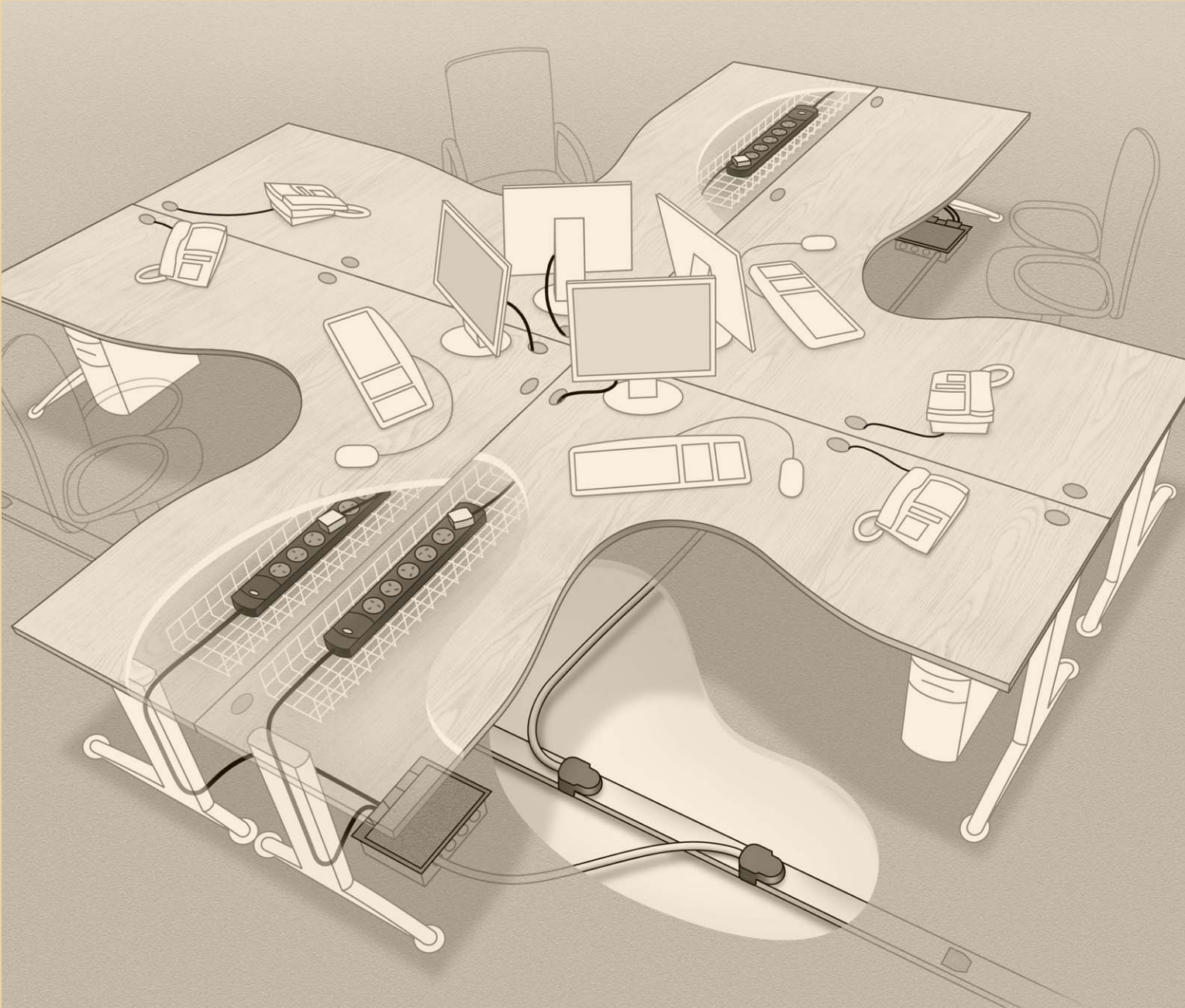


Electrak power track underfloor power distribution systems



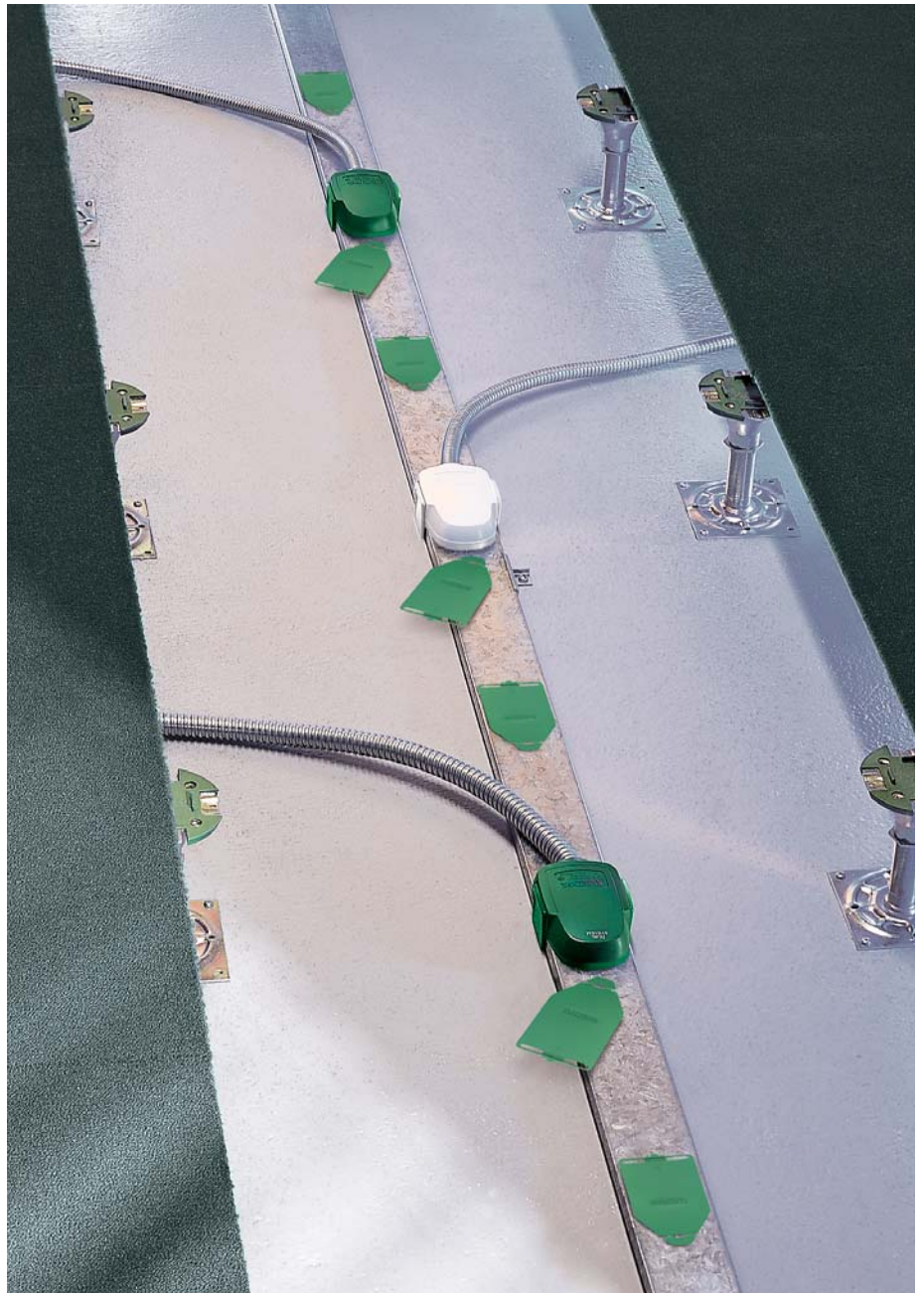
Tel: 01207 503400
Fax: 01207 501799
Email: sales@electrak.co.uk

in this section:

Standard	2P + E
Low Noise	2P + E + CE
Dual	4P + E + CE
3 Phase	4P + E



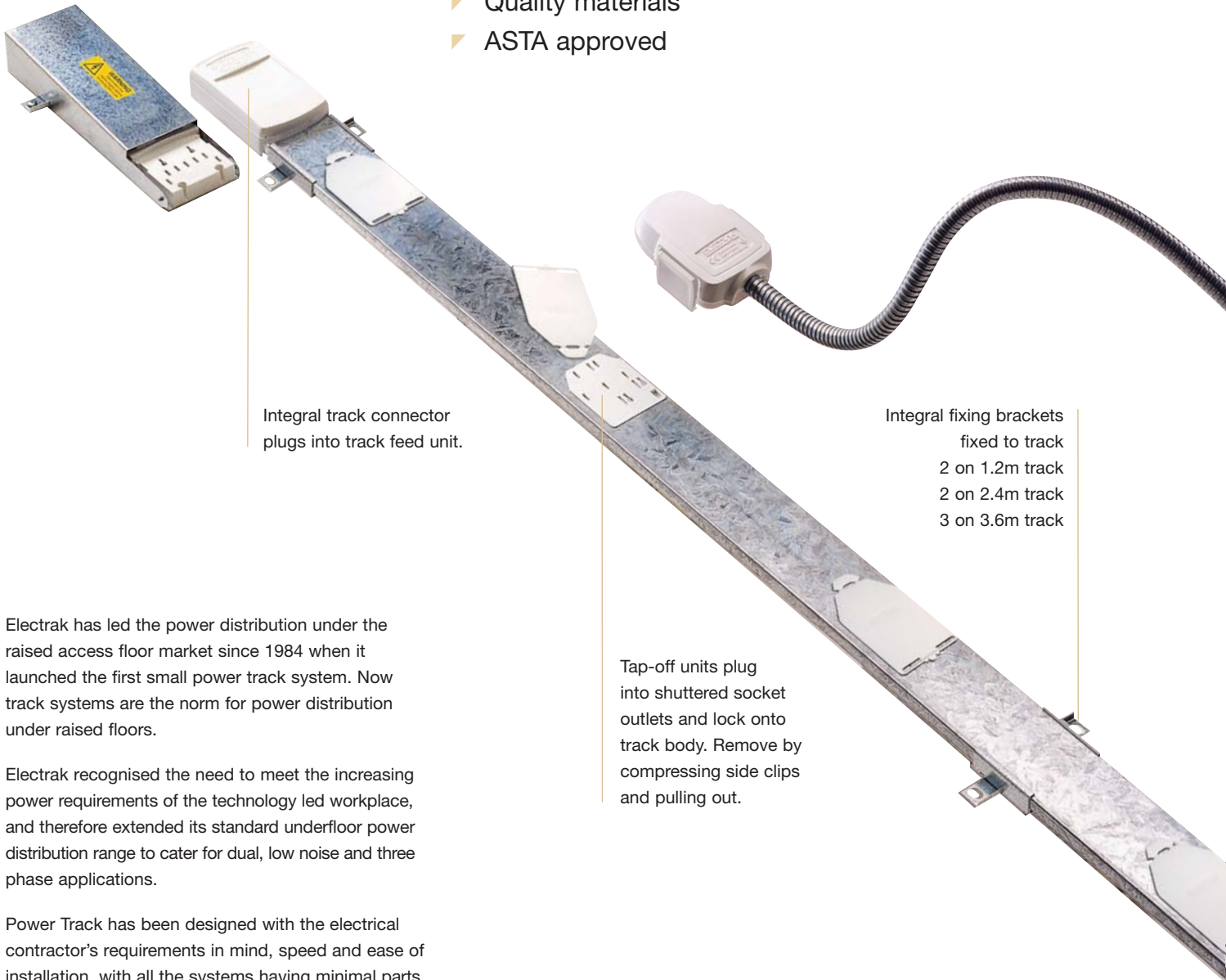
track lengths just
snap fit together



Electrak power track

underfloor power distribution systems

- Fast installation
- Push fit parts
- Covers all applications
- 48mm clearance height
- Quality materials
- ASTA approved



Integral track connector plugs into track feed unit.

Integral fixing brackets fixed to track
 2 on 1.2m track
 2 on 2.4m track
 3 on 3.6m track

Tap-off units plug into shuttered socket outlets and lock onto track body. Remove by compressing side clips and pulling out.

Electrak has led the power distribution under the raised access floor market since 1984 when it launched the first small power track system. Now track systems are the norm for power distribution under raised floors.

Electrak recognised the need to meet the increasing power requirements of the technology led workplace, and therefore extended its standard underfloor power distribution range to cater for dual, low noise and three phase applications.

Power Track has been designed with the electrical contractor's requirements in mind, speed and ease of installation, with all the systems having minimal parts to facilitate rapid push fit assembly. The flexible features of the system also minimise the disruption during future office changes.

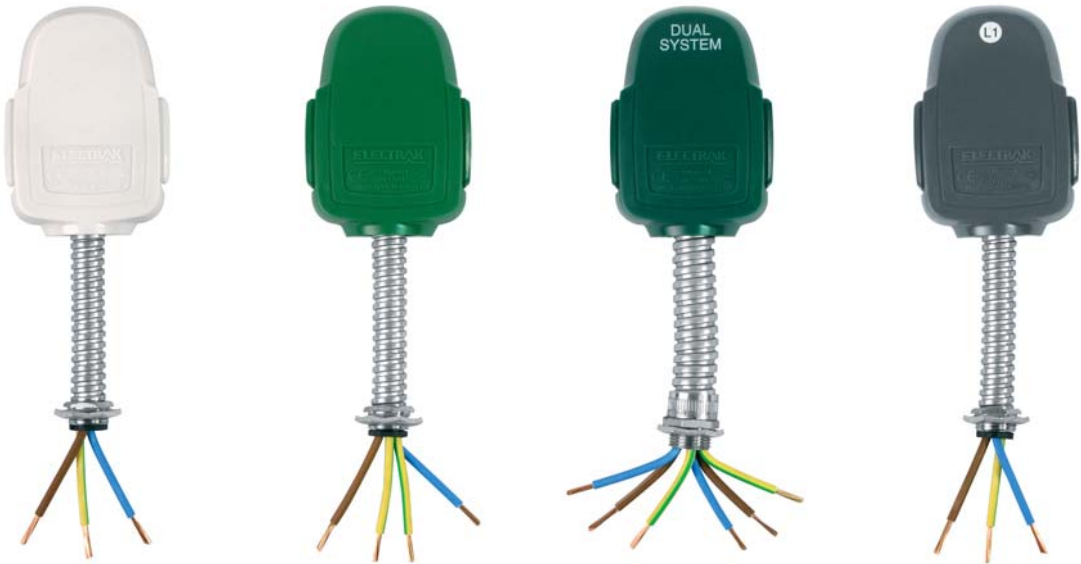
Lengths of track fit together by simply plugging in the integral track connector into the shuttered end of the previous fitted track length (patented).



Diamondmark Approved



Quality Assurance
 ISO 9001 Approved



Standard power track
Low noise power track
Dual power track
3 phase power track

design and installation

Electrak under floor systems consist of continuous lengths of power track, (generally arranged in a parallel format) which are fed from the distribution board via track feed boxes and can be installed in a floor void of only 48mm.

The track feed boxes are provided with one or two 25mm diameter holes to suit MICC, armoured cables or single core in conduit.

The first length of track connects to the track feed by snap fitting the integral track connector into the track feed outlet socket.

Lengths of track fit together by simply snap fitting the track connector which is integral to each length of track into the shuttered end of the previous fitted track length.

Track lengths have integral floor fixing brackets, which should always be used; three on the 3.6m length, two on 2.4m and two on 1.2m.

Access to power is provided along the power track by simply plugging tap-off units into shuttered socket outlets.

These tap-off units feed all types of conventional floor service outlet boxes or directly through the floor to workstations, via 3m x 4mm² insulated conductors contained in 2.8 metres of flexible metal or VO rated nylon conduit.

The dual power track system has both standard and low noise systems incorporated.

As well as dual tap-offs both standard and low noise tap offs can be plugged into any socket outlet along the track length. The dual tap-off incorporates both standard and low noise cables.

By positioning the power tracks a maximum of 5.2 metres apart and 2.5 metres from the wall, by connecting the 3 metre tap-off units to floor outlet boxes, optimum layout

flexibility is achieved. This means every part of the floor area can be served.

When connecting tap-offs directly through the floor via grommet outlets to workstations care must be taken to ensure that the tap-off length is adequate.

Flexible interlinks can be used to overcome obstructions or used as corners if required.

Special Fixing

When installing track off-floor on raised brackets, use Electrak special fixing brackets and ensure brackets are spaced 600mm apart, and always have support under the integral track connector and track feed, as failing to do this may undermine the integrity of the system.

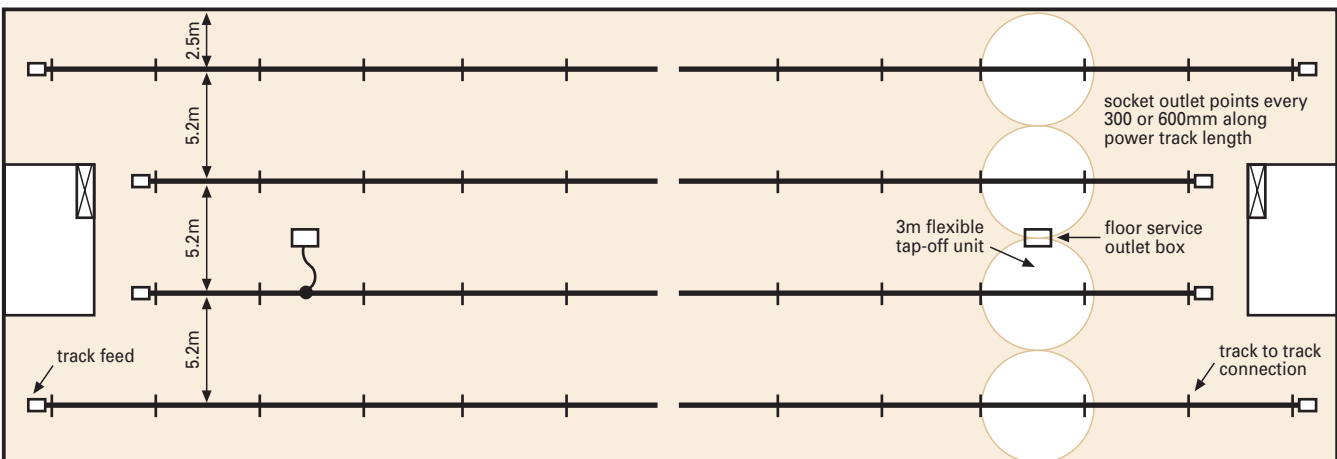
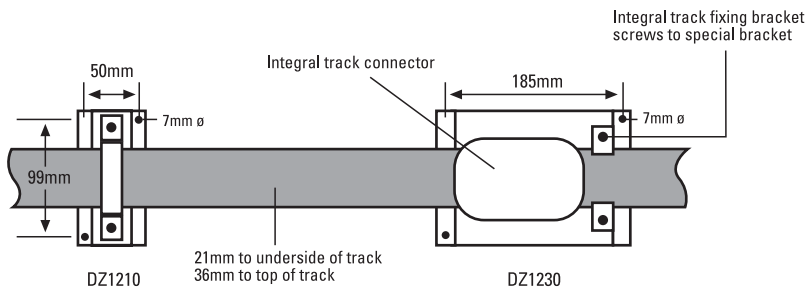
Electrak supply raised off-floor fixing brackets for the above, see below and buyer's guide.

special fixing brackets

These brackets are only used when track is raised off surface level. Brackets raise track by 21mm.

DZ1210 Raised off-floor fixing bracket is spaced at 600mm centres along track. Also use bottom half of bracket under track feed and flexible interlink.

DZ1230 Raised off-floor fixing bracket is always used under integral track connectors. Track is secured to bracket by using track integral fixing bracket (see installation sheet B9 for details).



Example floor layout

Electrak 24 **Standard** Power Track & Electrak 25 **Low Noise** Power Track running alongside each other supplying Electrak floor service outlet boxes.



technical specifications

Approved to ASTA Standard 138

BS EN 60 439-1
BS EN 60 439-2

Electrak is approved to ISO9001:2000
Assessed Quality Assurance Certificate No. 10270.

Electrak fully complies with the requirements of
BS 7671 : 2001 IEE Wiring Regulations.

607 Installations

All unfused tap-offs comply with section 607 without the need for additional earth conductors. Section 607-02-04 (ii) states "a single copper protective conductor having a cross-sectional area of not less than 4mm², complying with the requirements of Regulations 543-02 and 543-03, the protective conductor being enclosed to provide additional protection against mechanical damage, for example, within a flexible conduit."

For 607 installations requiring fused tap-offs, a 607 compliant tap-off must be used. Normally fused tap-offs incorporate 1.5mm² conductors, however in the fused 607 tap-offs, the 1.5mm² earth conductor is replaced with a 4mm² conductor and therefore complies with Section 607-02-04 (ii).

Durability

Electrak systems are superbly designed and extremely robust. They can be expected to stand up to all normal site conditions. Electrak has been short circuit strength tested by ASTA.

32 Amp tap-off unit

The 32 amp tap-off unit comprises an unfused tap-off with either 2.8 metres of 16mm/20mm diameter flexible metal conduit or VO rated nylon conduit both with integral 4mm² LSOH conductors.

These units are designed to comply with regulation 473-02-02 of the IEE Wiring regulations by virtue of the following:

- 1 Maximum length of cable is 3 metres
- 2 It is factory assembled and fully tested item with cable installed in high quality flexible conduit.

Fault condition protection for the tap-off assembly and the floor box socket outlets is afforded by the circuit protective device. Disconnection time for socket outlets is 0.4 seconds (IEE Reg. 413-02-08). The Electrak system meets this requirement.

Tap off units in excess of 3 metres should only be used if they contain a fuse or the power track is protected by a 32 amp rated protective device.

Earth Fault Loop Impedance

BS 7671: 2001 IEE Wiring Regulations require accurate determination of the total earth loop impedance, which must be sufficiently low to allow the protective device to operate within the specified time, which for socket outlets is 0.4 seconds. The values relevant to Electrak for calculating the earth fault loop impedance are shown in the electrical test data table.

Electrical Test Data:

Rated Current	63	A
Rated Voltage	230/415	V~
Frequency	50/60	Hz
Conductor Resistance - Live & Neutral	3.0	mΩ/m
Conductor Impedance	1.5	mΩ/m

Volt Drops

Live & Neutral:	Busbars	3.0	mV/A/m
	Cable Connector	0.4	mV/A
	Track Connector	0.4	mV/A
	32A Tap-Off	0.4	mV/A
	+ 4mm ² Cable	11	mV/A/m
	Flexible corner assembly	1.5	mV/A
	+ 10mm ² Cable	4.0	mV/A/m

Earth Fault Loop Impedance:

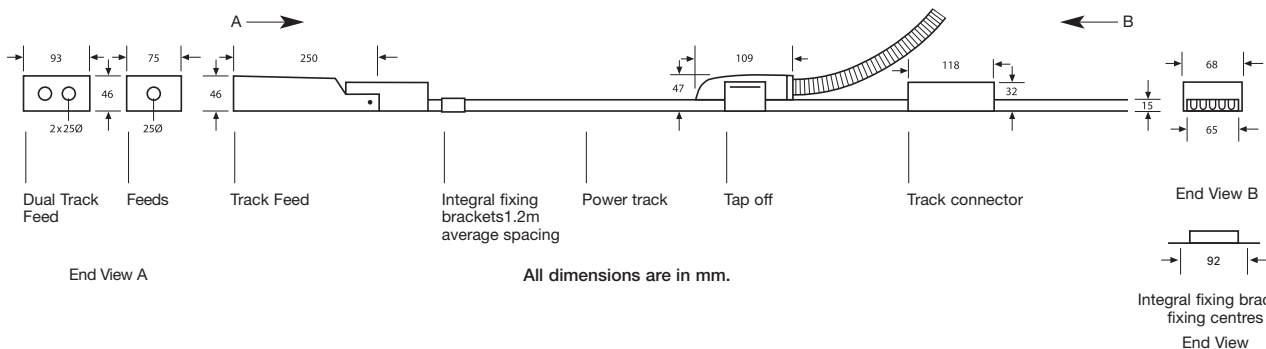
	Phase busbar	1.5	mΩ/m
	Earth busbar	1.5	mΩ/m
	Earth housing	1.1	mΩ/m
	Earth busbar & housing	0.8	mΩ/m
	Cable connector	0.4	mΩ
	Track connector	0.6	mΩ
	32A Tap-Off	0.6	mΩ
	+ 4mm ² Cable	11	mΩ/m
	Flexible corner assembly	1.5	mΩ
	+ 10mm ² Cable	4.0	mΩ/m
	Rated Conditional Short-Circuit Current	16	KA
	Ambient Temperature	25	°C

Mechanical Data:

Number of conductors	3 to 6	
Busbar conductor cross sectional area	13	mm ²
Housing cross sectional area (copper equivalent)	13	mm ²
Cable terminal capacity	16	mm ²
Tap-off cable 32A	4	mm ²
Tap-off cable 13A fused	1.5	mm ²
Tap-off conduit, up to 4 conductors	16	mmØ
Tap-off conduit, 5 and 6 conductors	20	mmØ
Flexible corner cable (Tri-rated, high temperature)	10	mm ²
Flexible corner conduit	25	mmØ
IP rating	40	

Material Specifications:

Power track housing	Galvanised Steel, natural finish
Busbars	High conductivity copper
Busbar insulator	PTFE
Track connector/Socket outlet/Track feed connector	Flame Retardant Polycarbonate
Socket outlet entry shutter	Acetal
Tap-off Housing	Flame Retardant Polycarbonate
Track Connector Blades	Copper
Tap-off Blades	Copper
Tap-off/Flexible corner conduit, metal	Electro-galvanised steel
Tap-off conduit, plastic	VO rated
Tap-off cable	LSOH to BS7211
Flexible interlink cable	Tri-rated to BS6231
Track feed box/Flexible interlink boxes	Galvanised steel
Track feed connector Terminals/Earth block	Brass
Track fixing brackets	Galvanised steel
13A Tap-off, fuse	To BS 1362, ASTA approved



buyer's guide

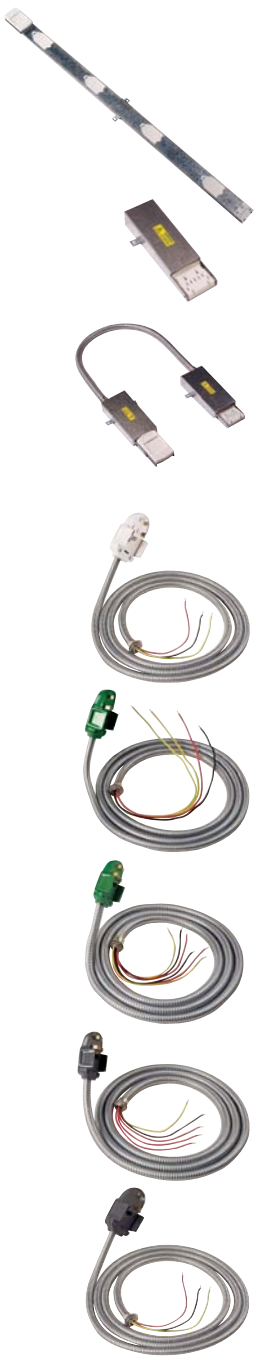
Electrak 24
Standard system
- white

Electrak 25
Low noise (clean
earth) system -
green

Electrak 26
Dual track,
standard & low
noise combined -
dark green

Electrak 27
3 Phase system
- grey

Description:			Catalogue No:	Catalogue No:	Catalogue No:	Catalogue No:
Electrak power track 300mm socket centres	Length (m):	No. of sockets:				
	1.2	4	DA 1123	JA 2123	KA 3123	NA 4123
	2.4	8	DA 1243	JA 2243	KA 3243	NA 4243
	3.6	12	DA 1363	JA 2363	KA 3363	NA 4363
Track Feed			DF 1010	JF 2010	KF 3010	NF 4010
Flexible interlink/corner	Excluding cables & conduit		DW 1000	JW 2000	KW 3000	NW 4000
	1.2m metal flexible conduit		DW 1010	JW 2010	KW 3010	NW 4010
	2.4m metal flexible conduit		DW 1020	JW 2020	KW 3020	NW 4020
Tap-off units						
Metal flexible conduit						
32A Unfused	3m	16mm Ø L, N, PE	DP 1332 DP 1532		DP 1332 DP 1532	
	5m					
13A Fused	3m	16mm Ø L, N, PE	DP 1313 DP 1513		DP 1313 DP 1513	
	5m					
13A "607" Fused	3m	16mm Ø L, N, PE	DP 1327 DP 1527		DP 1327 DP 1527	
	5m					
32A Unfused	3m	16mm Ø CE, L, N, PE		JP 2332 JP 2532	JP 2332 JP 2532	
	5m					
13A Fused	3m	16mm Ø CE, L, N, PE		JP 2313 JP 2513	JP 2313 JP 2513	
	5m					
13A "607" Fused	3m	20mm Ø CE, L, N, PE		JP 2327 JP 2527	JP 2327 JP 2527	
	5m					
32A Unfused	3m	20mm Ø CE, L1, N1 L2, N2, PE			KP 3328 KP 3528	
	5m					
32A 415v 3-Phase	3m	20mm Ø L1, L2, L3, N, PE				NZ 4331 NZ 4531
	5m					
32A L1	3m	Unfused Reconfigurable live pin 16mm Ø L, N, PE				NP 4332* NP 4532*
	5m					
32A L2	3m	Unfused Reconfigurable live pin 16mm Ø L, N, PE				NP 4302* NP 4502*
	5m					
32A L3	3m	Unfused Reconfigurable live pin 16mm Ø L, N, PE				NP 4303* NP 4503*
	5m					
Tap-off, track feed and track connector key code						



Special Fixing Bracket
Only used when track is raised off surface level.

DZ1210 Along track body and under track feed.

DZ1230 Under integral track connectors.

*All NP tap-offs are reconfigurable between L1, L2 or L3 for 3 phase track.

A tap-off length is determined by the cable and not the conduit length, e.g. a 3m tap-off has 3m of cable and 2.8m of conduit.