

## Cut Out Range

The Charles Endirect range of cut outs has been designed for strength, durability, ease of installation and to meet the full requirements of BS 7654. The range features a secure and quick release carrier to provide safe and easy access to fuses and outgoing terminals.

Three sizes are available – miniature HLX25, standard FD150 and universal FD200, all of which are double pole with the FD200 series having capacity for 2 fuses with a 3 phase option. All of these cut outs accept fuses to IEC269-1 and BS88 pt 1 – AC19 Tag Type (LST).



**FD200**



**FD150**



**HLX25**

## Extension Boxes, Terminals and Glandplates

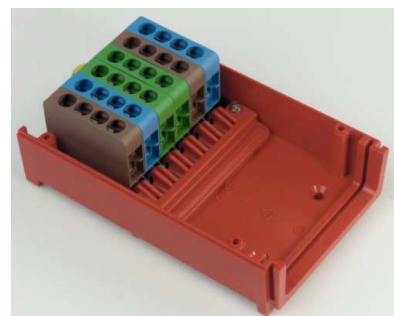
For SWA cables up to 25mm<sup>2</sup> (35mm<sup>2</sup> circular), the CEL range of extension boxes provide versatility, ease of termination and quick installation. Designed for strength with moulded DIN rails and terminal clamps the boxes fit onto the cut outs and accept a range of gland plates – plastic plates for use with CETs, brass plates with holes to accept compression glands and brass plates fitted with ferrules. Manufactured from brass, the live, neutral and earth terminals are fully insulated.



**X0 with brass plate  
with BW**



**X3/H6 with brass  
plate with BW20**



**Terminal Rack  
(TR..)**

## GLAND PLATES AND EXTENSION BOXES

Isolator Enclosure	Gland Plates	Extension Boxes and Their Gland Plates
HLX25	n/a	X6 - accepts A, B and C Gland Plates
FD150	V* = Plastic	X0A - accepts X1, X2, X3 and D, E and F Gland Plates
	W* = Brass Holes	
	Y* = Brass Ferrules	
FD200	K* = Plastic	X0 - accepts X1, X2, X3 and D, E and F Gland Plates X4 - accepts K, M and P Gland Plates
	M* = Brass Holes	
	P* = Brass Ferrules	

\* Digit to denote number and size of holes/ferrules

### Termination Racks

There is a wide range of terminal block arrangements in the extension boxes to facilitate the termination and looping of larger cables. These are Termination Racks (.../TR../...).

### Selection Chart for Standard Types of Cut Outs

Guide to using the chart in following pages:

To identify required product :

1. Select incoming cable size in first column, e.g. 4mm, 3C SWA
2. Select incoming cable configuration in second column, e.g. single looped
3. Select number of outgoing fused circuits, e.g. 1 upward circuit
4. Select gland option, e.g. BW glands

In the example above (4.0mm 3C incoming looped with 1 upward fused circuit with compression glands), the required unit is FD150/W3.)

### Cut Out Dimensions:

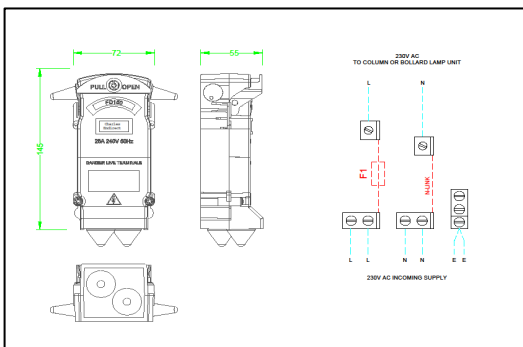
mm	HLX25	FD150	FD200
H	85	150	150
W	58	69	87
D	62	56	63

### Extension Box Dimensions:

mm	X0	X0A	X1	X2	X3	X4	X5	X6	X7	X8	X9
H	36	40	65	144	144	100	65	95	144	144	36
W	96	96	96	96	96	79	96	57	96	96	96
D	69	69	69	69	99	57	99	57	69	99	99

## Cut Out Selection Chart for Electricity Board Supply

Incoming Cable Size	Incoming Cable 2 x Double Insulated Tails	Out Going Fused Circuits	Glands	Cut Out Order Reference		
				FD200	FD150	HLX25
2.5mm 6.0mm	DI Tails x 2	1 x Up		FD211/K3	FD150/V3	HLX25 (no earth)
2.5mm 6.0mm	DI Tails x 2	2 x Up		FD221/K3		
2.5mm 6.0mm	DI Tails + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	FD231/TR13/E3		
			Ferrules	FD231/TR13/F12		



FD150/V3



FD150/V3

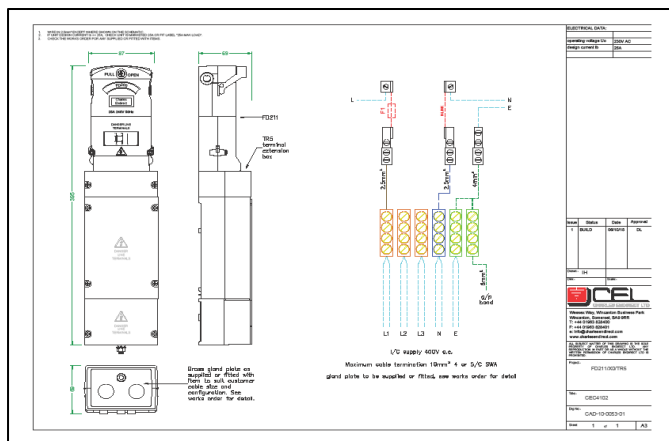


HLX25/TR1A/B1

## Cut Out Selection Chart for Private Supply Network

Incoming Cable Size	Incoming Cable Configuration	Out Going Fused Circuits	Glands	Cut Out Order Reference		
				FD200	FD150	HLX25
2.5mm. 4.0mm. 3C.	Single	1 x Up	BW/CW20		FD150/W3	HLX25/TR1A/B1
			Ferrules		FD150/Y3	HLX25/TR1A/C2
			CET		FD150/V3	HLX25/TR1A/A1
2.5mm. 4.0mm. 3C.	Single or Two Looped	1 x Up	BW/CW20		FD150/W3	
			Ferrules		FD150/Y3	
			CET		FD150/V3	
2.5mm. 4.0mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW20	FD211/X0/E6		
			Ferrules	FD211/X0/F6		
			CET	FD211/X0/D6		
2.5mm. 4.0mm. 3C.	Single or Two Looped	2 x Up	BW/CW20	FD221/M3		
			Ferrules	FD221/P4		
			CET	FD221/K3		
2.5mm. 4.0mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW20	FD221/X0/E6		
			Ferrules	FD221/X0/F6		
			CET	FD221/X0/D6		

Incoming Cable Size	Incoming Cable Configuration	Out Going Fused Circuits	Glands	Cut Out Order Reference		
				FD200	FD150	HLX25
6.00mm. 3C.	Single	1 x Up	BW/CW20		FD150/W3	HLX25/TR1A/B1
			Ferrules		FD150/Y3	HLX25/TR1A/C2
			CET		FD150/V3	HLX25/TR1A/A1
6.00mm. 3C.	Single	2 x Up	BW/CW20	FD221/M3		
			Ferrules	FD221/P4		
			CET	FD221/K3		
6.00mm. 3C.	Single or Two Looped	1 X Up	BW/CW20		FD150/W3	
			Ferrules		FD150/Y3	HLX25/TR1A/C3
			CET		FD150/V3	
6.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW20	FD211/X0/E6		
			Ferrules	FD211/X0/F6		
			CET	FD211/X0/D6		
6.00mm. 3C.	Single or Two Looped	2 x Up	BW/CW20	FD221/M3		
			Ferrules	FD221/P4		
			CET	FD221/K3		
6.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW20	FD221/X0/E6		
			Ferrules	FD221/X0/F6		
			CET	FD221/X0/D6		
6.00mm. 3C.	Single + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	FD231/TR13/E3		
			Ferrules	FD231/TR13/F4		
			CET	FD231/TR13/D3		
6.00mm. 3C.	Single or Looped + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	FD231/TR13/E6		
			Ferrules	FD231/TR13/F6		
			CET	FD231/TR13/D6		
6.00mm. 4C.(TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW20	FD211TP/TR14/E3		
			Ferrules	FD211TP/TR14/F4		
			CET	FD211TP/TR14/D3		



FD211/X0/TR5

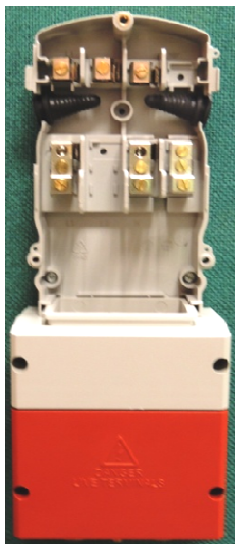


FD211/K3

Incoming Cable Size	Incoming Cable Configuration	Out Going Fused Circuits	Glands	Cut Out Order Reference		
				FD200	FD150	HLX25
10.00mm. 3C.	Single	1 x Up	BW/CW20		FD150/W3	
			Ferrules		FD150/Y3	HLX25/TR1A/C2
			CET		FD150/V3	
10.00mm. 3C.	Single	2 x Up	BW/CW20	FD221/M3		
			Ferrules	FD221/P4		
			CET	FD221/K3		
10.00mm. 3C.	Single or Two Looped	1 x Up	BW/CW20		FD150/W3	
			Ferrules		FD150/Y3	HLX25/TR1A/C3
			CET		FD150/V3	
10.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW20	FD211/X0/TR8A/E6		
			Ferrules	FD211/X0/TR8A/F6		
			CET	FD211/X0/TR8A/D6		
10.00mm. 3C.	Single or Two Looped	2 x Up	BW/CW20	FD221/M3		
			Ferrules	FD221/P4		
			CET	FD221/K3		
10.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW20	FD221/X0/TR8A/E6		
			Ferrules	FD221/X0/TR8A/F6		
			CET	FD221/X0/TR8A/D6		
10.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	FD231/TR13/E6		
			Ferrules	FD231/TR13/F6		
			CET	FD231/TR13/D6		
10.00mm. 4C.(TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW20	FD211TP/TR14/M3		
			Ferrules	FD211TP/TR14/P4		
			CET	FD211TP/TR14/K3		
16.00mm. 3C.	Single or Two Looped	1 x Up	BW/CW25	FD211/X01/E4		
			Ferrules	FD211/X4/P4*	LIMITED SPACE OPTION (250x987x63)	
			Ferrules	FD211/X01/F4		
			CET	FD211/X4/K3	LIMITED SPACE OPTION (250x987x63)	
			CET	FD211/X01/D3		
16.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW25	FD211/X0/TR8/H7		
			Ferrules	FD211/X0/TR8/J7		
			CET	FD211/X0/TR8/G6		
16.00mm. 3C.	Single or Two Looped	2 x Up	BW/CW25	FD221/X01/E4		
			Ferrules	FD221/X4/P4*	LIMITED SPACE OPTION (160x92x63)	
			Ferrules	FD221/X01/F4		
			CET	FD221/X4/K3	LIMITED SPACE OPTION (160x92x63)	
			CET	FD221/X01/D3		
16.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW25	FD221/X0/TR8/H7		
			Ferrules	FD221/X0/TR8/J7		
			CET	FD221/X0/TRE8/G7		
16.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW25	FD231/TR16/H8		
			Ferrules	FD231/TR16/J7		
			CET	FD231/TR13/D6		
16.00mm. 4C.(TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW25	FD211TP/TR13/E4		
			Ferrules	FD211TP/TR13/F4		
			CET	FD211TP/TR13/D4		

Incoming Cable Size	Incoming Cable Configuration	Out Going Fused Circuits	Glands	Cut Out Order Reference		
				FD200	FD150	HLX25
25.00mm. 3C.	Single or Two Looped	1 x Up	BW/CW25	FD211/X01/E4		
			Ferrules	FD211/X01/F4		
			CET	FD211/X01/D4		
25.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW25	FD211/TR8/H7		
			Ferrules	FD211/TR8/J7		
			CET	FD211/TR8/G7		
25.00mm. 3C.	Single or Two Looped	2 x Up	BW/CW25	FD221/X01/E4		
			Ferrules	FD221/X01/F4		
			CET	FD221/X01/D4		
25.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW25	FD221/X0/TR8/H7		
			Ferrules	FD221/X0TR8/J7		
			CET	FD221/X0/TR8/G7		
25.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW25	FD231/TR16/H8		
			Ferrules	FD231/TR16/J7		
			CET	FD231/TR16/G8		
25.00mm. 4C.(TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW32	FD211TP/TR16/H27		
			Ferrules	FD211TP/TR13/F23		
			CET	FD211TP/TR13/D4		

For applications to suit 35mm cables please contact CEL Customer Services Team for assistance  
 Tel: 01963 828400 info@charlesendirect.com



FD200/X01

