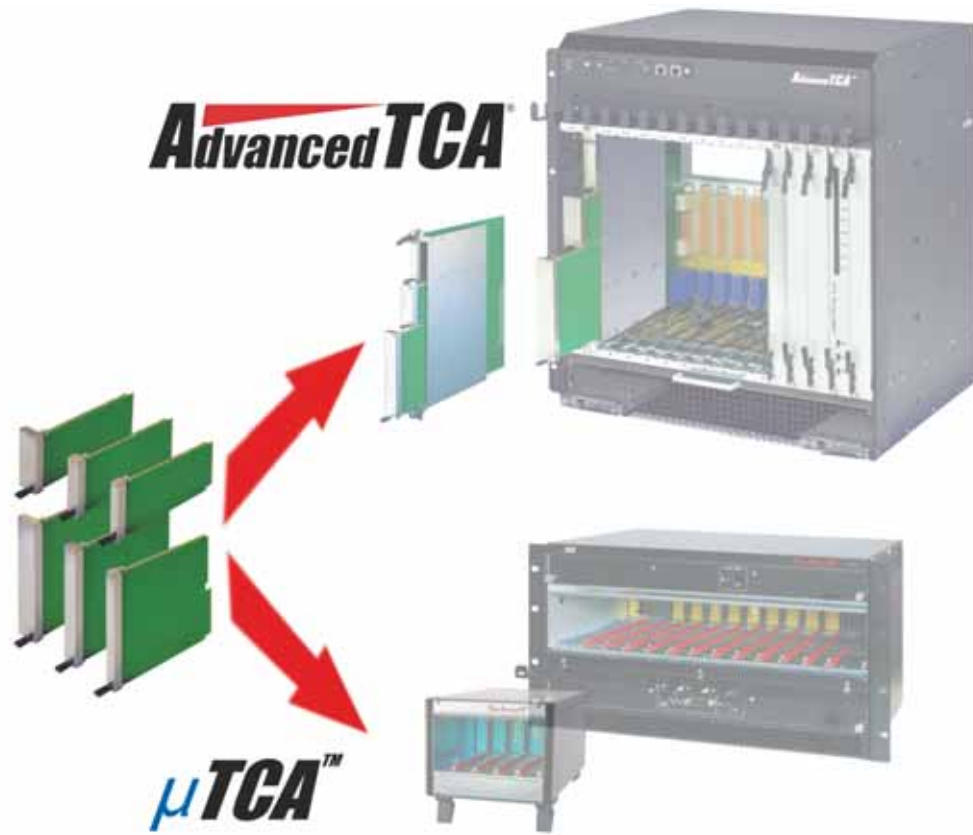
SCHROFF

Systems – AdvancedMC modules

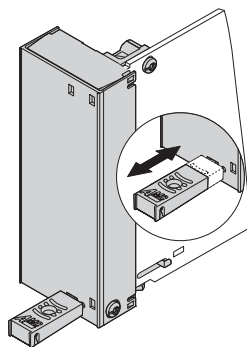
OVERVIEW

MAIN KATALOG

- Cabinets 1
- Wall mounted cases 2
- Accessories for cabinets and wall mounted cases .. 3
- Climate control .. 4
- Electronics cases 5
- Subracks/ 19" chassis 6
- Front panels, plug-in units 7
- Systems 8
- Power supply units 9
- Backplanes 10
- Connectors, front panel component system 11
- Appendix 12

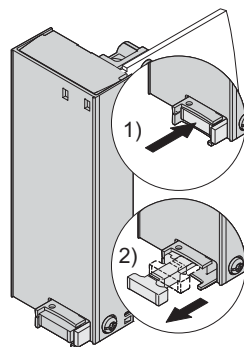


Stainless steel



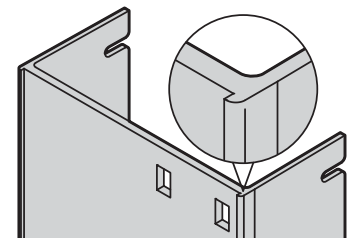
Pull-handle mechanism

- For compact, mid-size and full-size module widths
- Forward protrusion of handle 20 mm, width 8 mm



Push-pull handle mechanism

- For mid-size and full-size module widths
- Forward protrusion of handle 5 mm, width 14 mm



Aluminium extrusion

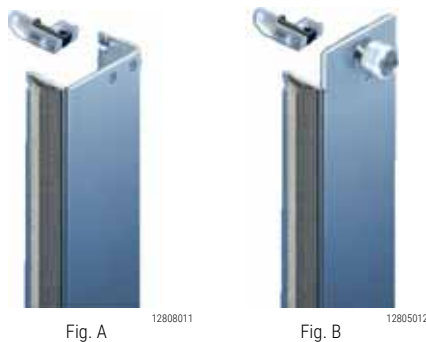
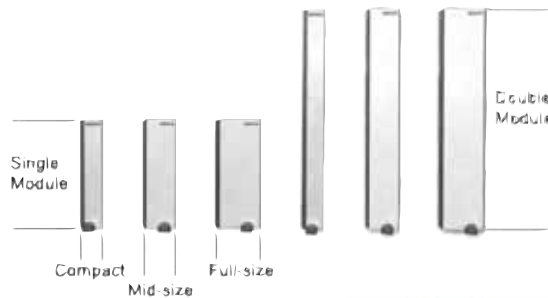
Systems – AdvancedMC modules

OVERVIEW

Overview 8.56

ADVANCEDMC MODULE MECHANICS

- Front panels with two locking mechanisms, usable for AdvancedMC carriers and MicroTCA systems
- Front panels in steel or aluminium extrusion
- Dimensions
 - Single compact, mid-size, full-size
 - Double compact, mid-size, full-size
- Ruggedized AdvancedMC modules for MicroTCA.1 and MicroTCA.4 applications
- MicroTCA filler modules with adjustable airflow



ADVANCEDMC MODULE MECHANICS

- For PICMG® AMC.0 R2.0 (Fig. A), locking of modules without screws
- Ruggedized module mechanics for MicroTCA.1 and MicroTCA.4 (Fig. B) applications, with patented screw locking
- EMC shielded front panel in two materials (stainless steel; aluminium)
- Two different handle mechanisms (pull, push-pull)

AdvancedMC module mechanics

PICMG AMC.0 R2.0RC1.2

Modules with push-pull-handle mechanism 8.58

Modules with pull-handle mechanism 8.58

Front panels for module with pull-handle mechanism 8.59

Pull-handle mechanism 8.60

Modules with ruggedized pull-handle mechanism 8.61

Filler modules for MicroTCA

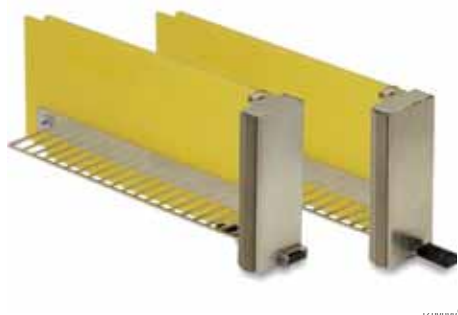
Pull-handle mechanism 8.62

Air baffle for filler module ECO 8.65

Microswitch 8.67

ADVANCEDMC-MICROTCA FILLER MODULES

- Front panels with handle, PCB and air baffle for compact, mid-size and full-size AdvancedMC modules
- Air baffles to adjust air resistance of an unused slot
- Air passage adjustable (sliding plates)



Systems – AdvancedMC modules

MODULES WITH PULL-HANDLE MECHANISM, PICMG® AMC.0 R2.0

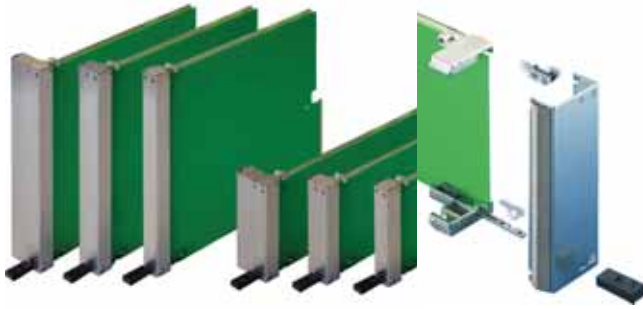
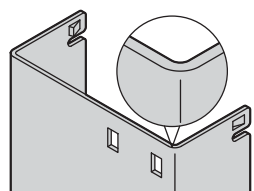
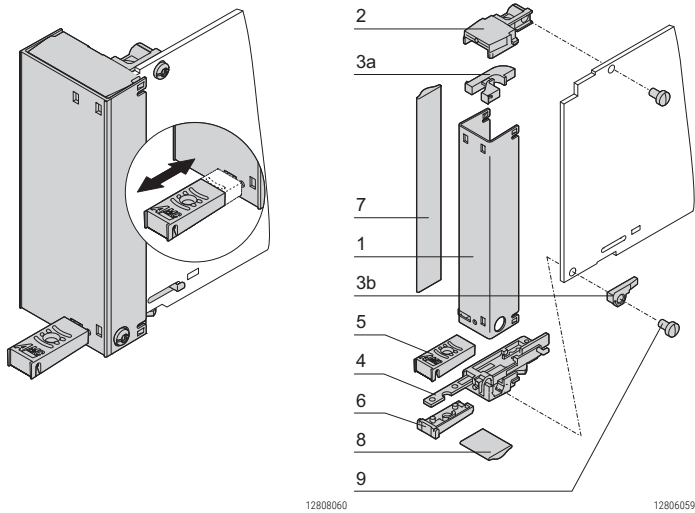
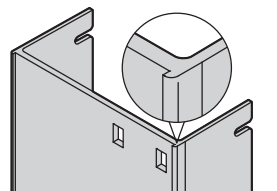


Photo shows modules with steel front panel (PCB not included)

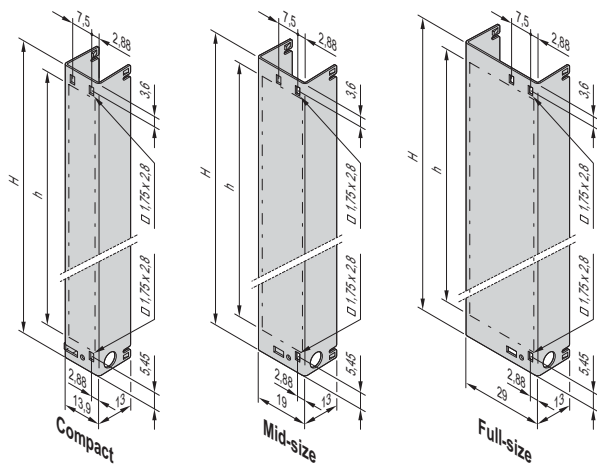
Pull-handle mechanism



Stainless steel



Aluminium extrusion



12808061

- Module in accordance with AdvancedMC standard
- For installation in MicroTCA chassis or AdvancedMC carriers (e.g. conventional, cutaway and hybrid carriers)
- Front panels in 2 versions:
 - Stainless steel
 - Aluminium extrusion; for foil printing

DELIVERY COMPRISES (kit)

Item	Qty	Description
1	1	U-shaped front panel, stainless steel or Al extrusion
2	1	Accepts light pipe and board bracket at top, Zn die-cast, nickel-plated
3a	1	Light pipe, top, PC, UL 94 V-0
3b	1	Light pipe, bottom, PC, UL 94 V-0
4	1	Pull-handle mechanism with microswitch activation and board bracket
5+6	1	Pull-handle, PC, UL 94 V-0, black
7	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
8	1	Lower EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
9	1	Assembly kit

ORDER INFORMATION

Module with pull-handle mechanism, PICMG® AMC.0 R2.0	H	h	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	73.8	60.8	-	20849-127
Single mid-size, 4 HP	73.8	60.8	20849-268	20849-128
Single full-size, 6 HP	73.8	60.8	20849-270	20849-129
Double compact, 3 HP	148.8	135.8	-	-
Double mid-size, 4 HP	148.8	135.8	20849-269	20849-131
Double full-size, 6 HP	148.8	135.8	20849-271	20849-132

Accessories

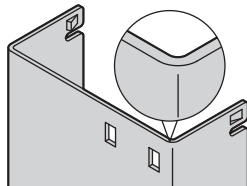
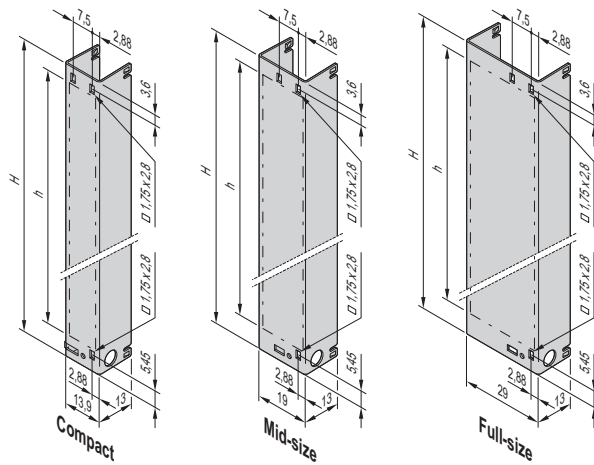
Microswitch for AdvancedMC modules "normally open" for soldering (SMD), PU 10 pieces - page 8.67	20849-209
Filler Modules	Seite 8.62
Air baffle modules	Seite 8.62

Note

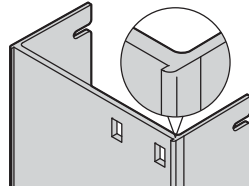
- Mechanism with pull-handle mechanism see page 8.60
- SCHROFF offers extensive modification options with the Front Panel Service, including customised cut-outs, foils and silk-screen printing.

Systems – AdvancedMC modules

FRONT PANELS FOR MODULE WITH PULL-HANDLE MECHANISM, PICMG® AMC.0 R2.0



Stainless steel



Aluminium extrusion

- Front panel for pull-handle mechanism (with cut-outs for light pipe)
- For AdvancedMC modules
- 2 front panel materials:
 - Stainless steel
 - Aluminium extrusion; for foil printing

DELIVERY COMPRISES

Item	Qty	Description
1	1	U-shaped front panel

ORDER INFORMATION

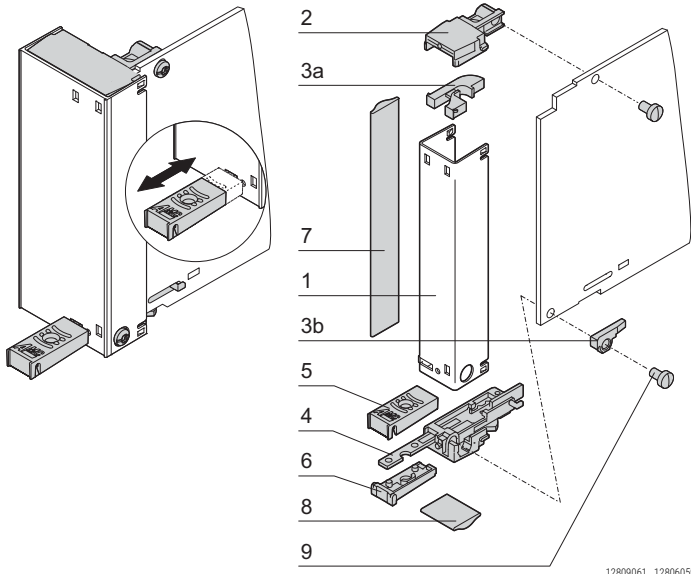
Front panel for module with pull-handle mechanism, PICMG® AMC.0 R2.0	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	-	30849-402
Single mid-size, 4 HP	30849-658	30849-403
Single full-size, 6 HP	30849-682	30849-404
Double compact, 3 HP	-	-
Double mid-size, 4 HP	30849-670	30849-406
Double full-size, 6 HP	30849-694	30849-407

Note

- Locking mechanism for front panel see page 8.60
- SCHROFF offers extensive modification options with the Front Panel Service, including customised cut-outs, foils and silk-screen printing.

Systems – AdvancedMC modules

PULL-HANDLE MECHANISM, PICMG® AMC.0 R2.0



Pull-handle mechanism

- Complete pull-handle mechanism, designed for microswitch activation (hot-swap), includes light pipe
- For AdvancedMC modules

DELIVERY COMPRISES (kit)

Item	Qty	Description
2	1	Accepts light pipe and board bracket at top, Zn die-cast, nickel-plated
3a	1	Light pipe, top, PC, UL 94 V-0
3b	1	Light pipe, bottom, PC, UL 94 V-0
4	1	Pull-handle mechanism with microswitch activation and board bracket
5+6	1	Pull-handle, PC, UL 94 V-0, black
7	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
8	1	Lower EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
9	1	Assembly kit

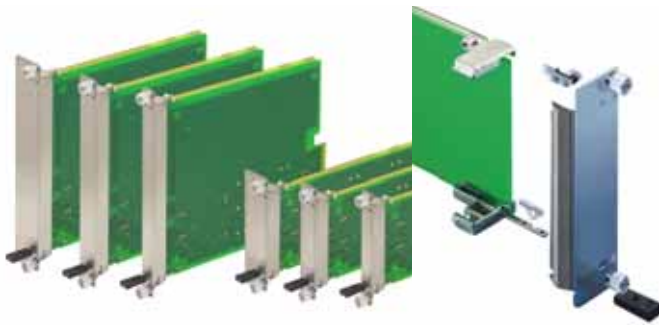
ORDER INFORMATION

Pull-handle mechanism, PICMG® AMC.0 R2.0	Part no.
For single compact, 3 HP	20849-151
For single mid-size, 4 HP	20849-152
For single full-size, 6 HP	20849-153
For double compact, 3 HP	-
For double mid-size, 4 HP	20849-155
For double full-size, 6 HP	20849-156

- Front panel for pull-handle mechanism page 8.59

Systems – AdvancedMC modules

MODULES WITH RUGGEDIZED PULL-HANDLE MECHANISM (MICROTCA.1 OR MICROTCA.4), SHIELDED



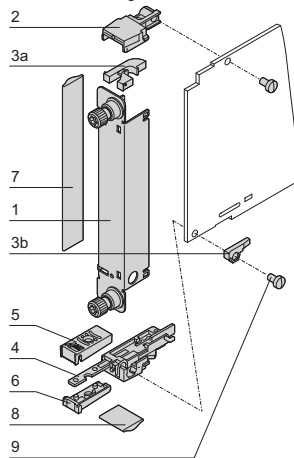
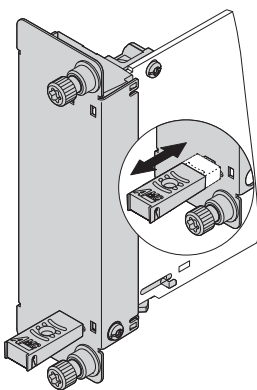
12808015 12805012

- Module in accordance with AdvancedMC standard
- Modules conform to:
 - PICMG® AMC.0 R2.0
 - Ruggedized: MicroTCA.1, MicroTCA.4
- Mounts in MicroTCA chassis or AdvancedMC carrier (e.g. cutaway, conventional or hybrid carrier)
- Stainless steel front panel
- Additional securing of components in MicroTCA system; with patented screw locking

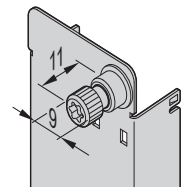
DELIVERY COMPRISES (kit)

Item	Qty	Description
1	1	U-shaped front panel, stainless steel; with welded-on screw locking, Torx T10
2	1	Board support, die-cast zinc, nickel-plated
3a	1	Light pipe, top, PC, UL 94 V-0
3b	1	Light pipe, bottom, PC, UL 94 V-0
4	1	Pull-handle mechanism with microswitch activation and board bracket
5+6	1	Pull-handle, PC, UL 94 V-0, black
7	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
8	1	Lower EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
9	1	Assembly kit

Pull-handle mechanism with additional screw locking



12808069 12809071



Steel, stainless



Screw locking

12808072 12809001

ORDER INFORMATION

Module with ruggedized pull-handle mechanism	H mm	h mm	h1 mm	Part no.
Single compact, 3 HP	95.0	73.8	60.8	-
Single mid-size, 4 HP	95.0	73.8	60.8	21850-067
Single full-size, 6 HP	95.0	73.8	60.8	21850-068
Double compact, 3 HP	170.0	148.8	135.8	-
Double mid-size, 4 HP	170.0	148.8	135.8	21850-070
Double full-size, 6 HP	170.0	148.8	135.8	21850-071

Accessories

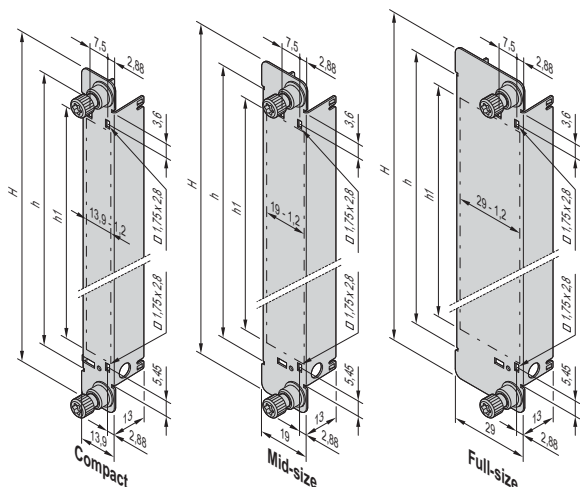
Microswitch for AdvancedMC modules "normally open" for soldering (SMD), PU 10 pieces - page 8.67	20849-209
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Individual components

Screw locking (patented) for ruggedized front panel Screw retainer must be welded to front panel (screw, expansion bolt, bushing; fitted), PU 10 pieces	21850-057
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Note

- Filler modules MicroTCA.1 and MicroTCA.4 see from page 8.63
- SCHROFF offers extensive modification options with the Front Panel Service, including customised cut-outs, foils and silk-screen printing.



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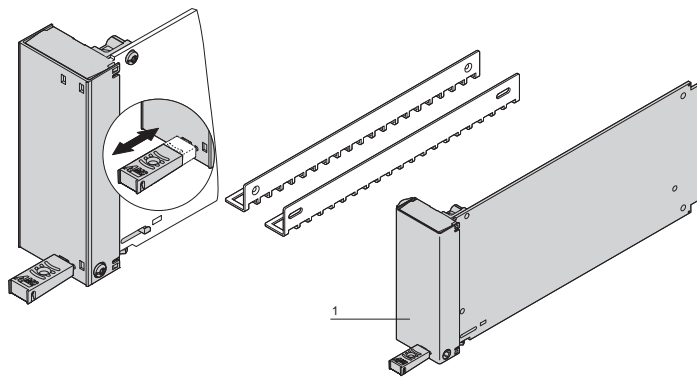
Systems – AdvancedMC modules

FILLER MODULES WITH PULL-HANDLE MECHANISM



Filler module ECO, single, with air baffle

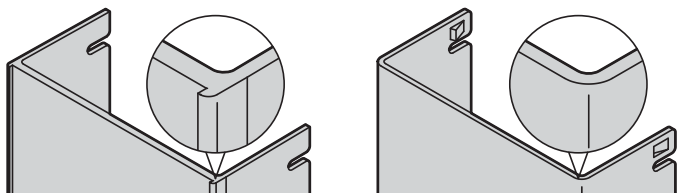
12807012



Pull-handle mechanism

12808060

12805050



Aluminium extrusion

12808068

Stainless steel

12808067

- Shielded filler modules are used to close unused slots
- The optional air baffle (airflow adjustable) can be used to prevent an air short-circuit
- For conventional, cutaway and hybrid carrier
- Pull-handle mechanism meets AdvancedMC standard; pull handle to extract sub-assembly
- 2 front panel materials:
 - Stainless steel
 - Aluminium extrusion; for foil labelling

DELIVERY COMPRISES (assembled)

Item	Qty	Description
1	1	AdvancedMC filler module, consisting of
	1	U-shaped front panel, stainless steel or Al extrusion
	1	Board support, die-cast zinc, nickel-plated
	1	PCB
	1	Pull-handle mechanism and board bracket
	1	Pull-handle, plastic, PC, UL 94 V-0, black
	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
	1	Lower EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

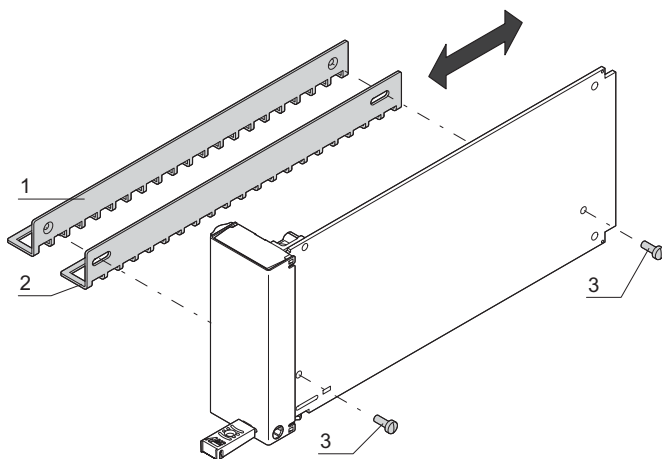
ORDER INFORMATION

Filler module with pull-handle mechanism	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	-	20849-022
Single mid-size, 4 HP	20849-248	20849-106
Single full-size, 6 HP	20849-250	20849-024
Double compact, 3 HP		20849-023
Double mid-size, 4 HP	20849-249	20849-107
Double full-size, 6 HP	20849-251	20849-025

Note

- Please order air baffle separately, see page 8.62
- Low-cost alternative: Filler module with fixed handle, see page 8.65

AIR BAFFLE FOR ADVANCEDMC FILLER MODULES



12805051

- Retrofittable

DELIVERY COMPRISES

Item	Qty	Description
1	1	Metal sheet with perforation, Al
2	1	Sliding metal sheet with perforation, Al
3	1	Assembly kit

ORDER INFORMATION

Description	Qty/PU	Part no.
Air baffle for compact filler module	10	20849-016
Air baffle for mid-size filler module	10	20849-017
Air baffle for full-size filler module	10	20849-018

Systems – AdvancedMC modules

MICROTCA FILLER MODULES WITH AIR BAFFLE



Photo shows mid-size double module

12812001

- In accordance with MicroTCA.1 and MicroTCA.4 specifications
- With air baffle
- Shielded filler modules are used to close unused slots and together with the air baffle plates prevent air short circuits occurring through unused slots
- Can be screwed on; is inserted into the guide rail
- With retention screws for screwing onto the board cage
- With air baffle
- Used to close an empty slot

DELIVERY COMPRISES (assembled)

Item	Qty	Description
1	1	Front panel with side panel and air baffle, stainless steel, 1 mm; with captive screws (2 pieces)
2	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

Description	Part no.
MicroTCA filler module with air baffle, mid-size single	21850-104
MicroTCA filler module with air baffle, full-size single	21850-105
MicroTCA filler module with air baffle, mid-size double	21850-106
MicroTCA filler module with air baffle, full-size double	21850-107

MICROTCA FILLER MODULES (ABOVE AN MCH)



Photo shows full-size single module

12812003

- In accordance with MicroTCA.1 and MicroTCA.4 specifications
- Filler module is fitted above an MCH or PM when double modules are used
- Shielded filler modules are used to close unused slots
- Can be screwed on; is supported on the guide rail
- Mit Befestigungsschraube zum Anschrauben an den Kartenkorb
- Wird verwendet um die Lücke zu schließen, wenn eine Single Mid-size Karte mit Splitting Kit in einen Double Mid-size Slot eingesetzt wird

DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, stainless steel, 1 mm; with captive screw (1 piece)
2	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

Description	Part no.
MicroTCA filler module with front panel, mid-size single	21850-102
MicroTCA filler module with front panel, mid-size double	21850-103

Systems – AdvancedMC modules

MICROTCA FILLER MODULES, 2 HP



Photo shows AdvancedMC-Filler Modul, Single

12807014

- In accordance with MicroTCA.1 and MicroTCA.4 specifications
- Shielded filler modules are required e.g. if a mid-size or full-size AdvancedMC module is fitted in a 84 HP system
- Can be screwed on
- With retention screws for screwing onto the board cage
- Used to close the gap if a mid-size module is installed in a full-size slot

DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, stainless steel, 0.6 mm
2	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

Description	Qty	Part no.
MicroTCA filler module, single, 2 HP	1 piece (SPQ 5)	20849-213
MicroTCA filler module, double, 2 HP	1 piece (SPQ 5)	20849-214

Delivery is exclusively made in Standard Pack Quantity (SPQ): Please order at least 5 pieces or a multiple. Pricing is per individual item.

Pozidrive panhead screw M3 x 6, zinc-plated, 100 pieces	21102-024
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RTM FILLER MODULES WITH AIR BAFFLE



Photo shows full-size double module

12812002

- In accordance with MicroTCA.1 and MicroTCA.4 specifications
- Filler Modul zum Abdecken leerer Slots
- Shielded rear transition (RTM) filler modules are used to close unused slots and together with the air baffle plates prevent air short circuits occurring through unused slots
- Can be screwed on
- With retention screws for screwing onto the board cage
- With air baffle
- Used to close an empty RTM (Rear Transition Module) slot if no RF backplane is installed

DELIVERY COMPRISES (assembled)

Item	Qty	Description
1	1	Front panel with side panel and air baffle, stainless steel, 1 mm; with captive screws (2 pieces)
2	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

Description	Part no.
RTM filler module with air baffle, mid-size double	21850-108
RTM filler module with air baffle, full-size double	21850-109
MicroTCA RTM-Filler Modul mit Flansch und Luftschottblech, Double Mid-size (RF BP)	21850-130
MicroTCA RTM-Filler Modul mit Flansch und Luftschottblech, Double Full-size (RF BP)	21850-131
MicroTCA RTM-Filler Modul mit Flansch und Luftschottblech, Double Full-size (RF BP, Zone 3)	21850-129

Systems – AdvancedMC modules

FILLER MODULE ECO WITH FIXED HANDLE



Filler module ECO, single, with air baffle

12809002

- Shielded filler modules are used to close unused slots
- The optional air baffle (airflow adjustable) can be used to prevent an air short-circuit
- For conventional, cutaway and hybrid carriers and MicroTCA systems
- Low-cost filler module (no pull- or push-pull-handle mechanism)

DELIVERY COMPRISES (assembled)

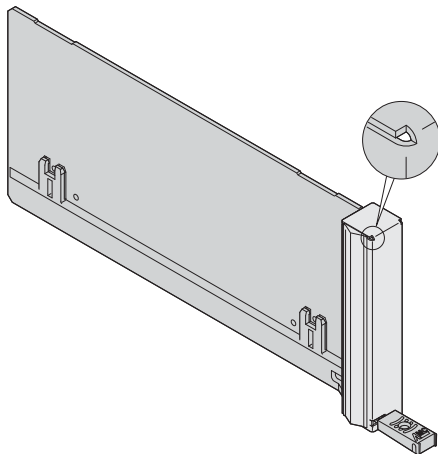
Item	Qty	Description
1	1	AdvancedMC ECO filler module, consisting of
	1	Front panel, stainless steel
	1	PCB, plastic, PC, UL 94 V-0 with built-in air baffle holder
	1	Handle, fixed, plastic, PC, UL 94 V-0, black
	1	Lateral EMC gasket, core: foam, sleeve: textile cladding with CuNi coating
	1	Lower EMC gasket, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

	Part no.
Single compact, 3 HP	-
Single mid-size, 4 HP	20849-350
Single full-size, 6 HP	20849-352
Double compact, 3 HP	-
Double mid-size, 4 HP	20849-351
Double full-size, 6 HP	20849-353

Note

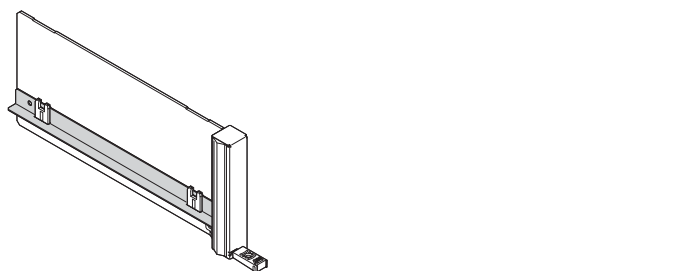
- Microswitch cannot be used
- Please order air baffle separately
- Filler modules with handle mechanism (pull- or push-pull-handles) see from page 8.62



Single compact module

12809052

AIR BAFFLE FOR FILLER MODULE ECO WITH FIXED HANDLE

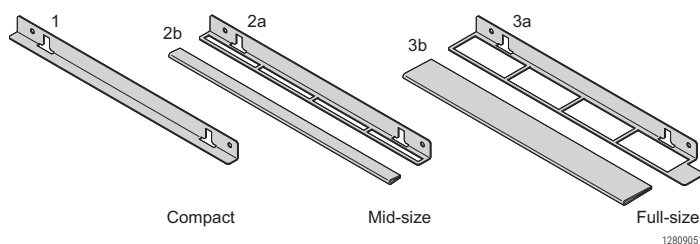


12809050

- Retrofittable; simply clip onto the PCB of the filler module
- To adjust the airflow volume the plastic cover can be individually cut to size (not for compact modules)

ORDER INFORMATION

Air baffle for filler modules ECO with fixed handle		Part no.
For compact filler module, PU 10 pieces	Item 1: VA plate	20849-355
For mid-size filler module, PU 10 pieces	Item 2a: VA plate with ventilation slots;	20849-356
	Item 2b: plastic cover, PVC, UL 94 V-0	
For full-size filler module, PU 10 pieces	Item 3a: VA plate with ventilation slots;	20849-357
	Item 3b: plastic cover, PVC, UL 94 V-0	



12809051

Systems – AdvancedMC modules

MODULE COVER FOR MTCA.4 FRONT AND RTM MODULES



- To protect the sensitive electronics
- Protects both mounting sides
- Stainless steel

DELIVERY INCLUDES

Item	Qty	Description
1	1	Cover for mounting side 1, stainless steel
2	1	Cover for mounting side 2, stainless steel
3	1	Fixing materials kit

ORDER INFORMATION

Description	Part no.
Module cover for MTCA.4 front modules, double mid-size	21850-133
Module cover for MTCA.4 RTM modules, double mid-size	21850-134

Note

- Double full-size modules available on request

Illustration shows MTCA.4 AdvancedMC module with MTCA.4 cover 12815001



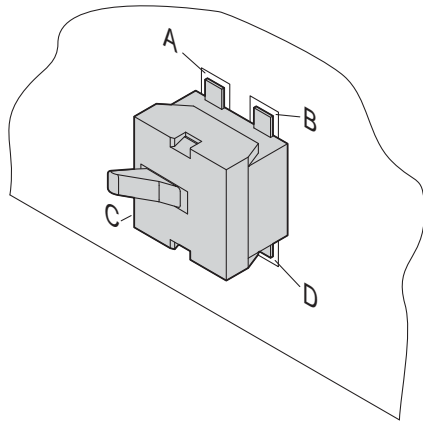
Illustration shows MTCA.4 AdvancedMC RTM module with MTCA.4 cover 12815002



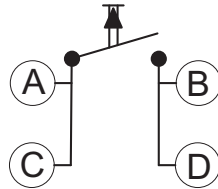
Illustration shows MTCA.4 AdvancedMC front and RTM module with MTCA.4 cover 12815003

Systems – AdvancedMC modules

MICROSWITCH FOR ADVANCEDMC MODULES



12807050



12807078

- Microswitch for soldering (SMD)

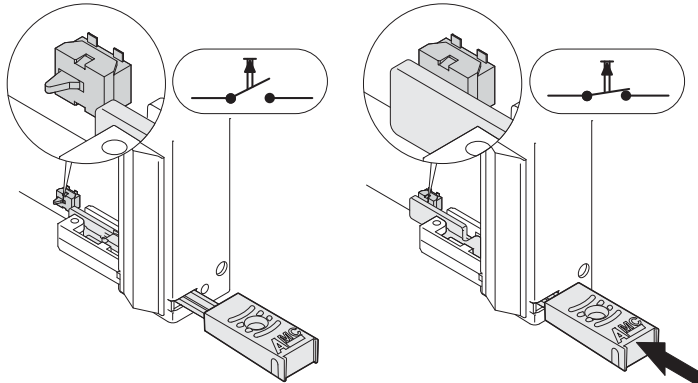
ORDER INFORMATION

Description	Qty/PU	Part no.
Microswitch for AdvancedMC modules "normally open"	10	20849-209

Technical data

Max. switch current	1 mA, 5 V _{DC}
Operating temperature	-15 °C ... +70 °C
Electrical lifespan	10 ⁵ switching cycles

Microswitch "normally open"



12807084

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APPLICATION EXAMPLES



- Hybrid system, modification of a MicroTCA single-module board cage into a 3 U chassis to DIN EN 60297 ¹²⁹⁰⁸⁰⁰⁷



- MicroTCA system, 1 U for 6 single mid-size AMC modules; power supply, increased air inlet and exhaust area with inwardly curved side panels ¹²⁹⁰⁸⁰⁰⁵



- MicroTCA chassis with hot-swap fan unit and power supply ¹²⁹⁰⁹⁰⁰¹



- CompactPCI chassis with hot-swap fan unit and custom finishing ¹²³⁰⁹⁰⁰²



- CompactPCI chassis with 48 V_{DC} power supply ¹²³⁰⁹⁰⁰¹



- 2 slot, 2 U AdvancedTCA chassis with custom colour ¹²⁷⁰⁹⁰⁰³

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