

## EASIGO RANGE

EASIGO is an unrivalled product range and is widely used all over the world in applications where a robust product is required or specified.

The design combines cast metal and high performance moulded materials making EASIGO ideal for the most arduous environments including chemical plants, distilleries and breweries, power stations, steel mills, railways and airports.

The range features die cast alloy casings and insulated materials, specifically selected to withstand arduous environments. In 1930, BS196 was issued as the first British Standard covering industrial plugs and sockets. The standard was revised in 1961 to include keyways for voltage discrimination and fused plugs.

### The Range:

- Plugs Sockets
- Connectors
- Interlocked switch sockets
- Interlocked plugs
- Conduit boxes
- Fuses
- Multi-socket outlets
- Fuse switch sockets with RCCB protection

A unique quality held by the EASIGO range is the capacity to carry currents in excess of their stated capacity. The 15A plugs and sockets can actually carry up to 20A, provided that adequate cabling is used.

The Easigo fuse switch with RCCB protection features a sheet steel enclosure with durable stoved enamel finish, interlocked switch, die cast cover with padlocking facility, and optional earth monitoring and gland plates.

EASIGO series is the preferred BS196 standard of heavy duty industrial plugs and sockets in rail applications throughout the UK's rail network.



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## EASIGO (Formerly Reyrolle)

The Easigo range of industrial plugs and sockets BS196.1961 is now manufactured by A-Belco.

The BS196.1961 Easigo range continues to provide a comprehensive choice of protected type non-reversible single phase plugs, sockets and switched interlocked sockets in current ratings from 5, 15 and 30 amperes.

Easigo also includes 3-phase fittings rated from 15 to 60 amperes using the same principles of construction and safety as defined in BS196.

The robust design combines cast metal and high performance moulded materials making them suited for the most arduous of environments - typical industries where this product is well entrenched are Power Stations, Steel Mills, Distilleries and Breweries, Chemical Plants, Railways and Airports not only in the United Kingdom but worldwide.



## EASIGO - FEATURES

### Range of protected type non-reversible plugs and sockets with scraping earth connections 5-60 Amperes.

The EASIGO range comprises single phase plugs and sockets to BS196 and also three-phase with our own arrangement of pin centres. The fittings have die cast zinc alloy casings and insulated materials are used for the back casings of the angle entry plugs and the spring flap covers of the 5 and 15 ampere 2 pole flush sockets. These materials have been specifically selected to withstand the arduous conditions encountered in industrial applications.

## BS196 FITTINGS (5-30 AMPERES)

In 1930, BS196 was issued as the first British Standard covering industrial plugs and sockets. The standard was revised in 1961 at which time many of the innovations introduced by ourselves since 1930 were included e.g. keys and keyways for voltage discrimination and fused plugs.

The standard covers single phase fittings in current ratings of 5, 15 and 30 amperes.

## THREE PHASE FITTINGS (15-60 AMPERES)

Until 1968, when BS4343 was issued, no British Standard existed to cover the requirement for three-phase plugs and sockets. In similar manner to other manufacturers we produced fittings with their own unique pin configurations.

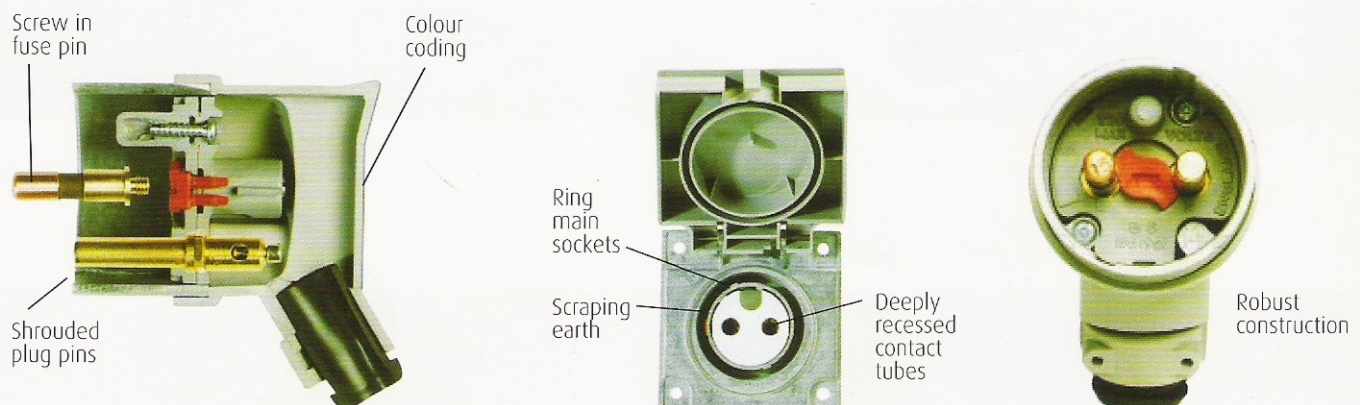
## DEGREES OF INGRESS PROTECTION

The accessories supplied by A-Belco conform to the ingress protection requirements specified by Clause 27, Section 5 of British Standard 196: 1961. Flush sockets 5-15 ampere, single phase have increased ingress protection to IP55. However, if fittings are being used in exposed outdoor installations, it is recommended that additional means of protection, such as canopies or enclosures, should be provided.

The SCRAPING EARTH feature provided by permanently resilient tongues fitted to the socket and connector casings ensures that the earth connection is made before and breaks after the main circuit connections and eliminates the need for a separate earth pin and tube.

Only BS196 offers the facility of industrial ring socket outlets which will prevent the insertion of an unfused plug. A range of appropriate fused plugs is available.

The EASIGO range of switch sockets incorporates mechanical interlocks which are designed so that the socket contacts are never accessible when live. The plug can only be withdrawn from the socket with the switch in the OFF position and the switch cannot be closed until the plug is fully inserted. Some of the switch sockets can be provided with RCCB protection.





The pilot contacts provided are intended for use with continuously monitored earth proving devices, but they can be used with any protective system requiring an insulated contact. The pilot contact pin in the plugs is shorter in length than the phase pins and so makes after and breaks before the phase contacts. The current carrying capacity of the pilot contact is:

- 15 amp size** 10 amps
- 30 amp size** 25 amps

The pilot contact is not the earth contact of the fitting.

Switch sockets can be supplied incorporating a pilot contact for use in multi-outlet earth monitoring systems which require the monitoring circuit to be maintained when the plug is removed. These have an auxiliary contact on the rotary switch which opens before the main contacts close and closes after the main contacts open.

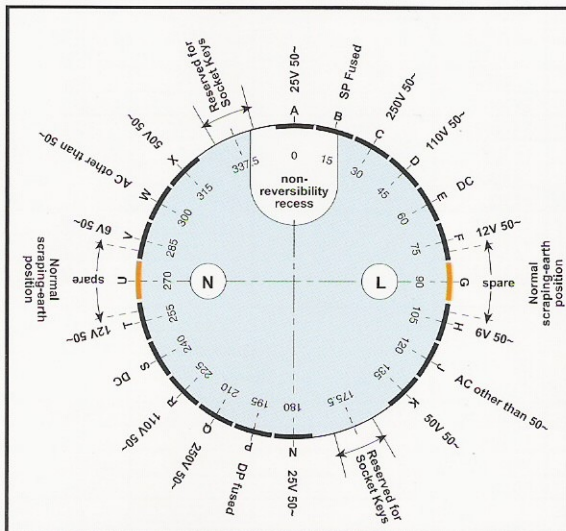
All switch sockets incorporate double pole or triple pole double break switches. The 5 and 15 ampere 2 pole switches are suitable for A.C. and D.C. while the remainder are suitable for A.C. systems only. The units containing mercury switches are suitable for A.C. and D.C. systems and must be mounted vertically.

## EASIGO - FEATURES

### Plug and socket key and keyway positions for non-interchangeability.

In addition to the differences in the size of the casings and the size and position of the contact pins, BS196: 1961 requires that undesirable interchangeability between accessories shall also be prevented by the use of keys and keyways on the plug and socket casings.

The key and keyway combinations which have been established for different systems are as shown here and the diagram below. The corresponding key positions of the plug or appliance inlet when looked at from the front are the opposite to those shown below.



### COMMONLY USED CONFIGURATIONS

Voltage	Frequency	Keyway 1	Keyway 2	Keyway 3	Earth	Code
25	50	None	0°	180°	Yes	AN
50	50	None	135°	315°	Yes	XK
110	50	None	45°	225°	Yes	DR
‡ 240	50	None	None	None	Yes	None

### ALTERNATIVE CONFIGURATIONS

Voltage	Frequency	Keyway 1	Keyway 2	Keyway 3	Earth	Code
π * 240	50	None	30°	210°	Yes	CQ
π 25	other than 50 (e.g. 60)	0°	120°	300°	Yes	AJW
π 50	other than 50 (e.g. 60)	315°	120°	300°	Yes	XJW
π 110	other than 50 (e.g. 60)	45°	120°	300°	Yes	DJW
π 240	other than 50 (e.g. 60)	30°	120°	300°	Yes	CJW
π ■ 25	D.C.	0°	60°	240°	Yes	AES
π ■ 50	D.C.	315°	60°	240°	Yes	XES
π ■ 110	D.C.	45°	60°	240°	Yes	DES
π ■ 240	D.C.	30°	60°	240°	Yes	CES

\* Included for situations where complete non-interchangeability is essential.

‡ Original design to BS196: 1930.

π Only available with EASIGO flush socket outlets with spring flap covers & angle entry plugs.

■ Fused plugs must not be used in D.C. systems

## THREE-PHASE PLUGS AND SOCKETS

In addition to the standard 415 volt arrangements, the three-phase (3 pole) fittings are also available as types AN, XK and DR. In this connection the symbols are used for the purpose of convenience and do not necessarily conform with the appropriate voltage and frequency laid down for single phase fittings in BS196: 1961.

- Code AN** Normally for 125V 200Hz systems
- Code XK** Normally for 50V 50Hz systems
- Code DR** Normally for 110V 50Hz systems

## COLOUR CODING

In addition to the above key and keyway system, the 5 and 15 ampere 2 pole fittings are colour coded as follows:

- 240 volt** blue
- 110 volt** yellow
- 50 volt** white
- 25 volt** violet

## CURRENT RATINGS

The plugs and sockets can carry currents in excess of their stated capacity. The maximum continuous ratings are as follows, provided that adequate cabling is used:

- 5 ampere** 10 ampere max
- 15 ampere** 20 ampere max
- 30 ampere** 40 ampere max
- 60 ampere** 80 ampere max



			Plugs							Sockets	
			Straight		Angled					Surface	
Amps	Poles		Unfused	Unfused with retaining ring	Unfused	Single Fuse	Double Fuse	Unfused with retaining ring		With Screw Cap	
5	2P+E	25	3082AN	6042AN	3092AN	1515AN	1615AN		3017AN	6010AN	
		50	3082XK	6042XK	3092XK	1515XK	1615XK		3017XK	6010XK	
		110	3082DR	6042DR	3092DR	1515DR	1615DR		3017DR	6010DR	
		240	3082	6042	3092	1515	1615		3017	6010	
15	2P+E	25	3290AN	6130AN	3302AN	1110AN	1210AN		3221AN	6100AN	
		50	3290XK	6130XK	3302XK	1110XK	1210XK		3221XK	6100XK	
		110	3290DR	6130DR	3302DR	1110DR	1210DR		3221DR	6100DR	
		240	3290	6130	3302	1110	1210		3221	6100	
	2P+E with pilot	25				3603AN	1310AN	1410AN		3600AN	
		50				3603XK	1310XK	1410XK		3600XK	
		110				3603DR	1310DR	1410DR		3600DR	
		240				3603	1310	1410		3600	
	3P+E	50	3295XK	6135XK	3307XK	Straight with 3 fuses	1715XK		3227XK	6105XK	
		110	3295DR	6135DR	3307DR		1715DR		3227DR	6105DR	
		125 200Hz	3295AN	6135AN	3307AN		1715AN		3227AN	6105AN	
		415	3295	6135	3307		1715		3227	6105	
	3P+E with pilot	50				3680XK			3650XK		
		110				3680DR			3650DR		
		125 200Hz				3680AN			3650AN		
		415				3680			3650		
30	2P+E	25			3452AN	1830AN	1930AN	6230AN	3402AN	6200AN	
		50			3452XK	1830XK	1930XK	6230XK	3402XK	6200XK	
		110			3452DR	1830DR	1930DR	6230DR	3402DR	6200DR	
		240			3452	1830	1930	6230	3402	6200	
	2P+E with pilot	25				3730AN			3700AN		
		50				3730XK			3700XK		
		110				3730DR			3700DR		
		240				3730			3700		
	3P+E	50				3457XK		6235XK	3407XK	6205XK	
		110				3457DR		6235DR	3407DR	6205DR	
		125 200Hz				3457AN		6235AN	3407AN	6205AN	
		415				3457		6235	3407	6205	
	3P+E with pilot	50				3780XK			3750XK		
		110				3780DR			3750DR		
		125 200Hz				3780AN			3750AN		
		415				3780			3750		
60	2P+E	240	3570							3565**	
	2P+P+E	240	3910							3905**	
	3P+E	415	3590							3585**	
	3P+P+E	415	3930							3925/P**	
	3P+N+E	415	3940							3925**	

Fuse links for 1715 series plugs see p 8 \*\* Push on Cover



			Sockets**			Connectors		Appliance Inlets	
			Flush with spring flap cover			Straight	Angled	Surface	Flush with spring flap cover
Amps	Poles	Volts/ Colour		Ring main	For interlock plugs	With screw cap		With retaining ring	
5	2P+E	25	2000AN	2000FAN	2015AN		6070AN	6050XK	
		50	2000XK	2000FXK	2015XK		6070XK	6050DR	
		110	2000DR	2000FDR	2015DR		6070DR	6050	
		240	2000	2000F	2015		6070		
15	2P+E	25	2050AN	2050FAN	2065AN		6160AN	6140AN	2070AN
		50	2050XK	2050FXK	2065XK		6160XK	6140XK	2070XK
		110	2050DR	2050FDR	2065DR		6160DR	6140DR	2070DR
		240	2050	2050F	2065		6160	6140	2070
	2P+E with pilot	25	2100AN	2100FAN	2115AN		6630AN		
		50	2100XF	2100FXK	2115XK		6630XK		
		110	2100DR	2100FDR	2115DR		6630DR		
		240	2100	2100F	2115		6630		
	3P+E	50	2150AN		2165XK		6165XK	6145XK	
		110	2150XK		2165DR		6165DR	6145DR	
		125 200Hz	2150DR		2165AN		6165AN	6145AN	
		415	2150		2165		6165	6145	
3P+E with pilot	50	2200XK		2215XK	6690XK				
	110	2200DR		2215DR	6690DR				
	125 200Hz	2200AN		2215AN	6690AN				
	415	2200		2215	6690				
2P+E	25	2250AN	2250FAN	2265AN	6260AN		6240AN		
	50	2250XK	2250FXK	2265XK	6260XK		6240XK		
	110	2250DR	2250FDR	2265DR	6260DR		6240DR		
	240	2250	2250F	2265	6260		6240		
30	2P+E with pilot	25	2300AN		2315AN	6740AN			
		50	2300XF		2315XK	6740XK			
		110	2300DR		2315DR	6740DR			
		240	2300		2315	6740			
	3P+E	50	2350XK		2365XK	6265XK		6245XK	
		110	2350DR		2365DR	6265DR		6245DR	
		125 200Hz	2350AN		2365AN	6265AN		6245AN	
		415	2350		2365	6265		6245	
	3P+E with pilot	50	2400XK		2415XK	6790XK			
		110	2400DR		2415DR	6790DR			
		125 200Hz	2400AN		2415AN	6790AN			
		415	2400		2415	6790			
60	2P+E	240	2500						
	2P+P+E	240	2550						
	3P+E	415	2600						
	3P+P+E	415	2650/P						
	3P+N+E	415	2650						

\*\* Ring main sockets only accept fused plugs



**Interlocked Switched Sockets\*\***

**Sparkless Units**

**Micro Switch**

**Mercury Switch**



Amps	Poles	Volts/ Colour	With auxiliary contacts	Double Pole		Single Pole		Double Pole		
					Ring Main		Ring Main		Ring Main	
5	2P+E	25		10577AN	10577FAN	10555AN	10555FAN	10575AN	10575FAN	
		50		10577XK	10577FXK	10555XK	10555FXK	10575XK	10575FXK	
		110		10577DR	10577FDR	10555DR	10555FDR	10575DR	10575FDR	
		240		10577	10577F	10555	10555F	10575	10575F	
15	2P+E	25		10586AN		10565AN	10565FAN	10585AN	10585FAN	
		50				10565XK	10565FXK	10585XK	10585FXK	
		110	10615DR			10565DR	10565FDR	10585DR	10585FDR	
		240				10565	10565F	10585	10585F	
	2P+E with pilot	25	10600AN	10602AN						
		50	10600XK	10602XK						
		110	10600DR	10602DR						
		240	10600	10602						
	3P+E	50	10610XK							
		110	10610DR							
		125 200Hz	10610							
		415								
3P+E with pilot	50	10620XK	10622XK							
	110	10620DR	10622DR							
	125 200Hz									
	415	10620	10622							
30	2P+E	25	10630AN							
		50	10630XK							
		110	10630DR							
		240	10630							
	2P+E with pilot	25	10640AN	10642AN						
		50	10640XK	10642XK						
		110	10640DR	10642DR						
		240	10640	10642						
	3P+E	50	10650XK							
		110	10650DR							
		125 200Hz								
		415	10650							
3P+E with pilot	50	10660XK	10662XK							
	110	10660DR	10662DR							
	125 200Hz									
	415	10660	10662							
60	2P+E	240	10670							
	2P+P+E	240	10675							
	3P+E	415	10680							
	3P+P+E	415	10685/P							
	3P+N+E	415	10685							

\*\* Ring main sockets only accept fused plugs



			Interlocked Switched Sockets*		Plugs - Interlocked					
					With RCD protection	Straight	Angled			
Amps	Poles	Volts	Single Pole		Fused	F	Unfused	U		
			Single Pole	Ring Main			Unfused	Single Fuse	Double Fuse	
5	2P+E	25	10505AN	10505FAN			7200AN	1525AN	1625AN	
		50	10505XK	10505FXK			7200XK	1525XK	1625XK	
		110	10505DR	10505FDR			7200DR	1525DR	1625DR	
		240	10505	10505F			7200	1525	1625	
15	2P+E	25	10515AN	10515FAN			7210AN	1120AN	1220AN	
		50	10515XK	10515FXK			7210XK	1120XK	1220XK	
		110	10515DR	10515FDR	RES1151DR		7210DR	1120DR	1220DR	
		240	10515	10515F	RES1151		7210	1120	1220	
	2P+E with pilot	25						7220AN	1320AN	1420AN
		50						7220XK	1320XK	1420XK
		110			RES1152DR			7220DR	1320DR	1420DR
		240			RES1152			7220	1320	1420
	3P+E	50					1765XK F	7230XK		
		110				RES1153DR	1765DR F	7230DR		
		125 200Hz					1765AN F	7230AN		
		415				RES1153	1765 F	7230		
3P+E with pilot	50						7240XK			
	110				RES1154DR		7240DR			
	125 200Hz						7240AN			
	415				RES1154		7240			
30	2P+E	25					7250AN	1880AN	1980AN	
		50					7250XK	1880XK	1980XK	
		110			RES1301DR		7250DR	1880DR	1980DR	
		240			RES1301		7250	1880	1980	
	2P+E with pilot	25						7260AN		
		50						7260XK		
		110			RES1302DR		7260DR			
		240			RES1302		7260			
	3P+E	50						7270XK		
		110				RES1303DR		7270DR		
		125 200Hz						7270AN		
		415				RES1303		7270		
3P+E with pilot	50						7280XK			
	110				RES1304DR		7280DR			
	125 200Hz						7280AN			
	415				RES1304		7280			
60	2P+E	240			RES1600	3570				
		415			RES1601	3571	U			
	2P+P+E	240			RES1602	3910	U			
	3P+E	415			RES1603	3590	U			
	3P+P+E	415			RES1604	3930	U			
	3P+N+E	415			RES1605	3940	U			

Fuse links for 1765 series plugs see p8. \* Ring main sockets only accept fused plugs

### TYPICALLY USED IN AIRCRAFT INDUSTRIES

			Angle Entry Plug	Interlocked Switch Socket		Flush Mounting Socket Outlet
Amps	Poles	Volts		Micro Switch	Mercury Switch	
5A	4P+E	25	7204-AN	10576-AN	10574-AN	2004-AN
		50	7204-XK	10576-XK	10574-XK	2004-XK
		110	7204-DR	10576-DR	10574-DR	2004-DR
		240	7204	10576	10574	2004



## CONDUIT BOXES

Socket Types		Surface		Flush	Push On Covers
Amps	Poles	For circular sockets	For square sockets		For circular sockets
5	2P+E	611	711	715	3162
15	2P+E	621	721	725	3352
	2P+P+E	631	721	725	3353
	3P+E	631	721	725	3353
	3P+P+E	651	741	745	3423
30	2P+E	651	741	745	3413
	2P+P+E	651	741	745	3423
	3P+E	651	741	745	3423
	3P+P+E	651	741	745	3423
60	All		661		

## MULTI-SOCKET OUTLETS

			Insulated Housing		Metal Housing		
			2 gang	3 gang	2 gang		
Amps	Poles	Volts		Ring Main		Ring Main	
5	2P+E	25	MSS0522AN	MSS0522FAN	MSS0523AN	6530AN	6530FAN
		50	MSS0522XK	MSS0522FXK	MSS0523XK	6530XK	6530FXK
		110	MSS0522DR	MSS0522FDR	MSS0523DR	6530DR	6530FDR
		240	MSS0522	MSS0522F	MSS0523	6530	6530F
15	2P+E	25	MSS1522AN	MSS1522FAN	MSS1523AN	6540AN	6540FAN
		50	MSS1522XK	MSS1522FXK	MSS1523XK	6540XK	6540FXK
		110	MSS1522DR	MSS1522FDR	MSS1523DR	6540DR*	6540FDR*
		240	MSS1522	MSS1522F	MSS1523	6540	6540F
15	2P+E with pilot	25				6550AN	6550FAN
		50				6550XK	6550FXK
		110				6550DR	6550FDR
		240				6550	6550F

\* 6540DR & 6540FDR are CGB approved

## FUSE PINS

	Plug rating amps	Fuse pin rating amps	Cat. No
	5	5	1055
		10	1060
	15	5	1005
		10	1010
		15	1000
		20	1020
	30	15	1034
		30	1030

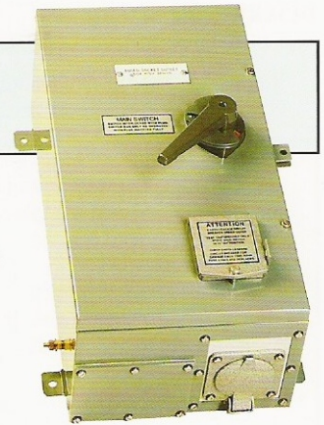
## FUSE LINKS FOR 1715 & 1765 SERIES PLUGS

	Rating amps	Cat. No
	2	F313
	6	F316
	10	F318
	16	F319



## DESCRIPTION

Designed for and approved by the former Central Electricity Generating Board to GDCD 238.



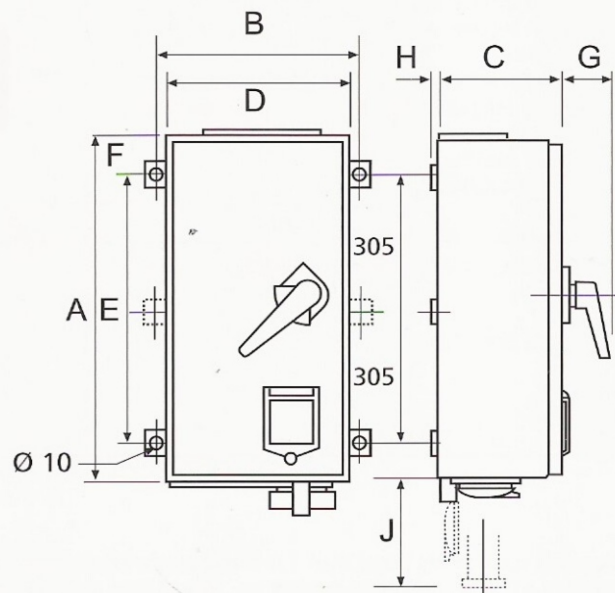
## FEATURES

- Sheet steel enclosure with durable stoved enamel grey finish to ESI 98 which has been subjected to appropriate environmental tests.
- Units meet IP44 specification.
- The units have undrilled gland plates to top and bottom, facilitating top or bottom cable entry.
- A die cast cover with padlocking facility gives access to the RCCB which has a tripping sensitivity of 30mA operating in a maximum of 30mS.
- The fuse switch is interlocked with the lid and the socket outlet.
- Unit is fully interlocked and cannot be switched on until the correct plug is fully inserted, nor can the plug be withdrawn on load.
- Provision for padlocking the switch handle in the OFF position.
- Units are tested at through fault level of 31.5MVA.
- If necessary, units can be supplied without the RCCB and solid links can be fitted in place of fuses.
- Units can also be provided with an earth monitoring facility in accordance with optional feature in CEGB specification.
- Designed to loop up to 35mm<sup>2</sup> cables.

## CEGB APPROVAL NO. EPA 177

Amps	Poles	Volts	Fused	With RCCB	With RCCB and EMU*
60	3P+E 3P+N+E 3P+P+E	415 415 415	12604	13604 13605CN 13605DX	15604DX

\* EMU - Earth Monitoring Unit



### Dimensions

A	B	C	D	E	F	G	H	J	Max Cable Phase	Earth Stud	Weight Kg
560	326	205	296	440	60	75	2	155	35mm <sup>2</sup>	M8	23