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REPL®

POWER CABLE ACCESSORIES CATALOGUE

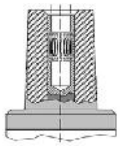
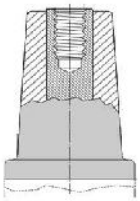
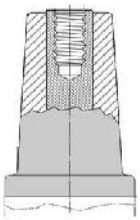


CABLE JOINTING – TERMINATING – SHEATH REPAIR – SEALING – BUSBAR INSULATION – HEAT SHRINK – CABLE BREAKOUTS – CABLE END CAPS – PHASE IDENTIFICATION – CABLE ABANDONMENT – COLD SHRINK – CABLE LOOPS – SEPARABLE CONNECTORS – CABLE GLANDS – PUSH ON PREMOULDED – MASTICS – TUBING – TAPES – SMART ACCESSORIES – JOINTING

REPL range of medium voltage screened outer cone cable termination kits are designed for connecting polymeric insulated cables to equipment with standard bushing profiles according to the standards CENELEC EN 50180 / EN 50181.

RP – Outer Cone Cable Termination Designer for cables 12kV - 42kV

The coding system below allows installer to specify correct outer cone termination based on application and cable type.

Bushing Type (acc. To EN 50180/50181)	Max Current A	Voltage Range kV	Description	Cable Range mm^2	Product Code	Product Code for Branch Connector
A 	250	12 - 24	Screened Elbow Connector	16 - 120	**RPAE**	**N/A**
	250	12 - 24	Screened Straight Connector	16 - 120	**RPAS**	**N/A**
C_1 	630	12 - 24	Screened Compact Asymmetric Connector & Branch Connector	70 - 300	**RPCT-24C**	**RPCBT-24C**
	630	12 - 36	Screened Asymmetric Connector & Branch Connector	70 - 300	**RPCT-36A**	**RPCBT-36A**
C_2 	1250	12 - 42	Screened Asymmetric Connector & Branch Connector	300 - 630	**RPCT-42A**	**RPCBT-42A**

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RPAS



RPAE



RPCBT-24C



RPCT-24C



RPCBT-36A



RPCT-36A



RPCBT-42A



RPCT-42A

RPXX

Outer Cone Cable Terminations for 1/3 core cables from 12kV to 42kV

REPL range of RP Outer Cone Terminations are suitable for installations on medium voltage cables with polymeric insulation up to 42kV. The termination is a fully screened version suitable for connection to equipment which has bushing profiles according to the CENELEC standard EN 50180/50181.

The EPDM moulded body has an outer conductive layer which is connected to the system earth. The inner layer has a Faraday Cage around the conductor lug.

A range of cable adaptors which are parked over the end of the cable screen provide the field control at the end of the insulation screen.

The range has connectors suitable for the following bushings:

- Interface A (250A spring contact pin)
- Interface C1 (630A M16 bolted contact)
- Interface C2 (1250A M16 bolted contact)

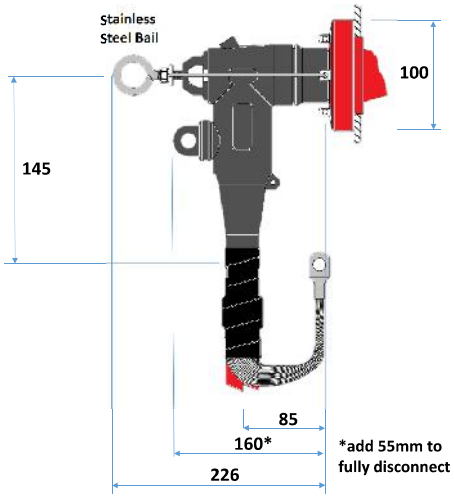
Technical Details for RP Outer Cone Cable Termination System

Voltage Class:	12kV	17.5kV	24kV	36kV	42kV
Cross Section Range (mm^2)	16 - 630	16 - 630	16 - 630	70 - 630	70 - 630
Cable Insulation Diameter (mm)	15 - 46	17 - 48	18 - 50	24 - 55	25 - 56
Voltage Rating U_0/U (U_m) kV	6.35/11 (12)	8.7/15 (17.5)	12.7/22 (24)	19/33 (36)	20.8/35 (42)
Basic Impulse Level (BIL) kV	95	95	125	194	200
Partial Discharge at $1.73U^0$ (pC)	<10	<10	<10	<10	<10
AC Voltage Withstand , 1 min (kV)	>25.5	>35	>51	>76	>83
AC Voltage Withstand , 5 min (kV)	>28.5	>39	>57	>85.5	>93.5
DC Voltage Withstand , 15min (kV)	>38	>52	>76	>114	>125

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Screened Elbow 250A up to 24kV Interface A

RPAE



All dimensions in mm

Suitable for connecting all types of polymeric insulated cables to equipment with bushings Type A according to EN 50180 and EN 50181.

- For Voltage Range up to 12/20 (24)kV
- Impulse Voltage 125kV
- Continuous current 250 A (300 A overload for 8 hours)
- Meets the requirements of **IEC 60502-4** and **CENELEC HD 629.1 S2**
- No minimum phase clearance requirements
- Suitable for Copper or Aluminium Conductors from 25-120mm^2
- Conductor connection by bimetallic compression type lug or mechanical lug
- EPDM moulded body with semi-conductive outer layer
- Built-in capacitive test point to determine the circuit status
- Easy to install with comprehensive instructions included in each kit
- Each connector body is factory tested for partial discharge and AC withstand to ensure 100% reliability
- Unlimited shelf life at normal storage temperatures

Standard Kit Contents:

- Set of 3 separable elbow connector bodies
- Set of 3 cable lugs and connecting pin
- Set of 3 stainless steel wire retaining bails
- Earthing connections and mastic sealants
- Installation materials and instructions

RPAE – Selection Table using bimetallic compression lug

Cable Insulation Diameter Range Ø mm	Body Code	Adaptor Code A	Cable Cross Section mm^2	Bimetallic Compression Lug Code L
13.5 - 17.4	RPAE - B	Not needed	25	CDE250-025U
16.3 - 20.8	RPAE - D	Not needed	35	CDE250-035U
19.6 - 24.1	RPAE - F	Not needed	50	CDE250-050U
23.1 - 28.7	RPAE - H	Not needed	70	CDE250-070U
27.9 - 33.5	RPAE - J	Not needed	95	CDE250-095U
			120	CDE250-120U

RPAE – Selection Table using mechanical lug

Cable Insulation Diameter Range Ø mm	Body Code	Adaptor Code A	Cable Cross Section mm^2	Mechanical Lug Code L
16.3 - 20.8	RPAE – J	D	25 - 50	RMVL-A250 25-50
19.6 - 24.1	RPAE – J	F		
23.1 - 28.7	RPAE – H	Not needed	70 - 120	RMVL-A250 70-120
27.9 - 33.5	RPAE - J	Not needed		

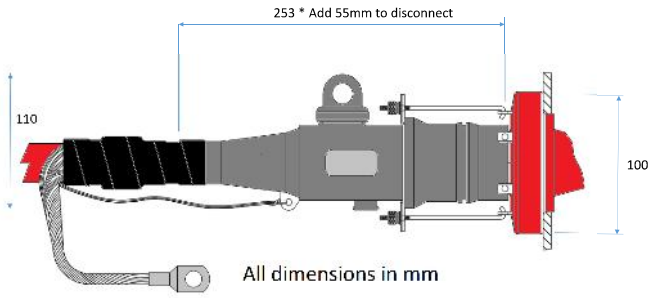
How to select correct connector for cable size:
1/Select Body code according to the cable insulation diameter range in tables above
2/Select Adaptor Code (if needed) to the cable insulation diameter range in table above
3/Select the Mechanical Lug or Bimetallic compression lug to suit cable conductor cross section according to the tables above :

Full Product Code = Body Code/ Adaptor Code/ Lug Code **e.g.** RPAE-J/D/RMVL-A250 25-50

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Screened Straight Connector 250A up to 24kV Interface A

RPAS



Suitable for connecting all types of polymeric insulated cables to equipment with bushings Type A according to EN 50180 and EN 50181.

- For Voltage Range up to 12/20 (24)kV
- Impulse Voltage 125kV
- Continuous current 250 A (300 A overload for 8 hours)
- Meets the requirements of **IEC 60502-4** and **CENELEC HD 629.1 S2**
- No minimum phase clearance requirements
- Suitable for Copper or Aluminium Conductors from 25-120mm^2
- Conductor connection by bimetallic compression type lug or mechanical lug
- EPDM moulded body with semi-conductive outer layer
- Built-in capacitive test point to determine the circuit status
- Easy to install with comprehensive instructions included in each kit
- Each connector body is factory tested for partial discharge and AC withstand to ensure 100% reliability
- Unlimited shelf life at normal storage temperatures

Standard Kit Contents:

- Set of 3 separable straight connector bodies
- Set of 3 cable lugs and connecting pin
- Set of 3 stainless steel wire retaining bails
- Earthing connections and mastic sealants
- Installation materials and instructions

RPAS – Selection Table using bimetallic compression lug

Cable Insulation diameter range Ø mm	Body Code	Adaptor Code A	Cable Cross Section mm^2	Bimetallic Compression Lug Code L
13.5 - 17.4	RPAS - B	Not needed	25	CDS250-025U
16.3 - 20.8	RPAS - D	Not needed	35	CDS250-035U
19.6 - 24.1	RPAS - F	Not needed	50	CDS250-050U
23.1 - 28.7	RPAS - H	Not needed	70	CDS250-070U
27.9 - 33.5	RPAS - J	Not needed	95	CDS250-095U
			120	CDS250-120U

RPAS – Selection Table using mechanical lug

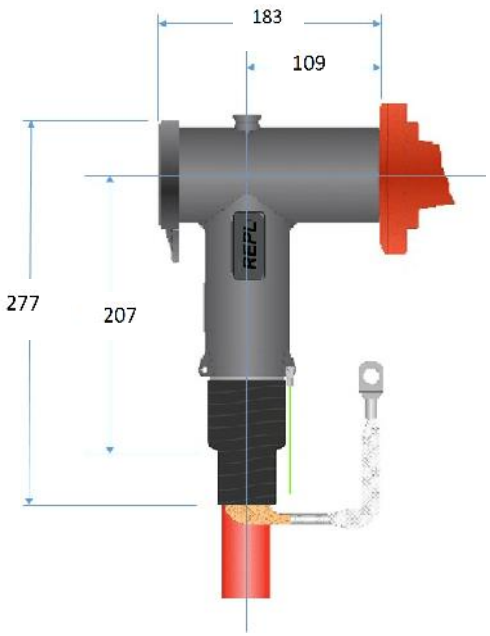
Cable Insulation diameter Range Ø mm	Body Code	Adaptor Code	Cable Cross Section mm^2	Mechanical Lug Code
16.3 - 20.8	RPAS - J	D	25 - 50	RMVL-A250S 25-50
19.6 - 24.1	RPAS - J	F		
23.1 - 28.7	RPAS -H	Not needed	70 - 120	RMVL-A250S 70-120
27.9 - 33.5	RPAS - J	Not needed		

How to select correct connector for cable size:
1/Select Body code according to the cable insulation diameter range in tables above
2/Select Adaptor Code (if needed) to the cable insulation diameter range in table above
3/Select the Mechanical Lug or Bimetallic compression lug to suit cable conductor cross section according to the tables above

Full Product Code = Body Code/ Adaptor Code/ Lug Code **e.g. RPAS-J/D/RMVL-A250S 25-50**

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Screened Asymmetrical Compact Connector 630A up to 24kV Interface C1



RPCT-24C

- For Voltage Range up to 12/20 (24)kV
- Continuous current 630 A (900 A overload for 8 hours)
- Conforms to **HD 629.1 S2 and IEC60502-4**
- No minimum phase clearance requirements
- Compact design – asymmetrical body allows minimum depth of connection – especially when multiple connections are used
- Mounting can be vertical, horizontal, or any angle in between
- Suitable for Copper or Aluminium Conductors from 70-300mm^2
- Integrated mechanical screw type lug
- EPDM moulded body with conductive outer layer
- Easy to install with comprehensive instructions included in each kit
- Each connector body is factory tested for partial discharge and AC withstand to ensure 100% reliability

Standard Kit Contents:

- Set of 3 separable connector bodies and insulating back plug
- Set of 3 silicon stress control elements
- Set of 3 mechanical type lug and connecting stud
- Earthing connections and mastic sealants
- Installation materials and instructions

Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCT 24C	16.3 - 19.3	A
	18.3 - 21.0	B
	20 - 24.1	C
	23.1 - 27	D
	25.6 - 29	E
	27.7 - 32.6	F
	30.9 - 36.2	G
	34 - 39.5	H

Cable Cross Section mm^2	Mechanical Lug code
70	RMVL-C 70-95/29
95	
120	RMVL-C 95-150/29
150	
185	RMVL-C 150-240/29
240	RMVL-C 240-300/29
300	

Full Product Code = Body Code/ Adaptor Code/ Lug Code:

e.g. ***RPCT 24C/D/RMVL-C 95-150/29*** *(kits are normally sets of 3 phases)*

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Screened Asymmetrical Compact Connector 630A up to 24kV Interface C1

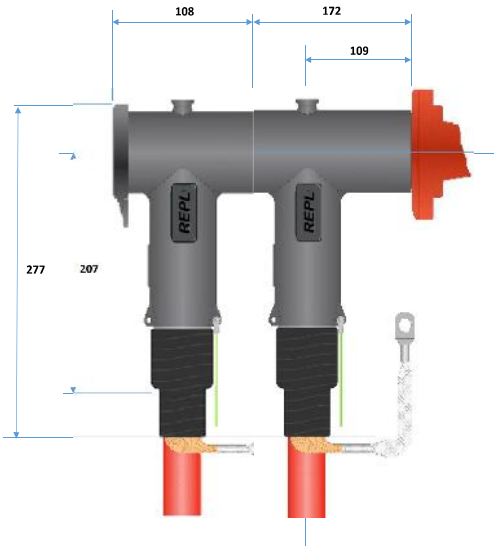
RPCBT-24C

Standard Kit Contents:

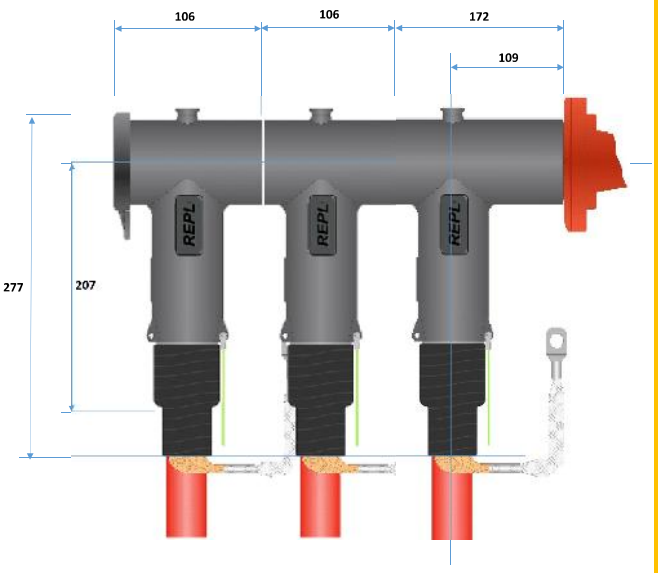
- Set of 3 separable branch connector bodies
- Set of 3 silicon stress control elements
- Set of 3 screw type lug and extension stud
- Earthing connections and mastic sealant
- Installation materials and instructions

Use in combination with RPCT-24C for parallel connection of up to 3 cables to one Type C1 bushing

- For Voltage Range up to 12/20 (24)kV
- Continuous current 630 A
- Conforms to **HD 629.1 S2 and IEC60502-4**



1 X RPCBT-24C installed in back of RPCT-24C



2 X RPCBT-24C installed in back of RPCT-24C

Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCBT 24C	16.3 - 19.3	A
	18.3 - 21.0	B
	20 - 24.1	C
	23.1 - 27	D
	25.6 - 29	E
	27.7 - 32.6	F
	30.9 - 36.2	G
	34 - 39.5	H

Cable Cross Section mm^2	Mechanical Lug Code
70	RMVL-C 70-95/29
95	
120	RMVL-C 95-150/29
150	
185	RMVL-C 150-240/29
240	RMVL-C 240-300/29
300	

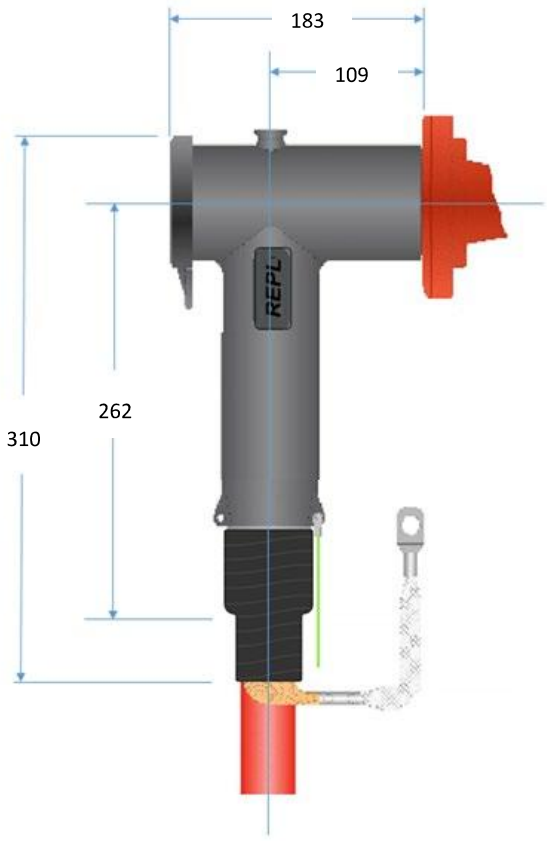
Full Product Code = Body Code/ Adaptor Code/ Lug Code:

e.g. ***RPCBT 24C/D/RMVL-C 95-150/29***

(kits are normally sets of 3 phases) The RPCBT-24C can only be used in conjunction with a RPCT-24C connector

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Screened Asymmetrical Compact Connector 630A up to 36kV Interface C1



Suitable for connecting all types of polymeric insulated cables to equipment with bushings Type C1 according to EN 50180 and EN 50181.

- For Voltage Range up to 19/33 (36)kV
- Continuous current 630 A (900 A overload for 8 hours)
- Conforms to **HD 629.1 S2 and IEC60502-4**
- No minimum phase clearance requirements
- Compact design – asymmetrical body allows minimum depth of connection – especially when multiple connections are used
- Mounting can be vertical, horizontal, or any angle in between
- Suitable for Copper or Aluminium Conductors from 70-300mm^2
- Integrated mechanical screw type lug
- EPDM moulded body with semi-conductive outer layer
- Easy to install with comprehensive instructions included in each kit
- Each connector body is factory tested for partial discharge and AC withstand to ensure 100% reliability

Standard Kit Contents:

- Set of 3 separable connector bodies and insulating back plug
- Set of 3 silicon stress control elements
- Set of 3 mechanical type lug and connecting stud
- Earthing connections and mastic sealants
- Installation materials and instructions

Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCT 36A	16.3 - 19.3	A
	18.3 - 21.0	B
	20 - 24.1	C
	23.1 - 27	D
	25.6 - 29	E
	27.7 - 32.6	F
	30.9 - 36.2	G
	34 - 39.5	H

Cable Cross Section mm^2	Mechanical Lug Code
70	RMVL-C 70-95/35
95	
120	RMVL-C 120-300/35
150	
185	
240	
300	

Full Product Code = Body Code/ Adaptor Code/ Lug Code:

e.g. ***RPCT 36A/F/RMVL-C 120-300/35*** *(kits are normally sets of 3 phases)*

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Screened Asymmetrical Compact Connector 630A up to 36kV Interface C1

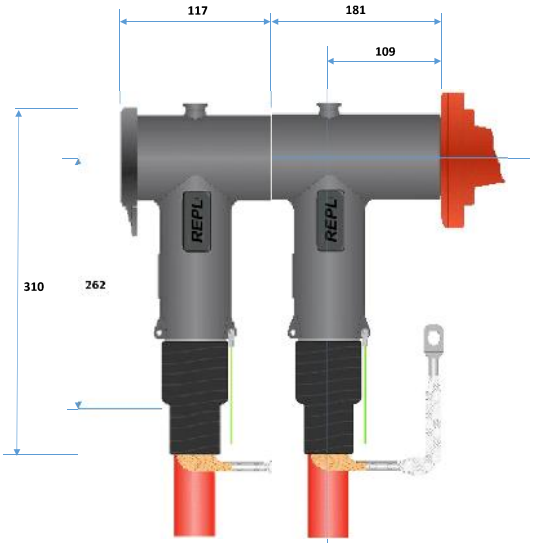
RPCT-36A

Standard Kit Contents:

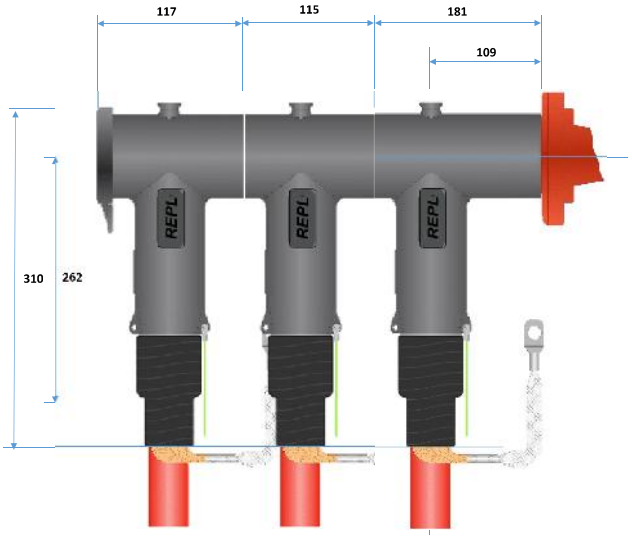
- Set of 3 separable branch connector bodies
- Set of 3 Silicon Stress Control Elements
- Set of 3 screw type lug and extension stud
- Earthing connections and mastic sealant
- Installation materials and instructions

Use in combination with RPCT-36A for parallel connection of up to 3 cables to one Type C1 bushing

- For Voltage Range up to 19/33 (36)kV
- Continuous current 630 A
- Conforms to **HD 629.1 S2 and IEC60502-4**



1 X RPCBT-36A installed in back of RPCT-36A



2 X RPCBT-36A installed in back of RPCT-36A

Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCBT 36A	16.3 - 19.3	A
	18.3 - 21.0	B
	20 - 24.1	C
	23.1 - 27	D
	25.6 - 29	E
	27.7 - 32.6	F
	30.9 - 36.2	G
	34 - 39.5	H

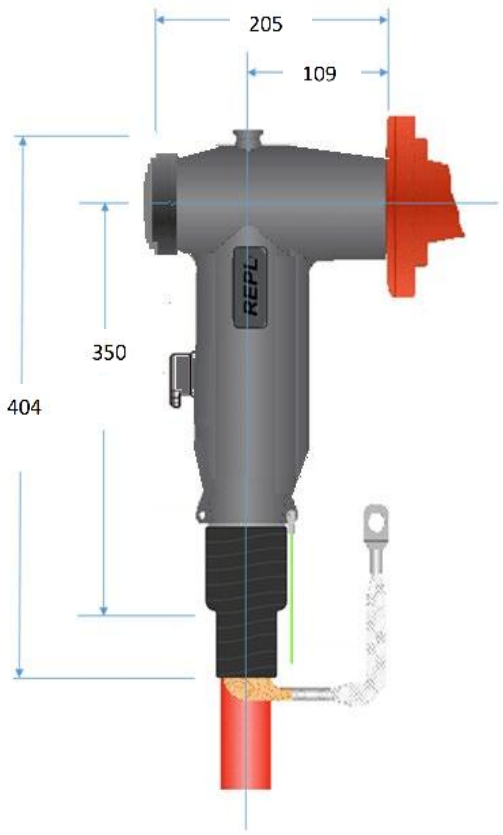
Cable Cross Section mm^2	Mechanical Lug Code
70	RMVL-C 70-95/35
95	
120	RMVL-C 120-300/35
150	
185	
240	
300	

Full Product Code = Body Code/ Adaptor Code/ Lug Code:
e.g. RPCBT 36A/F/RMVL-C 120-300/35 (Kits are normally sets of 3 phases) The RPCBT-36A can only be used in conjunction with a RPCT-36A connector

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Screened Asymmetrical Compact Connector 1250A up to 42kV Interface C2

RPCT-42A



Suitable for connecting all types of polymeric insulated cables to equipment with bushings Type C2 according to EN 50180 and EN 50181.

1. For Voltage Range up to 20.8/36 (42)kV
2. Continuous current 1250 A
3. Conforms to **HD 629.1 S2 and IEC60502-4**
4. No minimum phase clearance requirements
5. Compact design – asymmetrical body allows minimum depth of connection – especially when multiple connections are used
6. Mounting can be vertical, horizontal, or any angle in between
7. Suitable for Copper or Aluminium Conductors from 300-630mm^2
8. Integrated mechanical screw type lug
9. EPDM moulded body with semi-conductive outer layer
10. Easy to install with comprehensive instructions included in each kit
11. Each connector body is factory tested for partial discharge and AC withstand to ensure 100% reliability

Standard Kit Contents:

- Set of 3 separable connector bodies and insulating back plug
- Set of 3 Silicon Stress Control Elements
- Set of 3 mechanical type lug and connecting stud
- Earthing connections and mastic sealants
- Installation materials and instructions

Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCT 42A	28.2 - 32.3	A
	31.1 - 35.7	B
	35.0 - 39.1	C
	37.2 - 41.6	D
	40.1 - 44.8	E
	42.9 - 47.9	F
	46.5 - 51.9	G
	50.0 - 56.0	H

Cable Cross Section mm^2	Mechanical Lug Code
300	RMVL-C 300-630/35
400	
500	
630	

Full Product Code = Body Code/ Adaptor Code/ Lug Code:

e.g. RPCT 42A/F/RMVL-C 300-630/35 (kits are normally sets of 3 phases) The RPCBT-36A can only be used in conjunction with a RPCT-36A connector

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Screened Asymmetrical Branch Connector 1250A up to 42kV Interface C2

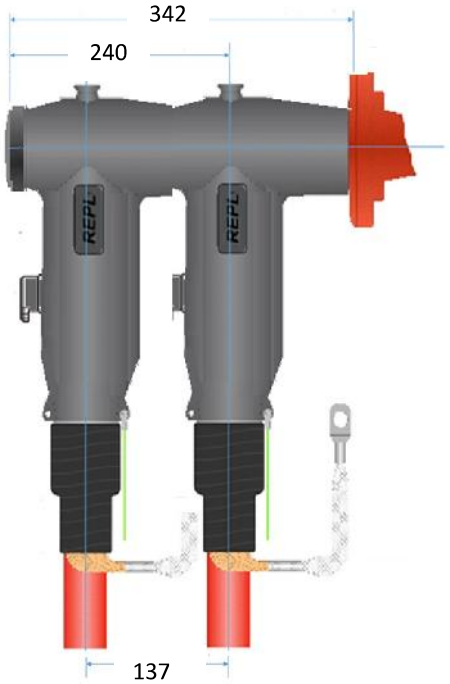
RPCBT-42A

Standard Kit Contents:

- Set of 3 separable branch connector bodies
- Set of 3 Silicon Stress Control Elements
- Set of 3 screw type lug and extension stud
- Earthing connections and mastic sealant
- Installation materials and instructions

Use in combination with RPCT-42A for parallel connection of 2 cables to one Type C2 bushing

- For Voltage Range up to 20.8/36 (42)kV
- Continuous current 1250 A
- Conforms to **HD 629.1 S2 and IEC60502-4**



Body Code	Insulation Diameter Range Ø mm	Adaptor Code
RPCBT 42A	28.2 - 32.3	A
	31.1 - 35.7	B
	35.0 - 39.1	C
	37.2 - 41.6	D
	40.1 - 44.8	E
	42.9 - 47.9	F
	46.5 - 51.9	G
	50.0 - 56.0	H

Cable Cross Section mm²	Mechanical Lug Code
300	RMVL-C 300-630/35
400	
500	
630	

Full Product Code = Body Code/ Adaptor Code/ Lug Code:

e.g. ***RPCBT 42A/F/RMVL-C 300-630/35*** *(Kits are normally sets of 3 phases) The RPCBT-42A can only be used in conjunction with a RPCT-42A connector*

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