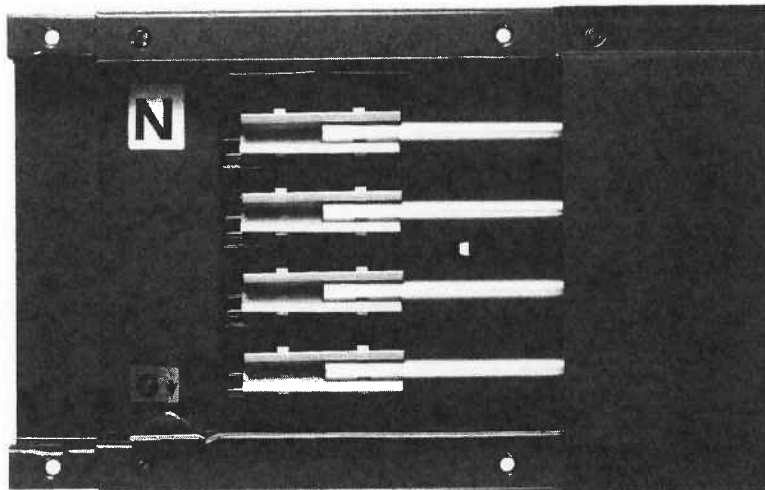


SQUARE D 100A PLUG-IN BUSWAY



The busway for jobs too small for busway.

Square D makes a full line of Type AP 100A Plug-in Busway specifically designed for light commercial and industrial jobs. This busway carries a 14,000A short circuit rating and is available from stock with either copper or aluminum bus bars.

General-Duty 100A Busway with ground bus system is also available. A unique grounding jaw assures positive contact between the busway and plug-in unit.

Compared to cable and conduit, Square D 100A busway saves costly installation time. What's more, it's reuseable too if the distribution system is changed in the future. So, consider these features. The next time you have a job that's too small for busway, choose Type AP 100A Busway from Square D.



100 AMPERE PLUG-IN BUSWAY SELECTION

CLASS
5690

ALUMINUM BUSWAY

Lengths and Fittings	Without Ground Bus		With Ground Bus [▲]	
	3 Pole 600 V.	3 Ø 4W. 277/480 V.	3 Pole 600 V.	3 Ø 4W. 277/480 V.
Straight Lengths — 10'-0" 5'-0" 3'-0"	AP-13 AP-14-5 AP-14-3	AP-14 AP-14-5 AP-14-3	AP-13G AP-14-5G AP-14-3G	AP-14G AP-14-5G AP-14-3G
Elbows — Front Inside Front Outside	AP-14-LFI AP-14-LFO	AP-14-LFI AP-14-LFO	AP-14-LFIG AP-14-LFOG	AP-14-LFIG AP-14-LFOG
Tees — Front Inside Front Outside	AP-14-TFI AP-14-TFO	AP-14-TFI AP-14-TFO	AP-14-TFIG AP-14-TFOG	AP-14-TFIG AP-14-TFOG

[▲]50% capacity internal ground bus.

COPPER BUSWAY

Lengths and Fittings	Without Ground Bus		With Ground Bus [▲]	
	3 Pole 600 V.	3 Ø 4W. 277/480 V.	3 Pole 600 V.	3 Ø 4W. 277/480 V.
Straight Lengths — 10'-0" 5'-0" 3'-0"	CP-13 CP-13-5 CP-13-3	CP-14 CP-14-5 CP-14-3	CP-13G CP-13-5G CP-13-3G	CP-14G CP-14-5G CP-14-3G
Elbows — Front Inside Front Outside	CP-13-LFI CP-13-LFO	CP-14-LFI CP-14-LFO	CP-13-LFIG CP-13-LFOG	CP-14-LFIG CP-14-LFOG
Tees — Front Inside Front Outside	CP-13-TFI CP-13-TFO	CP-14-TFI CP-14-TFO	CP-13-TFIG CP-13-TFOG	CP-14-TFIG CP-14-TFOG

[▲]50% capacity internal ground bus.

MISCELLANEOUS FITTINGS

Catalog No.	Hangers		End Closure	Wall Flange	Outlet [●] Cover
	Edgewise [*]	Flatwise			
(All Ratings)	HP-1-E	HP-1-F	ACP-1-EC	ACP-1-WF	ACP-1-OC

^{*}Normal mounting position with plug-in openings on both sides.

[●]Required to cover exposed plug-in opening when plug-in unit is relocated.

PLUG-IN UNITS

Type Unit	Max. Amps	Enclosure		Ground Connection Kit	Floor Operator Attachment
		3 Pole	3 Ø 4W.		
Cable Tap Box (Lugs Only)	100 A.	PTB-14	PTB-14	PGK-FA2	N.A.
Enclosure for QO Breaker	70 A.	PI-QO [†]	PIN-QO [†] PIN-QOR	PGK-Q02 PGK-QOR	PI-1-QO PI-1-QO
Enclosure for EH Breaker	100 A.	PI-EH [†]	PIN-EH [†]	PGK-FA2	PI-1-EH
Enclosure for FA Breaker	50 A. 100 A.	PI-50-FA [†] PI-100-FA [†]	PIN-50-FA [†] PIN-100-FA [†]	PGK-FA2	PI-1-FA

[†]Enclosure Only. Order QO, EH or FA circuit breaker from table below.

CIRCUIT BREAKERS (for use in enclosures shown above)

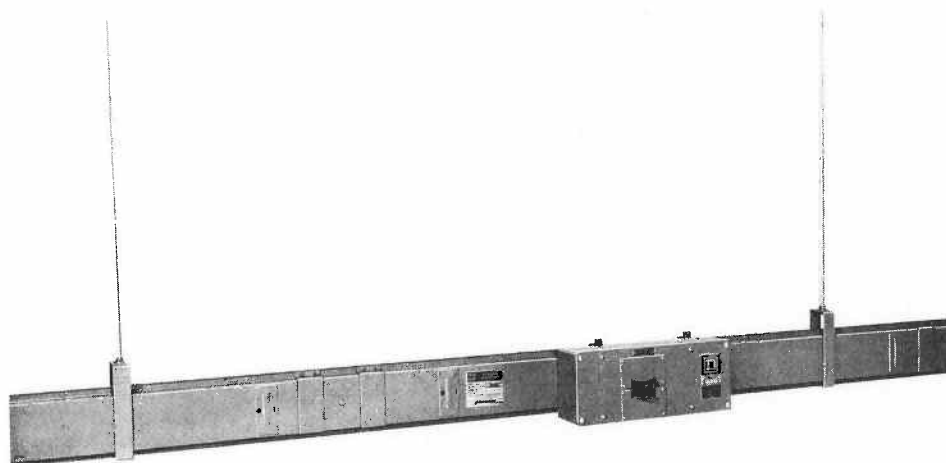
Ampere Rating	QO Circuit Breaker 240 V. Max.			FA Circuit Breaker 480 V. Max.			EH Circuit Breaker 480 V. Max.		
	Single Pole	Two Pole	Three Pole	Single Pole	Two Pole	Three Pole	Single Pole	Two Pole	Three Pole
15 A.	QO-115	QO-215	QO-315	FAL-14015	FAL-24015	FAL-34015	EH-14015	EH-24015	EH-34015
20 A.	QO-120	QO-220	QO-320	FAL-14020	FAL-24020	FAL-34020	EH-14020	EH-24020	EH-34020
30 A.	QO-130	QO-230	QO-330	FAL-14030	FAL-24030	FAL-34030	EH-14030	EH-24030	EH-34030
40 A.	QO-140	QO-240	QO-340	FAL-14040	FAL-24040	FAL-34040	.....	EH-24040	EH-34040
50 A.	QO-150	QO-250	QO-350	FAL-14050	FAL-24050	FAL-34050	.....	EH-24050	EH-34050
60 A.	.....	QO-260	QO-360	FAL-14060	FAL-24060	FAL-34060	.....	EH-24060	EH-34060
70 A.	.....	QO-270	.....	FAL-14070	FAL-24070	FAL-34070	.....	.....	.....
90 A.	.....	.....	.....	FAL-14090	FAL-24090	FAL-34090	.....	.....	.....
100 A.	.....	.....	.....	FAL-14100	FAL-24100	FAL-34100	.....	.....	.....



100 AMPERE PLUG-IN BUSWAY

APPLICATION DATA

JUNE, 1986



100 AMPERE BUSWAY MOUNTED IN THE EDGEWISE POSITION WITH STANDARD EDGEWISE HANGER

Type: Totally enclosed plug-in busway.

Ratings: 100 ampere, continuous full load current.

UL Listing: File Number E22182

Systems: Rated for 3Ø, 4 W, 480 volt service and for 3Ø, 3 W, 600 volt service.

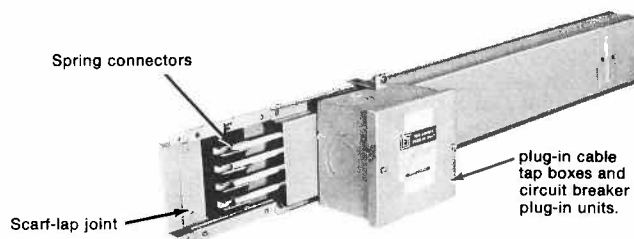
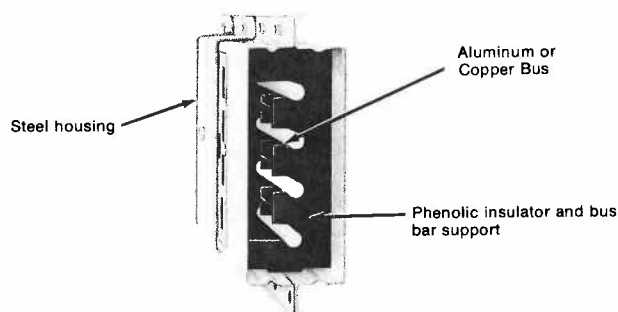
Conductors: Round, electrical grade aluminum or copper.

Plating: Electro-plated over entire length.

Ground Bus (Optional): Internal ground bus equal to 50% phase capacity.

Short Circuit Bracing: Bracing is provided by the molded insulating supports at each plug-in opening. Short circuit rating is 14,000 RMS symmetrical or asymmetrical.

Joint: High pressure spring type connectors join electrical conductors at each joint. These connectors are mounted on phenolic insulators and position the bus bars for joining.



Hangers: Wrap-around type hanger for mounting plug-in busway in the edgewise position is standard. Busway is UL Listed for 10'-0" hanger spacing in edgewise position.

"C" clamp hangers are available for use in either edgewise or flatwise mounting position. UL listing for flatwise mounting position is with busway hung on 5'-0" centers.

Bus Bar Support: Molded phenolic insulators.

Housing: Twenty gauge steel, bonderized and finished in gray baked enamel. Twistout steel plates cover plug-in access openings along both sides of the housing on 26¼" centers.

Components: Standard component dimensions are as given in the following pages.

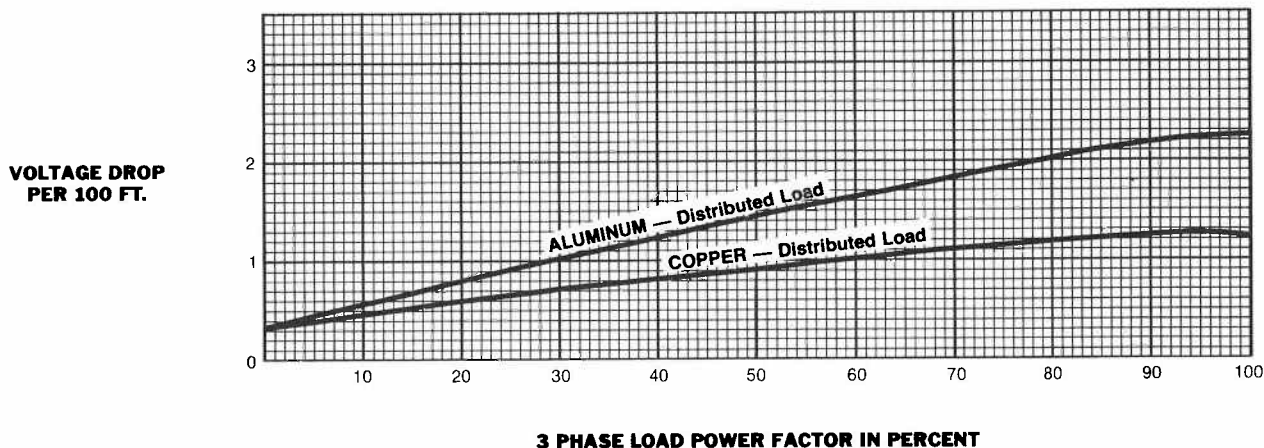
VOLTAGE DROP

In using curve, the following notes are applicable:

1. For balanced 3-phase, line-to-line voltage drop of 4-wire duct, use values from curve.
2. For balanced 3-phase, line-to-neutral voltage drop, multiply values from curve by .577.
3. For single-phase voltage drop, multiply values from curve by 1.15.

4. For other than rated currents, multiply values from curve by $\frac{\text{Actual Current}}{\text{Rated Current}}$
5. For different lengths, multiply values from curve by $\frac{\text{Actual Footage}}{100 \text{ Ft.}}$

**AVERAGE 3-PHASE, LINE-TO-LINE VOLTAGE DROP
IN VOLTS PER 100 FEET AT RATED CURRENT
WITH BALANCED 3-PHASE LOAD**



SUGGESTED SPECIFICATIONS

Furnish and install a complete prefabricated plug-in busway distribution system as shown on the plans.
Plug-in busway shall be 100 ampere, _____ volts, _____ phase _____ wire.

a. Housing

The 100 ampere plug-in busway shall be of the totally enclosed type for protection against mechanical damage and dust accumulation. The enclosure shall include ten plug-in outlets in each ten foot length. All plug-in openings shall be usable simultaneously. Each plug-in outlet shall be accessible by the removal of a steel twistout cover and shall accept a closing cap when not in use. The entire system shall be constructed using manufacturer's standard sections. As many sections as possible shall be ten foot lengths. Fittings shall be made in such a way that no increase of housing size is required at the connection between adjoining sections

b. Bus Bars

The conductors shall be fabricated from round (aluminum) (copper) rods. Conductors are to be electrolytically plated over their entire length. Bus bars shall be firmly supported by molded insulators on alternate sides of the housing. Insulators shall be of the type which isolates the jaws of a plug-in device from each other. Fault current bracing shall be 14,000 RMS amperes.

c. Joint

Electrical connection shall be made at the joints by high pressure spring type connectors. All hardware required for joining sections shall be captive. Loose hardware will not be permitted.

d. Plug-In Devices

All plug-in units are to be polarized to insure correct phase orientation and shall include a means of securely fastening the device to the plug-in busway housing with a bolted clamp.

e. Responsibility for Routing and Measurement

The approximate footage, fittings, plug-in units, etc., are as shown on the plans. The electrical contractor shall be responsible for routing the plug-in busway to coordinate with other trades. Final field measurements shall be made by the contractor prior to release of the plug-in busway for fabrication. Hanger spacing (Shall be as shown on the plans) (Shall not exceed 10'-0").

f. Underwriters' Laboratories Listing

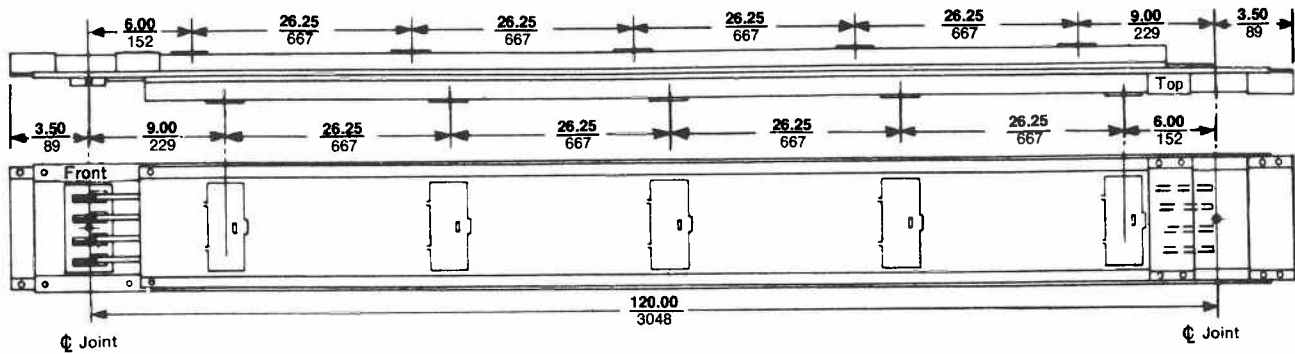
All straight lengths, fittings and plug-in units shall be UL listed and this listing shall include mounting of the 100 A. plug-in busway in any position (i.e., horizontal, edgewise and flatwise and vertical) without derating. Plug-in busway shall be Square D 100 ampere plug-in busway.



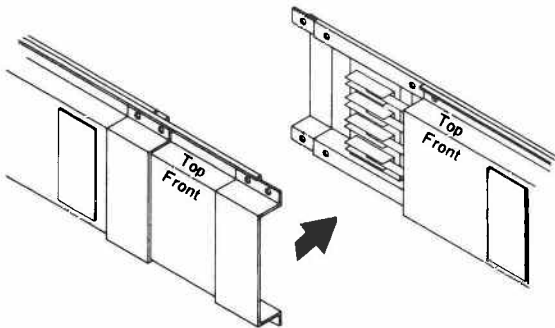
100 AMPERE PLUG-IN BUSWAY DIMENSIONS

JUNE, 1986

STRAIGHT LENGTHS

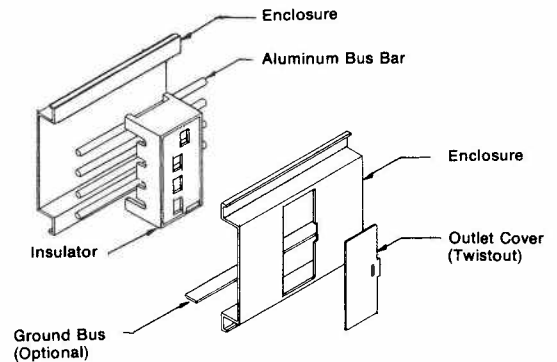


JOINT DETAIL

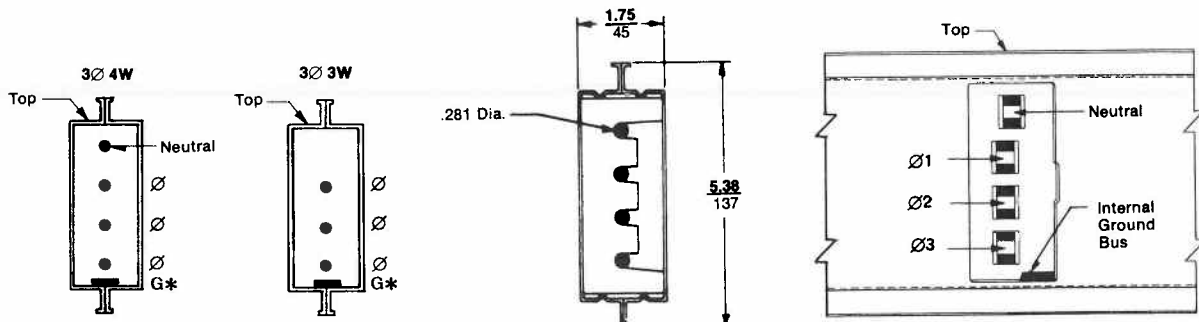


Standard Lengths—Feet	10	5	3
Standard Lengths—Meters	3.05	1.52	.91
Number of Plug-In Openings	10	6	4

BUSWAY CONSTRUCTION



CROSS SECTIONS



*Optional Internal Ground Bus equal to 50% phase capacity.

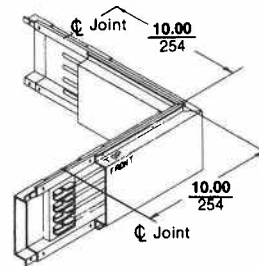
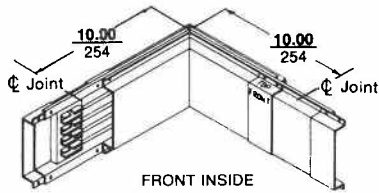


100 AMPERE PLUG-IN BUSWAY

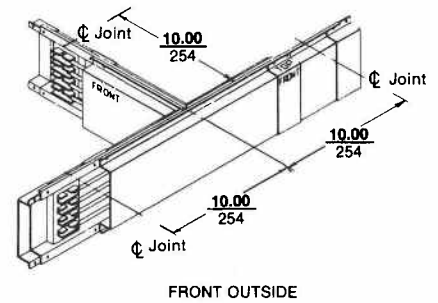
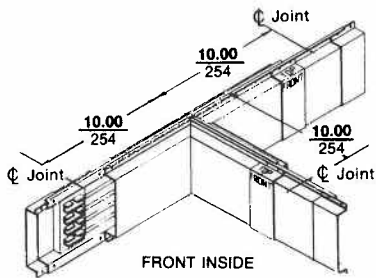
DIMENSIONS

CLASS
5690

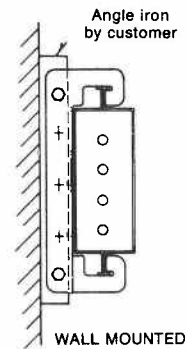
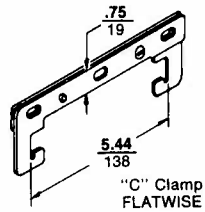
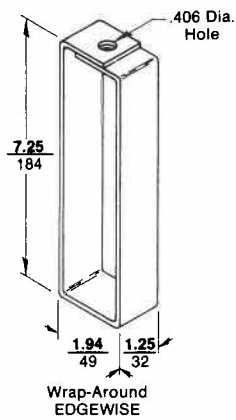
ELBOWS



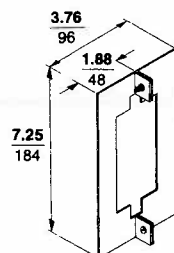
TEES



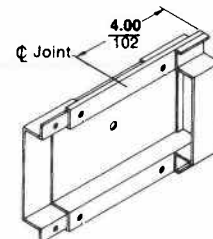
HANGERS



WALL FLANGE



END CLOSURE


SQUARE D COMPANY

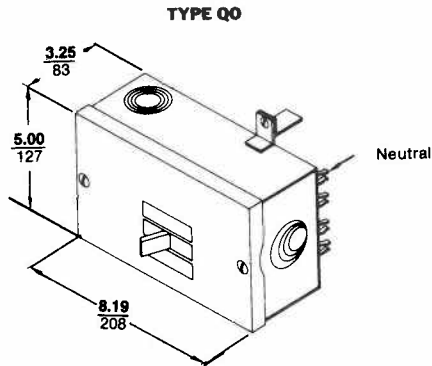
Dual Dimensions: **INCHES**
Millimeters

PRINTED
IN
U.S.A.

100 AMPERE PLUG-IN BUSWAY DIMENSIONS

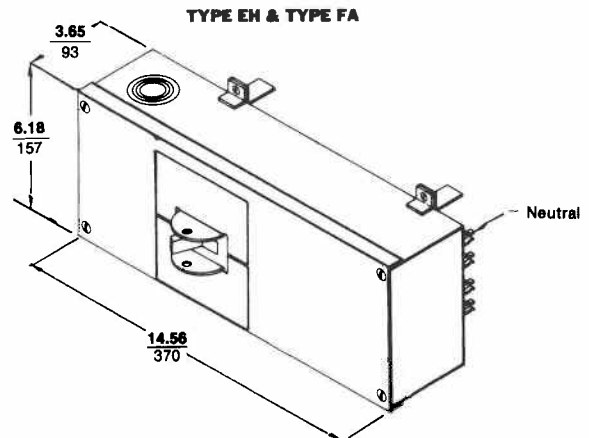
JUNE, 1986

CIRCUIT BREAKER PLUG-IN UNITS

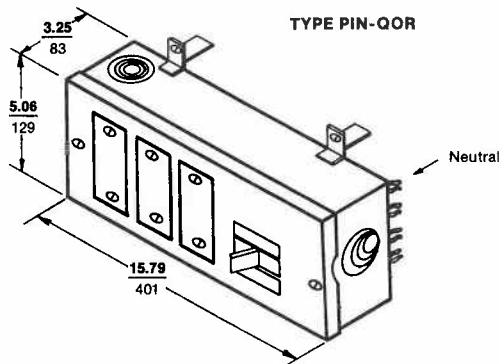


KNOCKOUT SIZES—.50, .75, 1.00, 1.25, K.O.'s IN ALL SIDES
LUGS—#14 - 1/0 PER NEUTRAL AND GROUND
SIZE OF PHASE LUGS DETERMINED BY CIRCUIT BREAKER AMPERE RATING.

NOTE: Circuit breakers and enclosures are ordered and shipped separately for ease of installation and are shown assembled above for reference purposes only.



KNOCKOUT SIZES—END WALL—.50, .75, 1.00, 1.25, 1.50, 2.00
TOP AND BOTTOM—.50, .75, 1.00, 1.25
LUGS—#14 - 1/0 PER NEUTRAL AND GROUND
SIZE OF PHASE LUGS DETERMINED BY CIRCUIT BREAKER AMPERE RATING.

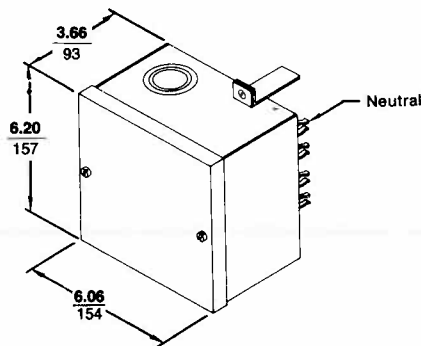


NOTE: Enclosure with space for three QO Circuit Breaker poles and provisions for three duplex receptacles.

KNOCKOUT SIZES—.50, .75, 1.00, 1.25
LUGS—#14 - 1/0 PER NEUTRAL AND GROUND
SIZE OF PHASE LUGS DETERMINED BY CIRCUIT BREAKER AMPERE RATING.

CABLE TAP BOXES

PLUG-IN CABLE TAP BOX



KNOCKOUT SIZES—.50, .75, 1.00, 1.25, 1.50, 2.00
LUGS—#14 - 2/0 PER PHASE AND NEUTRAL
#14 - 1/0 PER GROUND

FLOOR OPERATED ATTACHMENT

