

# Bustrack (Powertrack) 40A & 63A & 80A



## **Technical Specifications**

#### **BUSTRACK**

Davis Bustrack is designed to comply with IEC 61439-1: 2011 & IEC 61439-6: 2012

#### **CURRENT RATING**

40Amp, 240/415V, 50/60 Hz three-phase 63Amp, 240/415V, 50/60 Hz three-phase 80Amp, 240/415V, 50/60 Hz three-phase

#### **SHORT CIRCUIT RATING**

The short circuit protection is provided by fuselinks Fuse BS 88, 100 Amp Fuse or 100 Amp MCCB.

Prospective current 16kA Mechanical withstand 10kA peak

Thermal withstand 1200A 0.4 seconds

#### **EARTH FAULT LOOP IMPEDANCE**

The IEE wiring regulations require that the total earth loop impedance of any circuit must be low enough to ensure that the protective device will operate within the time specified. The earth fault loop impedance for Davis Bustrack System are as follow:-

Phase Busbar  $1.30 m\Omega/m$ Earth Busbar & Housing  $0.80 \,\mathrm{m}\Omega/\mathrm{m}$ Track Connector  $0.80 \, \text{m} \Omega$ Cable Feed Unit  $0.90 \, m\Omega$ 

32A Tap-Off (4mm<sup>2</sup> x 3m),

Line & Earth  $30.0 \, \text{m}\Omega$ 

#### **CORNER UNITS**

40A 63A 80A 10 Flexible corner cable size (mm<sup>2</sup>) 16 25

Corner unit length 1.3 meters

#### **DEGREE OF PROTECTION**

Bustrack IP 42

#### **VOLTAGE DROP**

Busbar L, N & E 2.6 mV/A/m 0.8 mV/A Track Connector Cable Feed Unit 0.9 mV/A

32A Tap-Off (4mm<sup>2</sup> Cable),

L, N & E 5.4 mV/A/m

#### **EARTH BONDING**

The earth conductor is connected directly to the track housing at both ends of the earth bar.

#### CONSTRUCTION SPECIFICATIONS

Track Housing Galvanized Steel Galvanized Steel Fixing Bracket Cable Feed Unit Galvanized Steel

99.9% high conductivity Copper Busbar

(1.5x10mm)

Insulator Polybutylene terephthalate (PBT)

Tap-Off Polyamide (PA)

Shutter Polybutylene terephthalate (PBT)

Tap-Off Flexible Conduit Galvanized conduit steel

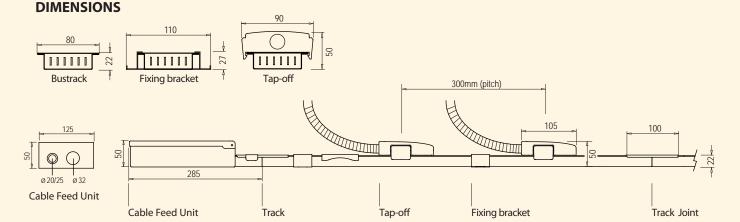
& PVC insulated

#### **TAP-OFF UNITS**

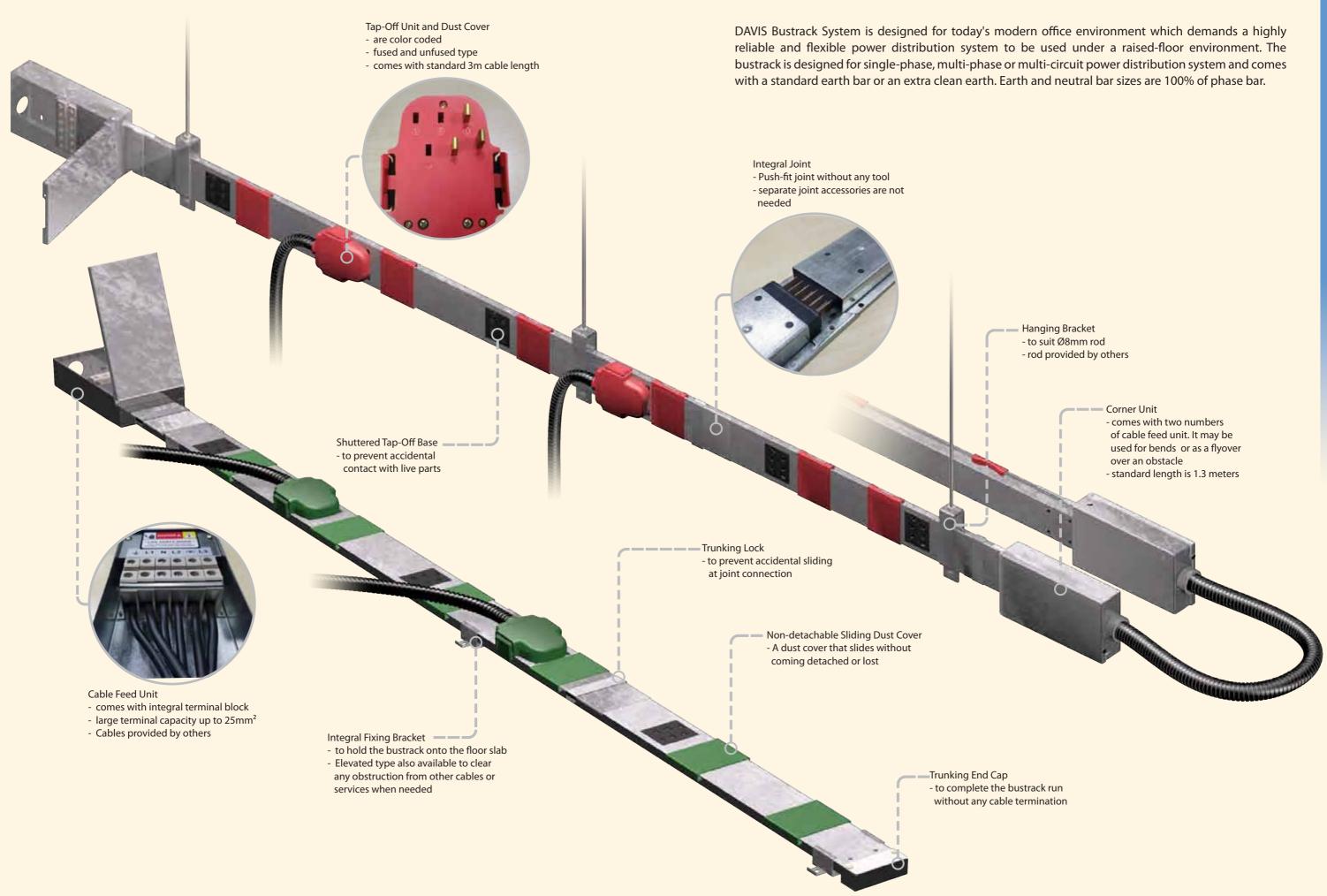
The 32A tap-off unit is normally unfused with 3 metres of 4mm<sup>2</sup> cable in galvanised flexible conduit steel with PVC insulation. 13A fused tap-off units are also available.

#### CABLE CAPACITY OF TERMINALS

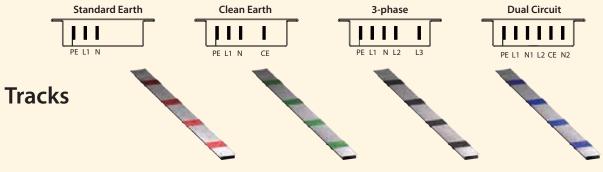
Cable Feed Unit  $25 \text{mm}^2$ 



All dimensions are in millimeters.



DAVIS BUSTRACK is rated at 40A, 63A & 80A single-phase or three-phase with standard tap-offs at intervals of 300mm pitch. The bustrack sockets are fully shuttered and each comes with a dust proof cover and a positive locking device to ensure that the plug is in full electrical contact when pushed in.



Current Rating	Track Length	No. of Tap-offs	3 bars-240V Standard Earth (RED)	4 bars-240V Clean Earth (GREEN)	5 bars-415V 3-phase (BLACK)	6 bars-240V Dual Circuit (BLUE)
40A	0.6m	2	SFBT6-3-40-0.6	SFBT6-4-40-0.6	SFBT6-5-40-0.6	SFBT6-6-40-0.6
40A	1.2m	4	SFBT6-3-40-1.2	SFBT6-4-40-1.2	SFBT6-5-40-1.2	SFBT6-6-40-1.2
40A	2.4m	8	SFBT6-3-40-2.4	SFBT6-4-40-2.4	SFBT6-5-40-2.4	SFBT6-6-40-2.4
63A	0.6m	2	SFBT6-3-63-0.6	SFBT6-4-63-0.6	SFBT6-5-63-0.6	SFBT6-6-63-0.6
63A	1.2m	4	SFBT6-3-63-1.2	SFBT6-4-63-1.2	SFBT6-5-63-1.2	SFBT6-6-63-1.2
63A	2.4m	8	SFBT6-3-63-2.4	SFBT6-4-63-2.4	SFBT6-5-63-2.4	SFBT6-6-63-2.4
80A	0.6m	2	SFBT6-3-80-0.6	SFBT6-4-80-0.6	SFBT6-5-80-0.6	SFBT6-6-80-0.6
80A	1.2m	4	SFBT6-3-80-1.2	SFBT6-4-80-1.2	SFBT6-5-80-1.2	SFBT6-6-80-1.2
80A	2.4m	8	SFBT6-3-80-2.4	SFBT6-4-80-2.4	SFBT6-5-80-2.4	SFBT6-6-80-2.4

<sup>\*</sup>Earth and neutral bar sizes are 100% of phase bar. Tap-off interval is 300mm. Other intervals are also available.

The tap-off unit comprises of a 32A unfused tap-off plug fitted with a 3m length 4mm<sup>2</sup> (Unfused) and 2.5mm<sup>2</sup> (Fused) cable enclosed in a 16mm flexible conduit. Colour coded plugs and dust covers are used to differentiate between standard earth system (Red), clean earth system (Green), normal 3-phase system (Black) and essential (Blue).

## Tap-off Units









Current Rating	Protection	Cable Length	3 pins-240V Standard Earth (RED)	4 pins-240V Clean Earth (GREEN)	5 pins-415V 3-phase (BLACK)	3 pins-240V Essential (BLUE)
32A	Unfused	3m	SFBT6-3-32-TO	SFBT6-4-32-TO	SFBT6-5-32-TO	SFBT6-3-32-TO-E
13A	Fused	3m	SFBT6-3-13-TO-F	SFBT6-4-13-TO-F	SFBT6-5-13-TO-F	SFBT6-3-13-TO-E-F

<sup>\*</sup>Standard cable length is 3 meters. Other lengths are also available.

#### Cable Feed Units

A flexible oversized cable feed unit is designed to ease the termination of cables feeding the bustrack system. Each unit comes with a trunking lock device for additional security.

Turne	Product Code			
туре	40A	63A	80A	
Standard Earth	SFBT6-3-40-FU	SFBT6-3-63-FU	SFBT6-3-80-FU	
Clean Earth	SFBT6-4-40-FU	SFBT6-4-63-FU	SFBT6-4-80-FU	
3-phase	SFBT6-5-40-FU	SFBT6-5-63-FU	SFBT6-5-80-FU	
Dual Circuit	SFBT6-6-40-FU	SFBT6-6-63-FU	SFBT6-6-80-FU	
	Clean Earth 3-phase	Type 40A Standard Earth SFBT6-3-40-FU Clean Earth SFBT6-4-40-FU 3-phase SFBT6-5-40-FU	Type         40A         63A           Standard Earth         SFBT6-3-40-FU         SFBT6-3-63-FU           Clean Earth         SFBT6-4-40-FU         SFBT6-4-63-FU           3-phase         SFBT6-5-40-FU         SFBT6-5-63-FU	

#### **Corner Units**

A corner unit comes with two numbers of cable feed unit. It may be used for bends or as a flyover over an obstacle.

E. s		Pro		
W 11	Type	40A	63A	80A
	Standard Earth	SFBT6-3-40-CU	SFBT6-3-63-CU	SFBT6-3-80-CU
1 1	Clean Earth	SFBT6-4-40-CU	SFBT6-4-63-CU	SFBT6-4-80-CU
	3-phase	SFBT6-5-40-CU	SFBT6-5-63-CU	SFBT6-5-80-CU
	Dual Circuit	SFBT6-6-40-CU	SFBT6-6-63-CU	SFBT6-6-80-CU

<sup>\*</sup>Standard Corner Unit length is 1.3meters.

<sup>\*6</sup> pins tap-off is also available.





SFBT6-TC

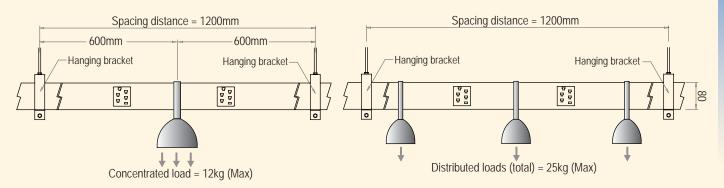
**Other Accessories** 

Product Code	Description
SFBT6-FB	Under the raised floor Fixing bracket (Track length 2.4m = 3nos, 1.2m = 1no, 0.6m = 1no)
SFBT6-TC	Trunking end cap
SFBT6-HB	Hanging bracket

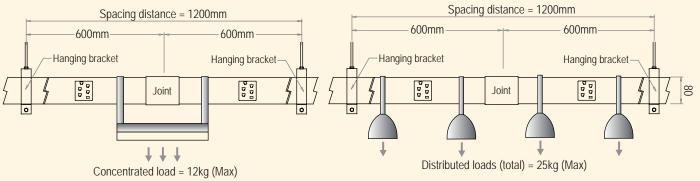
SFBT6-FB

## **Hanging Bracket**

### Case 1: Hanging brackets spacing away from joint



## Case 2: Hanging brackets spacing at joint



#### \*Notes

Load suspensions are for edgewise mounted track only. Load suspensions are not advisable for flatwise mounted track.

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