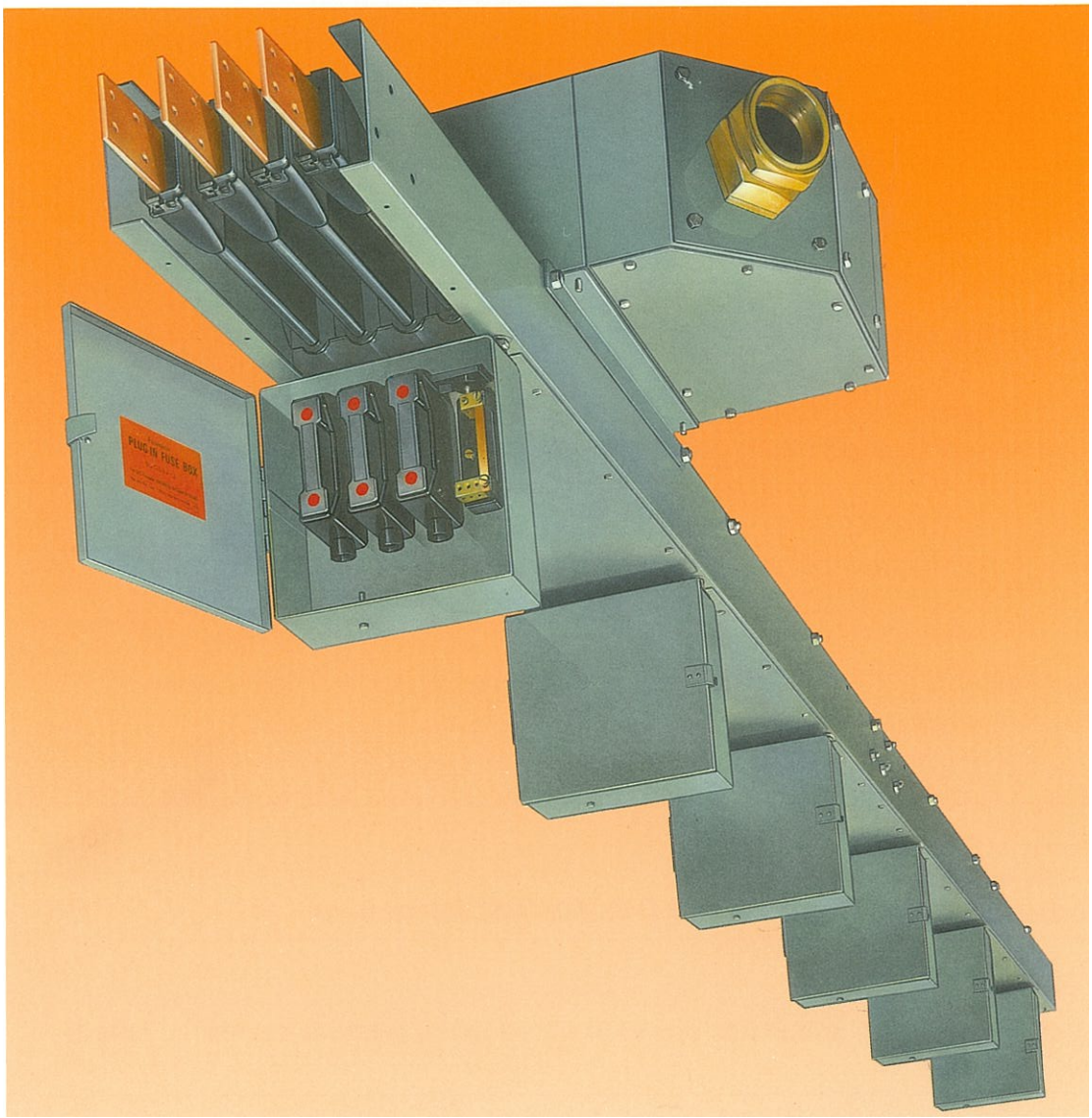
Type 'RR'
Overhead Busbar System



SCATCO
EUROPA LTD

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OVERHEAD BUSBAR SYSTEM

TYPE 'RR' 400 and 630 Amp - 660 Volts a.c.

A versatile system of power distribution for all industries where overhead electrical supplies are required. The system enables quick and frequent change to machine shop layouts.

- Busbar system in ratings 400 and 630A TP or TP & N
- Plug-in fuse boxes in ratings 32, 63, 100 & 200A
- Solid copper busbars totally enclosed in rigid PVC insulation
- Plug-in points provided at intervals of 2 ft (609·6 mm) along every length of busbar
- Modifications and future extensions easily made
- Plug-in fuse boxes fitted with 'Red Spot' fully shrouded fuse holders to BS88:1975
- Busbars produced in standard 12 ft (3.658 metres) sections
- All necessary bolts and plates provided for coupling sections to desired length
- Universal incomers, 'right angle' and 'T' sections available

Complying fully with BS5486 : Part 2 : 1978

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OVERHEAD BUSBAR — TYPE 'RR'

Current Rating Amp	Polarity	Busbar trunking standard 12 ft (3·658 m) lengths List No.	Weights METALCLAD lbs	Weights METALCLAD kg	Weights NON METALCLAD lbs	Weights NON METALCLAD kg	Blank end covers List No.	Conduit End Covers with *cable sockets tapped 2″ conduit thread for cable gland T.P.	Conduit End Covers with *cable sockets tapped 2″ conduit thread for cable gland T.P. & N.
400	T.P. T.P. & N.	RR14003-6 RR14004-6	120 142	54·48 64·47	88 102	39·95 46·31	RRE4003 RRE4004	List No. RRC4003	List No. RRC4004
630	T.P. T.P. & N.	RR16303 RR16304	174 202	79·10 91·71	134 162	60·84 73·55	RRE6303 RRE6304	—	

*Cable glands can be provided for terminating PVC cables.
IMPORTANT: The busbars listed above are metalclad (with top and bottom cover plates).
Should cover plates not be required, **Non-Metalclad Busbars** should be specified when ordering.

RR400 — Mean Resistance 0.000119 Ω/metre/phase. Mean Reactance 0.000194 Ω/metre/phase.
RR630 — Mean Resistance 0.000056 Ω/metre/phase. Mean Reactance 0.000138 Ω/metre/phase.

DIMENSIONS

Current Rating Amp	Conductor Size	T.P. Standard Section Length	T.P. Standard Section Width	T.P. Standard Section Depth	T.P. & N. Standard Section Length	T.P. & N. Standard Section Width	T.P. & N. Standard Section Depth
400	1″ × ¼″ (25·4 × 6·35 mm)	12′ (3·658 m)	8¼″ (209·6 mm)	3⅜″ (85·7 mm)	12′ (3·658 m)	9¾″ (247·7 mm)	3⅜″ (85·7 mm)
630	2″ × ¼″ (50·8 × 6·35 mm)	12′ (3·658 m)	9¾″ (247·7 mm)	4¾″ (120·6 mm)	12′ (3·658 m)	9¾″ (247·7 mm)	4¾″ (120·6 mm)

PLUG-IN FUSE BOXES incorporating 'RED SPOT' H.R.C. Fuse Holders

Plug-in Fuse Box Rating Amp	Polarity	List No.	Weights lbs	Weights kg
32	T.P. T.P. & N.	RSRR323-3 RSRR323N4	5¼ 6½	2·38 2·95
63	T.P. T.P. & N.	RSRR633-3 RSRR633N4	5¾ 7	2·61 3·18
100	T.P. T.P. & N.	RSRR1003-3 RSRR1003N4	18½ 23	8·40 10·44
200	T.P. & N.	RSRR2003N4	57	25.86

Wing Nuts

400 amp Busbar
List No. C2736-1012
(Supplied as standard)

630 amp Busbar
List No. C2736-1013
(Order as required)

See page 6 for dimensions of plug-in fuse boxes.

H.R.C. FUSE LINKS ACCOMMODATED

Plug-in Fuse Box Rating Amp	Type 'T' Standard Fuse links	Extended range of Type 'T' for Motor Circuit Applications
32	TIA2 – TIA32	TIA32M35 – TIA32M63
63	TIA2 – TIA32 TIS35 – TIS63	TIS63M80 & TIS63M100
100	*TIA2 – TIA32 *TIS35 – TIS63 TCP80 & TCP100	TCP100M125 – TCP100M200
200	TBC2 – TBC63 TC80 & TC100 TF125 – TF200	TF200M250 & TF200M315

All plug-in fuse boxes accommodate Type 'T' HRC fuse links which comply with BS88: 1975 and are ASTA 20 certified for 80kA up to 660 volts a.c., except TF200M315 which is 550 volts a.c.

Detailed information, including d.c. performance, is given in Publication IEF/401.

*A pair of adaptor plates required—List No. P5372/10.

CONSTRUCTION

Manufactured in standard 12 ft (3·658 metres) sections and supplied with jig drilled side channels, fish plates and all bolts necessary for coupling sections. Busbars are manufactured from high quality solid copper to BS 1432 : 1970. Blank detachable end covers are available to enclose the free ends of each run. Top and bottom covers (metalclad) are normally fitted but may be omitted in clean situations. All live metal is totally enclosed in rigid flame retardant PVC sleeving.

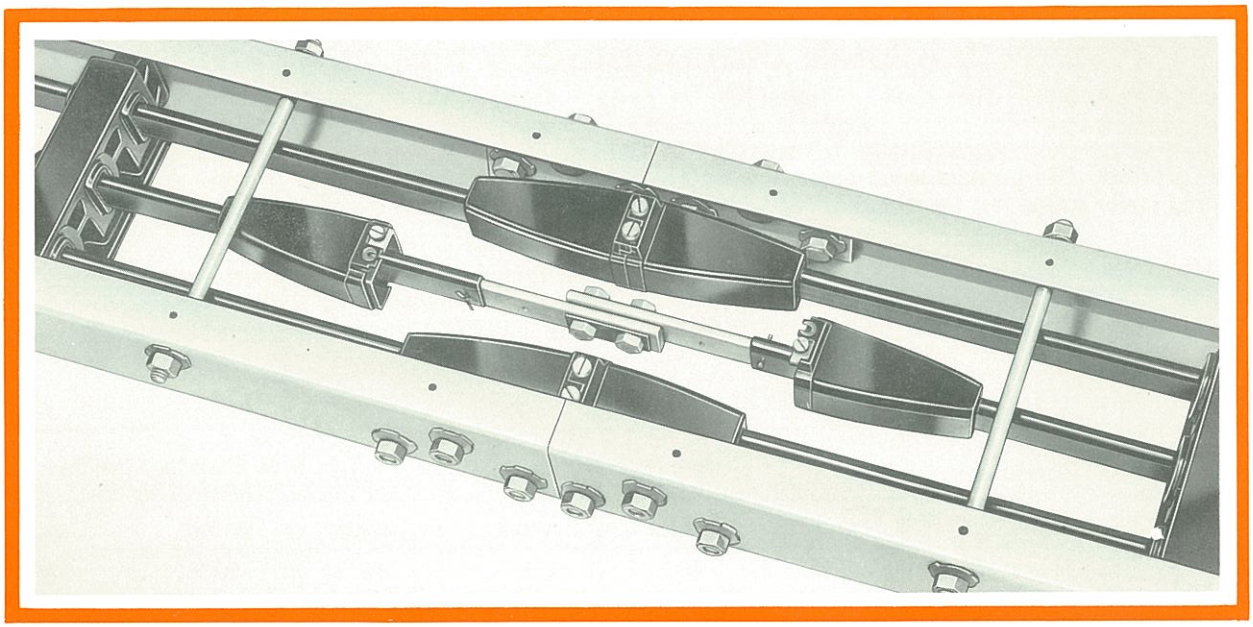

Fig. 1 Two sections of busbars coupled together. The centre phase busbar has its moulded shrouds drawn back to show electrical connection.

COUPLING SECTIONS

Coupling of sections is strong and safe.
Electrical contact is achieved by bolting together overlapping ends of the conductors and securing the screws with locking plates.
A two-piece moulded shroud insulates each joint and side channels are secured by fish plates.

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UNIVERSAL INCOMER

The 'Universal' Incomer (See Fig. 3 and 4) comprises two heavy duty fabricated sheet steel housings which can be coupled together to cater for six alternative directions of incoming cable. The terminal housing is bolted to the main busbar chamber and the angled cable housing is coupled to the side of the terminal enclosure, providing the cable gland mounting and cable core spreading compartment.

Provision exists in the design to permit the mounting of the angled cable housing on to either side of the terminal enclosure. By fitting one to each side it is possible to terminate parallel cables simultaneously on to the cable terminals, giving the facility for ring main or increased current for centre feeding purposes.

Generous width cable terminals are provided, with easily detachable interphase barriers to allow maximum access for cabling. Phase identification is shown by coloured discs adjacent to each cable terminal.

Detachable blank gland plates are fitted, enabling a wide choice of cable gland sizes and types to be used. Drilled gland plates with 2½", 3", 3½" and 4" diameter holes are stocked, catering for the common sizes of cable glands. The maximum copper or aluminium cable size accommodated is 4 core, 300 mm² cross section.

The location for mounting the incomer will be one of four positions, disposed as two either side of the centre of the standard 12 foot busbar chamber length. The incomer would normally be supplied as a packaged unit but can be fitted if required.

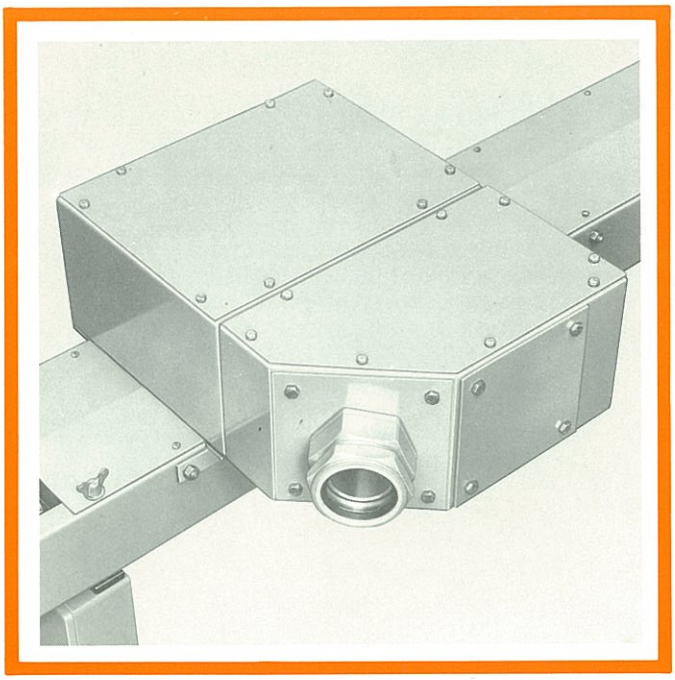

Fig. 3. 'Universal' Incomer fitted to a busbar section.

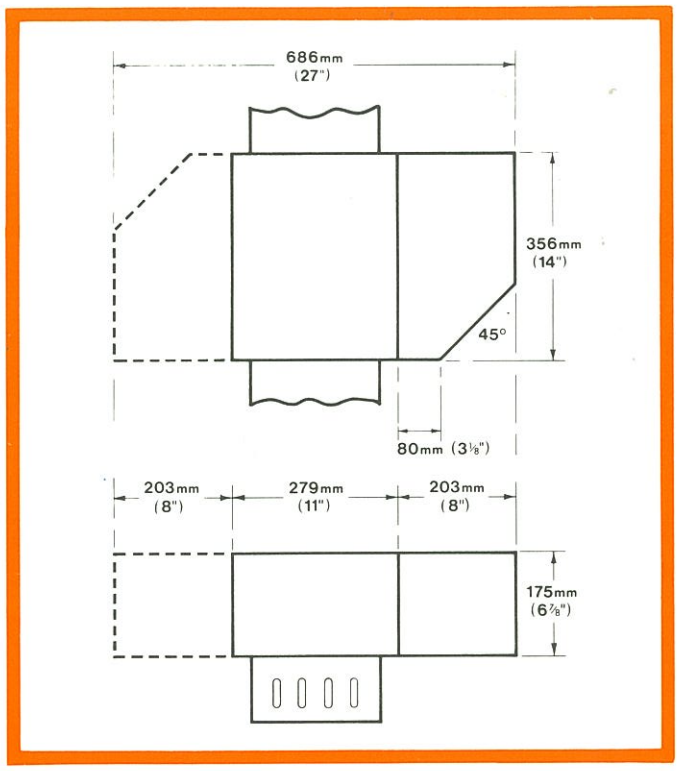

Fig. 4. Dimensions of the 'Universal' Incomer.

UNIVERSAL INCOMER

Consisting of terminal housing with cable gland housing (a second cable gland housing may be fitted if required) suitable for cables up to 4-CORE, 300 mm² PVC and ARMOURED.

	Current Rating Amp	Polarity	Trunking	List No.	Weights	
					lbs	kg
INCOMER TERMINAL HOUSING	400	T.P. & N.	Metalclad	P103241-30	20	9·07
		T.P.	Metalclad	P103241-40	18½	8·40
		T.P. & N.	Non-Metalclad	P103241-50	32	14·51
		T.P.	Non-Metalclad	P103241-60	28½	12·94
	630	T.P. & N.	Metalclad	P103241-10	29	13·15
		T.P.	Metalclad	P103241-20	25	11·34
CABLE GLAND HOUSING 400/630A 1 per cable gland				P103241-70	12	5·44

Note: Incomer details for 630A non-metalclad trunking, available on request.

PLUG-IN FUSE BOXES

Current ratings: 32, 63, 100 and 200 Amp.

'Plug-in' fuse boxes are fabricated from sheet steel, have hinged front covers and are fitted with 'RED SPOT' all insulated fuse holders to BS88 : 1975. Electrical connection to the busbars is made via positively located spring clip contacts. They are secured to the busbar trunking via fixing studs fitted with wing nuts. When 'plugging-in', the studs engage earth bushings in the trunking before the main contacts touch the busbars. When unplugging, the earth connection is maintained until the electrical contact is broken.

Plug-in fuse boxes rated at 100 and 200 amp are supplied with two bracing straps which should be fitted during installation.

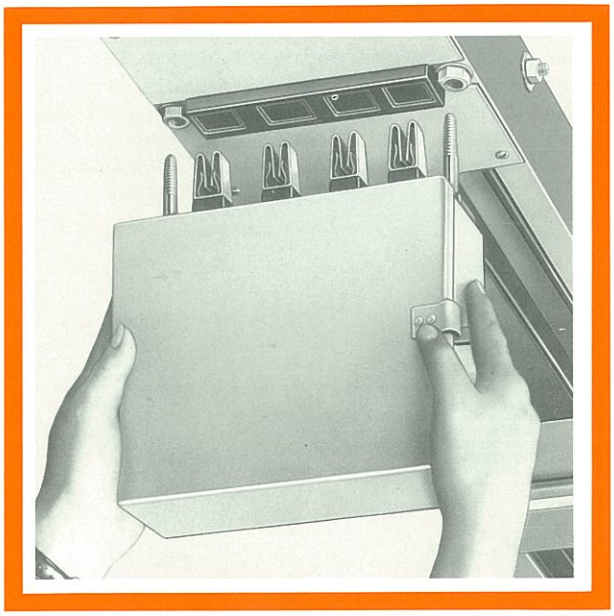

Fig. 5 'Plugging-in' a fuse box

Style 'P' 'plug-in' fuse boxes are also available for fitting to wall mounting busbar systems; connection is via the back of the fuse box.

NOTE: IT IS NECESSARY TO ISOLATE THE BUSBARS BEFORE CONNECTING A FIXED FUSE BOX

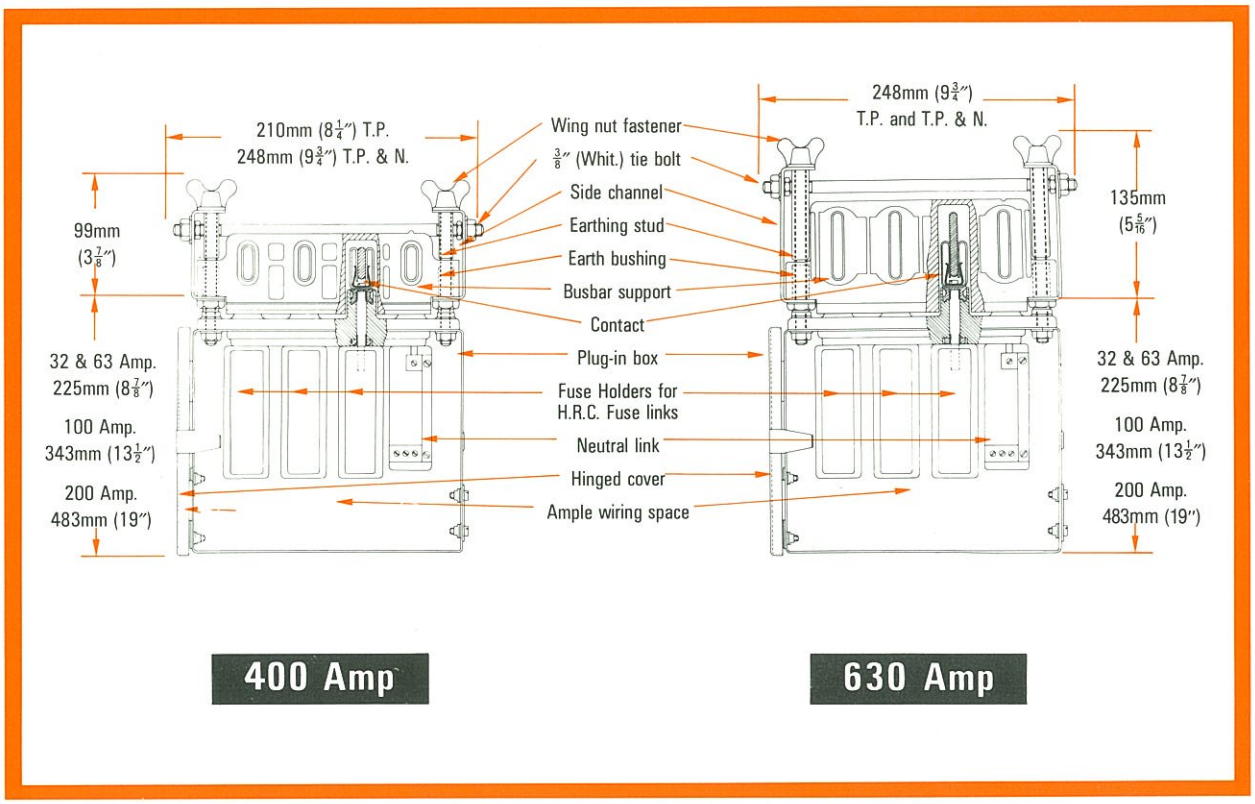

Fig. 6 Diagram showing main features of 'plug-in' fuse boxes fitted to busbars.

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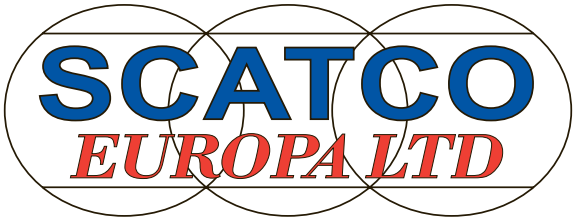

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