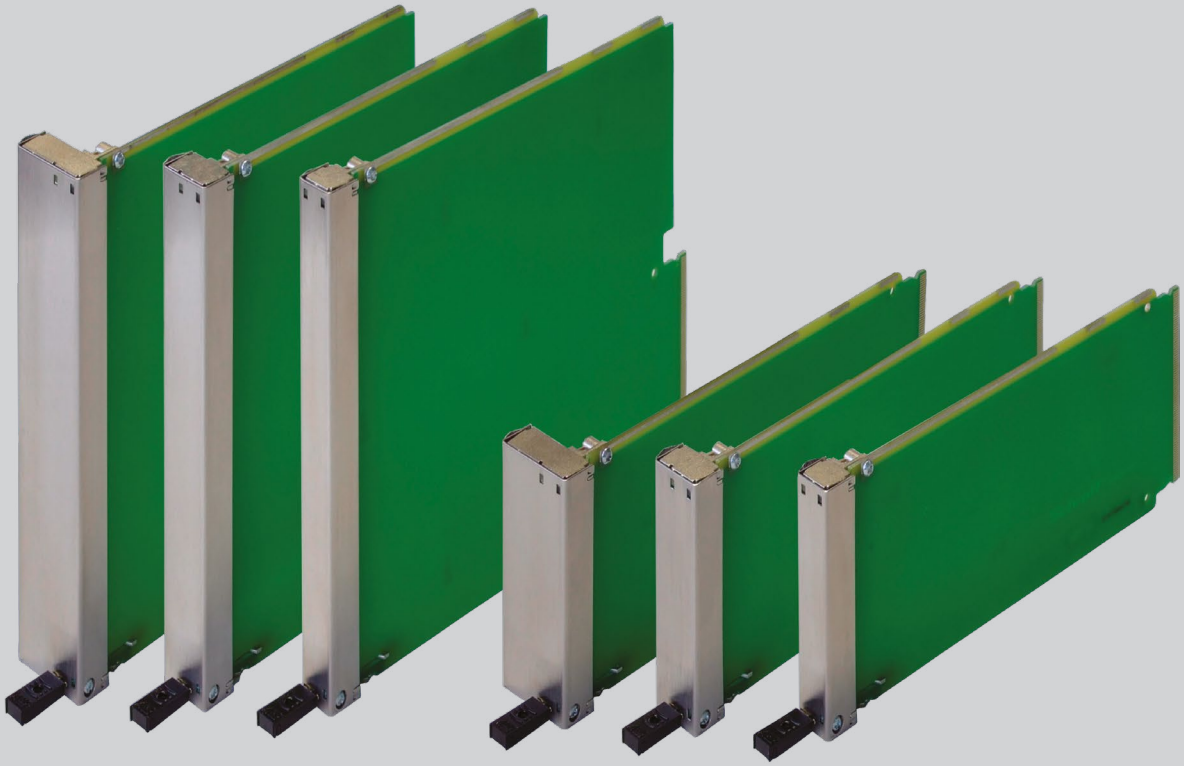


CONNECT AND PROTECT

AdvancedCM Modules

May DISTRIBUTION

nVent SCHROFF

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

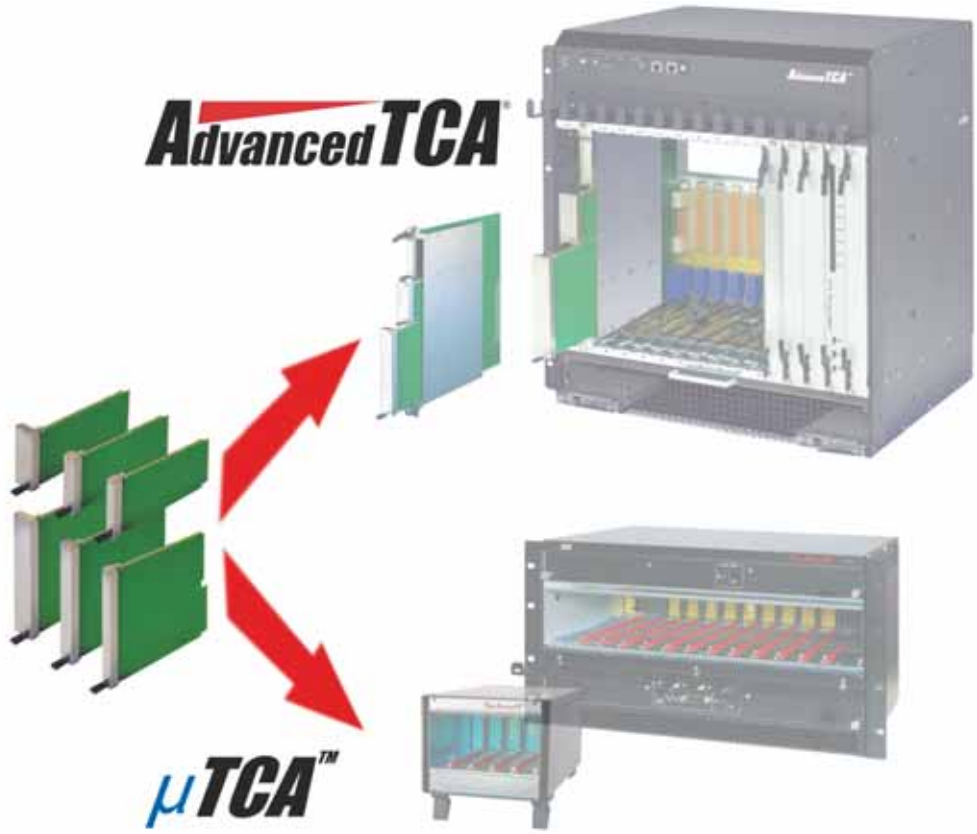
Systems 8

Power supply units 9

Backplanes 10

Connectors, front panel component system 11

Appendix 12



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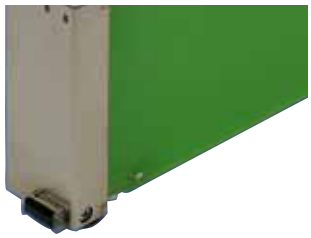

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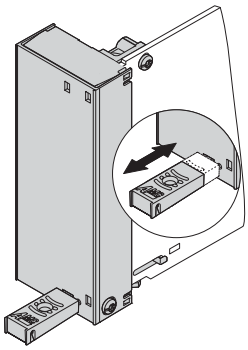
12808006

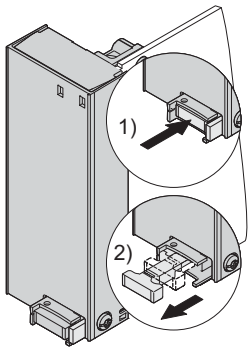
Stainless steel



12808060

Pull-handle mechanism

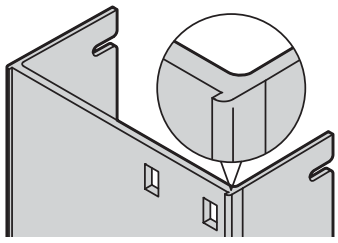
- For compact, mid-size and full-size module widths
- Forward protrusion of handle 20 mm, width 8 mm



12808059

Push-pull handle mechanism

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



12808056

Aluminium extrusion

OVERVIEW

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**

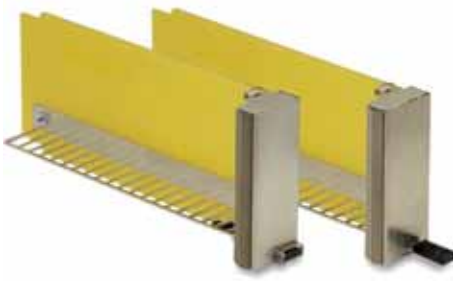
PICMG®
Open Modular Computing Specifications

12808011
Fig. A

12805012
Fig. B

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-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)

Overview **8.56**

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**

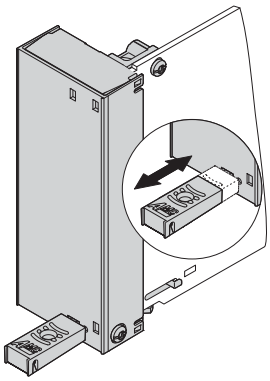
Systems – AdvancedMC modules

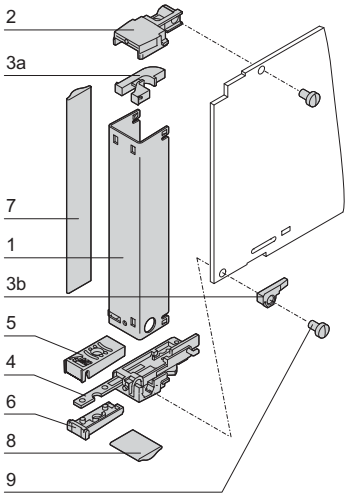
MODULES WITH PULL-HANDLE MECHANISM, PICMG® AMC.0 R2.0

12807006 12807019

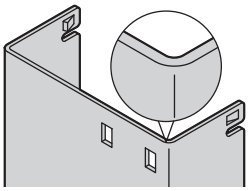
Photo shows modules with steel front panel (PCB not included)

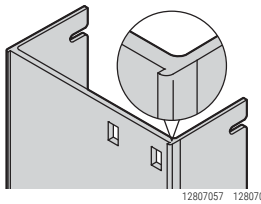
Pull-handle mechanism





12808060 12806059

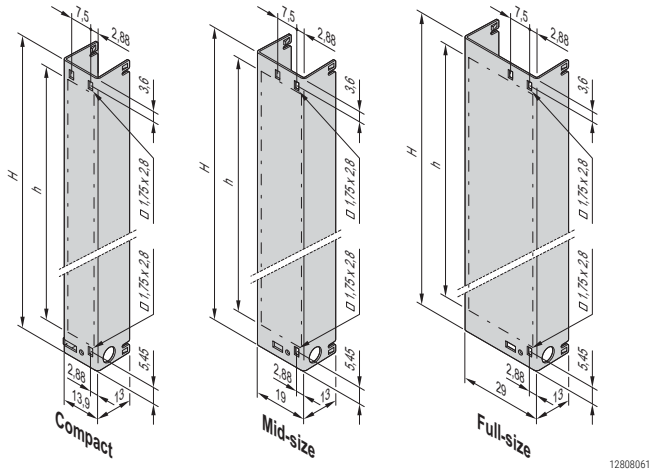




12807057 12807056

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

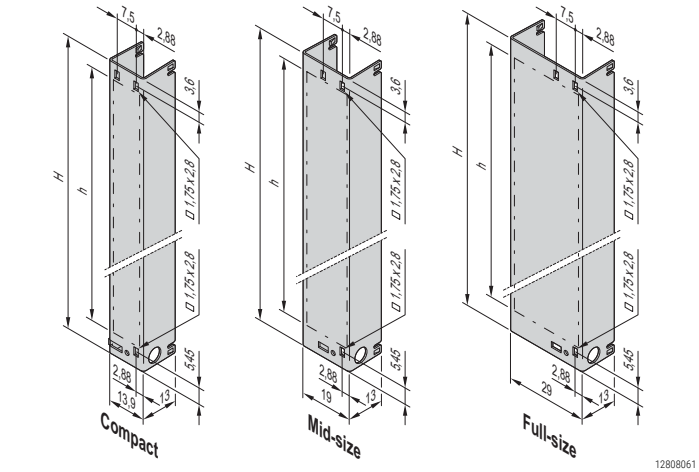
ORDER INFORMATION

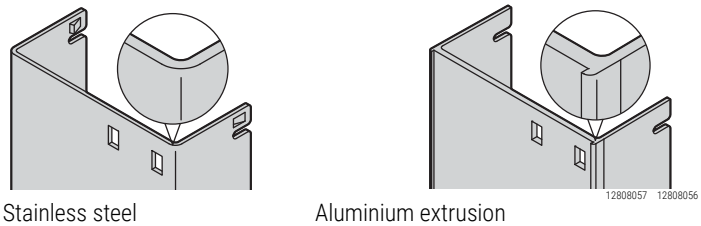
Module with pull-handle mechanism, PICMG® AMC.0 R2.0	H mm	h mm	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	73.8	60.8	20849-312	**20849-127**
Single mid-size, 4 HP	73.8	60.8	**20849-268**	**20849-128**
Single full-size, 6 HP	73.8	60.8	**20849-270**	**20849-129**
Double compact, 3 HP	148.8	135.8	20849-313	**20849-130**
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.

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

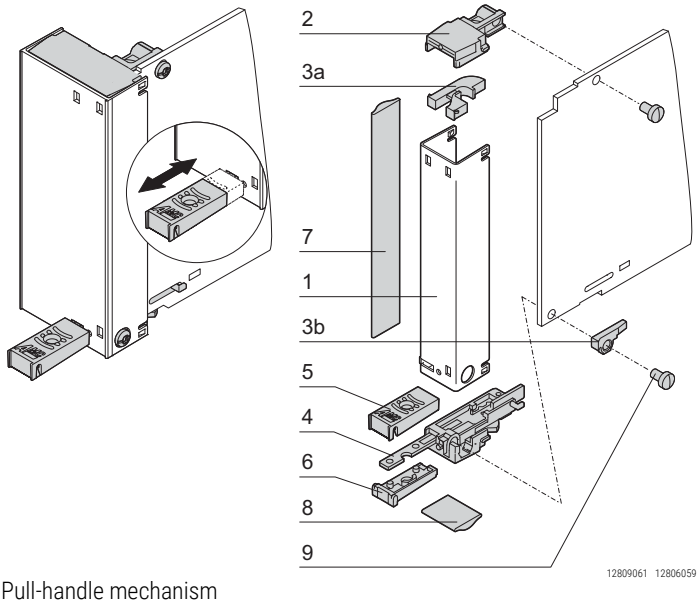
ORDER INFORMATION

Front panel for module with pull-handle mechanism, PICMG® AMC.0 R2.0	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	**30849-708**	**30849-402**
Single mid-size, 4 HP	**30849-658**	**30849-403**
Single full-size, 6 HP	**30849-682**	**30849-404**
Double compact, 3 HP	**30849-714**	**30849-405**
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.

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

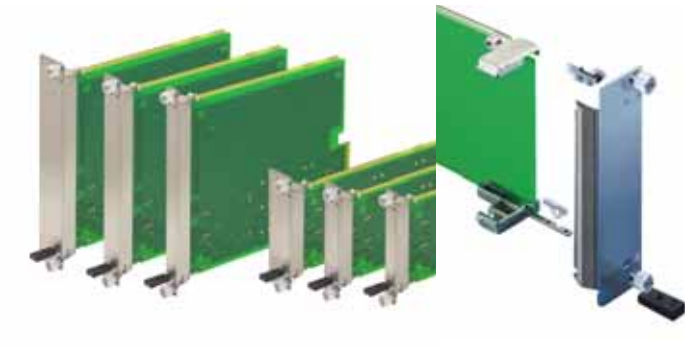
ORDER INFORMATION

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	**20849-154**
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



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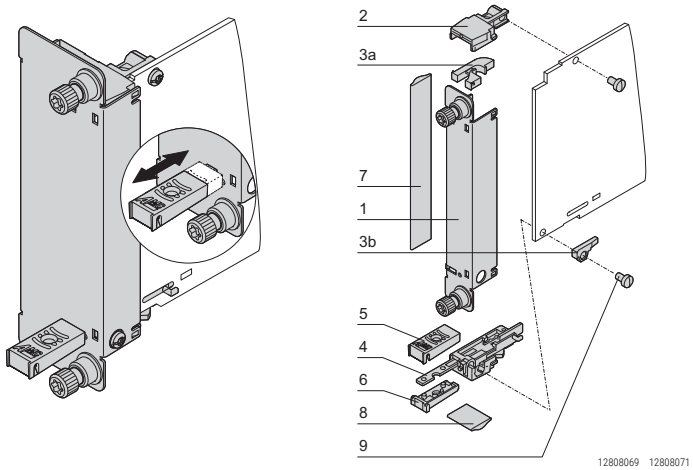
- Module in accordance with AdvancedMC standard
- Modules conform to:
  - PICMG® AMC.0 R2.0
  - Ruggedized: MicroTCA.1, MicroTCA.4
- Mounts in MicroTCA chassis or AdvancedMC carrier (e.g. cutaway, conventional or hybrid carrier)
- Stainless steel front panel
- Additional securing of components in MicroTCA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



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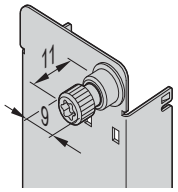

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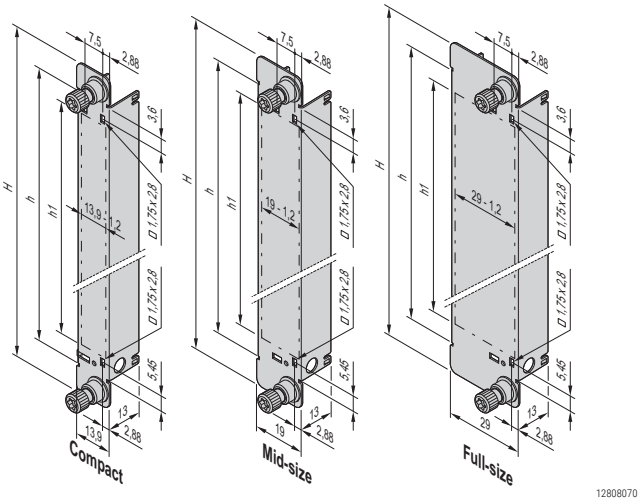
Steel, stainless

Screw locking



12808070

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	**21850-066**
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	**21850-069**
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**
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**

Note

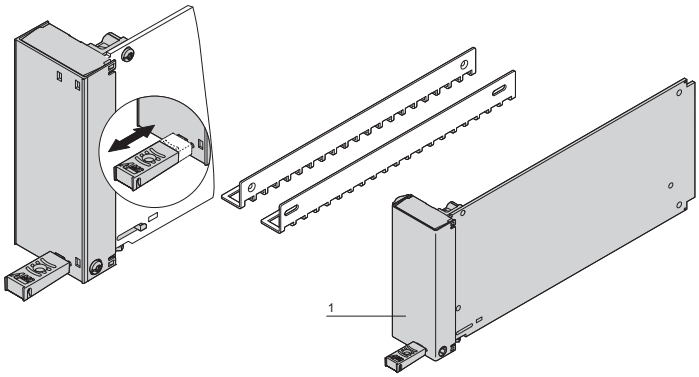
- Filler modules MicroTCA.1 and MicroTCA.4 see from page 8.63
- SCHROFF offers extensive modification options with the Front Panel Service, including customised cut-outs, foils and silk-screen printing.

Systems – AdvancedMC modules

FILLER MODULES WITH PULL-HANDLE MECHANISM

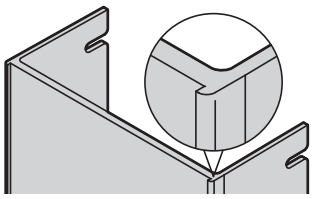
12807012

Filler module ECO, single, with air baffle



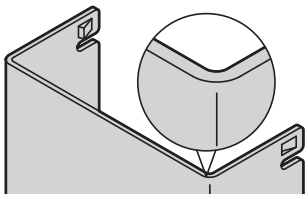
12808060 12805050

Pull-handle mechanism



12808068

Aluminium extrusion



12808067

Stainless steel

- 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

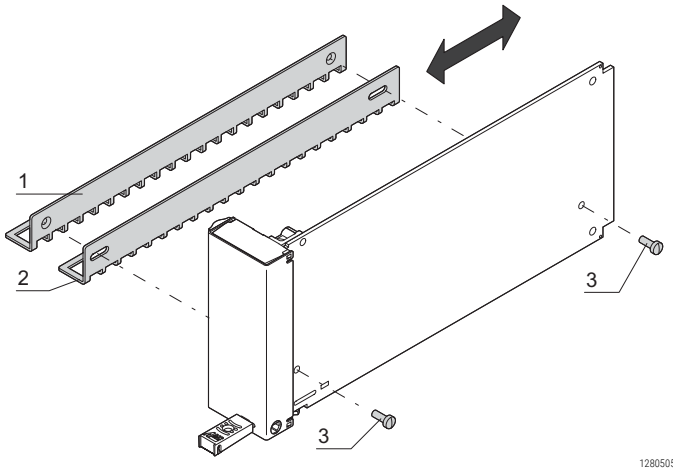
ORDER INFORMATION

Filler module with pull-handle mechanism	Part no. Aluminium	Part no. Stainless steel
Single compact, 3 HP	**20849-304**	**20849-022**
Single mid-size, 4 HP	**20849-248**	**20849-106**
Single full-size, 6 HP	**20849-250**	**20849-024**
Double compact, 3 HP	**20849-305**	**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**

MICROTCA FILLER MODULES WITH AIR BAFFLE

12812001

Photo shows mid-size double module

- 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)

12812003

Photo shows full-size single module

- 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

MICROTCA FILLER MODULES, 2 HP

12807014

Photo shows AdvancedMC-Filler Modul, Single

- 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**

RTM FILLER MODULES WITH AIR BAFFLE

12812002

Photo shows full-size double module

- 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

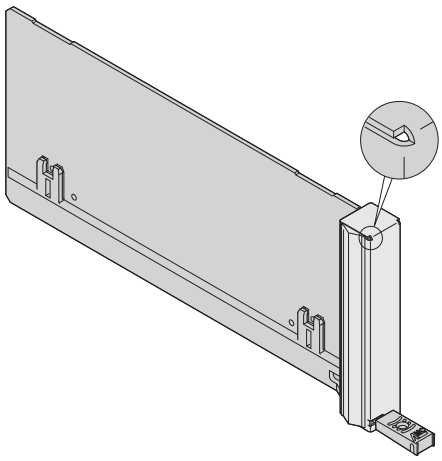
ORDER INFORMATION

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

FILLER MODULE ECO WITH FIXED HANDLE

12809002

Filler module ECO, single, with air baffle



12809052

Single compact module

- 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

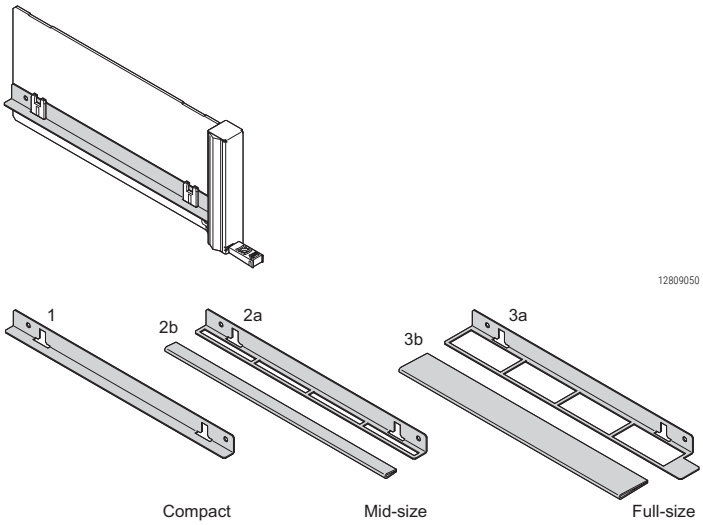
ORDER INFORMATION

	Part no.
Single compact, 3 HP	**20849-348**
Single mid-size, 4 HP	**20849-350**
Single full-size, 6 HP	**20849-352**
Double compact, 3 HP	20849-349
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

AIR BAFFLE FOR FILLER MODULE ECO WITH FIXED HANDLE



12809050

12809051

- 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; Item 2b: plastic cover, PVC, UL 94 V-0	20849-356
For full-size filler module, PU 10 pieces	Item 3a: VA plate with ventilation slots; Item 3b: plastic cover, PVC, UL 94 V-0	20849-357

Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

MODULE COVER FOR MTCA.4 FRONT AND RTM MODULES

12815001

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

12815002

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

12815003

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

- 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

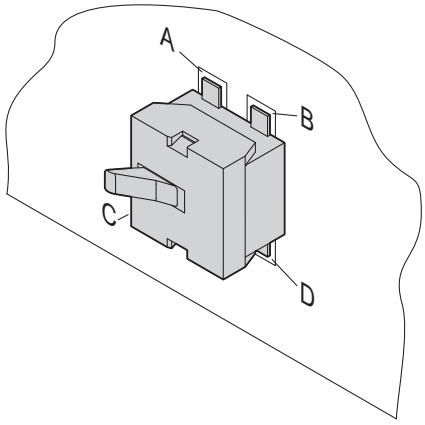
ORDER INFORMATION

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**

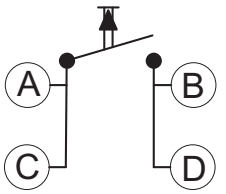
Note

- Double full-size modules available on request

MICROSWITCH FOR ADVANCEDMC MODULES

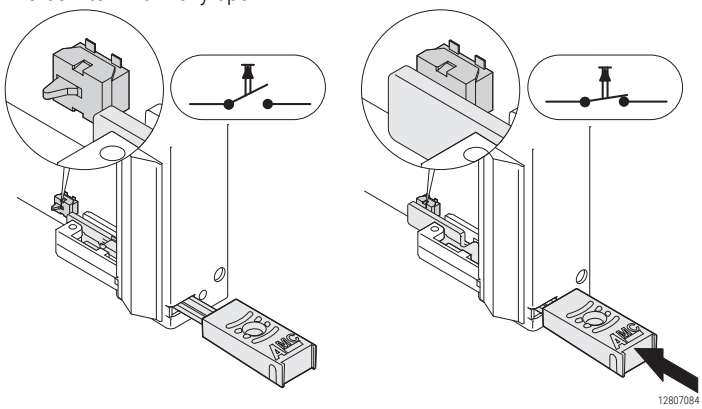


12807050



12807078

Microswitch "normally open"


12807084

- 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

Part number in bold face type: ready for shipping within 2 working days
Part number in normal type: ready for shipping within 10 working days

Systems – ServicePLUS

APPLICATION EXAMPLES

12908007

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

12908005

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

12909001

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

12309002

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

12309001

- CompactPCI chassis with 48 V_{DC} power supply

12709003

- 2 slot, 2 U AdvancedTCA chassis with custom colour

Systems – ServicePLUS