A Group brand Group brand

# POWERING THE WORKSTATION

UNDERFLOOR TO WORKSTATION POWER AND DATA DISTRIBUTION SYSTEMS



THE **GLOBAL SPECIALIST** IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

# <u>ELECTRAK</u>

# Global strength built on local knowledge

Legrand is the global specialist in electrical and digital building infrastructures. Innovation is the driving force behind its development. With an increasing investment in research and development (circa 5% of sales) and more than 4,000 active patents, the Legrand Group is focused on maintaining a high rate of new product launches that present innovative solutions to the market.

## LEGRAND'S POWER DISTRIBUTION BUSINESS UNIT

From Zucchini transformers, through high power distribution and rising main busbar to Electrak powertrack, desk modules and lighting control, Legrand's power distribution business unit provides market leading solutions to the increasing demands of today's buildings.



# SUSTAINABLE DEVELOPMENT



From design through to manufacturing, the Legrand Group selects materials and processes that respect people and the environment.

- Efficient and environmentally aware product design
- Product functions that help to avoid energy waste
- Management of manufacturing and logistics sites
- Integration of environmental concerns and ISO 14001 procedures at the Group's global sites\*



# POWERTRACK

Overview Ordering information	6 8
Technical information	17
FLOOR BOXES Overview Ordering information Technical information	22 24 29
GROMMETS Overview Ordering information Technical information	30 32 33
INTERSOC-R Overview Ordering information Technical information	34 38 42
INTERSOC ON-DESK Overview Ordering information Technical information	46 50 52

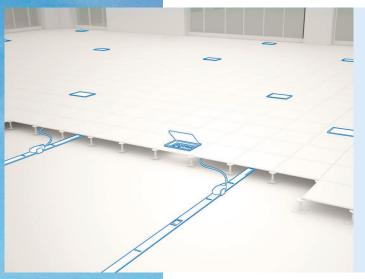
	UNDERFLOOR TO WORKSTATION	SYSTEM GUIDE	1
WWW.LEGRAND.CO.UK/ELECTRAK			

# **Electrak**<sup>®</sup>.... the specialist in power distribution throughout the workplace

Electrak, a brand of the Legrand Group in the UK, is a leading name in power distribution and lighting control solutions. Electrak busbar systems, floor boxes, grommets, desk modules and lighting control ranges are installed in high specification offices around the world.

A Group brand

# POWERING THE WORKSTATION



GROMMETS

See page 30

.

### **UNDERFLOOR POWER**

Electrak's power track system is perfect for supplying underfloor power in cavity floor installations. With minimal parts, push-fit assembly and a complementary range of floor boxes, this flexible, easy to install system can be reconfigured as office layouts evolve.



POWER TRACK See page 6



CAVITY FLOOR BOXES See page 22

## WORKSTATION POWER

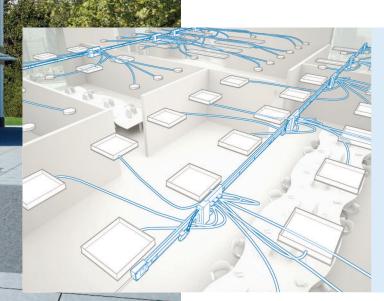
Electrak's access grommets provide the gateway for power to feed from the underfloor power track network to the workstation, where all desk power requirements are met with our new range of desk modules, Intersoc-R and Intersoc on-desk.



INTERSOC-R See page 34



INTERSOC ON-DESK See page 46



# FULLY ADDRESSABLE LIGHTING CONTROL

Designed to work in harmony with Electrak's buscom trunking, Lightrak's lighting control system offers high end sophistication with unbeatable flexibility and speed of installation.

Find out more at www.legrand.co.uk/electrak



BUSCOM power and data backbone



LIGHTRAK lighting control system



# **Electrak**<sup>®</sup>... UK manufacturing. Global recognition



## OVER 30 YEARS OF EXPERIENCE

Legrand's cost-effective Electrak systems have been designed and manufactured to distribute power and data reliably and safely throughout the workplace. The original underfloor busbar system, invented by Electrak in the 1980s, sets the benchmark for flexible power distribution.

## **INDUSTRY EXPERTS**

As part of its ongoing commitment to research and development, Legrand continually evolves its product ranges to ensure it develops the best and most innovative solutions available on the market. Legrand takes pride in its enviable reputation for market leading customer service, industry knowledge and product expertise.

### QUALITY ASSURED UK MANUFACTURING

With its Electrak ranges manufactured from its UK manufacturing base situated in the North East of England, Legrand adapts to the changing demands of projects by providing a rapid production process whilst ensuring quality meets the highest standards.



# Trusted throughout the UK and across the world



## UNITED KINGDOM

- Morgan Stanley, Canary Wharf
- Media City, Manchester
- JP Morgan, Canary Wharf
- RBS, Edinburgh
- Bridgewater Place, Leeds
- Network Rail, Nationwide
- Swiss Re, City of London
- Amazon, Swansea
- Heathrow Airport, London
- Fort Dunlop, Birmingham
- Royal Bank of Canada, City of London
- Snow Hill, Birmingham
- Barclays Capital, Canary Wharf
- Temple Back, Bristol
- Standard Chartered Bank,
- City of London
- London Underground
- BBC, White City
- Mann Island, Liverpool



# MIDDLE EAST & INDIA

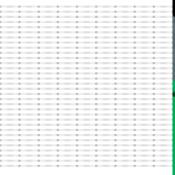
- ADMA-OPCO HQ, Dubai
- Internet City, Dubai
- Burjuman Čentre, Dubai
- ADIC/Al Bahr Towers, Abu Dhabi
- Al Dar HQ, Abu Dhabi
- Central Bank of Kuwait
- Ministry of Education, Kuwait
- PIFFS Aridya, Kuwait
- PAAET, Kuwait
- Qatar News Agency
- Barclays, Chennai, India
- Barclays, Pune, India
- Barclays, Andheri, India
- Barclays, Mumbai, India
- RBS, Delhi, India
- Fidelity, Delhi, India



# ASIA PACIFIC

- Credit Suisse, ICC I, Hong Kong
- Deutsche Bank, ICC I, Hong Kong
- Barclays Capital, Cheung Kong Centre
- Customs Headquarters, North Point, Hong Kong
- Standard Chartered Bank, IFC II, Hong Kong
- Citi Bank Tower, Hong Kong
- Macquarie Bank, IFC I, Hong Kong
- UBS Bank, IFC II, Hong Kong
- JP Morgan, Hong Kong
- Standard Chartered Bank, Marina Bay, Singapore
- Barclays Capital, Marina Bay, Singapore
- Nomura Bank, Marina Bay, Singapore
- Credit Suisse, Serangoon Road, Singapore
- ABN Amro, One Raffles Quay, Singapore
- RBS, One George Street, Singapore
- Barclays Capital, Shanghai
- Standard Chartered Bank, Shanghai
- UBS Bank, Shanghai







# Powertrack... adaptable, reliable underfloor power



Integral track connector plugs into feed unit



Integral fixing brackets for rapid installation



Lengths simply push-fit together



Tap-offs plug in to shuttered socket outlets and lock on to track body

### THE INDUSTRY STANDARD IN UNDERFLOOR POWER

Electrak powertrack / underfloor busbar is perfect for cavity floor installations. With minimal parts, push-fit assembly and a complementary range of floor boxes and grommets, this flexible, easy to install system can be reconfigured as office layouts evolve.

The system consists of continuous lengths of track which are fed via a feed unit and can be installed in floor voids as low as 48mm.

- 63 A rated, IP 40 protection
- Available in five versions: single phase, clean earth, dual circuit, three phase and auxiliary earth
- Tinned busbar version available for use within Abu Dhabi (see page 15)
- Available in 1.2m, 1.8m, 2.4m and 3.6m lengths
- Tap-off outlets are located at every 300 or 600mm pitch
- Floor mountable (stand-off brackets also available)



# Electrak<sup>®</sup> powertrack / underfloor busbar

selection chart

	Description	Length (m)			
Track lengths with 300 mm socket centres					
	4 outlets	1.2			
	6 outlets	1.8			
	8 outlets	2.4			
	12 outlets	3.6			
Track feeds					
		_			
	Excluding cables and conduit				
	Fexible metal conduit				
	Fexible metal conduit				
Standard tap-off / auxillary earth tap-off					
	32 A unfused 16 mm Ø L, N, PE	3			
HUMPHONOUS AND A CONTRACT OF A		5			
	13 A fused 16 mm Ø L, N, PE	3			
		5			
	13 A 543·7 fused 16 mm Ø L, N, PE	5			
Low noise / clean earth tap-off					
	32 A unfused 16 mm Ø CE, L, N, PE	3			
		5			
	13 A fused 16 mm Ø CE, L, N, PE	3			
		3			
	13 A 543·7 fused 16 mm Ø CE, L, N, PE	5			
Dual circuit tap-off					
STATISTICS OF ST	32 A unfused 20 mm Ø CE, L1, N1 L2, N2, PE	3			
	,,,,,,,,,	5			
3 phase tap-off					
	32 A 415 V 3 phase 20 mm Ø L1, L2, L3, N, PE	3			
		5			
anonenenenenenen ber	32 A L1 unfused reconfigurable live pin 16 mm Ø L1, N, PE	5			
Contraction of the Contraction o	32 A L2 unfused reconfigurable live pin 16 mm Ø L2, N, PE	3			
		5			
	32 A L3 unfused reconfigurable live pin 16 mm Ø L3, N, PE	5			
	Key code / Busbar arrangement				

ELECTRAK 24 Standard system (white)	ELECTRAK 25 Low noise / clean earth system (green)	ELECTRAK 26 Dual circuit system (dark green)	ELECTRAK 27 3 phase system (grey)	ELECTRAK 28 Auxillary earth system (red)
DA1123	JA2123	KA3123	NA4123	YA5123
DA1183	JA2183	KA3183	NA4183	YA5183
DA1243	JA2243	KA3243	NA4243	YA5243
DA1363	JA2363	KA3363	NA4363	YA5363
DF1010	JF2010	KF3010	NF4010	YF5010
DW1000	JW2000	KW3000	NW4000	YW5000
DW1010	JW2010	KW3010	NW4010	YW5010
DW1020	JW2020	KW3020	NW4020	YW5020
DP1332	-	DP1332	-	YP5332
DP1532	-	DP1532	-	YP5532
DP1313	-	DP1313	_	YP5313
DP1513	_	DP1513	_	YP5513
DP1327	-	DP1327	-	YP5327
DP1527	_	DP1527	_	YP5527
_	JP2332	JP2332		
 	JP2532	JP2532		_
-	JP2313	JP2313	-	
 -	JP2513 JP2513	JP2513 JP2513	-	-
-			-	_
 -	JP2327	JP2327	_	_
_	JP2527	JP2527		
_	_	KP3328	_	_
_	_	KP3528	_	_
-	-	-	NZ4331	-
_	-	-	NZ4531	_
-	-	-	NP43321	-
-	-	-	NP45321	_
-	-	-	NP43021	-
-	-	-	NP45021	-
-	-	-	NP43031	_
-	-	-	NP45031	-
	PE CE N1 L1			



# Electrak® 24 powertrack / underfloor busbar system

standard system (white)



Selection charts **p. 8-9** Dimensions and technical information **p. 17-21** لھ

Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Track system components	Pack	Cat. Nos.	Tap-off units
		Electrak 24 standard track lengths Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres			Tap-off length is the conduit lengt cable and 2.6 m Tap-off units in e they contain a fu by a protective of
1 1 1	DA1183 DA1243	<ul> <li>1·2 m, 4 outlets, 2 floor fixing brackets</li> <li>1·8 m, 6 outlets, 2 floor fixing brackets</li> <li>2·4 m, 8 outlets, 2 floor fixing brackets</li> <li>3·6 m, 12 outlets, 3 floor fixing brackets</li> </ul>	1	DP1332 DP1532	
1	DF1010	<b>Track feed unit</b> With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit			<b>13 A fused</b> 16 mm Ø, L, N, F
		Flexible interlinks Can be used to overcome obstructions or as corners where required	1 1	DP1313 DP1513	
1 1 1	DW1010	Excluding cables and conduit 1·2 m flexible metal conduit 2·4 m flexible metal conduit	1 1	DP1327 DP1527	16 mm Ø, L, N, F 3 m 5 m
		Special fixing brackets			
		Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart			
1 1	DZ1210 DZ1230	For fitting under track body and track feed For fitting under integral track connectors			

Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit<sup>1</sup> Tap-off units in excess of 3 m should only be used if they contain a fuse or if the power track is protected by a protective device not exceeding 32 A

32 A unfused 16 mm Ø, L, N, PE

13 A fused 16 mm Ø, L, N, PE

16 mm Ø, L, N, PE

13 A 543.7 fused - high integrity

# Electrak® 25 powertrack / underfloor busbar system

low noise / clean earth system (green)



Selection charts **p. 8-9** Dimensions and technical information **p. 17-21** 

لو

Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Track system components
		Electrak 25 low noise / clean earth track lengths
		Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1 1 1 1		
		Track feed unit
1	JF2010	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks
		Can be used to overcome obstructions or as corners where required
1 1 1	JW2010	Excluding cables and conduit 1·2 m flexible metal conduit 2·4 m flexible metal conduit
		Special fixing brackets
		Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart
1 1	DZ1210 DZ1230	For fitting under track body and track feed For fitting under integral track connectors

		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit <sup>1</sup> Tap-off units in excess of 3 m should only be used if they contain a fuse or if the power track is protected by a protective device not exceeding 32 A
		32 A unfused
		16 mm Ø, CE, L, N, PE
1 1	JP2332 JP2532	
		13 A fused
		16 mm Ø, CE, L, N, PE
1 1	JP2313 JP2513	
		13 A 543·7 fused - high integrity
		16 mm Ø, CE, L, N, PE
1	JP2327	
1	JP2527	5 m

Pack Cat. Nos. Tap-off units



# Electrak<sup>®</sup> 26 powertrack / underfloor busbar system

dual circuit system (dark green)



Selection charts **p. 8-9** Dimensions and technical information **p. 17-21** 

Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

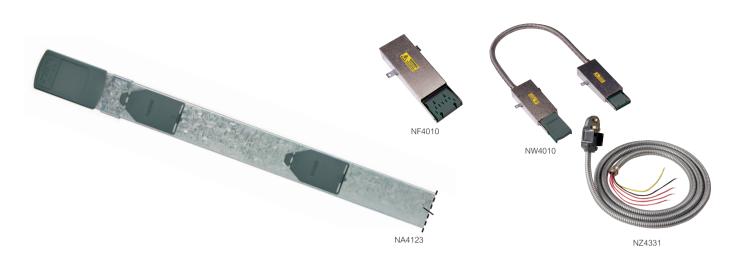
Pack	Cat. Nos.	Track system components	Pack	Cat. Nos.	Tap-off units
		The dual power track system has both standard and low noise / clean earth systems incorporated			Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of
		Electrak 26 dual circuit track lengths			cable and 2.6 m of flexible metal conduit <sup>1</sup> Tap-off units in excess of 3 m should only be used if
		Track lengths fit together using the integral connectors on each length			they contain a fuse or if the power track is protected by a protective device not exceeding 32 A
		Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres			Standard 32 A unfused 16 mm Ø, L, N, PE
1	KA2122	1.2 m, 4 outlets, 2 floor fixing brackets	1	DP1332	
1	KA3183	1.8 m, 6 outlets, 2 floor fixing brackets	1	DP1532	
1 1		2.4 m, 8 outlets, 2 floor fixing brackets 3.6 m, 12 outlets, 3 floor fixing brackets			Standard 13 A fused
		Track feed unit			16 mm Ø, L, N, PE
1	KF3010	With two 25 mm diameter holes suitable for MICC,	1 1	DP1313 DP1513	
		armoured cables or single core cables in conduit			Standard 13 A 543·7 fused
		Flexible interlinks			16 mm Ø, L, N, PE
		Can be used to overcome obstructions or as corners where required	1	DP1327 DP1527	3 m
1	KW3000	Excluding cables and conduit 1·2 m flexible metal conduit	'	DI 1527	Low noise / clean earth 32 A unfused
1		2.4 m flexible metal conduit			16 mm Ø, CE, L, N, PE
		Special fixing brackets	1	JP2332	
		Required when track is raised off surface level	1	JP2532	
		Brackets raise track by 21 mm and should be spaced 600 mm apart			Low noise / clean earth 13 A fused
1		For fitting under track body and track feed			16 mm Ø, CE, L, N, PE
1	DZ1230	For fitting under integral track connectors	1 1	JP2313 JP2513	
					Low noise / clean earth 13 A 543·7 fused
					16 mm Ø, CE, L, N, PE
			1	JP2327	3 m
			1	JP2527	5111

Dual circuit 32 A unfused 20 mm Ø, CE, L1, N1, L2, N2,PE

KP3328 3 m KP3528 5 m

A Group brand

# Electrak<sup>®</sup> 27 powertrack / underfloor busbar system 3 phase system (grey)



Selection charts **p. 8-9** Dimensions and technical information **p. 17-21** 

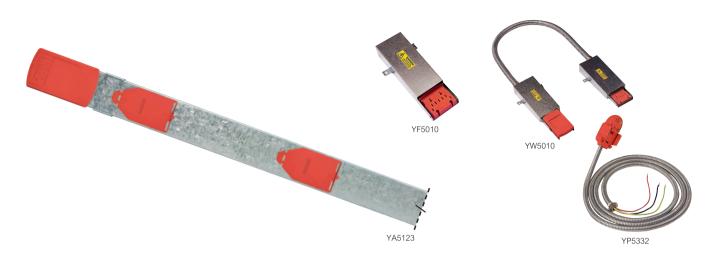
Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Track system components	Pack	Cat. Nos.	Tap-off units
		Electrak 27 3 phase track lengths			Tap-off length is determined by the cable and not
		Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres			the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit <sup>1</sup> Tap-off units in excess of 3 m should only be used if they contain a fuse or if the power track is protected by a protective device not exceeding 32 A
1		1.2 m, 4 outlets, 2 floor fixing brackets			32 A 415 V 3 phase
1	NA4183	1.8 m, 6 outlets, 2 floor fixing brackets 2.4 m, 8 outlets, 2 floor fixing brackets			20 mm Ø, L1, L2, L3, N, PE
1	NA4363	3.6 m, 12 outlets, 3 floor fixing brackets	1	NZ4331 NZ4531	
		Track feed unit	1	112-001	32 A L1 <sup>2</sup> unfused
1	NF4010	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit			Unfused Reconfigurable live pin
		Flexible interlinks			16 mm Ø, L, N, PE
		Can be used to overcome obstructions or as corners where required	1 1	NP4332 NP4532	
1	NW4000	Excluding cables and conduit 1·2 m flexible metal conduit			32 A L2 <sup>2</sup> unfused
1		2.4 m flexible metal conduit			Unfused
		Special fixing brackets			Reconfigurable live pin 16 mm Ø, L, N, PE
		Required when track is raised off surface level Brackets raise track by 21 mm and should be	1	NP4302 NP4502	
		spaced 600 mm apart		111 4002	32 A L3 <sup>2</sup> unfused
1		For fitting under track body and track feed			Unfused
1	DZ1230	For fitting under integral track connectors			Reconfigurable live pin 16 mm Ø, L, N, PE
			1	NP4303	
			1	NP4503	



# Electrak® 28 powertrack / underfloor busbar system

auxiliary earth system (red)



Selection charts **p. 8-9** Dimensions and technical information **p. 17-21** 

Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Track system components	Pa
		Electrak 28 auxiliary earth track lengths	
		Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres	
1 1 1 1	YA5183 YA5243	<ul> <li>1·2 m, 4 outlets, 2 floor fixing brackets</li> <li>1·8 m, 6 outlets, 2 floor fixing brackets</li> <li>2·4 m, 8 outlets, 2 floor fixing brackets</li> <li>3·6 m, 12 outlets, 3 floor fixing brackets</li> </ul>	
		Track feed unit	
1	YF5010	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit	
		Flexible interlinks	
		Can be used to overcome obstructions or as corners where required	
1 1 1	YW5010	Excluding cables and conduit 1·2 m flexible metal conduit 2·4 m flexible metal conduit	
		Special fixing brackets	
		Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart	
1	DZ1210	For fitting under track body and track feed	

 1
 DZ1210
 For fitting under track body and track feed

 1
 DZ1230
 For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and $2.6$ m of flexible metal conduit <sup>1</sup> Tap-off units in excess of 3 m should only be used if they contain a fuse or if the power track is protected by a protective device not exceeding 32 A
		32 A unfused
		16 mm Ø, L, N, PE
1 1	YP5332 YP5532	
		13 A fused
		16 mm Ø, L, N, PE
1 1	YP5313 YP5513	
		13 A 543 7 fused - high integrity
		16 mm Ø, L, N, PE
1	YP5327	3 m
1	YP5527	5 m

# Electrak 28R tinned powertrack... Designed to meet local standards

### Guideline For Design, Testing and Installation Of Busways GL.GN.01. Issued by: Abu Dhabi Distribution Co. Low Voltage Switchgear Committee Issue: 2, Revision: 1, effective 01/02/2012

16. Lighting & Small Power Busways & Modular Wiring Lighting & Power Socket bus duct and modular wiring are considered part of building wiring and regulated by the Electricity Wiring Regulation issued by RSB. It shall comply with respective specifications under the Wiring regulation. ADDC LVSGC approves these methods in principle provided that the RSB set aspects are incorporated (like tinning of copper, colour coding etc.).

#### Guideline For Design, Testing and Installation Of Busways GL.GN.01 Copyright Abu Dhabi Distribution Co.

Developed to meet the ADDC requirements for busways, this specially designed range sees all busbars tinned along their entire length, and all busbar connectors and tap-off blades plated.

Approved to ASTA standard 138 and designed to be in accordance with the requirements of BS EN 60439-2: 2000 and BS EN 61534-22: 2009 (IEC 61534: 2009).





Electrak 28R tinned tap-offs

Electrak 28R tinned busbar connectors

### The Electrical Wiring Regulations 2007 Issued by: The Regulation and Supervision Bureau for the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi. Revision 1, January 2009

7.7 Busways, bus ducts ad busbar risers

7.7.6 Busways, bus ducts and busbar risers shall have neutral conductors of equal size to the phase conductors and shall have a dedicated Earth Conductor. The use of the metal casing as an earth conductor permitted only for Earth Leakage Protected Installations, and with the prior approval of the Distribution Company.

The Electrical Wiring Regulations 2007 - Copyright The Regulation and Supervision Bureau (RSB)

The Electrak powertrack system uses equal size tinned copper busbars for live, neutral and earth conductors to meet with the requirements of The Regulation and Supervision Bureau of the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi. As a specific requirement for use within Abu Dhabi, Legrand has developed a 'tinned' busbar which has been designed in line with the guidance for busways outlined by the Abu Dhabi Distribution Company (ADDC), as detailed below.

## Appendix 8. Colour identification for cables

Conductor	Colour
Non-flexible fixed wiring	and all 3 phase cables:
Phase 1	Red
Phase 2	Yellow
Phase 3	Blue
Neutral	Black
Earth conductors	Green / yellow

The Electrak 28R powertrack range is a single phase system and therefore adopts red (L), black (N), and green/yellow (E) cables to meet with the requirments of The Regulation and Supervision Bureau of the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi.

## Appendix 9. Capacity of conduits and trunking

	. Diameter of Conduit (mm²)							
Conduit (mm²)	20	25	32					
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Maximum number of conductors							
1.5	7	12	-					
2.5	5	9	12					
4.0	3	6	9					

The tap-offs contain a maximum of 3 x 4mm<sup>2</sup> conductors housed in as 20mm ø metal flexible conduit to meet the requirements of The Regulation and Supervision Bureau of the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi.

NOTE: When designing installations in regions with higher ambient temperatures than 35°C, de-rating factors may need to be applied. Please refer to the table on page 21 for details.



# ELECTRAK

# Electrak<sup>®</sup> 28R tinned powertrack / underfloor busbar system auxiliary earth system (red)

VW501R V512R V512R

#### Selection charts **p. 8-9** Dimensions and technical information **p. 17-21**

Approved to ASTA Standard 138 and ISO 9001 : 2008 Conforms to BS EN 60439-2 : 2008. Fully complies with the requirements of BS 7671 : 2008 IEE Wiring Regulations A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Busbar system components	Pack	C
		63A auxiliary earth busbar lengths		
		Busbar lengths fit together using the integral connectors on each length Lengths should always be secured using the integral floor fixing brackets 300 mm socket centres		
1 1 1	YA5183R YA5243R	1.2 m, 4 outlets, 2 floor fixing brackets 1.8 m, 6 outlets, 2 floor fixing brackets 2.4 m, 8 outlets, 2 floor fixing brackets 3.6 m, 12 outlets, 3 floor fixing brackets	1	YI
		Feed unit	1	Υŀ
1	YF5010R	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit		
		Flexible interlinks	1 1	YI
		Can be used to overcome obstructions or as corners where required		
1 1 1	YW5010R	Excluding cables and conduit 1·2 m flexible metal conduit 2·4 m flexible metal conduit		
		Special fixing brackets		
		Required when busbar is raised off surface level Brackets raise the system by 21 mm and should be spaced 600 mm apart		
1 1		For fitting under lengths and feed units For fitting under integral connectors		

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2·6 m of flexible metal conduit <sup>1</sup> Tap-off units in excess of 3 m should only be used if they contain a fuse or if the busbar run is protected by a protective device not exceeding 32 A
		32 A unfused
		20 mm Ø, L, N, PE (4 mm²)
1 1	YP5332R YP5532R	
		13 A 543·7 fused - high integrity
		20 mm Ø, L, N (2·5 mm²), PE (4 mm²)
1 1	YP5327R YP5527R	

# **D** legrand

# Electrak<sup>®</sup> powertrack / underfloor busbar

#### General installation notes

Electrak power track is a compact system that can be installed in floor voids as low as 48  $\rm mm$ 

Feed units are provided with one or two 25 mm diameter holes suitable for MICC, armoured cables or single core cables in conduit Track lengths connect together and to feed units using the integral connectors on each length

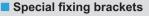
Lengths should always be secured using the integral floor fixing brackets ; three on the 3.6 m length and two on 2.4 m, 1.8 m or 1.2 m lengths

Access to power is provided along the busbar length by simply plugging tap-off units into shuttered socket outlets. These tap-off units feed all types of conventional floor service outlet boxes or feed workstations directly through the floor via insulated conductors contained in flexible metal or VO rated nylon conduit. 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

The dual system has both standard and low noise / clean earth systems incorporated. As well as dual tap-offs, both standard and low noise / clean earth tap-offs can be plugged into any socket outlet along the busbar length. The dual tap-off incorporates both standard and low noise cables

Optimum layout flexibility is achieved by positioning busbar lengths a maximum of  $5\cdot 2$  m apart and  $2\cdot 5$  m from the wall, and by connecting the 3 m tap-off units to floor outlet boxes. This means every part of the floor area can be served. Flexible interlinks can be used to overcome obstructions or used as corners if required

#### Dimensions

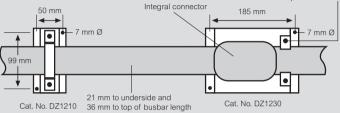


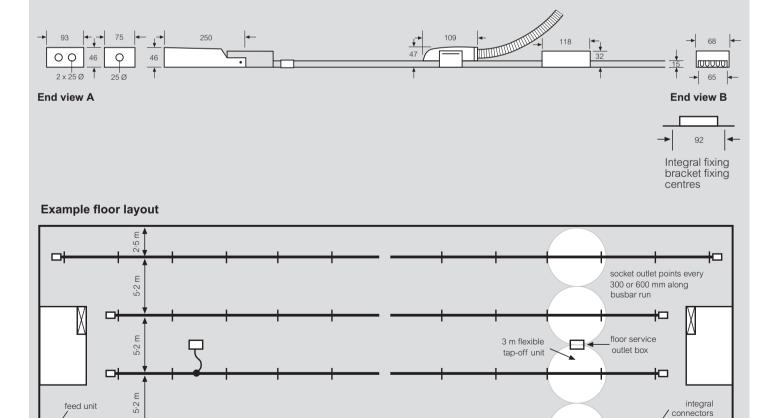
Electrak special fixing brackets are available to raise the system by 21 mm. Ensure brackets are spaced 600 mm apart and always have support under the integral connectors and feed units. Failure to do so may undermine the integrity of the system

Cat. No. DZ1210 raised off-floor fixing brackets are spaced at 600 mm centres along the busbar run. Also use bottom half of bracket under feed unit and flexible interlink

Cat. No. DZ1230 raised off-floor fixing brackets are always used under integral connectors. Busbar is secured to raised brackets using the integral fixing bracket

Integral fixing bracket screws to special bracket



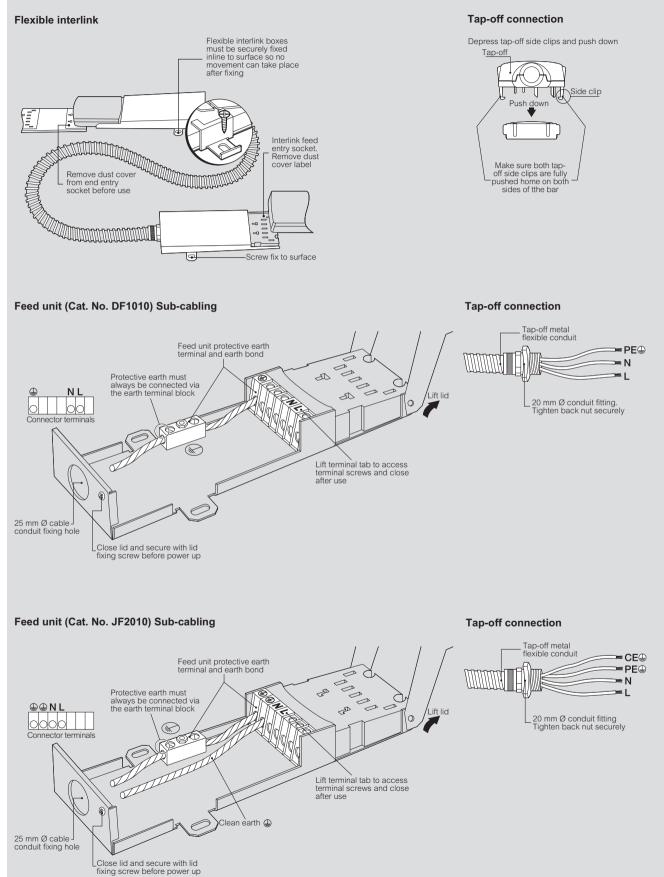


# ELECTRAK

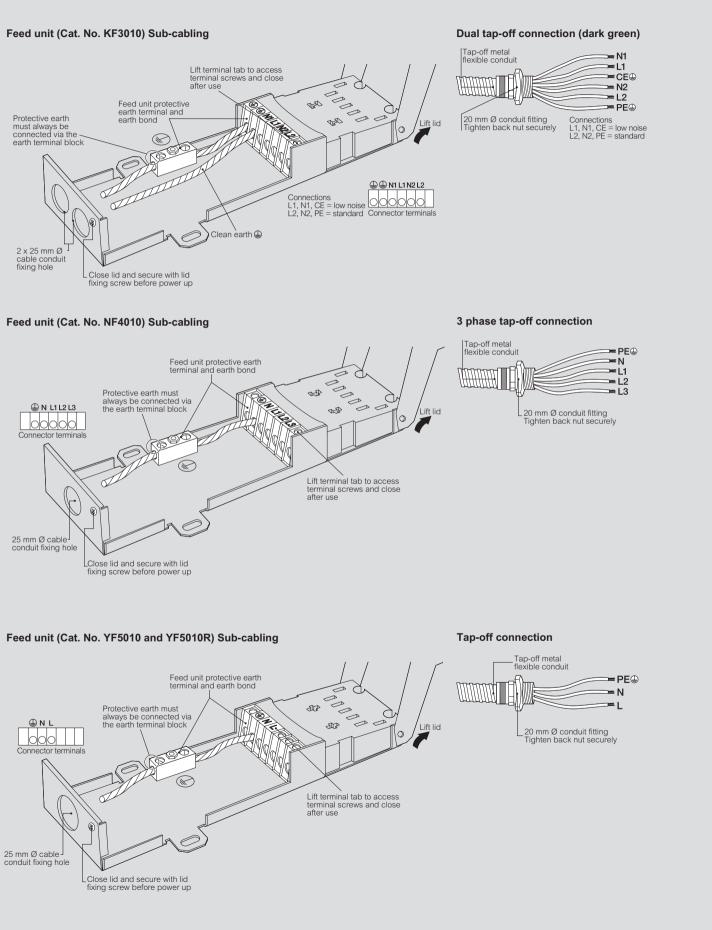
# Electrak® powertrack / underfloor busbar system

design and installation (continued)

## Product configuration



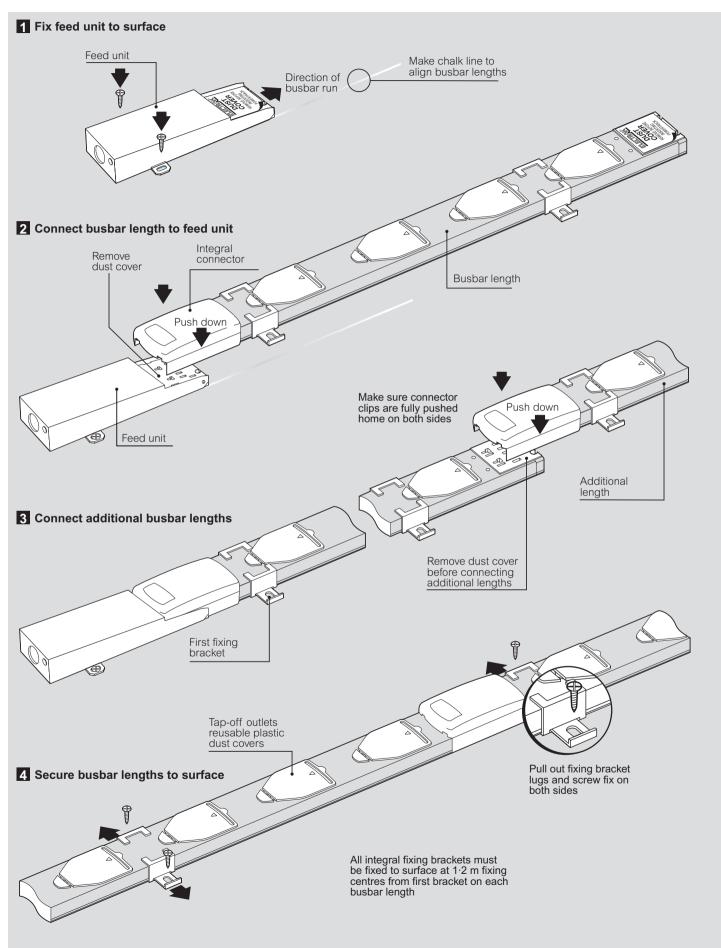
All dimensions (mm) are nominal



# ELECTRAK

# Electrak<sup>®</sup> powertrack / underfloor busbar system

installation (continued)



All dimensions (mm) are nominal

**C**legrand

# Electrak<sup>®</sup> powertrack / underfloor busbar system

#### technical data

#### Standards



Approved to ASTA Standard 138

BS EN 60439-2 : 2000, BS EN 61534-22 : 2009 and IEC 61534-22 : 2009 Manufactured within an approved ISO 9001 : 2008 and ISO 14001 : 2004 facility Assessed Quality Assurance Certificate No. 2029

Electrak powertrack / underfloor busbar fully complies with the requirements of BS 7671 : 2008 + A1 : 2011 (IET Wiring Regulations)

#### Ambient temperature rating factors

The current carrying capacity for a powertrack / underfloor busbar (In) is affected by the ambient temperature

For Electrak powertrack / underfloor busbar the ambient rating factor K $\alpha$  is equal to 1 for ambient temperatures up to and including 35° C

#### lz = Kα In

Where

Iz = effective current carrying capacity for continuous service under particular installation conditions

 $K\alpha$  = ambient temperature factor

In = nominal current carrying capacity For ambient temperatures exceeding 35° C the values of K $\alpha$  and Iz are given in the following tables

#### Powertrack / underfloor busbar system

Ambient	20°C	25°C	30°C	40°C	45°C	50°C	
Κα	1				0.95	0.85	0.80
lz	63 A				59 A	53 A	50 A

#### 32 A unfused tap-off (using thermosetting 90°C cables)

Ambient	20°C	20°C 25°C 30°C 35°C 40°C 45°C 50°C									
Κα		1 0.95 0.85 0.80									
lz	32 A 30 A 27 A 25										
13 A fused tap-off (using 2·5 mm <sup>2</sup> thermosetting 90°C cables)											
Ambient	20°C 25°C 30°C 35°C 40°C 45°C 50°C										
Κα	1										
lz	13 A										

#### References :

BS 7671 : 2008 incorporating amendment No. 1 : 2011

Appendix 8 - Current carrying capacity for powertrack systems

Appendix 4 – Table 4B1 Rating factors for thermosetting cables

Appendix 4 – Table 4E1A – Single core 90°C thermosetting insulated cables (non-armoured)

#### Earth fault loop impedance

BS 7671 : 2008 + A1 : 2011 IET 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, see opposite

#### Durability

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

#### Installations with high protective conductor currents

All unfused tap-offs comply with Regulation 543.7 without the need for additional earth conductors. Regulation 543.7.1.103 (ii) states "a single copper protective conductor having a cross-sectional area of not less than 4 mm<sup>2</sup>, complying with the requirements of Regulations 543.2 and 543.3, the protective conductor being enclosed to provide additional protection against mechanical damage, for example, within a flexible conduit"

For installations with high protective conductor currents requiring fused tap-offs, a 543-7 compliant tap-off must be used. Normally fused tap-offs incorporate  $1.5 \text{ m}^2$  ( $2.5 \text{ m}^2$  for tinned system) conductors, however in the fused 543-7 tap-offs, the  $1.5 \text{ m}^2$  ( $2.5 \text{ m}^2$  for tinned system) earth conductor is replaced with a 4 mm<sup>2</sup> conductor and therefore complies with Section 543-7-1-103 (ii)

#### 32 A tap-off unit

The 3 m 32 A tap-off unit comprises an unfused tap-off with 2-6 m of flexible metal conduit with integral 4 mm² LSOH conductors

These units are designed to comply with regulation 434.2.1 of the

IET Wiring Regulations by virtue of the following :
maximum length of cable is 3 m
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 delivered by the circuit protection device Disconnection time for socket outlets is 0.4 seconds (Regulation 411.3.2.2). The

Electrak system meets this requirement

Tap-off units in excess of 3 m should only be used if they contain a fuse or the busbar run is protected by a protective device not exceeding 32 A

Volt drops (live and neutral)	Volt dro	os (live	and no	eutral)
-------------------------------	----------	----------	--------	---------

Intertek

Busbars	3∙0 mV/A/m
Cable connector	0·4 mV/A
Integral connector	0·4 mV/A
32 A tap-off	0·4 mV/A
+ 4 mm <sup>2</sup> cable	11 mV/A/m
Flexible corner assembly	1·5 mV/A
+ 10 mm <sup>2</sup> cable	4∙0 mV/A/m

Mechanical data	E24 – E28	E28R
Number of conductors	3-6	3
Busbar conductor cross sectional area	13 mm <sup>2</sup>	13 mm <sup>2</sup>
Housing cross sectional area (copper equivalent)	13 mm <sup>2</sup>	13 mm <sup>2</sup>
Cable terminal capacity	16 mm <sup>2</sup>	16 mm <sup>2</sup>
Tap-off cable 32 A	4 mm <sup>2</sup>	4 mm <sup>2</sup>
Tap-off cable 13 A fused	1.5 mm <sup>2</sup>	2·5 mm <sup>2</sup>
Tap-off conduit, up to 4 conductors	16 mmØ	20 mmØ
Tap-off conduit, 5 and 6 conductors	20 mm <sup>2</sup>	N/A
Flexible corner cable (tri-rated, high temperature)	10 mm <sup>2</sup>	10 mm <sup>2</sup>
Flexible corner conduit	25 mmØ	25 mmØ
IP rating	40	40

#### Material specifications

Housing - busbar lengths	Galvanised steel, natural finish		
Busbars	High conductivity copper (Tinned version is electro-tin plated)		
Busbar insulator	PTFE		
Integral connectors / Tap-off outlets	Flame retardant polycarbonate		
Tap-off outlet entry shutter	Acetal		
Tap-off housing	Flame retardant polycarbonate		
Integral connector blades	Copper (Tinned version is plated)		
Tap-off blades	Copper (Tinned version is plated)		
Tap-off/flexible corner conduit, metal	Electro-galvanised steel		
Tap-off cable	LSOH to BS 7211		
Flexible interlink cable	Tri-rated to BS 6231		
Feed box/flexible interlink boxes	Galvanised steel		
Feed connector terminals/earth block	Brass (Tinned version is plated)		
Fixing brackets	Galvanised steel		
13 A tap-off, fuse	To BS 1362, ASTA approved		

Earth fault loop impedance				
Phase busbar	1·5 m <b>Ω</b> /m			
Earth busbar	1·5 m <b>Ω</b> /m			
Earth housing	1·1 m <b>Ω</b> /m			
Earth busbar and housing	0·8 m <b>Ω</b> /m			
Cable connector	0·4 m <b>Ω</b>			
Integral connector	0·6 m <b>Ω</b>			
32 A tap-off	0·6 m <b>Ω</b>			
+ 4 mm <sup>2</sup> cable	11 m <b>Ω</b> /m			
Flexible corner assembly	1·5 mΩ			
+ 10 mm <sup>2</sup> cable	4·0 m <b>Ω</b> /m			
Rated conditional short-circuit current	16 KA			
Ambient temperature	25°C			

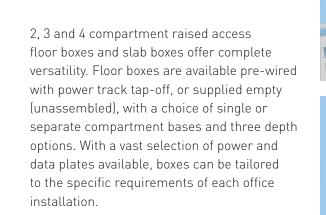
# Electrical test data

Rated current	63 A
Rated voltage	230/400 V~
Frequency	50/60 Hz
Conductor resistance - live and neutral	3·0 m <b>Ω</b> /m
Conductor impedance	1·5 m <b>Ω</b> /m

All dimensions (mm) are nominal



# Floor boxes... choice, flexibility and easy installation







Available in 2, 3 and 4 compartments and with a choice of three depths, Electrak floor boxes have been developed with a host of special features:

- Available pre-wired with tap-off or supplied unassembled
- A vast selection of power and data plates, including RCD options
- Single or separate compartment bases for ease of data cabling
- Rapid installation and fast ratchet mechanism which adjusts to floor finish thickness



# access floor service outlet and slab mounted floor boxes

### empty boxes and accessory plates

		2 compartm	ent	3 c	ompartment	4 compartment
To configure boxes as required, select : 1. Box depth 2. Number of compartments required 3. Desired accessory plates		230 mm	E		366 mm	220 mm
Empty boxes	Example	100 mm width plate	S	w	100 mm idth plates	75 mm width plates
Single base – 75 mm depth		CR2001 (		CR011		CR4001
Single base – 85 mm depth (standard box)	0000000	CR2002 CR012		CR4002		
Single base – 110 mm depth		CR2003			CR013	CR4003
Separate compartment base – 75 mm depth		CR2004			CR014	CR4004
Separate compartment base – 85 mm depth	00000	CR2005			CR015	CR4005
Separate compartment base – 110 mm depth		CR2006 CR016		CR4006		
Slab boxes		1 compartment 2 compar		artment	3 compartment	4 compartment
Fix directly onto floor slab (supplied empty)		CR5102	CR5	202	CR5302	CR5402
Accessory plates		For 1, 2	and 3 coi	mpartmer	nt boxes	For 4 compartment boxes
Blank plate	• •		CR	)20		CR4100
2 gang switched socket outlet		CR022		CR4101		
2 gang switched socket outlet, low noise / clean earth	. "Ш".	CR023		CR4102		
2 gang non-standard switched socket outlet		CR027		CR4103		
2 gang unswitched socket outlet	. д д. 63 63 -	CR029		CR4104		
3 gang unswitched socket outlet		CR030		CR4105		
3 gang unswitched socket outlet, low noise / clean earth			CR	)44		CR4118
2 gang RCD socket outlet			CR	)36		CR4111
2 gang RCD socket outlet, low noise / clean earth	·	CR043		CR4117		
Punched plate for 2 x 1 gang accessories (60·3 mm fixing centres)		CR026		-		
Punched plate for 2 gang accessories (120.6 mm fixing centres)	•	CR028		-		
Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)		CR042		CR4115		
2 x LJ2 accessory plate (50 mm fixing centres)		CR031		CR4106		
4 x BNC connector plate		CR033		CR4108		
4 x Data / telecoms plate (37 mm x 22 mm cut-outs)			CR	)24		CR4112
6 x Data / telecoms plate (37 mm x 22 mm cut-outs)			CR	)25		CR4113

# access floor pre-wired service outlet boxes

## and accessory plates

Pre-wired service outlet boxes with Electrak tap-offs 1. Select power track tap-off and desired configuration 2. Select additional accessory plates (if required)											
3 compartment				Includes switched so		Includes 2 switched soci			s 1 x 2 gang ocket outlet		ludes 2 x 2 gang CD socket outlet
	Electrak 24 - s	standard tap-off		. 787 . 787 .		. 787					
		DP1332 - 3	m	CR	100	CR10	2	CR100R			CR102R
	DP1532 - 5 m		CR101		CR10	CR103		CR101R		CR103R	
A PARTY IS		- low noise / rth tap-off									
mm 000		JP2332 - 3 r	n	CR	110	CR11	2	CI	R110R		CR112R
366 mm		JP2532 - 5 r	n	CR	111	CR11	3	CI	R111R		CR113R
	Electrak 28 - aux	iliary earth tap-	off								
		YP5332 - 3 ı	m	CR	104	CR10	6	CI	R104R		CR106R
		YP5532 - 5 i	m	CR	105	CR10	7	CI	R105R		CR107R
Additional plates for 3 c	ompartment box	es									
Blank plate				CR020		LJ2 accessory plate mm fixing centres)				<u>]</u> .	CR031
Punched plate for 2 x 1 gang accessories (60·3 mm fixing centres)				CR026 4 x BN		NC connector plate			]	CR033	
Punched plate for 2 gang accessories (120.6 mm fixing centres)		• • • •		CR028		ata / telecoms plate m x 22 mm cut-outs)				].	CR024
Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)				CR042		tta / telecoms plate m x 22 mm cut-outs)				CR025	
4 compartment				Includes 1 x twin switched socket outlet		ncludes 2 x twin switched socket outlet			Includes 2 x 2 RCD socket o		Modular RCD protecting 2 x tv switched socke outlets and 1 sp compartment
	Electrak 24 - standard tap-off		.Vav			. <b>68</b> 6		명한	]	087 087	
		DP1332 - 3	m	CR12	0	CR122	CR120R		CR122R	ł	CR4402
		DP1532 - 5	m	CR121		CR123	CR123 CR121R		CR123R		CR4403
	Electrak 25 - Iow noise / clean earth tap-off										
230 m		JP2332 - 3 r	n	CR13	0	CR132	CR1	30R	CR132R	2	CR4412
3 1 366 mm		JP2532 - 5 r		CR13	1	CR133	CR133 CR131R		R CR133R		CR4413
	Electrak 28 - aux										
		YP5332 - 3		CR12		CR126	CR124R		CR126R		CR4406
		YP5532 - 5	m	CR12	5	CR127	CR1	25R	CR127R	2	CR4407
Additional plates for 4 c Blank plate	ompartment box		(	CR4100	4 x BNC connector plate					CR4108	
Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)			(	CR4115	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)				CR4112		
2 x LJ2 accessory plate (50 mm fixing centres)		·	(	CR4106	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)				CR4113		



# access floor service outlet boxes

empty boxes



slab mounted floor boxes empty boxes





3 compartment slab floor box shown with two twin switched socket outlets, punched data plate and a power track tap-off



Selection charts **p. 24** Dimensions and technical information **p. 29** 

Electrak slab floor boxes are an ideal solution for underfloor power and data requirements

Used in conjunction with Electrak floor grommets, slab boxes prevent unwanted access to power and data connections

flexible conduits
Grey mouldings. Alternative colours available to special order. Goosewing
grey plates
2, 3 and 4 compartment boxes are also available with separate individual

Lid and trim mouldings are precision engineered from hard wearing durable ABS. The lid is reinforced with a galvanised mild steel plate Mounting frame and box base - 0.9 mm thick galvanised steel\_

Each compartment has 2 entries for 20 mm and 2 entries for 25 mm

Selection charts **p. 24** Dimensions and technical information **p. 29** 

compartment base units for convenient offsite pre-wiring Supplied in parts or fully assembled and configured to customer

specification Conform to IEC-61534-22

لھ

	Empty have			
	Empty boxes			Fixes directly onto floor slab
	100 mm compartment widths			Fast and efficient installation with integrated fixing
CR2001	Single base - 75 mm depth			plates Wide range of power and data accessory plates
				Wide range of power and data accessory plates Manufactured from 0.9 mm thick galvanised steel
CR2003	Single base - 110 mm depth			Each compartment has 2 entries for 20 mm and
CR2004	Separate compartment base - 75 mm depth			2 entries for 25 mm flexible conduits
				100 mm compartment widths
CR2006	Separate compartment base - 110 mm depth			Use plates from the 1, 2 and 3 compartment floor box
				section <b>p. 24</b>
	· · · · · · · · · · · · · · · · · · ·	1	CR5102	1 compartment slab floor box
	Empty boxes	1	CR5202	2 compartment slab floor box
	100 mm compartment widths	1	CR5302	3 compartment slab floor box
CR011	Single base - 75 mm depth			75 mm compartment widths
				Use plates from the 4 compartment floor box section
	5			p. 24
		1	CR5402	4 compartment slab floor box
			01.0102	
	CR2002 CR2003 CR2004 CR2005 CR2006 CR2006 CR011 CR012 CR013 CR014 CR015	<ul> <li>CR011 Single base - 75 mm depth</li> <li>CR012 Single base - 85 mm depth (standard box)</li> <li>CR013 Single base - 110 mm depth</li> <li>CR014 Separate compartment base - 75 mm depth</li> </ul>	CR2002       Single base - 85 mm depth (standard box)         CR2003       Single base - 110 mm depth         CR2004       Separate compartment base - 75 mm depth         CR2005       Separate compartment base - 85 mm depth         CR2006       Separate compartment base - 110 mm depth         CR2006       Separate compartment base - 110 mm depth         CR2006       Separate compartment base - 110 mm depth         Image: CR2007       Separate compartment widths         CR011       Single base - 75 mm depth         CR012       Single base - 75 mm depth         CR013       Single base - 85 mm depth (standard box)         CR014       Separate compartment base - 75 mm depth         CR014       Separate compartment base - 75 mm depth         CR015       Separate compartment base - 85 mm depth	CR2002 CR2003Single base - 85 mm depth (standard box) Single base - 110 mm depth Separate compartment base - 75 mm depth CR2004 Separate compartment base - 85 mm depth CR20061CR5102 CR52023compartment floor boxes Empty boxes 100 mm compartment widths1CR5102 CR5202 1CR5202 CR5202 1CR011Single base - 75 mm depth CR0121CR5302 CR5202 1CR5302CR011Single base - 75 mm depth Single base - 85 mm depth1CR5402CR013Single base - 110 mm depth1CR5402

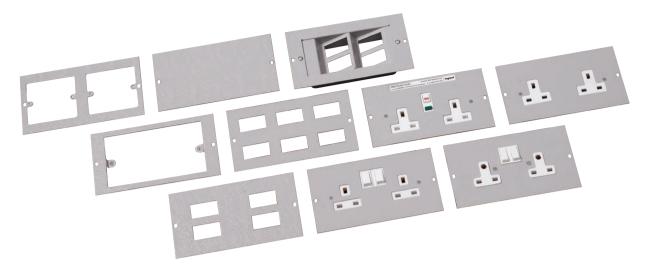
#### 4 compartment floor boxes **Empty boxes** 75 mm compartment widths

		ro min comparanent widano
1	CR4001	Single base - 75 mm depth
1	CR4002	Single base - 85 mm depth (standard box)
1	CR4003	Single base - 110 mm depth
1	CR4004	Separate compartment base - 75 mm depth
1	CR4005	Separate compartment base - 85 mm depth
1	CR4006	Separate compartment base - 110 mm depth

Screed / edge trim boxes, and metal ╇┺╢ or lockable lids are available to order contact us on +44 (0) 845 600 6266



# access floor service outlet boxes accessory plates and ancillary items





# Selection charts **p. 24-25** Dimensions and technical information **p. 29**

Lid and trim mouldings are precision engineered from hard wearing durable ABS. Lid is reinforced with a galvanised mild steel plate Mounting frame and box base - 0.9 mm thick galvanised steel Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits Grey mouldings. Alternative colours available to special order. Goosewing grey plates 2, 3 and 4 compartment boxes are also available with separate individual compartment base units for convenient offsite pre-wiring Supplied in parts or fully assembled and configured to customer specification Conform to IEC-61534-22

Pack	Cat. Nos.	1, 2 and 3 compartment accessory plates	Pack	Cat. Nos.	4 compartment accessory plates
		100 mm width			75 mm compartment widths
1	CR020	Blank plate	1	CR4100	Blank plate
1	CR022	2 gang switched socket outlet	1	CR4101	2 gang switched socket outlet
1	CR023	2 gang switched socket outlet, low noise / clean earth	1	CR4102	2 gang switched socket outlet, low noise / clean earth
1	CR027	2 gang non-standard switched socket outlet	1	CR4103	2 gang non-standard switched socket outlet
1	CR029	2 gang unswitched socket outlet	1	CR4104	2 gang unswitched socket outlet
1	CR030	3 gang unswitched socket outlet	1	CR4105	3 gang unswitched socket outlet
	CR044	3 gang unswitched socket outlet,		CR4118	3 gang unswitched socket outlet,
	0.000	low noise / clean earth		004444	low noise / clean earth
1	CR036	2 gang RCD socket outlet	1		2 gang RCD socket outlet
1	CR043	2 gang RCD socket outlet, low noise / clean earth	1		2 gang RCD socket outlet, low noise / clean earth
1	CR026	Punched plate for 2 x 1 gang accessories (60·3 mm fixing centres)	1	CR4115	Angled punched plate for 4 x RJ45 (37 mm x 22 mm cut-outs)
1	CR028	Punched plate for 2 gang accessories	1	CR4106	2 x LJ2 accessory plate (50 mm fixing centres)
		(120.6 mm fixing centres)	1	CR4108	4 x BNC connector plate
1	CR042	Angled punched plate for 4 x RJ45	1	CR4112	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)
		(37 mm x 22 mm cut-outs)	1	CR4113	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)
1	CR031	2 x LJ2 accessory plate (50 mm fixing centres)			
1	CR033	4 x BNC connector plate			Ancillary items for service outlet boxes
1	CR024	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)			Anomaly items for service outlet boxes
1	CR025	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)	1	CR0001	Floor tile cut-out template – 2 compartment
			1	CROOOS	Floor tile out-out template 3// compartment

#### oxes

CR0001	Floor tile cut-out template – 2 compartment
CR0003	Floor tile cut-out template – 3/4 compartment
CR0000	Cable outlet flap
CR0010	Cable routers
CR0011	Screws for accessory plates
CR0012	Pack of 5 keys for use with lockable floor boxes
CR0002	Lid – 2 compartment box
CR0004	Lid – 3/4 compartment box
CR0005	Mounting frame for vinyl floor. For 2 compartment box Replaces mounting frame attached to base
CR0006	Mounting frame for vinyl floor. For 3/4 compartment box. Replaces mounting frame attached to base
CR0007	Floor box lid handle
CR0020	Metal lid and trim - replacement for 3 and 4 compartment boxes - powder coated grey
	CR0003 CR0000 CR0010 CR0012 CR0022 CR0002 CR0004 CR0005 CR0006 CR0007

Electrak tap-offs p. 10-14, 16



# access floor pre-wired service outlet boxes 3 and 4 compartment





Dimensions and technical information **p. 29** 

Electrak floor boxes can be supplied pre-wired to power track tap-offs with any variation of sockets, tap-offs, depth or other configuration

Pack	Cat. Nos.	3 compartment pre-wired boxes with 1 x TSSO	Pack	Cat. Nos.	4 compartment pre-wired boxes with 1 x TSSO		
		100 mm compartment widths			75 mm compartment widths		
		Single base – 85 mm depth, pre-wired with :			Single base – 85 mm depth, pre-wired with :		
1	CR100	3 m Electrak 24 standard tap-off Cat. No. DP1332	1	CR120	3 m Electrak 24 standard tap-off Cat. No. DP1332		
1	CR101	5 m Electrak 24 standard tap-off Cat. No. DP1532	1	CR121	5 m Electrak 24 standard tap-off Cat. No. DP1532		
1	CR110	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332	1	CR130	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332		
1	CR111	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532	1	CR131	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532		
1	CR104	3 m Electrak 28 auxiliary earth tap-off	1	CR124	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332		
	Cat. No. YP5332		1	CR125	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532		
1	CR105	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532					
		Gat. NO. 1F 3332			4 compartment pre-wired boxes with 2 x TSSO		
		3 compartment pre-wired boxes with 2 x TSSO			75 mm compartment widths		
		100 mm compartment widths			Single base – 85 mm depth, pre-wired with :		
		Single base – 85 mm depth, pre-wired with :	1	CR122	3 m Electrak 24 standard tap-off Cat. No. DP1332		
1	CR102	3 m Electrak 24 standard tap-off Cat. No. DP1332	1	CR123	5 m Electrak 24 standard tap-off Cat. No. DP1532		
1	CR103	5 m Electrak 24 standard tap-off Cat. No. DP1532	1	CR132	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332		
1	CR112	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332	1	CR133	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532		
1	CR113	5 m Electrak 25 low noise / clean earth tap-off	1	CR126	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332		
	0.0400	Cat. No. JP2532		CR127	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532		
1	CR106	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332					
1	CR107	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532	Pre-wired floor boxes can be supplied with RCD rather than standard sockets. Add an R to the end of the part numbers for an RCD version.				
					00R is a 3 compartment floor box with a twin RCD 332 tap-off		



Also available :

- pre-wired boxes with fused tap-offs - shallow or deep versions

- separate compartment bases

contact us on +44 (0) 845 600 6266



A Group brand

**C**legrand

# access floor service outlet boxes with RCD protection



CR4401

له

Selection charts **p. 24-25** Dimensions and technical information (opposite)

Electrak floor boxes are available with various RCD protection options and can be supplied pre-wired to power track tap-offs

Pack	Cat. Nos.	Floor boxes with RCD protection and 2 x TSSO
		Boxes contain 1 spare 75 mm width compartment
1	CR4400	Includes standard sockets
1	CR4401	Includes low noise sockets
		Pre-wired RCD protected floor boxes
		Boxes contain RCD and 2 x TSSO with 1 spare 75 mm compartment
1	CR4402	Pre-wired with Cat. No. DP1332 tap-off
1	CR4403	Pre-wired with Cat. No. DP1532 tap-off
1	CR4412	Pre-wired with Cat. No. JP2332 tap-off
1	CR4413	Pre-wired with Cat. No. JP2532 tap-off

# access floor service outlet boxes

#### technical information

#### Floor boxes

#### Dimensions

Lid can accommodate carpets up to 6 mm depth Accessory plates are 172 mm long, with 162 mm fixing centres

#### Materials

Lid and trim mouldings are precision engineered from hard wearing durable ABS. Lid is reinforced with a galvanised mild steel plate Mounting frame and box base -0.9 mm thick galvanised steel Floor service unit conforms to IEC-61534-22

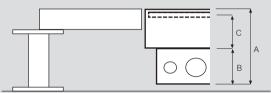
### Wiring

Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits

#### Colour

Grey mouldings. Alternative colours available to special order Goosewing grey plates

#### Dimensions from top of floor tile into floor void



<b>A</b> (mm)	B Accessory box depth (mm)	C Underside lid to top of accessory (plug clearance) (mm)
75	35	35
85	45	35
110	45	60

#### To install box

Cut hole in raised floor tile, lower complete box into aperture and push firmly down



#### Floor tile cut-out dimensions

2 compartment : 263 mm x 203 mm<sup>1</sup> 3 and 4 compartment : 340 mm x 203 mm<sup>1</sup> Floor cut-out aperture is the same for single base or separate compartment base

To fit carpet : Detach lid and trim assembly by lifting the blue locking handles and lifting out. Cut and fit carpet. Push lid and trim assembly back into place



1 : The aperture dimension 203 mm has a fixing tolerance between 203 to 205 mm

# Floor grommets.. perfectly balancing

capacity and size



# ACCESS GROMMETS

The Electrak range of simple to install access grommets allow cables and conduit to link between underfloor power and desk power systems

- Ranging from 144mm to 232mm in diameter
- 169mm diameter grommet can accommodate up to 3 x 32mm conduits perfectly balancing capacity and size
- Push-fit lid with optional screw fixing to prevent unauthorised access

- Harrie L



# POWER AND DATA GROMMETS

The Electrak range of cleaner's grommets are the latest addition to its power and data grommets range. Within their 169mm diameter, the grommet can house a flat RCD socket and provide ample space for the user to plug in or unplug equipment.

- Cleaner's grommet with flat mounted RCD socket or standard socket options
- Push-fit lid with cable flap feature
- Spring loaded screws for rapid installation
- Available pre-wired to power track tap-offs

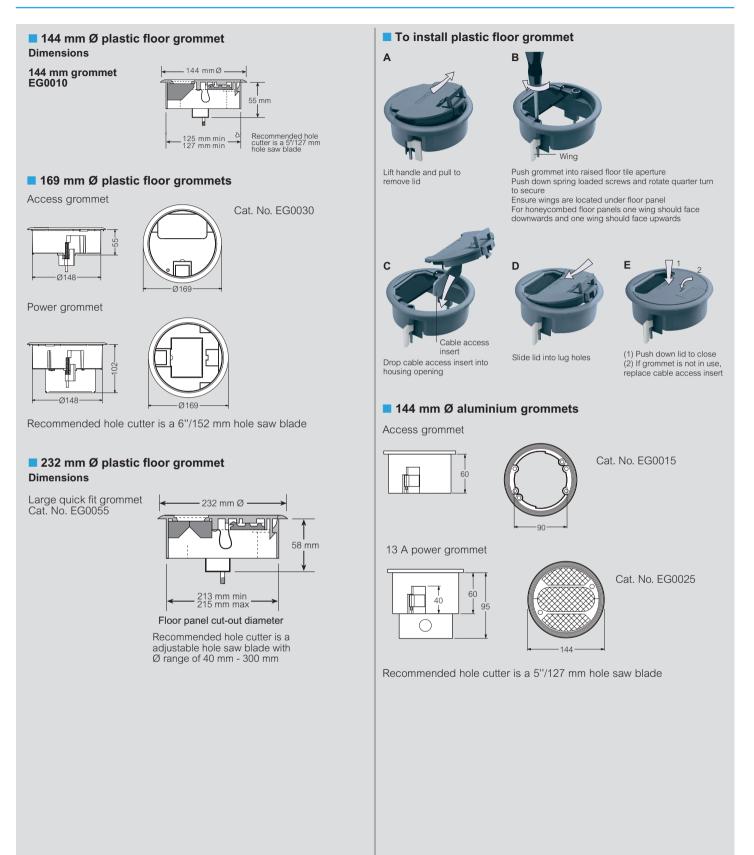


# floor grommets access / power and data

Dim	EG0010	The second secon		EG0040	FG045
Pack	Cat. Nos.	Plastic access grommets	Pack	Cat. Nos.	Plastic power and data grommets
		Quick fit installation			169 mm Ø – cut-out size 152 mm Ø
		Precision engineered from hard wearing durable ABS Grey mouldings. Other colours available to special order Grommets conform to IEC-61534-22 Simply secured by pushing down the spring-loaded screws and rotating a quarter turn			Quick fit installation Precision engineered from hard wearing durable ABS Grey mouldings. Other colours available to special order. Conform to IEC-61534-22 Removable carpet recess Cable flap feature so grommet lid can be closed
1	EG0010	<b>144 mm Ø – cut-out size 127 mm Ø</b> Can accomodate all cable types or three metal conduits up to a 20 mm Ø or 25 mm without foam			while in use Simply secured by pushing down the spring loaded screws and rotating a quarter turn
1	EG0030	169 mm Ø – cut-out size 152 mm Ø	1	EG0040	<b>13 A power grommet</b> Supplied complete with
		Allows power, data and flexible conduit up to 32 mm to pass through raised access floor			13 A unswitched socket
		Lid can be locked with screw (included)	1	EG0045	RCD power grommet Supplied complete with 13 A RCD socket
		Maximum number of conduits : 9 x 20 mm Ø 5 x 25 mm Ø 3 x 32 mm Ø	1	EG0051	<b>13 A power/data grommet</b> Supplied complete with 13 A socket and 1 x 37 x 22 mm cut-out
1	EG0055	232 mm Ø – cut-out size 215 mm Ø	1	EG0052	Data grommet Supplied complete with data plate
		High capacity grommet Recommended for installation in light traffic areas			2 x 37 x 22 mm cut-out
		Ŭ			Pre-wired power grommets
		Aluminium access grommet Body – cast aluminium			169 mm Ø – cut-out size 152 mm Ø
		Lid – injection moulded plastic Nylon 66 with neoprene cable gasket	4	FC0044	Cleaners socket version
		Secured by guarter-turn fasteners	1 1		DP1332 - 3 m unfused DP1532 - 5 m unfused
		Floor depth 25 to 55 mm Access grommet depth 60 mm	1 1		DP1313 - 3 m 13 A fused DP1513 - 5 m 13 A fused
1	EG0015	(95 mm when back box included) 144 mm Ø – cut-out size 127 mm Ø	·	200011	RCD socket version
1	LOUTS	Allows power, data and flexible	1		DP1332 - 3 m unfused
		conduit up to 25 mm to pass through raised access floor	1 1		DP1532 - 5 m unfused DP1313 - 3 m 13 A fused
			1		DP1513 - 5 m 13 A fused
	F00005	Aluminium power grommet			
1	EG0025	<b>13 A power grommet</b> Supplied complete with 13 A unswitched socket			

# floor grommets

#### technical information









# Intersoc- $\mathbb{R}^{\mathbb{M}}$ ... fast, reliable, adaptable modular desk power







## COMPLETE SOLUTIONS FOR DEMANDING ENVIRONMENTS

Intersoc-R is a modular desk power system designed to meet the demands of modern workplaces for faster and more adaptable solutions.

Designed with speed of installation and flexibility in mind, Intersoc-R's modular configuration enables thousands of different combinations to be made - providing solutions for every installation requirement.

- Modular system rapid configuration and easy workstation relocation
- Push-fit connection modules can simply be disconnected and additional modules inserted
- Busbar interconnection no need for wiring
- Easily adapted to meet the changing demands of the workplace



## The next generation of power distribution



Available in standard and clean earth versions, with fixed or rotatable socket options and a safe shuttered electrical connection, Intersoc-R is the next generation of power distribution...

- Simple push-fit, module connection with auto-lock mechanism creates robust joints and makes installation quicker and easier
- 32 A system with safe shuttered electrical connections for additional safety, meets the requirements of BS 7671 : 2008 (including section 543.7)
- MCB, RCD and RCBO modules, with reversible hinged covers, provide a full range of circuit protection options
- 2, 3 or 4 gang British standard socket modules with fixed or rotatable, fused or unfused (BS 6396) sockets options all the options you need to meet the requirements of any installation
- 8 international socket options make Intersoc-R ideal for installations across the globe
- Outgoing connections: flexible interlink or end cap with ST or GST options









## Intersoc-R<sup>TM</sup> desk modules electrical supply

 AB312

Dimensions and technical information **p. 42-45** 

Intersoc-R features fast modular connection with push-fit auto lock mechanism, safe shuttered electrical connections and a robustly designed rigid joint between modules. Available in standard and clean earth versions Independently approved by Intertek. Complies with BS 5733 and the relevant parts of BS 1363 part 2. Manufactured in an approved ISO 9001 : 2008 facility. Meets the requirements of BS 7671 : 2008 for high integrity earthing (section 543·7)

	Pack	Cat. Nos.	32 A pre-wired feed modules	Pack	Cat. Nos.
			Standard earth tap-offs (E24 - White tap-off)		
	1		3 m unfused metal tap-off Cat. No. DP1332	1 1	IAB002A IAB003A
	1		5 m unfused metal tap-off Cat. No. DP1532	1	IAB005A
	1 1		3 m 13 A fused 543.7 metal tap-off Cat. No. DP1327 5 m 13 A fused 543.7 metal tap-off Cat. No. DP1527		
		17 12 0 1 07 1	Low noise / clean earth tap-offs		
			(E25 - Green tap-off)	1	IAB201A
	1	IAC311A	3 m unfused metal tap-off Cat. No. JP2332		
	1	IAC312A	5 m unfused metal tap-off Cat. No. JP2532		
	1 1		3 m 13 A fused 543.7 metal tap-off Cat. No. JP2327 5 m 13 A fused 543.7 metal tap-off Cat. No. JP2527		
	I	IACUTUA	'	1	IAB660B
			Auxiliary earth tap-offs (E28 - Red tap-off)	1	IAB201B
	1 1		3 m unfused metal tap-off Cat. No. YP5332 5 m unfused metal tap-off Cat. No. YP5532		
	1		3 m 13 A fused 543.7 metal tap-off Cat. No. YP5327		
	1		5 m 13 A fused 543.7 metal tap-off Cat. No. YP5527		
_				1 1	IAB002B IAB003B
			32 A re-wirable feed modules	1	IAB005B
	1		Standard earth (for flexible conduit)		
	1	IAC301A	Low noise (for flexible conduit)	1	IAB610BB
1			32 A feed units with in-built Neutrik	1	IAB620BB
			connectors	1	IAB630BB
	1	IAB301E	Standard earth		
	1		Low noise		
			32 A tap-offs pre-wired to Neutrik connectors		
			Standard earth tap-offs (E24)		
	1		3 m unfused metal tap-off Cat. No. DP1332		
	1 1		5 m unfused metal tap-off Cat. No. DP1532 3 m 13 A fused 543.7 metal tap-off Cat. No. DP1327		
	1		5 m 13 A fused 543.7 metal tap-off Cat. No. DP1527		
			Low noise / clean earth tap-offs (E25)		
	1		3 m unfused metal tap-off Cat. No. JP2332		
	1		5 m unfused metal tap-off Cat. No. JP2532		
	1	IAC315E	3 m 13 A fused 543.7 metal tap-off Cat. No. JP2327		
	1	IAC316E	5 m 13 A fused 543.7 metal tap-off Cat. No. JP2527		

Pack	Cat. Nos.	16 A feed modules pre-wired to 13 A fused plug
1 1 1	IAB003A	With 2 m 1·5 mm <sup>2</sup> cable With 3 m 1·5 mm <sup>2</sup> cable With 5 m 1·5 mm <sup>2</sup> cable
		16 A rewirable feed modules
1	IAB201A	Rewirable feed module (for cable)
		16 A feed units with in-built GST connector
1 1		Compact feed module with male GST connector Feed module with male GST and earth bond lead
		16 A pre-wired connection leads
		13 A fused plug pre-wired to GST connector
1 1 1	IAB003B	With 2 m $1.5$ mm <sup>2</sup> cable With 3 m $1.5$ mm <sup>2</sup> cable With 5 m $1.5$ mm <sup>2</sup> cable
		GST to GST connection leads
1 1 1	IAB620BB	1 m length 2 m length 3 m length

## Intersoc-R<sup>™</sup> desk modules

## protection, BS sockets, end caps and interlinks





## Dimensions and technical information p. 42-45

The BS version is available with fixed or rotatable sockets. Individually fused sockets are available to meet the requirements of BS 6396 : 2008

A wide range of interconnection solutions are available. When 16 A cabling interconnection is used with 32 A under desk solutions, suitable de-rating protection devices must be incorporated to protect the cables. All protection and switching modules, end caps and interlinks are universally compatible with standard and clean earth / low noise systems.

Pack	Cat. Nos.	Protection and switching modules	Pack	Cat. Nos.	Socket modules – low noise / clean earth
1		With 13 A fuse			(green sockets) (continued)
1	IAB402A IAB403A	With 13 A fuse and sw/neon With 13 A fuse and neon			3 gang unfused
1	IAB404A	32 A max. single isolation module	1 1		Fixed sockets Rotatable sockets
1 1		With 30 mA RČD With neon indicator	·		3 gang individually fused
1	IAB420A	With 16 A MCB	1	IAC533E	3·15 A – fixed sockets
1 1		With 20 A MCB With 32 A MCB	1		3·15 A – rotatable sockets
1	IAB450A	With 16 A RCBO With 20 A RCBO			4 gang unfused
1 1		With 32 A RCBO	1		Fixed sockets
			1	IAC504R	Rotatable sockets
		Socket modules – standard (grey sockets)			4 gang individually fused
		2 gang unfused	1		3·15 A – fixed sockets 3·15 A – rotatable
1		Fixed sockets	I	IAC554N	5-15 A - Totalable
1	IAB502R	Rotatable sockets			End cap
		2 gang individually fused	1	IAZ001A	Blank end cap
1 1		3·15 A – fixed sockets 3·15 A – rotatable sockets			
		3 gang unfused			Intersoc to intersoc pre-wired interconnection
1	IAB503F	Fixed sockets			16 A
1	IAB503R	Rotatable sockets	1 1		0·3 m length 0·5 m length
		3 gang individually fused	1	IAB610A	1 m length
1		3·15 A – fixed sockets 3·15 A – rotatable sockets	1 1		2 m length 3 m length
1	IADUUUK		1		5 m length
		4 gang unfused			32 A
1 1		Fixed sockets Rotatable sockets	1		0.3 m length
		4 gang individually fused	1 1		0·5 m length 1 m length
1	IAB534F	3·15 A – fixed sockets	1	IAB720A	2 m length
1	IAB534R	3.15 A – rotatable sockets	1 1	IAB730A IAB750A	3 m length 5 m length
		Socket modules – low noise / clean earth			-
		(green sockets)			Power out end caps 16 A
		2 gang unfused			Without flex
1	IAC502F	Fixed sockets	1		End cap with female GST connector
1	IAC502R	Rotatable sockets	1	ADOUUC	End cap with female ST connector
		2 gang individually fused	4		With flex to female GST connector
1		3.15 A – fixed sockets	1 1		1 m length 2 m length
1	IAC532R	3.15 A – rotatable sockets	1	IAB630B	3 m length



## Intersoc® international range

## international socket options



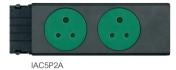
IAB5N4A



IAF5N2A



IAB5P4A



Dimensions and technical information **p. 42-45** 

The Intersoc 32 A under-desk range is a complete modular power system. Intersoc offers a wide range of international socket options. The Intersoc modular system features safe shuttered electrical connections and a robustly designed rigid joint between modules. All modules connect with single push-fit action and auto lock

Pack	Cat. Nos.	Schuko socket modules	Pack	Cat. Nos.	5 A Indian socket modules
		2 gang – grey socket outlets			2 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1	IAB5P2A IAB5P2B	90° angled sockets 45° angled sockets
		4 gang – grey socket outlets			4 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		2 gang – red socket outlets			2 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1	IAC5P2A IAC5P2B	90° angled sockets 45° angled sockets
		4 gang – red socket outlets			4 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		French/Belgium socket modules			15 A South African socket modules
		2 gang – grey socket outlets			2 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1	IAB5Q2A IAB5Q2B	90° angled sockets 45° angled sockets
		4 gang – grey socket outlets			4 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		2 gang – red socket outlets			2 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		4 gang – red socket outlets			4 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1	IAC5Q4A IAC5Q4B	90° angled sockets 45° angled sockets

## Intersoc<sup>®</sup> international range

## international socket options (continued)







IAC5S2A



## Dimensions and technical information p. 42-45

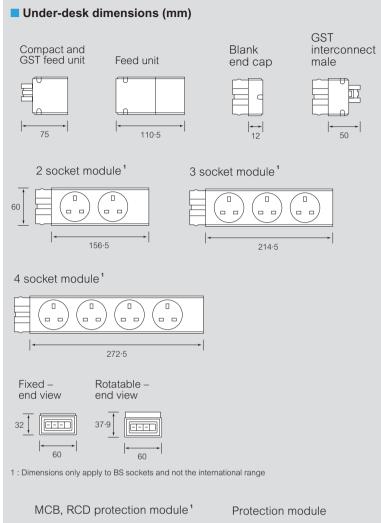
The Intersoc 32 A under-desk range is a complete modular power system. Intersoc offers a wide range of international socket options. The Intersoc modular system features safe shuttered electrical connections and a robustly designed rigid joint between modules. All modules connect with single push-fit action and auto lock

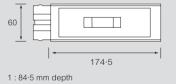
Pack	Cat. Nos.	Australian/Chinese socket modules	Pack	Cat. Nos.	15 A USA socket modules
		2 gang – grey socket outlets			2 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		4 gang – grey socket outlets			4 gang – grey socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		2 gang – green socket outlets			2 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
		4 gang – green socket outlets			4 gang – green socket outlets
1 1		90° angled sockets 45° angled sockets	1 1		90° angled sockets 45° angled sockets
					20 A USA socket modules
					2 gang – grey socket outlets
			1 1		90° angled sockets 45° angled sockets
					4 gang – grey socket outlets
			1 1		90° angled sockets 45° angled sockets
					2 gang – green socket outlets
			1 1		90° angled sockets 45° angled sockets
					4 gang – green socket outlets
			1 1		90° angled sockets 45° angled sockets



## Intersoc-R<sup>™</sup> desk modules

technical information



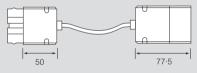




60



Interconnection



**C**legrand

## Testing and accreditation





Independently approved by Intertek Complies with BS 5733 and relevant parts of BS 1363-2 Manufactured within an approved ISO 9001 : 2008 and ISO 14001 : 2004 facility Assessed quality assurance certificate No. 2029

## Electrical test data

Rated current	up to 32 A
Rated voltage	250 V ~
Frequency	50/60 Hz

Conductor resistance at 20°C Fixed Rotatable			
2 socket module	0·8 m <b>Ω</b>	0·9 m <b>Ω</b>	
4 socket module	1·6 m <b>Ω</b>	1·7 m <b>Ω</b>	

Volt drop Live and neutral			
2 socket module	1.5 m V/A		
4 socket module	3·0 m V/A		
Protection module	4.0 m V/A		
	(depending on device)		
In-feeds :	In-feeds :		
16 A	4·0 m V/A		
+1.5 mm <sup>2</sup>	29 m V/A/m		
32 A	2·0 m V/A		
+4 mm <sup>2</sup>	11 m V/A/m		
Interconnections :			
16 A/32 A	2·0 m V/A		
+1.5 mm <sup>2</sup> 29 m V/A/m			
+4 mm <sup>2</sup>	11 m V/A/m		

## Earth fault loop impedance

2 socket module	1·5 mΩ
4 socket module	3·0 mΩ
Protection module	4·0 mΩ
	(depending on device)
In-feeds :	
16 A	2·0 m <b>Ω</b>
+1.5 mm <sup>2</sup>	29 m <b>Ω</b> /m
32 A	2·0 mΩ
+4 mm <sup>2</sup>	11 m <b>Ω</b> /m
Interconnections :	
16 A/32 A	4·0 m V/A
+1.5 mm <sup>2</sup>	29 m <b>Ω</b> /m
+4 mm <sup>2</sup>	11 m <b>Ω</b> /m

## Mechanical data

3
5 mm <sup>2</sup>
10 mm <sup>2</sup>
10 mm <sup>2</sup>

## British Standards

BS 6396 : 2008 Electrical Systems in Office Furniture and Educational Furniture Specification

BS 7671 : 2008 incorporating amendment No. 1 : 2011. Requirements for Electrical Installation (IET Wiring Regulations 17th Edition)

### **Electricity at Work Regulations 1989**

### Health & Safety Legislation

Below is a brief outline of the main criteria within the standards :

BS 6396 : 2008 was published with regard to the use of electrical equipment within general office and educational furniture. This standard sets out in its scope the use and testing of electrical socket outlets and associated wiring when used together with a 13 A BS 1363 fused plug for mains supply and makes provision for the routing of cables through furniture

For compliance with this standard, socket outlet configurations of up to 4 outlets should be individually fused at 5 A and up to 6 outlets individually fused at  $3{\cdot}15$  A

A note on individual socket fusing - BS 6396 Compliance :

The standard requires individual socket fusing (as per the table below)

Total number of sockets	Individually fused at
2, 3 or 4 sockets	5 A
5 or 6 sockets	3·15 A

Meets the requirements of BS 7671 : 2008 (2011) (17th Edition) The Health and Safety Executive states that installations which conform to the standards laid down in BS 7671 : 2008 (2011) are regarded by the HSE as likely to achieve conformity with the relevant parts of the Electricity at Work Regulations 1989

Special note should be taken of regulation 543.7 within BS 7671 : 2008 - Earthing requirements for the installation of equipment having high protective conductor currents

Regulation 543-7 has particular importance when there is a requirement for a quantity of information technology equipment being supplied from a final circuit in a location where the sum of their protective currents exceeds 10 mA in normal use. Due to current in the protective conductor arising from the use of IT equipment, there is a requirement to provide mechanically protected 4 mm<sup>2</sup> conductor (543·7·1·103 (ii)). Intersoc achieves this when wired in accordance with the installation sheets by providing mechanically protected 5 mm<sup>2</sup> protective conductors within the product

Material specifica	Material specification			
Module housing	Heat resistant ABS			
Socket outlets	polycarbonate			
Busbars	high conductivity copper CW004A (C101)			
Other metalwork	phosphor bronze CW451K (PB102), CW452K (PB103)			
	brass CW507L (CZ107), CW508L (CZ108)			
	high conductivity copper CW004A (C101) <sup>1</sup>			

1 : European grades with nearest British Standard shown in brackets



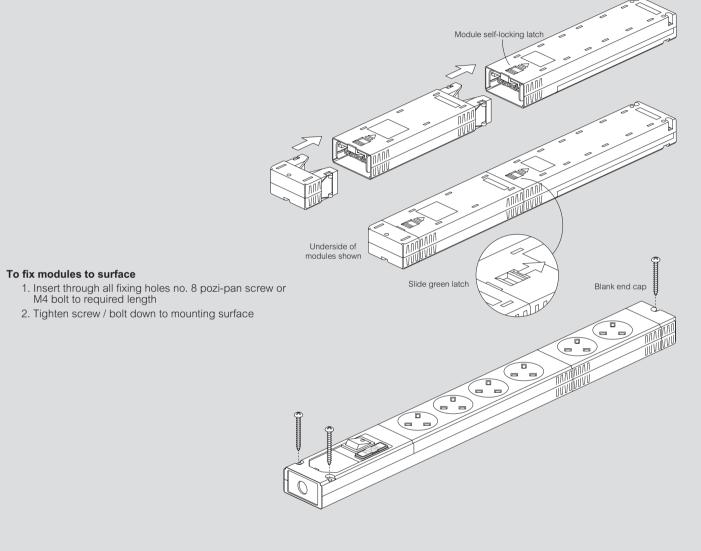
## Intersoc-R<sup>™</sup> desk modules

## installation and configuration

## Installation

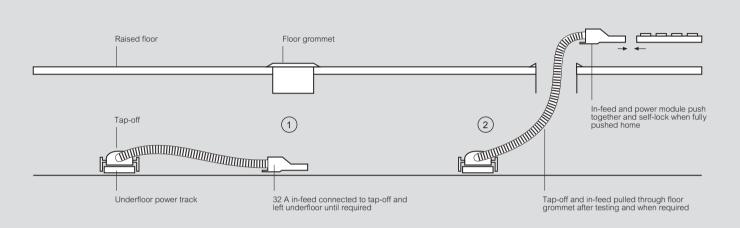
## To connect and disconnect Intersoc modules

- 1. Connection / disconnection to be made by a competent person
- 2. Before connecting modules ensure they are the correct way up and in line
- 3. Push modules together one at a time
- 4. Modules self-lock when fully pushed together
- 5. To disconnect modules slide green latch to unlock module and pull apart
- 6. Always end module run with blank end cap or interconnect



## Product configuration

- 1. Select the type of distribution system standard, or low noise / clean earth
- 2. Select the means of powering the system cable or power track tap-off
- 3. Select the type of in-feed module to match the cable capacity 16 A or 32 A  $\,$
- 4. Select the means of protection
- 5. Select the number of socket modules from the 2, 3 or 4 gang range (individually fused or unfused)
- 6. Select fixed or rotatable sockets
- 7. Select the interconnection units if required
- 8. Finish system with the end cap
  - (All modules push fit and lock together on-site or can be factory assembled to customer requirement)





## Intersoc® on-desk... power and data for modern workspaces

The new Electrak Intersoc on-desk range brings power, data and rapid USB charging capability to the modern workstation.

With its contoured edges, clean lines and stylish aluminium and mirror white finish, Intersoc on-desk blends in perfectly with contemporary office design schemes and enhances the functionality of the desk space.



## Intersoc® on-desk... del rapid USB char

The fast pace of modern work practices, combined with the need for instant connectivity is placing an ever greater reliance on the use of multiple devices, whether it be at our workstation or whilst we're on the move. The new range of Intersoc on-desk modules offers a convenient answer to the growing demand for user-specific desk power and data access, no matter what the technology requirements.

## RAPID USB CHARGING

With an impressive 3.1 Amp dual charging facility, Intersoc on-desk's twin USB modules offer a high specification, rapid charge facility that keeps your mobile devices ready should you need to work on the move. Up to two devices (e.g. tablet and smart phone) can be simultaneously charged at a faster rate than common, lower output chargers.

## SUPERCHARGED CHARGING

Twin USB charging modules offer a high specification, rapid charge facility



## ivering power, data and ging to the workstation

## HIGH PERFORMANCE DATA

CAT 6A keystone jack modules offer high performance data and are supplied via cables which neatly feed through the rear of the unit. CAT 6 modules are also available with simple RJ45 connection at both the front and rear of the unit.

## TAILORED TO YOUR REQUIREMENTS

Configuring Intersoc on-desk modules to your exact requirements couldn't be simpler. Choose from: flat (horizontal) or angled (vertical) mounted units; select any combination of power and data, and further enhance functionality with single or double Euro modules or any device from within Legrand's Arteor modular wiring accessories range. Putting 'personal' back into desk power and data... Intersoc on-desk can be tailored to the demands of any workstation.







Left: Power is fed to the Intersoc on-desk unit via a choice of 13 A pre-wired plug, GST connector, or Intersoc-R under-desk connector

Above left: On-desk units are available in flat mounted (pictured) and angle mounted versions (data options are not available with horizontal units)

Above: High specification CAT 6A keystone jacks can be supplied with performance certificates. Easy to fix brackets are supplied with protective pads that won't damage the desk

Left hand page: Convenient personal power and data ports for laptops, with CAT 5 / CAT 6 RJ45 feed neatly nestling to the rear of the unit, plus dual USB charging facility



## Intersoc<sup>®</sup> on-desk modules

		Pre-wired with 3 m flex and BS 1363 plug	Pre-wired with 1.5 m flex and GST connector	Pre-wired with 1·5 m flex and Intersoc-R connector
	Description	Cat. No.	Cat. No.	Cat. No.
	Horizontal unit with 2 x sockets individually fused at $3.15 \text{ A}$	HA3320AA	HB1320AA	HD1320AA
	Horizontal unit with 3 x sockets individually fused at $3.15A$	HA3330AA	HB1330AA	HD1330AA
	Horizontal unit with 4 x sockets individually fused at $3.15 \text{ A}$	HA3340AA	HB1340AA	HD1340AA
	Vertical unit with 2 x sockets individually fused at 3.15 A	VA3320AA	VB1320AA	VD1320AA
	Vertical unit with 3 x sockets individually fused at 3.15 A	VA3330AA	VB1330AA	VD1330AA
	Vertical unit with 4 x sockets individually fused at 3.15 A	VA3340AA	VB1340AA	VD1340AA
	Vertical unit with 2 x sockets individually fused at 3.15 A plus 1 x rear pluggable CAT 5 / CAT 6 RJ45 outlet	VA3320AB	VB1320AB	VD1320AB
	Vertical unit with 2 x sockets individually fused at 3.15 A plus 2 x rear pluggable CAT 5 / CAT 6 RJ45 outlets	VA3320AC	VB1320AC	VD1320AC
( Se i	Vertical unit with 2 x sockets individually fused at 3.15 A plus 1 x rear pluggable data USB outlet	VA3320AD	VB1320AD	VD1320AD
	Vertical unit with 2 x sockets individually fused at 3.15 A plus 2 x rear pluggable data USB outlets	VA3320AE	VB1320AE	VD1320AE
	Vertical unit with 2 x sockets individually fused at 3.15 A plus 1 x CAT 6A RJ45 outlet with 3 m data lead	VA3320AF	VB1320AF	VD1320AF
	Vertical unit with 2 x sockets individually fused at 3.15 A plus 2 x CAT 6A RJ45 outlets with 3 m data leads	VA3320AG	VB1320AG	VD1320AG
	Vertical unit with 2 x sockets individually fused at 3.15 A plus carrier to accept 1 x Euro Module (25 x 50 mm)	VA3320AK	VB1320AK	VD1320AK
	Vertical unit with 2 x sockets individually fused at 3.15 A plus carrier to accept 2 x Euro Modules (50 x 50 mm)	VA3320AL	VB1320AL	VD1320AL
	Vertical unit with 3 x sockets individually fused at 3·15 A plus 1 x rear pluggable CAT 5 / CAT 6 RJ45 outlet	VA3330AB	VB1330AB	VD1330AB
	Vertical unit with 3 x sockets individually fused at 3.15 A plus 2 x rear pluggable CAT 5 / CAT 6 RJ45 outlets	VA3330AC	VB1330AC	VD1330AC
( SSS i	Vertical unit with 3 x sockets individually fused at $3.15$ A plus 1 x rear pluggable data USB outlet	VA3330AD	VB1330AD	VD1330AD
	Vertical unit with 3 x sockets individually fused at 3.15 A plus 2 x rear pluggable data USB outlets	VA3330AE	VB1330AE	VD1330AE

Fixings	
Description	Cat. No.
Long desk clamp for mounting horizontal units flat on the desk	H010
Adhesive fixing strips for mounting horizontal units	H002
Long desk clamp for mounting vertical units at an angle on desk	V010

**L**legrand

## Intersoc<sup>®</sup> on-desk modules with twin outlet USB charger (3-1 A)

		Pre-wired with 3 m flex and BS 1363 plug	Pre-wired with 1·5 m flex and GST connector	Pre-wired with 1·5 m flex and Intersoc-R connector
	Description	Cat. No.	Cat. No.	Cat. No.
	Horizontal unit with 1 x unfused socket plus twin outlet USB charger	HA3012AA	HB1012AA	HD1012AA
	Horizontal unit with 2 x sockets individually fused at $3.15$ A plus twin outlet USB charger	HA3322AA	HB1322AA	HD1322AA
	Horizontal unit with 3 x sockets individually fused at $3.15$ A plus twin outlet USB charger	HA3332AA	HB1332AA	HD1332AA
$\bigcirc$	Vertical unit with 1 x unfused socket plus twin outlet USB charger	VA3012AA	VB1012AA	VD1012AA
	Vertical unit with 2 x sockets individually fused at 3.15 A plus twin outlet USB charger	VA3322AA	VB1322AA	VD1322AA
$\bigcirc$	Vertical unit with 3 x sockets individually fused at 3.15 A plus twin outlet USB charger	VA3332AA	VB1332AA	VD1332AA
	Vertical unit with 1 x unfused socket, twin outlet USB charger plus 1 x rear pluggable CAT 5 / CAT 6 RJ45 outlet	VA3012AB	VB1012AB	VD1012AB
	Vertical unit with 1 x unfused socket, twin outlet USB charger plus 2 x rear pluggable CAT 5 / CAT 6 RJ45 outlets	VA3012AC	VB1012AC	VD1012AC
	Vertical unit with 1 x unfused socket, twin outlet USB charger plus 1 x rear pluggable data USB outlet	VA3012AD	VB1012AD	VD1012AD
	Vertical unit with 1 x unfused socket, twin outlet USB charger plus 2 x rear pluggable data USB outlets	VA3012AE	VB1012AE	VD1012AE
$\bigcirc$	Vertical unit with 2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 1 x rear pluggable CAT 5 / CAT 6 RJ45 outlet	VA3322AB	VB1322AB	VD1322AB
	Vertical unit with 2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 2 x rear pluggable CAT 5 / CAT 6 RJ45 outlets	VA3322AC	VB1322AC	VD1322AC
	Vertical unit with 2 x sockets individually fused at 3·15 A, twin outlet USB charger plus 1 x rear pluggable data USB outlet	VA3322AD	VB1322AD	VD1322AD
$\bigcirc$	Vertical unit with 2 x sockets individually fused at 3·15 A, twin outlet USB charger plus 2 x rear pluggable data USB outlets	VA3322AE	VB1322AE	VD1322AE
	Vertical unit with 2 x sockets individually fused at $3.15$ A, twin outlet USB charger plus 1 x CAT 6A RJ45 outlet with 3 m data lead	VA3322AF	VB1322AF	VD1322AF
	Vertical unit with 2 x sockets individually fused at $3.15$ A, twin outlet USB charger plus 2 x CAT 6A RJ45 outlets with 3 m data leads	VA3322AG	VB1322AG	VD1322AG
	Vertical unit with 2 x sockets individually fused at 3.15 A, twin outlet USB charger plus carrier to accept 1 x Euro Module (25 x 50 mm)	VA3322AK	VB1322AK	VD1322AK
	Vertical unit with 2 x sockets individually fused at $3.15$ A, twin outlet USB charger plus double carrier to accept 2 x Euro Modules ( $50 \times 50$ mm)	VA3322AL	VB1322AL	VD1322AL

## Note:

All sockets are individually fused at 3.15 A and mounted at  $45^{\circ}$  (except units with a single socket outlet which will be unfused and mounted at  $90^{\circ}$ ). Other options are available to special order. Contact us on +44(0) 845 600 6266

CAT 5 / CAT 6 outlets have a rear facing RJ45 that will accept either CAT 5 or CAT 6 data cabling (no data cabling is included with the product) CAT 6A outlets are supplied with 3 m pre-wired lead and performance certificate

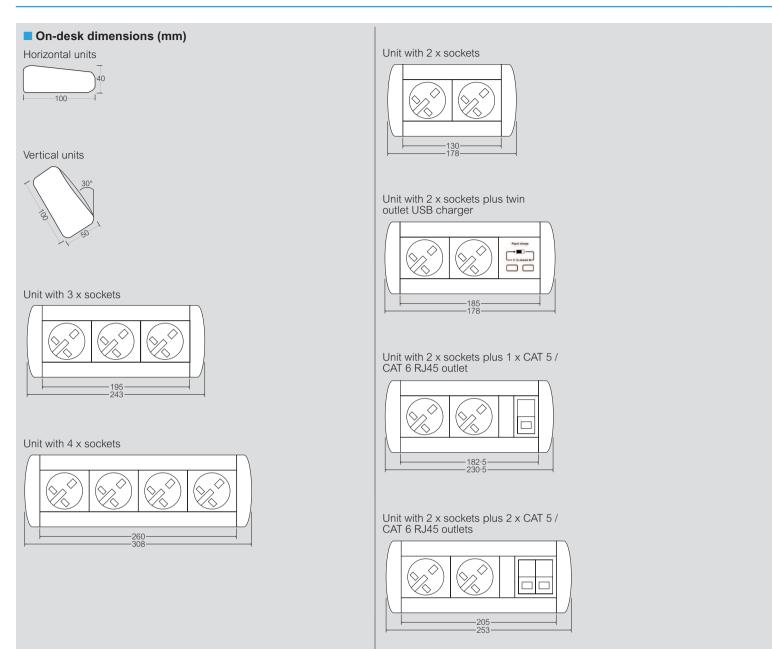
The twin outlet charging USB can supply 3.1 A shared between the 2 outlets

The data USB outlets have a short flying lead and type-A receptacle at the rear for USB connection to the PC (no USB cabling is included with the product) Units supplied with carriers to accept Euro modules will be supplied with apertures at the rear for the passing of data or AV cables



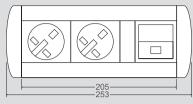
## Intersoc® on-desk modules

## technical information

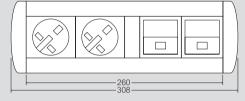


## On-desk dimensions (mm) (continued)

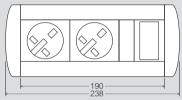
Unit with 2 x sockets plus 1 x CAT 6A RJ45 outlet



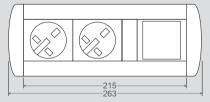
## Unit with 2 x sockets plus 2 x CAT 6A RJ45 outlets



Unit with 2 x sockets plus carrier for Euro Module (25 x 50 mm)



## Unit with 2 x sockets plus carrier for Euro Modules (50 x 50 mm)



## Testing and accreditation





Complies with BS 5733 and relevant parts of BS 1363-2 Manufactured within an approved ISO 9001 : 2008 and ISO 14001 : 2004 facility

## **BS 6396 : 2008**

Electrical Systems in Office Furniture and Educational Furniture Specification

Below is a brief outline of the main criteria within the standard :

BS 6396 : 2008 was published with regard to the use of electrical equipment within general office and educational furniture. This standard sets out in its scope the use and testing of electrical socket outlets and associated wiring when used together with a 13 A BS 1363 fused plug for mains supply and makes provision for the routing of cables through furniture

For compliance with this standard, socket outlet configurations of up to 4 outlets should be individually fused at 5 A and up to 6 outlets individually fused at 3.15 A

A note on individual socket fusing – BS 6396 Compliance :

The standard requires individual socket fusing (as per the table below)

Total number of sockets	Individually fused at
2, 3 or 4 sockets	5 A
5 or 6 sockets	3·15 A

## Material specification

Module housing	aluminium
Module fascia	polycarbonate
Socket outlets	polycarbonate
End caps	flame retardant ABS

## USB charger module specification

Supply voltage (nominal)	230 V (AC)
Supply current	1·3 mA
Power consumption (max.)	0.3 W
Frequency	50 Hz
Output voltage	+5.0 V ± 0.25 (DC)
Output current :	3 A
Output power :	15 W (max.)
Over current protection :	3.8 A (max.)
Output connector :	2 x USB Type A sockets
Current per socket :	2 A (max.)

## **Contact details**

Quotations and Technical Support: Legrand Electric Ltd. Great King Street North, Birmingham, B19 2LF Tel: +44 (0) 845 600 6266 Fax: +44 (0) 845 600 6760 E-mail: powersales.uk@legrand.co.uk

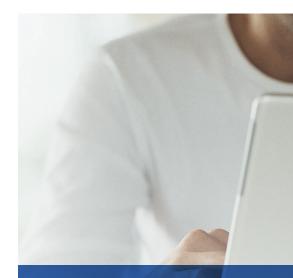
**Customer Services:** Legrand Electric Ltd. No. 1 Industrial Estate, Medomsley Road, Consett, County Durham, DH8 6SR

Tel: +44 (0) 845 600 6266 Fax: +44 (0) 845 600 6366 E-mail: powersales.uk@legrand.co.uk

## Accounts:

Legrand Electric Ltd. Great King Street North, Birmingham, B19 2LF Tel: +44 (0) 870 608 9000

Fax: +44 (0) 870 608 9004



## FOLLOW US AT

www.legrand.co.uk
 www.legrand.ie
 www.youtube.com/legrandtvuk
 www.twitter.com/legranduk
 www.voltimum.co.uk
 www.voltimum.ie

## 

## Head office (UK and Ireland):

Legrand Electric Limited Great King Street North, Birmingham, B19 2LF Tel: 0870 608 9000 Fax: 0870 608 9004 Website: www.legrand.co.uk