

DKTCOMEGA

trunk passives



about dkt

DKT designs and manufactures optical and coaxial products for professional broadband operators and service providers. DKT's unique product line, combined with extensive experience from many years in the industry, makes it a strong partner.

The company was founded in 1977, and is family owned. Its headquarters are in Denmark and it has subsidiaries in Finland, Germany and Sweden.

Via a strong network of distributors, customers are served in most parts of Europe. It has always been DKT's philosophy to challenge the status quo and look for improvements to benefit the customers. This often results in unique products that add value to the installation as well as network performance.

DKT's mission

DKT's mission is to be a strong partner in network products for European broadband operators and solution providers. Based on know-how and natural enthusiasm, good ideas are developed into successful products. This is done together with the customer, who furthermore can appreciate the broad product range, the attractive quality/price level and the unique customised products. DKT's flexibility and proactive attitude assists in optimizing broadband networks.

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product introduction

Introduction

The demand for improved signal quality in coaxial networks is increasing, especially as subscribers expect flawless triple play in broadband services. With many years of experience, DKT has a proven track record in the development and production of high performance trunk passives. The sum of experience and know-how combined with close cooperation with top operators has resulted in two series of high performance trunk passives, the Power Splitter series and Confree series.

With increased competition from fiber optical networks, it is necessary to optimize existing networks to provide higher Internet speed, increase competitiveness and reduce maintenance costs. These difficulties do not exist in optical networks, for example because inner conductors do not loosen over time, and reduction of OPEX in coaxial networks is crucial for maintaining a competitive edge.

The new springload terminals always ensures high quality installation, and even faster than before, without opening the unit. Simplified installation makes installer training easier.

Power Splitter and ConFree series are both designed to be connected with all types of coaxial cables, from small to large trunk cables. The sturdy design of both series allows even the largest coaxial cables to be mounted on the unit, without risking damage from cables twisting and turning due to temperature changes. With the use of circuit breakers it is possible to tailor the power routing table to suit specific network demands, by simply removing the fuses in the unit where appropriate.

For many years DKT has been a top supplier of advanced trunk passives. This position has been achieved through careful electrical and mechanical design, where innovation and modern R&D have resulted in the development of a complete portfolio, which cleverly combines effective installation with superb specifications and high flexibility.

To summarize, what does this imply?

Improved economy due to reduced maintenance cost/OPEX

- No maintenance required on trunk passives
- Faster installation with automatic fastening of inner conductors
- No damaged equipment from expansion/contraction from large cables

Improved economy due to reduced depreciation

- Long lifetime due to mechanical and electrical design

Overview

The DKT different series are:



Power Splitters (PS line). This is a compact and flexible series of splitters and taps with specifications that meet the highest industry requirements. Their compact housing and a selection of accessories provides an installer-friendly product.



Connector Free (ConFree) line. These are designed to meet demands for a cost-effective coaxial solution in modern trunk and distribution networks. The ConFree design allows optional integrated cable shells as an alternative to connectors, but with the same high specifications. This significantly reduces network costs. The concept is unique, especially where networks with older shell systems are upgraded, as it provides very high efficiency and low CAPEX.



Advantages

- High Screening, Class A
- AC ports selectable - removable fuses
- Efficient installation and maintenance with special design and decreasing OPEX
- 10 A Power passing

powersplitter - ps3b-10 A - fixed

Product information

With the DKT PS3B-10 A we have focused on designing the most compact and flexible 2-way splitter/directional coupler on the market, which suits applications in Europe using street cabinets and underground cables. The compact size makes installation possible in even small street cabinets.

The electrical performance in accordance with CENELEC's highest standards, just as with other DKT products.

PS3B-10 A - fixed is produced according to the specifications in the following table.



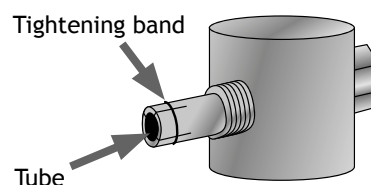
See page 26 for block diagrams

Built in quality assurance of each installation

All Power Splitter models have a springload terminal mounted on the PCB, meaning that a fixed unit does not need to have its lid open when being installed. Furthermore, the spring load terminals always allow consistent high quality installation, and this even faster than before.

Also, with springloaded terminals there are fewer sources for errors, making installation training even easier.

The springload terminal is constructed as a tube for reception of the 1.7 mm diameter PG11 conductor pin, with a tightening band ensuring optimal connection at any time, even after insertion of many conductors.

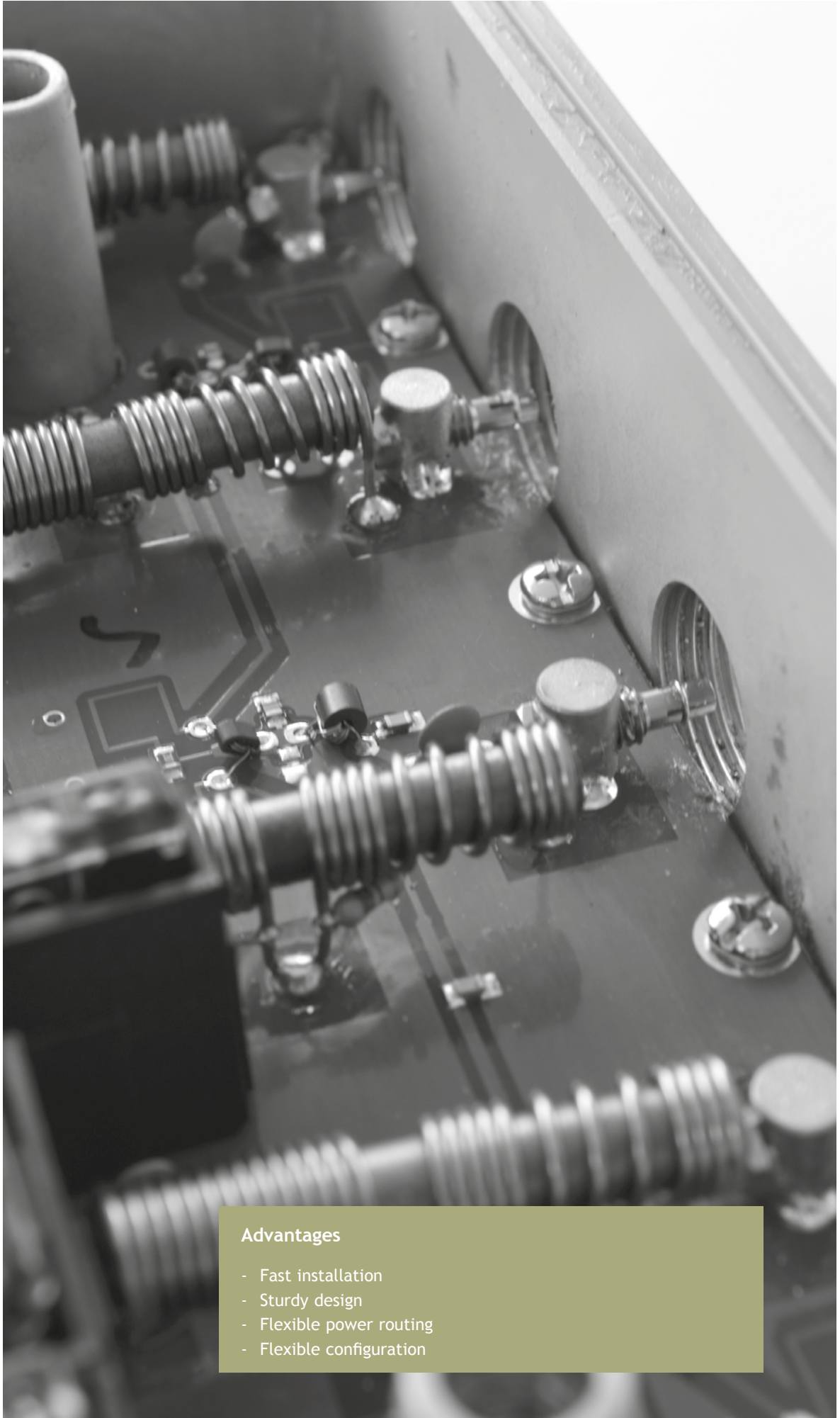


Fixed versions

Type	Frequency range	PS3B-10 A - 02	PS3B-10 A - 1-7	PS3B-10 A - 1-11	PS3B-10 A - 1-16
Item no.		40601	40602	40603	40604
Description		2-way splitter	1-way tap 7 dB	1-way tap 11 dB	1-way tap 16 dB
Insertion loss (IN-OUT) (dB)	5 - 1006 MHz	4.3 ± 1.0	3.1 ± 1.0	2.4 ± 1.0	1.6 ± 1.0
Tap loss (IN-TAP) (dB)	5 - 1006 MHz	-	7.8 ± 1.3	11.0 ± 1.0	15.4 ± 1.0
Isolation (OUT-OUT) (dB)	5 - 10 MHz	≥ 20	≥ 20	≥ 23	≥ 28
	10 - 470 MHz	≥ 25	≥ 25	≥ 26	≥ 26
	470 - 862 MHz	≥ 23	≥ 20	≥ 25	≥ 26
	862 - 1006 MHz	≥ 20	≥ 18	≥ 22	≥ 23
Return loss (dB)	5 - 10 MHz	≥ 16			
	10 - 1006 MHz	Grade 2 ¹			
Connectors		PG11 thread - optional 5/8"			
Power pass		Max. 10 A			
Hum modulation (64 V, 6 A)		< - 70 dB			
Screening effectiveness		Class A ²			
Dimensions (mm)		150 x 90 x 55			
Weight (Kg)		0.5			

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB $\div 1.5/\text{oct.}$

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Fast installation
- Sturdy design
- Flexible power routing
- Flexible configuration

powersplitter - ps3b-10 A - flexible

Product information

With the DKT PS3B-10 A we have focused on designing the most compact and flexible 2-way splitter/directional coupler on the market, which suits applications in Europe using street cabinets and underground cables. The compact size makes installation in even small street cabinets possible.

The electrical performance is according to CENELEC's highest standards just as the other DKT products.

PS3B-10 A - flexible is made to offer the most flexible choice in a single unit, for the specific network setup and to save inventory costs. Additionally, it can be used as a platform for power insertion through placement of bridge plug-in modules.

Due to the nature of a flexible version, the data is highly dependent upon the inserted plug-in modules. Refer to the following data for an overview.



See page 26 for block diagrams

Flexible version - Item no 40600

Type	Plug-in modules	Port A	Port B	Port C	Item no
Bridge (dB)	PIM 0A	In	0.5 ± 0.3	AC in	40510
	PIM 0B	In	AC in	0.5 ± 0.3	40511
	PIM 0C	AC in	In	0.5 ± 0.3	40512
Splitter (dB)	PIM 4	In	4.0 ± 1.0	4.0 ± 1.0	40520
Tap (dB)	PIM 1-7	In	7.0 ± 1.0	2.5 ± 0.3	40521
	PIM 1-10	In	10.0 ± 1.0	1.7 ± 0.3	40522
	PIM 1-13	In	13.0 ± 1.0	1.2 ± 0.3	40523
	PIM 1-16	In	16.0 ± 1.0	1.0 ± 0.3	40524
	PIM 1-19	In	19.0 ± 1.0	1.0 ± 0.3	40525
	PIM 1-22	In	22.0 ± 1.0	1.0 ± 0.3	40527
	PIM 1-26	In	26.0 ± 1.0	1.0 ± 0.3	40529
Stop-filter (dB)	PIM RPS 5-15	-	In	> 25 ± 1.0 (5-15 MHz) 1.2 ± 1.0 (25-1006 MHz)	42008
	PIM RPS 5-30	-	In	> 45 ± 1.0 (5-30 MHz) 1.2 ± 1.0 (47-1006 MHz)	42007
	PIM RPS 5-65		In	> 45 ± 1.0 (5-65 MHz) 1.2 ± 1.0 (87-1006 MHz)	42005
Diplexer (dB)	PIM 5-30/47-1006	In	5-30 MHz < 1.3 dB 47-1006 MHz > 30 dB	5-30 MHz > 40 47-1006 MHz < 1.2	42009
	PIM 5-65/87-1006	In	5-65 MHz < 2 dB 87-1006 MHz > 22 dB	5-65 MHz > 35 87-1006 MHz < 1.7	42006
Frequency range (MHz)	5-1006				
Return loss (dB)	5 - 10 MHz	≥ 16			
	10 - 1006 MHz	Grade 2 ¹			
Connectors	PG11 thread - optional 5/8”				
Power pass	Max. 10 A				
Hum modulation (64 V, 6 A)	< - 70 dB				
Screening effectiveness	Class A ²				
Dimensions (mm)	150 x 90 x 55				
Weight (Kg)	0.5				

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB $\div 1.5/\text{oct}$.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Compact splitter/tap system
- High Screening, Class A
- AC ports selectable - removable fuses
- PowerCom, DiSEqC compatible
- Grounding screw and 10 A power passing
- Decreased OPEX

powersplitter - ps5b-10 A

Product information

With the DKT PS5B-10A we have expanded the line of compact power passing splitters and taps. There are now two 3-way splitters, a 4-way splitter and a 2-way tap. The tap has a fixed platform with a possible AC feed on each platform.

The compact size of the housing makes installation in even small street cabinets possible, thereby avoiding the replacement of expensive components such as the cabinets themselves.

The extended distance between inputs allows the use of heavy coaxial cables.

The electrical performance is according to CENELEC's highest standards just as with the other DKT products.

Additionally, all the PS5B-10 A platforms can be used as power inserters with the PG11M-AC (see page 23).



See page 26 for block diagrams

Type	Port A	Port B	Port C	Port D	Port E	Port F	Item no
PS5B-10 A - 03 (dB)	AC	6.2 ± 0.5	IN	6.2 ± 0.5	6.2 ± 0.5	-	40610
PS5B-10 A - 03A (dB)	AC	4.0 ± 0.5	IN	7.8 ± 0.5	7.8 ± 0.5	-	40611
PS5B-10 A - 04 (dB)	7.8 ± 0.5	7.8 ± 0.5	IN	7.8 ± 0.5	7.8 ± 0.5	AC	40612
PS5B-10 A - 2-12 (dB)	AC	IN	12.0 ±1.0	12.0 ±1.0	2.0 ± 0.5	-	40613
Frequency range (MHz)	5-1006						
Return loss (dB)	5 - 10 MHz	≥ 16					
	10 - 1006 MHz	Grade 2 ¹					
Connectors	PG11 thread - optional 5/8”						
Power pass	Max 10 A						
Hum modulation (64 V, 6 A)	< - 70 dB						
Screening effectiveness	Class A ²						
Dimensions (mm)	209 x 96 x 56						
Weight (Kg)	0.7						

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB

Advantages

- The 5-1006 MHz gives the option to expand the frequency area for broadband applications
- Flexibility through plug-in modules
- Durability through component choice, solid die-cast and Class A housing
- A professional delivery point for CATV networks

catv delivery point

Product information

The AP20 PSF is a highly flexible delivery point between CATV and local networks. Through the many plug-in options, this unit can be configured to suit most applications from ordinary test point to return path blocking of branches that are not yet upgraded for return path transmission. Comes with a built-in 20 dB tap, working as a test or measurement point.

This platform has optimized return loss for terminated return path applications.



See page 26 for block diagrams

AP20 PSF - Item no 50555

Plug-in modules	Port 1	Port 2	Item no
PIM 0B (dB)	20 ± 0.2	0.8 ± 0.2	40511
PIM 5-30/47-862 (dB)	> 65 (5-30 MHz) 21 ± 1 (47-1006 MHz)	> 45 (5-30 MHz) < 1.2 (47-1006 MHz)	42009
PIM 5-65/87-862 (dB)	> 45 (5-65 MHz) 21 ± 1 (87-1006 MHz)	> 45 (5-65 MHz) < 1.2 (87-1006 MHz)	42006
Frequency range (MHz)	5-1006		
Return loss (dB)	5 - 10 MHz	≥ 16	
	10 - 1006 MHz	Grade 2 ¹	
Connectors	PG11 thread - optional 5/8"		
Power pass	No power passing		
Screening effectiveness	Class A ²		
Dimensions (mm)	150 x 90 x 55		
Weight (Kg)	0.5		

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- A trunk multi-tap, 6-in-one
- Power inserter option
- Optional power passing (trunk splitter)
- Super broadband, 5-1006 MHz

confree - four-way splitter with power passing at all outputs

Product information

This is a trunk splitter with the possibility of cascading connections via plug-in modules. Provides six different options in one box.

Confree - the shell system

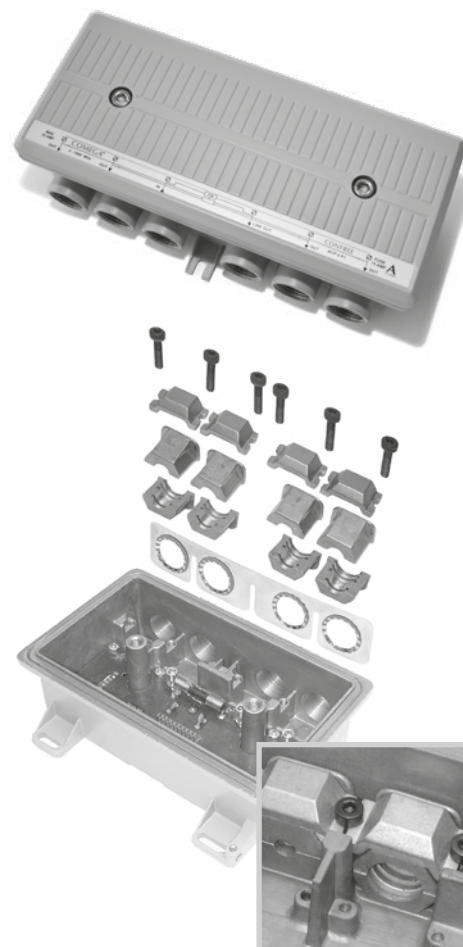
With the construction of the ConFree cable shells, we ensure you the best possible RF performance without having to use traditional connectors. The use of ConFree products is the most economical way to upgrade and expand the trunk network.

The design ensures high performance Class A screening efficiency with the incorporated specially designed brackets, which push the shells towards the bottom of the housing. The result is a smaller space requirement.

The cable shells or "cable brackets" are designed to fit all types of coaxial cables with the outer sheath diameter of 5.0 - 17.3 mm. Every cable within these dimensions has the same stripping dimensions - 8.5/8.5 mm. Cables with an outer sheath diameter of less or more than 5.0 - 17.3 mm can also be applied through the standard PG11 thread inside every port on the ConFree.

The Cable Shells (CS) are ordered separately. Upon ordering, the important dimensions are the size of the outer conductor and the diameter of the outer sheath. If you inform us of these dimensions upon placement of your order, we will ensure that you get the correct shell size for your specific cables.

All types within outer sheath diameter of 5.0 - 17.3 mm can be made according to your request.



See page 27 for block diagrams

ACP6 P1 - Item no 41612

PIM type	In	Out 1-2-3-4	Trunk out	Item no
PIM 0A (dB)	5-1006 MHz	7.5 ± 1.0	AC-IN	40510
PIM 4 (dB)	5-1006 MHz	12.5 ± 1.0	4.5 ± 0.5	40520
PIM 1-7 (dB)	5-1006 MHz	15.5 ± 1.0	3.1 ± 0.5	40521
PIM 1-10 (dB)	5-1006 MHz	19 ± 1.0	2.5 ± 0.5	40522
PIM 1-13 (dB)	5-1006 MHz	21.5 ± 1.0	1.8 ± 0.5	40523
PIM 1-16 (dB)	5-1006 MHz	24 ± 1.0	1.4 ± 0.5	40524
Frequency range (MHz)	5-1006			
Return loss (dB)	5 - 10 MHz	≥ 16		
	10 - 1006 MHz	Grade 2 ¹		
Connector	PG11 thread - optional 5/8" or cable shells			
Power pass	Max 6 A			
Screening effectiveness	Class A ²			
Hum modulation (64 V, 6 A)	< - 70 dB			
Dimensions (mm)	208 x 107 x 55			
Weight (Kg)	1.0			

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Option for return path management (PIM)
- A flexible platform with many tap options
- Super broadband, 5-1006 MHz
- Optional power passing

confree - four-way tap

Product information

ACT 4-12 P1 is a four-way tap with high tap-to-tap isolation, powerpassing for possible line amplifiers and a plug-in module at trunk in/out. ACT 4-12 P1 F4 has a plug-in module for disconnecting subscribers and also plug-in return path stop filters.

Product name extension legend

ConFree models that include P(X) have the number of sockets for plug-in modules indicated by X, whereas the digit replacing Y in F(Y) is the number of sockets for plug-in filters in the unit. For example: ACT 4-12 P1 F4 holds space for 1 plug-in module and 4 plug-in filters.



See page 27 for block diagrams

ACT 4-12 P1 - Item no 41610

PIM type	In	Tap 1	Tap 2	Tap 3	Tap 4	Trunk	Item no
PIM 0A (dB)	5-1006 MHz	12.5 ± 1.0	14 ± 1.0	13.5 ± 1.0	12.5 ± 1.0	-	40510
PIM 4 (dB)	5-1006 MHz	16.5 ± 1.0	18 ± 1.0	17.5 ± 1.0	16.5 ± 1.0	4.5 ± 0.5	40520
PIM 1-7 (dB)	5-1006 MHz	20 ± 1.0	21.5 ± 1.0	21 ± 1.0	20 ± 1.0	3.2 ± 0.5	40521
PIM 1-10 (dB)	5-1006 MHz	23 ± 1.0	24.5 ± 1.0	24 ± 1.0	23 ± 1.0	2.5 ± 0.5	40522
PIM 1-13 (dB)	5-1006 MHz	25.5 ± 1.0	27 ± 1.0	26.5 ± 1.0	25.5 ± 1.0	1.9 ± 0.5	40523
PIM 1-16 (dB)	5-1006 MHz	28 ± 1.0	27.5 ± 1.0	29 ± 1.0	28 ± 1.0	1.5 ± 0.5	40524
PIM 1-19 (dB)	5-1006 MHz	31 ± 1.0	32.5 ± 1.0	32 ± 1.0	31 ± 1.0	1.4 ± 0.5	40525

ACT 4-12 P1 F4 - Item no 41611*

PIM type	In	Tap loss 1 + 2 + 3 + 4	Item no
PIM RPS 5-65 (dB)	5-1006 MHz	> 45 ± 1.0 (5-65 MHz) 1.2 ± 1.0 (87-1006 MHz)	42005
PIM RPS 5-30 (dB)	5-1006 MHz	> 45 ± 1.0 (5-30 MHz) 1.2 ± 1.0 (47-1006 MHz)	42007
PIM RPS 5-15 (dB)	5-1006 MHz	> 25 ± 1.0 (5-15 MHz) 1.2 ± 1.0 (25-1006 MHz)	42008
PIM 0C (dB)	5-1006 MHz	0.2 ± 0.2	40512

General

Frequency range (MHz)	5-1006	
Isolation TAP-TAP (dB)	5-300 MHz > 40, 300-1006 MHz > 36	
Return loss (dB)	5 - 10 MHz	≥ 16
	10 - 1006 MHz	Grade 2 ¹
Connector	PG11 thread - optional 5/8" or cable shells	
Power pass	Max 6 A	
Screening effectiveness	Class A ²	
Hum modulation (64 V, 6 A)	< - 70 dB	
Dimensions (mm)	208 x 107 x 55	
Weight (Kg)	1.0	

* Tap loss: The total tap loss is the sum of signal loss from installed plug-in module (see the table for: ACT 4-12 P1, 41610) and the plug-in filter. Unused taps should be terminated, e.g. with a 75 Ω module, 40513

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- The 5-1006 MHz gives the option to expand the frequency area for super broadband applications
- Flexibility through plug-in modules
- Power inserter option
- Durability through component choice, solid die-cast and Class A housing

confree - two-way splitter with trunk or ac feed

Product information

The ACP3 P1 is a two-way asymmetric splitter or one-way tap with external AC feed. It has a power pass for possible line extended amplifiers.

The ACP4 P2 is a three-way splitter or two-way tap, which has many combination possibilities by plug-in modules. It has a power pass for possible line extended amps.



ACP3 P1 - Item no 41603

See page 27 for block diagrams

PIM type	Out 1	Out 2	Order no
PIM 0A (dB)	0.6 ± 1.0	-	40510
PIM 0B (dB)	-	0.6 ± 0.5	40511
PIM 4 (dB)	4.4 ± 1.0	4.4 ± 0.5	40520
PIM 1-7 (dB)	7.9 ± 1.0	3.0 ± 0.5	40521
PIM 1-10 (dB)	10.9 ± 1.0	2.4 ± 0.5	40522
PIM 1-13 (dB)	13.4 ± 1.0	1.7 ± 0.5	40523
PIM 1-16 (dB)	15.9 ± 1.0	1.4 ± 0.5	40524
PIM 1-19 (dB)	18.9 ± 1.0	1.3 ± 0.5	40525
Frequency range (MHz)	5-1006		
Return loss (dB)	5 - 10 MHz	≥ 16	
	10 - 1006 MHz	Grade 2 ¹	
Connector	PG11 thread - optional 5/8” or cable shells		
Power pass	Max 10 A		
Screening effectiveness	Class A ²		
Hum modulation (64 V, 6 A)	< - 70 dB		
Dimensions (mm)	154 x 107 x 55		
Weight (Kg)	0.8		

ACP4 P2 - Item no 41604

PIM type	Out 1	Out 2	Trunk output	Order no
PIM 4 + PIM 4 (dB)	4 ± 1.0	8 ± 1.0	8 ± 0.5	40520/40520
PIM 1-7 + PIM 4 (dB)	7.5 ± 1.0	6.5 ± 1.0	6.5 ± 0.5	40521/40520
PIM 1-10 + PIM 1-7 (dB)	11 ± 1.0	9 ± 1.0	4 ± 0.5	40522/40521
PIM 1-13 + PIM 1-13 (dB)	13.5 ± 1.0	14.5 ± 1.0	3 ± 0.5	40523/40523
PIM 1-16 + PIM 1-16 (dB)	16 ± 1.0	17 ± 1.0	2.2 ± 0.5	40524/40524
PIM 1-19 + PIM 1-19 (dB)	19 ± 1.0	19.5 ± 1.0	2 ± 0.5	40525/40525
Frequency range (MHz)	5-1006			
Return loss (dB)	5 - 10 MHz	≥ 16		
	10 - 1006 MHz	Grade 2 ¹		
Connector	PG11 thread - optional 5/8” or cable shells			
Power pass	Max 10 A			
Screening effectiveness	Class A ²			
Hum modulation (64 V, 6 A)	< - 70 dB			
Dimensions (mm)	154 x 107 x 55			
Weight (Kg)	0.8			

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB $\div 1.5/\text{oct.}$

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Option for return path management (PIM)
- A flexible platform with many tap options
- Super broadband, 5-1006 MHz
- Optional power passing

confree - two-way tap with trunk passives & optional filters

Built-in taps in combination with 1 PIM option

Product information

The ACT 2-10 P1 is a fixed two-way tap with plug-in trunk modules with high isolation between taps. It has a power pass for possible line extended amps.

The ACT 2-10 P1 F2 is similar to the ACT 2-10 P1 and it has plug-in filters/bridges to the subscriber.



ACT 2-10 P1 - Item no 41600

PIM type	In	Tap 1	Tap 2	Trunk output	Item no
PIM 0A (dB)	5-1006 MHz	10.5 ± 1.0	10.5 ± 1.0	-	40510
PIM 4 (dB)	5-1006 MHz	14.5 ± 1.0	14.5 ± 1.0	5 ± 0.5	40520
PIM 1-7 (dB)	5-1006 MHz	19.5 ± 1.0	18.5 ± 1.0	3.5 ± 0.5	40521
PIM 1-10 (dB)	5-1006 MHz	22.5 ± 1.0	29.5 ± 1.0	2.8 ± 0.5	40522
PIM 1-13 (dB)	5-1006 MHz	24.5 ± 1.0	26 ± 1.0	2.1 ± 0.5	40523
PIM 1-16 (dB)	5-1006 MHz	27.5 ± 1.0	26.5 ± 1.0	1.7 ± 0.5	40524
PIM 1-19 (dB)	5-1006 MHz	30.5 ± 1.0	29.5 ± 1.0	1.6 ± 0.5	40525

See page 27 for block diagrams

ACT 2-10 P1 F2 - Item no 41605*

PIM type	In	Tap 1 + 2	Item no
PIM RPS 5-65 (dB)	5-1006 MHz	> 45 ± 1.0 (5-65 MHz) 1.2 ± 1.0 (87-1006 MHz)	42005
PIM RPS 5-30 (dB)	5-1006 MHz	> 45 ± 1.0 (5-30 MHz) 1.2 ± 1.0 (47-1006 MHz)	42007
PIM RPS 5-15 (dB)	5-1006 MHz	> 25 ± 1.0 (5-15 MHz) 1.2 ± 1.0 (25-1006 MHz)	42008
PIM 0C (dB)	5-1006 MHz	0.2 ± 0.2	40512

General

Frequency range (MHz)	5-1006
Isolation TAP-TAP (dB)	5-300 MHz > 40, 300-1006 MHz > 36
Return loss (dB)	5 - 10 MHz ≥ 16
	10 - 1006 MHz Grade 2 ¹
Connector	PG11 thread - optional 5/8" or cable shells
Power pass	Max 6 A
Screening effectiveness	Class A ²
Hum modulation (64 V, 6 A)	< - 70 dB
Dimensions (mm)	154 x 107 x 55
Weight (Kg)	0.8

* Tap loss: The total tap loss is the sum of signal loss from installed plug-in module (see the table for: ACT 2-10 P1, 41600) and the plug-in filter.

Unused taps should be terminated, e.g. with a 75 Ω module, 40513

¹ Return loss: CENELEC EN60728-4 Grade 2

10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:

CENELEC 50083-2 Class A

5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB

470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Option for return path management (PIM)
- A flexible platform with many tap options
- Super broadband, 5-1006 MHz
- Optional power passing

confree - two-way tap with trunk passives & optional filters

Fully-flexible configuration with 2 PIM options

Product information

The ACT P2 is a two-way tap with high isolation. It has a power pass for possible line extended amps.

The ACT P2 F2 is similar to the ACT P2 and it has plug-in filters/bridges to the subscriber. It has a power pass for possible line extended amps.



ACT P2 - Item no 41601

See page 26 for block diagrams

PIM type	In	Tap 1	Tap 2	Trunk output	Item no
PIM 4 + PIM 4 (dB)	5-1006 MHz	4.6 ± 1.0	8.6 ± 1.0	8.6 ± 0.5	40520
PIM 1-7 + PIM 1-7 (dB)	5-1006 MHz	8.1 ± 1.0	10.6 ± 1.0	5.6 ± 0.5	40521
PIM 1-10 + PIM 1-10 (dB)	5-1006 MHz	11.1 ± 1.0	13.1 ± 1.0	4.1 ± 0.5	40522
PIM 1-13 + PIM 1-13 (dB)	5-1006 MHz	13.6 ± 1.0	14.6 ± 1.0	3.1 ± 0.5	40523
PIM 1-16 + PIM 1-16 (dB)	5-1006 MHz	16.1 ± 1.0	17.1 ± 1.0	2.3 ± 0.5	40524
PIM 1-19 + PIM 1-19 (dB)	5-1006 MHz	19.1 ± 1.0	19.6 ± 1.0	2.1 ± 0.5	40525
Frequency range (MHz)	5-1006				
Isolation TAP-TAP (dB)	5-300 MHz > 40, 300-1006 MHz > 36				
Return loss (dB)	5 - 10 MHz	≥ 16			
	10 - 1006 MHz	Grade 2 ¹			
Connector	PG11 thread - optional 5/8” or cable shells				
Power pass	Max 6 A				
Screening effectiveness	Class A ²				
Hum modulation (64 V, 6 A)	< - 70 dB				
Dimensions (mm)	154 x 107 x 55				
Weight (Kg)	0.8				

ACT P2 F2 - Item no 41602*

PIM type	In	Tap 1 + 2	Item no
PIM RPS 5-65 (dB)	5-1006 MHz	> 45 ± 1.0 (5-65 MHz) 1.2 ± 1.0 (87-1006 MHz)	42005
PIM RPS 5-30 (dB)	5-1006 MHz	> 45 ± 1.0 (5-30 MHz) 1.2 ± 1.0 (47-1006 MHz)	42007
PIM RPS 5-15 (dB)	5-1006 MHz	> 25 ± 1.0 (5-15 MHz) 1.2 ± 1.0 (25-1006 MHz)	42008
PIM OC (dB)	5-1006 MHz	0.2 ± 0.2	40512
Frequency range (MHz)	5-1006 MHz		
Isolation TAP-TAP	5-300 MHz > 40, 300-1006 MHz > 36		
Return loss (dB)	5 - 10 MHz	≥ 16	
	10 - 1006 MHz	Grade 2 ¹	
Connector	PG11 thread - optional 5/8" or cable shells		
Power pass	Max 6 A		
Screening effectiveness	Class A ²		
Hum modulation (64 V, 6 A)	< - 70 dB		
Dimensions (mm)	154 x 107 x 55		
Weight (Kg)	0.8		

* Tap loss: The total tap loss is the sum of signal loss from installed plug-in module (see the table for: ACT P2, 41601) and the plug-in filter.
Unused taps should be terminated, e.g. with a 75 Ω module, 40513

¹ Return loss: CENELEC EN60728-4 Grade 2
10-47 MHz ≥ 18 dB, 47-1006 MHz min. 18 dB ÷ 1.5/oct.

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB



Advantages

- Strong & robust mechanical construction
- A very high screening efficiency to avoid interference
- High return loss

accessories

Product information

DKT offers a wide range of connectors and adapters for the Power Splitter and ConFree series. These provide fast and easy installation without compromising the the very high quality, and this by ensuring a low insertion loss.

Data	Common to all PG11M adaptors (Where applicable)
Insertion loss (dB)	≤ 0.1
Return loss	≥ Grade 1 ¹
Screening efficiency	Class A ²
Material	Brass
Plating	Nickel-tin
Center conductor	Phosphor bronze or Beryllium copper
Center conductor plating	Nickle-tin

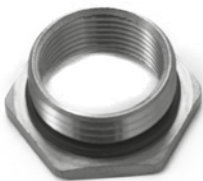
¹ Return loss: CENELEC EN60728-4 Grade 1
5-47 MHz ≥ 22 dB, 47-1006 MHz ≥ 22 dB ÷ 1.5 dB/oct. min. 14 dB

² Screening effectiveness:
CENELEC 50083-2 Class A
5-300 MHz ≥ 85 dB, 300-470 MHz ≥ 80 dB
470-950 MHz ≥ 75 dB, 950-1006 MHz ≥ 65 dB







PG11M-AC Item no.: 81902

Used to feed AC power, with cuttable pin for the right fit.



PG11M-5/8" F Item no.: 87049

Reduction ring, transforms PG11 socket into 5/8" socket.

Power Splitter	ConFree	Description
		Adaptor from PG11 into F-female, with cuttable pin for the correct fit, MEX connectors are not cuttable.
		Adaptor from PG11 into IEC14-female, with cuttable pin for the correct fit, MEX connectors are not cuttable.
		Adaptor from PG11 into 3,5/12-female, with cuttable pin for the correct fit, MEX connectors are not cuttable.



Advantages

- Wide range of filters and modules
- High quality plug-in connector

plug-in modules (pim)

Product information

The plug-in module concept forms the back-bone of the very flexible ConFree and Power Splitter series. Multiple plug-in modules, together with the many platform options, allow for easy configuration - even in the field.



Bridge, splitter and tap modules

Type no.	Out	Through loss	Typical isolation TAP-OUT	Module type	Item No.
PIM 0A (dB)	0.2 ± 0.2	0.2 ± 0.3	-	Bridge module	40510
PIM 0B (dB)	0.2 ± 0.2	0.2 ± 0.3	-	Bridge module	40511
PIM 0C (dB)	0.2 ± 0.2	0.2 ± 0.3	-	Bridge module	40512
PIM 4 (dB)	4.1 ± 0.2	4.1 ± 0.3	25.0	Splitter module	40520
PIM 1-7 (dB)	7.5 ± 0.2	2.6 ± 0.3	25.0	Tap module	40521
PIM 1-10 (dB)	10.5 ± 0.2	1.9 ± 0.3	29.0	Tap module	40522
PIM 1-13 (dB)	13.0 ± 0.2	1.3 ± 0.3	32.0	Tap module	40523
PIM 1-16 (dB)	15.5 ± 0.2	0.9 ± 0.3	35.0	Tap module	40524
PIM 1-19 (dB)	18.5 ± 0.2	0.8 ± 0.3	38.0	Tap module	40525
PIM 1-22 (dB)	22 ± 0.2	0.8 ± 0.3	38.0	Tap module	40527
PIM 1-26 (dB)	26 ± 0.2	0.8 ± 0.3	38.0	Tap module	40529

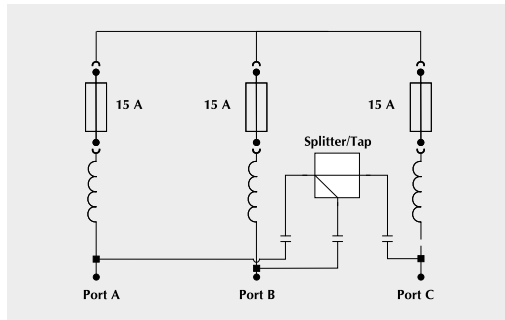
Return path, diplex, and test modules

Type no.	Out	Through loss	Typical isolation TAP-OUT	Module type	Item No.
PIM -20 dB-TP (dB)	20 ± 0.2	1.0 ± 0.3	38.0	Test point module	40540
PIM -30 dB-TP (dB)	30 ± 0.2	1.0 ± 0.3	41.0	Test point module	40541
PIM 5-30/47-1006 (dB)	1.5 ± 0.2	1.0 ± 0.3	41.0	Diplex filter module	42009
PIM 5-65/87-862 (dB)	1.5 ± 0.2	1.0 ± 0.3	41.0	Diplex filter module	42006
PIM RPS 5-65 (dB)	-	-	$> 45 \pm 1.0$ (5-65 MHz) 1.2 ± 0.5 (87-1006 MHz)	Return path stop module	42005
PIM RPS 5-30 (dB)	-	-	$> 45 \pm 1.0$ (5-30 MHz) 1.2 ± 0.5 (47-1006 MHz)	Return path stop module	42007
PIM RPS 5-15 (dB)	-	-	$> 25 \pm 1.0$ (5-15 MHz) 1.2 ± 0.5 (25-1006 MHz)	Return path stop module	42008
PIM RPA 5 (dB)	-	-	5.0 ± 0.3 (5-65 MHz) 1.2 ± 0.5 (87-1006 MHz)	Return path att. module	42013
PIM RPA 10 (dB)	-	-	10.0 ± 0.3 (5-65 MHz) 1.2 ± 0.5 (87-1006 MHz)	Return path att. module	42014
PIM RPA 15 (dB)	-	-	15.0 ± 0.3 (5-65 MHz) 1.2 ± 0.5 (87-1006 MHz)	Return path att. module	42015
PIM-75R	-	-	-	75 Ω - Terminator module	40513

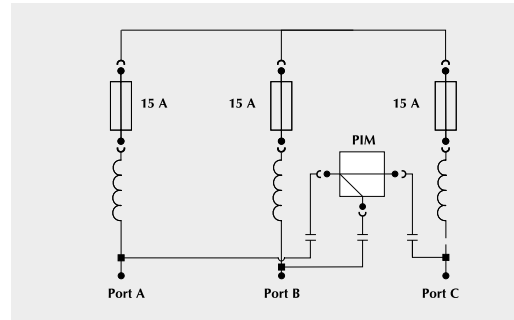
Return loss: 20 dB (47-1006 MHz ± 1.5 dB/oct.)

block diagrams

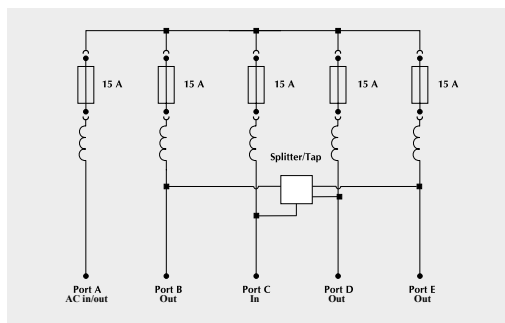
PS3-10 A Fixed



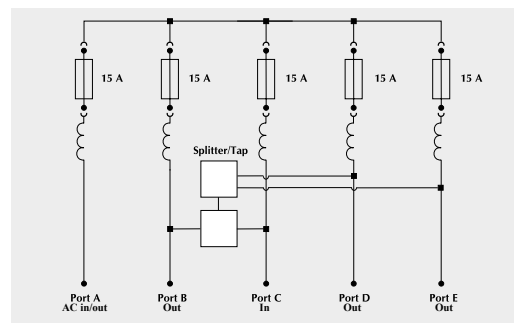
PS3-10 A Flexible



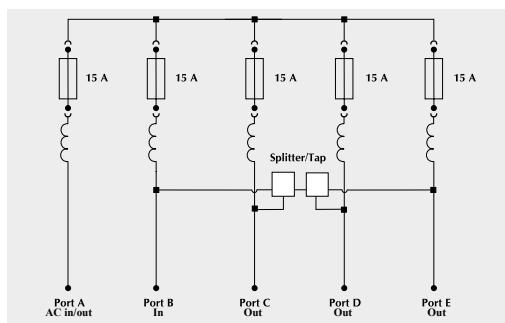
PS 5 - 10 A - 03, three-way splitter



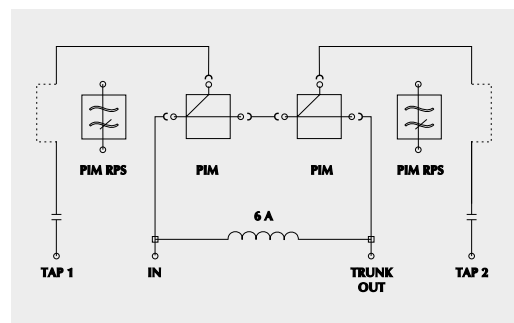
PS 5 - 10 A - 03A, three-way splitter asynchronous



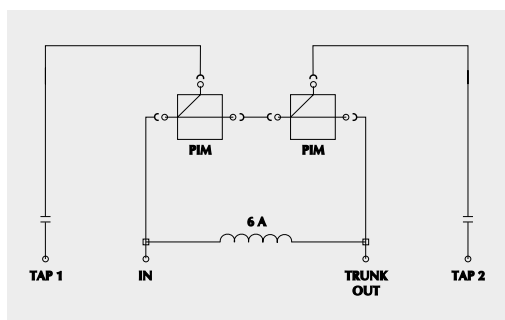
PS 5 - 10 A - 2 - 12, two-way tap



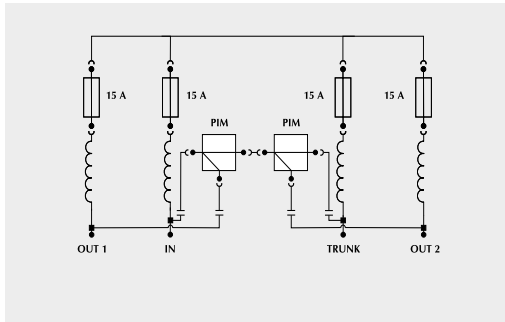
ConFree ACT 2 P2 F2, two-way tap



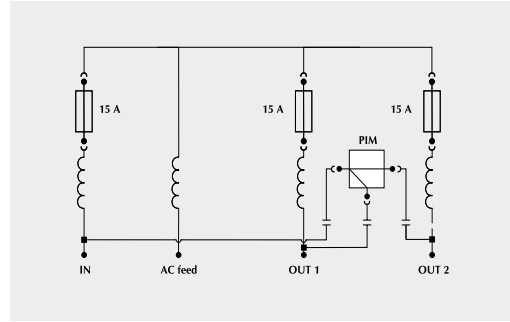
ConFree ACT 2 P2, two-way tap



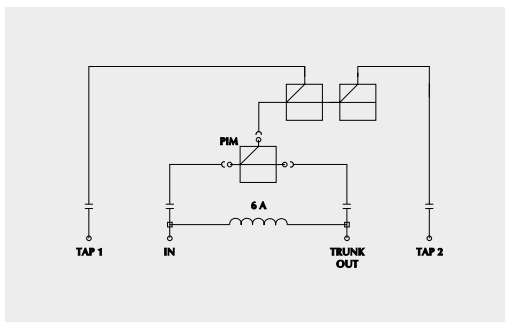
**ConFree ACP4 P2,
three-way splitter**



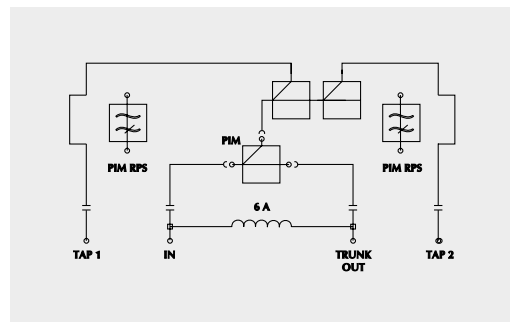
**ConFree ACP3 P1,
two-way splitter**



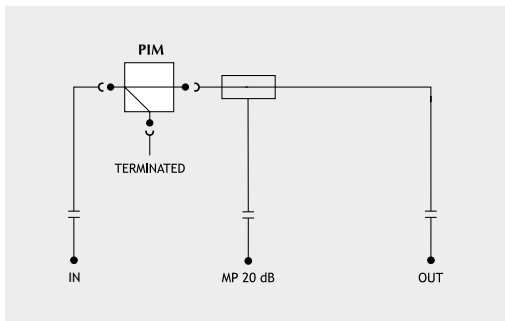
**ConFree ACT 2-10 P1,
two-way tap**



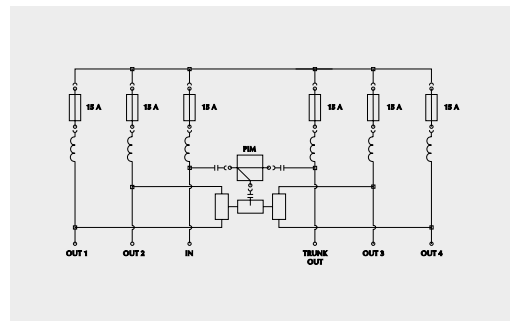
**ConFree ACT 2-10 P1 F2,
two-way tap**



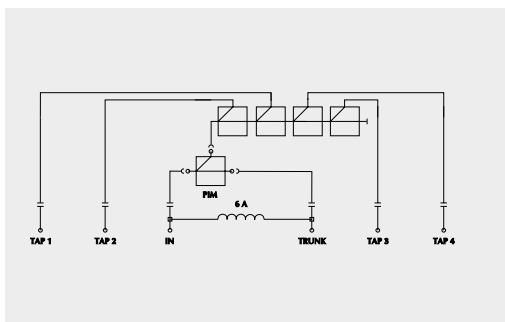
AP20 PSF - Item no 50555



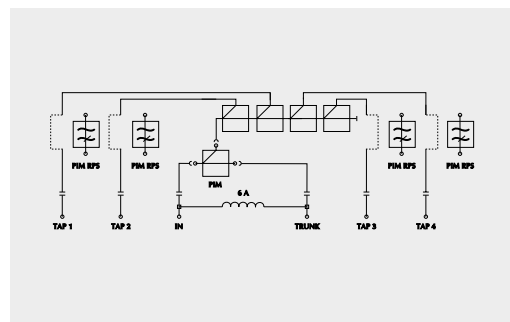
**ConFree ACP6 P1,
four-way tap/splitter**



ConFree ACT 4-12 P1, four-way tap



**ConFree ACT 4-12 P1 F4,
four-way tap**





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