

METAL-ENCLOSED INTERRUPTER SWITCHGEAR



Featuring:

- Economical Protection
- AC Application
thru 35 kv
- Current Ratings
thru 4000 A
- Meets All ANSI, NEMA,
and IEEE Standards

LISTED



Made In The U.S.A.

The Vital Link in Your

ELECTRIC POWER SYSTEM

**Powercon Load Break Interrupter Switches are Applied
in the Control and Switching of Power Distribution Systems
having Nominal A.C. Voltage Ratings from 2.4kV to 34.5kV.**

They are capable of switching load currents of 600 and 1200 amperes. Table #1 lists the applicable limits and conditions of switching. These switches are available with either electrical or mechanical operators. When used in conjunction with fuses they will afford overload, short circuit and disconnect services. These are used:

- *On the primary of transformers for their protection and isolation.*
- *For the protection and isolation of single circuit systems.*
- *For the protection and isolation of multi-circuit systems.*
- *For automatic transfer schemes where their ratings are not exceeded.*

Superior Features Provide You With:

- *Unequaled Dependability*
- *Minimum Maintenance and Downtime*
- *Long Interrupting Life*
- *Greater Safety*
- *Simple and Easy to Install and Operate*

Additional Values You Receive:

Switchgear...

Powercon exceeds ANSI/IEEE Standard C37.20.3, with no exceptions taken to any requirement of the ANSI/IEEE.

Insulation ...

Made of Wet Process Grade PORCELAIN switch supports. This complies with the ANSI/IEEE Flame Resistant Test (C37.20.3, P-5.2.6.1).

Conductors...

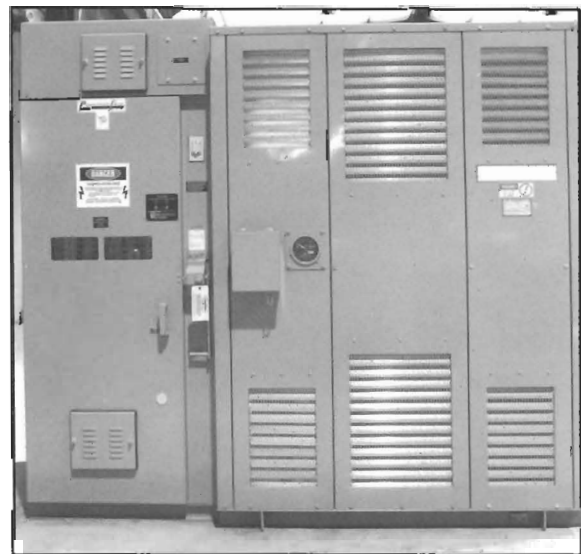
Made of COPPER with Silver-Plated Joints. There are no better conductor materials for switchgear.

Momentary Rating...

Including the switches, Powercon provides 2-SECONDS. Standards call for 2-Seconds, but some manufacturers provide just 1-Second.

Close and Latch...

This is another great Powercon feature found only in Circuit Breakers. A feature that is not provided by most manufacturer's.






Applicable Industry Standards

- NEMA SG-5 - Power Switchgear Assemblies
- ANSI C37.20.4 - Indoor Medium Voltage Switches in Metal Enclosed Switchgear
- ANSI C37.20.3 - Metal-Enclosed Interrupter Switchgear



TABLE #1. INDOOR AIR INTERRUPTER TYPE PIF SWITCH RATINGS
(These ratings apply to Switches & Equipments with Stored Energy Operated Switches)
(Special Ratings Available - Consult Factory)

UL Listings for Specific Application

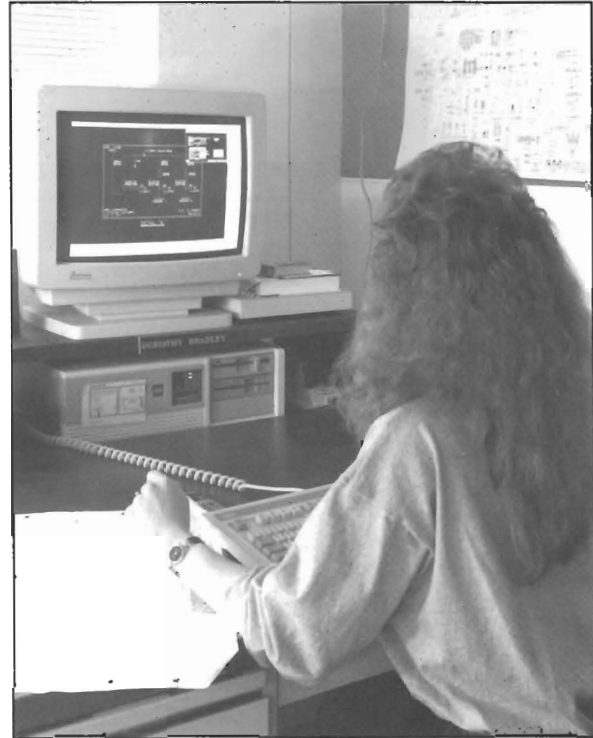
VOLTAGE RATINGS				CURRENT RATINGS				
NOMINAL kV, RMS	MAX. DESIGN kV, RMS	1 MIN. POWER FREQ. WITHSTAND kV, RMS	1.2 x 50 IMPULSE WITHSTAND kV, BIL	CONTIN. AMPERE, RMS	LOAD INTERR. AMP RMS	SHORT-TIME RATINGS		FAULT- CLOSE kA, RMS ASYM.
						MOMENTARY ASYM. kA, RMS	2-SEC kA, RMS	
4.16 	4.76	19	60	600 1200	600 1200	40 61	25 38	40 61
7.2 	8.25	26	75	600 1200	600 1200	40 61	25 38	40 61
13.8 	15.00	36	95	600 1200	600 1200	40 61	25 38	40 61
14.4	15.50	50	110	600 1200	600 1200	40 61	25 38	40 61
23.0	25.80	60	125	600 1200	600	40	25	40
34.5	38.00	80	150	600 1200	600	40	25	40
34.5	38.00	95	200	600 1200	600	40	25	40

Powercon's Extensive Facilities and Experience in the Design, Manufacture and Modification of Power Delivery Equipment Establishes the Powercon Corporation as One of the World's Premier Independent Switchgear Manufacturing Companies

Computer aided design, for example expands the creative process by allowing time proven and tested procedures to be incorporated, that **constantly improves performance**.

CNC manufacturing technology at our Severn switchgear plant, one of the industries most advanced, **contributes to** the consistency of quality for **prime performance**.

Technologically speaking, the performance of Powercon takes a back seat to no other switchgear on this planet. The technology **Powercon** employees use to design and assemble its products **is in a class with the world's best**.



**Reliability is Designed into the Equipment
by Not Only Considering its Proper Role in Application,
but Providing Preventive and Predictive Maintenance**



Product Liability factors now place greater emphasis on Quality - Reliability and Safety - which are primary concerns in LOAD BREAK INTERRUPTER SWITCHGEAR. First, because **quality** represents the best long term value to customers. Second, because power continuity is a basic requirement in industry which requires the highest of **reliability** of equipment. Third, because a high degree of **safety** is necessary when operating the equipment. In order to assure the greatest possible **reliability**, the product receives continuous inspection during manufacture, thorough testing and checking by Quality Assurance Supervision.

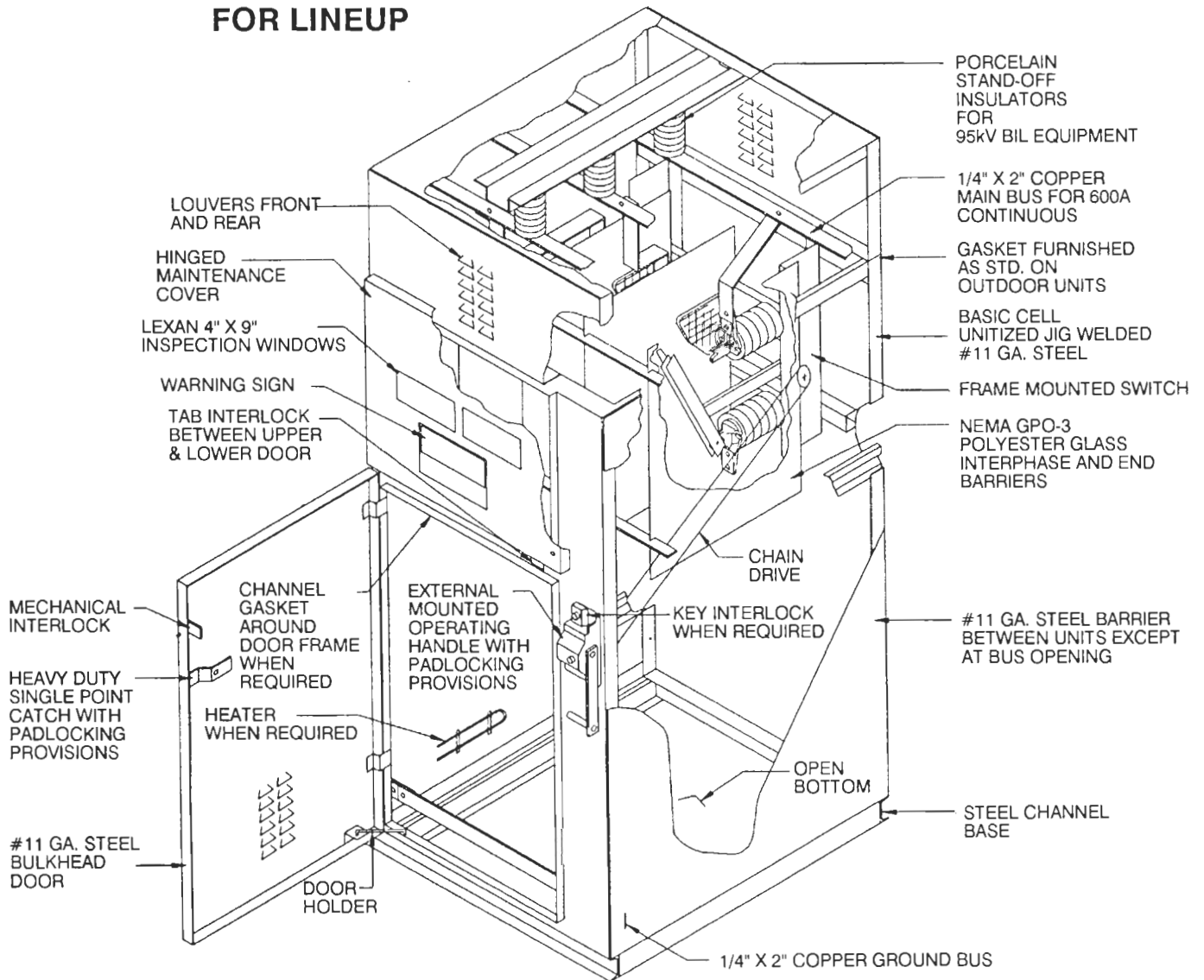
Reliability is designed by specifying the best available materials, manufacturing and design, using only highly experienced personnel with strict quality control.

The increased **safety** is achieved in Load Break Interrupter Switchgear by enclosing the unit in grounded steel, in a structure with doors and covers that will not be deformed due to electrical abnormalities, and making sure the proper interlocks are furnished to prevent the door opening, when the switch is in the closed position. In addition of course, in demanding it only be operated, serviced, maintained, installed, handled, etc. by **qualified personnel**. Detailed instruction books provided refer to **safety** standards and practices along with instructional details, all contribute to increased **safety - quality and reliability**.



Each Unit of the Metal-Enclosed Load Interrupter Switch Equipment Shall Be Independently Constructed of Structural or Rolled Sheet Steel and Shall Be Welded into a Solid Framing

**UNFUSED UNIT
FOR LINEUP**



**TYPICAL
CONSTRUCTION**

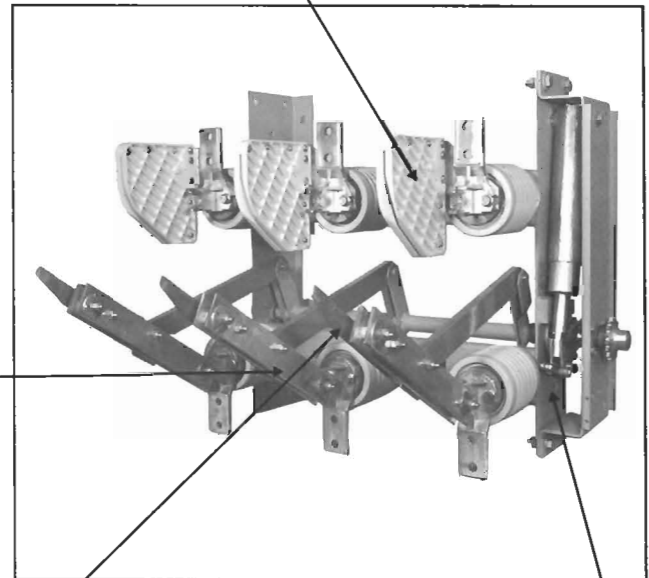
PIF Frame Mounted Heavy Duty Rugged Industrial Load Break Switches with Superior Features Provide

- *Unequaled Dependability*
- *Minimum Maintenance*
- *Long Interrupting Life*
- *Great Safety*
- *Simple to Install and Operate*

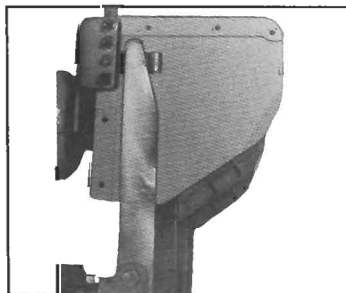
Arcing Chambers - Tungsten material stationary arcing contacts are located inside the arc chutes. They remain at the same potential as the main stationary contact. As the quick break blade is withdrawn from the arc chute it parts with the stationary arcing contacts inside the chute. The chute is made from a specially prepared compound that evolves a gas to quickly extinguish the arc. Clean consistent interruptions result. No appreciable amounts of gas are evolved.

Main Moveable Blades - These blades are made of 99% conductivity hard drawn ETP copper bars and they are heavily silver-plated at the contact points for long dependable operation.

Quick Break Blade - The quick-break arcing blade is made of a special high strength, hi-conductivity material tipped with a tungsten arcing material. A quick-break spring charging mechanism is mounted on the blade that with an assist from the arcing chamber stationary contacts, prevents the opening until after the main contact gap is at the proper clearance spacing.



A Super Structure - Powercon's all welded frame design provides a ruggedness and greater structural strength which is in a class by itself. The jig welded structural member form an assembly to provide a plumb and square switch unit. This assures interchangeability of units and results in a minimum of installation time.



Stationary Arcing Tips

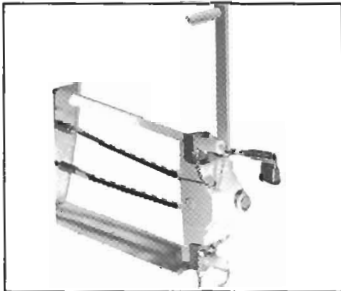
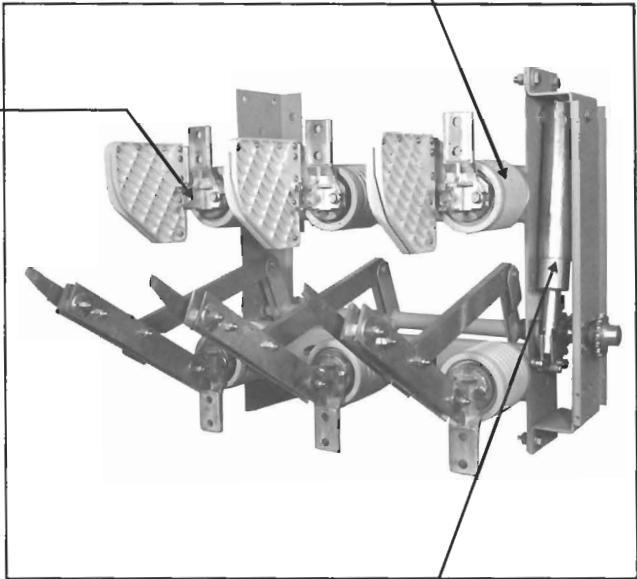
Powercon arcing blades and tips are designed to prevent arcing blades from hanging up in the stationary arcing contacts. Tests with welded stationary contacts have been made and it has been successfully demonstrated, that these tips do not hang up.

"Over 100,000 Switch Years of Experience"

Porcelain Switch Insulators - The near ultimate in insulation. Wet process porcelain is used as the insulating support for the main hinge and jaw contacts. Porcelain is a tried and true material proven in service as the near ultimate in insulation. It has excellent dielectric characteristics, is non-tracking, non-combustible, non-hygroscopic, won't age and is easy to clean. No organic materials can compare to the performance of porcelain.

Stationary Contacts - Both hinge and jaw contacts are heavy castings capable of absorbing and dissipating the heating from the large short circuits which may be encountered. The contact pressure is maintained on these contacts with selected spring washers especially adapted to maintain suitable pressure for many operations and over many years of operational performance. The retaining nuts are Elastic-Stop-Nuts to prevent joint loosening due to vibration, shock, and operation loosening the joint. Special dirt sealing designs effectively prevent the entrance of dust or dirt into the contact making area. The contact area is silver to maintain optimum current carrying ability and decrease heating.

Stored Energy Mechanism - The powerful opening and closing springs of Powercon's off-center stored energy mechanism provides for quick make (rated fault closing) and quick break (rated load interruption). The switch mechanism shaft is driven by a chain and sprocket from the front operating handle. As the handle is rotated, it is directly connected to a sprocket which in turn, chain drives the opening spring to a "charged" position. As the operator continues to rotate the handle, the charged spring is driven off-center by the chain and releases its energy into rotating the operating shaft to operate. The switch blades will not move, in either a closing or opening direction, until the closing spring causes rotation in the operating shaft. It should be noted, that once the springs are moved off-center, the operator has no further control of the opening and closing operation. *The operator therefore has a fault closing and rated load break feature independent of his performance.* Anti-friction bearings provide for a smooth operating performance.



Handle Housing
Powercon's cast aluminum handle housing has provisions for multiple padlocking. These handles are non-removable, self-latching and padlockable in the open or closed positions. "Telltale" indicators advise operator of switch position.

Each Unit Is Adequately Braced and Vented to Prevent Distortion of the Cubicle Door and/or Windows Under Operating Conditions, which Includes Short-Circuits and Fuse Operation on Interruption of Short-Circuit Current Up to the Specified Rating



Metal-Enclosed Load Break Interrupter Switchgear

Scope

These specifications describe either indoor or outdoor metal-enclosed, load break interrupter switch equipments consisting of fused and/or unfused load interrupter switches and auxiliary devices. It shall consist of one unit or multiple units in accordance with the specific requirements outlined below.

Applicable Standards and Ratings

The interrupter switches covered by these specifications shall be designed, tested, manufactured, installed and/or stored in accordance with the latest applicable standards of NEMA, ANSI and IEEE, and NEC.

Certified Test Reports

Certified Test Reports from an established high current test laboratory will be provided, on request, on similar preproduction models of similar load interrupter switches in their enclosures satisfactorily withstanding the requirements outlined in the applicable standards.

Drawings and Instruction Books

Arrangement, wiring, and floor-plans drawings shall be furnished with the equipment. Suitable instruction books shall be shipped with the switchgear. Three copies of instruction books should be supplied.

Enclosure Design

Each unit of the metal-enclosed load interrupter switch equipment shall be independently constructed of structural or rolled sheet steel and shall be welded into a solid framing. Each unit shall be adequately braced, with adequate venting to prevent distortion of the cubicle doors and/or windows under operating conditions, which includes short circuits and fuse operation on interruption of short circuit currents up to the specified rating.

All equipment shall be front connected and front accessible, unless special requirements dictate differently.

A steel door with concealed hinges shall have a single handle that operates latch to secure the door in the closed position. The steel door shall be a minimum of 11-gauge and all other sheet steel of the equipment shall be a minimum of 11-gauge or as required by the standards. Each front steel door shall contain safety protected observation windows that allow sufficient viewing for observation of switch contact position.

All housings shall be chemically cleaned inside and out, and then treated with a phosphoric acid, etched and cleaned. All surfaces shall be finished in ANSI

No. 61 medium light gray finish for the indoor switchgear.

The complete equipment for outdoor equipment shall be painted with a suitable finish coat of ANSI No. 70 and shall be weatherproofed.

Outdoor equipment shall be built on a minimum of 3" at 4.1 lb/ft channels and shall be gasketed and weatherproofed and equipped with long life tubular heaters. Control power for heaters shall be provided from an external service.

Lifting angles or other suitable means for lifting shall be provided.

Bus Design

The three-phase copper bare main bus shall have continuous rating of (600), (1200), or (2000) amperes and shall be braced to withstand the full effect of a short circuit within the ratings of the interrupter switch and/or fuses applied to the equipment. All bus bar joints shall be plated silver on copper bus. Supports for the main bus shall be porcelain above 5kV.

Each unit shall also contain a copper ground bus, accessible for connection to ground.

Both ground bus and main bus shall have provisions for extension in either direction for future additions.

Where bus bars are insulated for reliability or to allow closer spacing such insulation shall be (Lexclad*) extruded sleeving. Where joints are made, they shall be sealed with molded covers, or a void free filler covered with suitable layers of insulation tape and a mechanics protective tape.

**Proprietary to Powercon*

Air Interrupter Switches

Air interrupter switches shall be group operated of the stored energy type, 3-pole single throw, utilizing a direct acting spring charged mechanism for both closing and opening functions. Switch mechanisms shall be operable externally from the front or side of the cubicle and shall be equipped with a quick-make, quick-break mechanism to open and close the switch, independent of the speed with which the operating handle is moved. "Teasing" of the switch poles will not be permitted.

They shall have main and arcing contacts and be designed to provide maximum endurance for load interrupting and fault closing. The arcing contacts shall be spring loaded on-break and shall be last-in and last-out. They shall operate in an arc chute designed to assist in interruption, and liberate no appreciable gases on interruption.

All components except operating handle system

Metal-Enclosed Load Break Interrupter Switchgear

shall be mounted in a jig-welded frame to form a rugged unitized assembly, accomplished in jigs and fixtures to insure all parts function as required. A strict quality control program shall be instituted and followed.

The main blades shall be made of electrolytically pure cold rolled copper. All contact points shall be heavily silver plated on blades as well as the hinge and jaw castings. These contacts each will be one piece castings to provide maximum heat dissipation and continuous current transfer.

Wet process porcelain insulators shall be used to insulate the hinge and jaw castings from the frame on all ratings above 5kV.

Reinforced glass polyester may be used on 5kV and below.

Rating of interrupter switches shall be as outlined in Table #1 of this publication. When used with fuses, ratings shall be dependent upon specified fuse characteristics.

The switch shall conform to or exceed ANSI Standards for high-voltage air switches and switchgear assemblies :
C37.20.3 and C37.20.4 . Upon request, certified test reports shall be provided, proving published interrupting, short-time, momentary, BIL, dielectric and fault-closing ratings.

All components of the switch shall be completely checked and operated in compliance with documented quality assurance procedure to insure that all parts function as intended after manufacture and assembly. Testing shall consist of power frequency withstand and mechanical operations.

Interphase and barriers shall be NEMA grade GPO-3 polyester glass.

Interlocking

Provision shall be included for locking the switch in the open or closed position. The door shall be mechanically interlocked with the air interrupter switch to prevent closing the switch with the door open and to prevent opening the door with the switch closed.

Power Fuses

Fuses shall be self-contained current limiting or boric acid type to provide fast clean interruption. They shall be coordinated to meet the overload and short circuit rating specified and shall have continuous current rating as specified.

Danger Signs

All units shall have appropriate hazardous danger signs prominently displayed on the exterior and

interior of each unit.

Terminations

Terminations shall be as specified under detailed specific requirements.

Handles

Load Interrupter operating handles shall be externally mounted, non-removable (except for electric operators), self-levering, and padlockable with multiple padlocks in either the close or open position. "Telltale" indicators shall advise operator of switch position.

Miscellaneous

Protective hinged screen barriers, retained with captive thumb screws shall be provided as stipulated in the applicable codes and standards.

Ventilation shall be adequately provided to prevent condensation and equipment over heating.

SPECIAL FEATURES AND AVAILABLE ACCESSORIES

The following accessories are available for fused-interrupting switchgear equipment. Auxiliary compartments may be required being dependent upon the accessories specified. Other accessories are available or will be designed to meet special requirements.

Instrumentation

Voltmeter, Single Phase Indicating
Ammeter, Single Phase Indicating
Transfer Switch for Above
Watt-hour Meters
Wattmeters, Varmeters
Other Instruments including Recording

Metering and Control Power Transformers (2400 to 34,500 Volts)*

Current Transformers
Voltage Transformers
(Fused Primary) (Stationary Mounted)
Voltage Transformers
(Drawout Arrangement)*
Control Power Transformers
**Above 23,000 Volts Refer to Factory*

Electrical Operators

Standard Close - Standard Open
Quick Close - Standard Open
Standard Close - Quick Trip**
Quick Close - Quick Trip**

Manual Operators

Manual Close - Quick Trip (Electric)**
Manual Quick Close - Standard Open **
Manual Close - Manual Quick Trip**

***In accord with industry standards, a deliberate time delay between closing and opening must be provided in these switches. Accordingly, in order to open the switch, the opening springs must be charged after the switch is closed and vice versa to introduce this time delay.*

Metal-Enclosed Load Break Interrupter Switchgear

Handles

- Removable • Left Side
- Direct Drive • Drilling for Keylocks

Insulation

- Porcelain for 5kV*
- 95kV BIL for 7.2kV thru 15kV
- 110kV BIL for 14.4kV nominal
- 125kV BIL for 23kV
- 150kV BIL for 23kV thru 34.5kV
- 200kV BIL for 34.5kV
- Insulated Bus - Lexclad
- *Standard for Above 5kV

Lightning Arrestors

- Distribution Class • Intermediate Class
- Station Class

Mimic Bus

- Painted • Plastic • Steel • Anodized Aluminum

Terminations

- Bus Duct • Pothead (Single and Three Conductor)
- Terminators • Roof Entrance Bushings
- Clamp Type Terminals • Stress Cones

Weatherproofing

- Includes Space Heaters • Walk-In Unit
- Insulated Walk-In

Automatic Throwover

- Primary, 2-Mains Without Tie Switch with 1-Phase Detection or 3-Phase Detection
- Primary, 2-Mains With Tie Switch with 1-Phase Detection or 3-Phase Detection

Secondary Control Power Throwover

- Uses Control Power from Two Sources

Fuse Selection*

- G.E. EJ-1 Current Limiting
- G.E. EJO-1 Current Limiting
- Gould Shawmut CL-14 Current Limiting
- S&C SM-20 Disconnect & Non-Disconnect
- S&C SM-4 Disconnect & Non-Disconnect
- S&C SM-5 Disconnect & Non-Disconnect
- Westinghouse CLE-1 Current Limiting
- Westinghouse CLE-2 Current Limiting
- Westinghouse CLE-750 Current Limiting
- Westinghouse RBA-200 & RBA-400 Disconnect & Non-Disconnect
- Westinghouse RBA-800 Non-Disconnect

**There are many considerations in the application of fuses. The fuses shown above offer general protection. In applying fuses it is most important to coordinate the fuse with other tripping devices in the system so as to secure the proper selectivity. Special considerations must further be given to other conditions such as ambient temperature, short time overloads, selectivity, duty cycle and impedances. Each fuse application should be carefully reviewed, recognizing system arrangement and the various parameters involved. Responsibility for fuse application rests with the Power System Designer.*

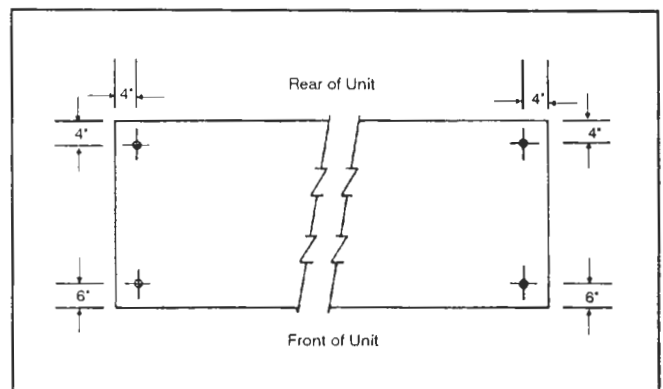
Grounding Switches

Accessories

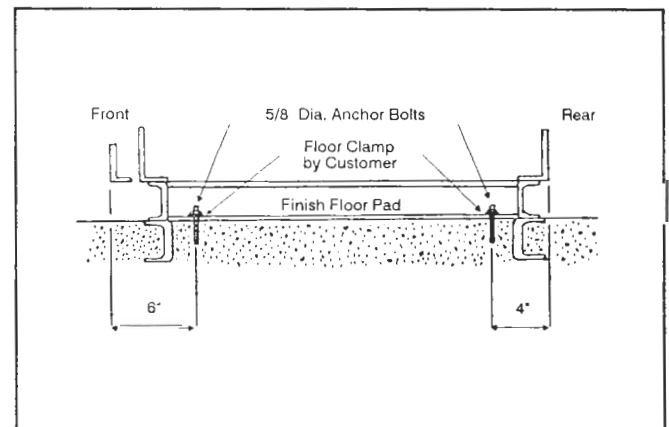
- Operation Counter
- Ground Bales
- Key Interlocks
- Neon Glow Tubes
- Mechanical Interlock for Grounding Switch
- Auxiliary Switches
- Symphore Flag Indicators
- Stored Energy Position Indication
- Tin Plating of Current Carrying Conductors
- 80KA Mom. Rating for 15kV Application
- 2000A & 3000A Continuous Ratings

Anchoring Details

Floor Plan - Indoor and Outdoor
5/8 Inch Anchor Bolt Layout



Indoor and Outdoor
Anchoring Method



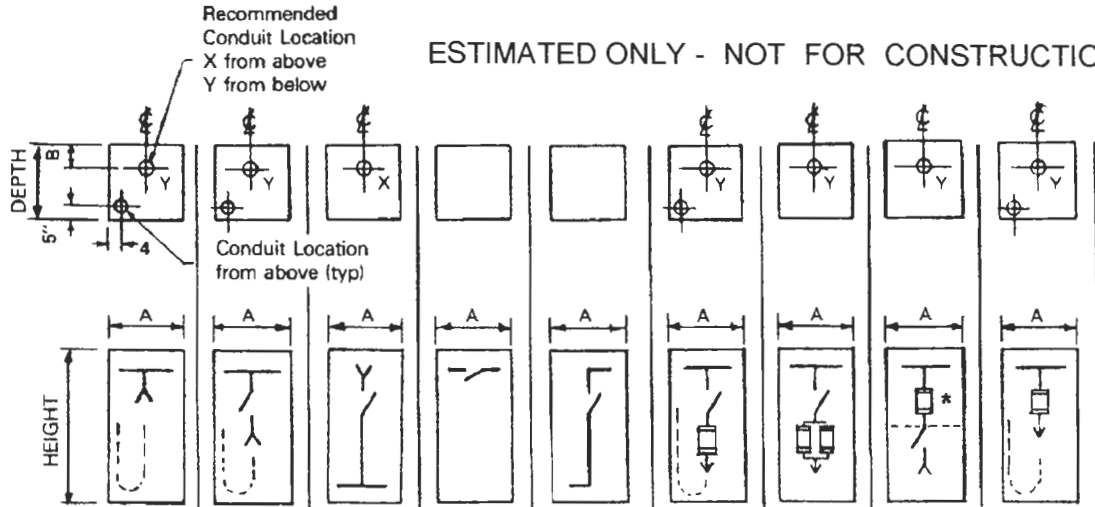
Foundation Data

Equipment is furnished with built-in channel, thus eliminating the need for the floor steel when mounting directly on smooth, level floor. If embedded channels are desired, these should be set level with each other and should be level over their entire length. 4" x 5.4"lbs./ft. channels are recommended for leveling purposes. Finish floor should have slight pitch away from mounting channels and in no case should the finish floor be higher than mounting channels. All outdoor equipment must be caulked to prevent seepage of moisture under the equipment.

TYPICAL DIMENSIONS and WEIGHTS

MODULE SELECTION ALL UNITS

ESTIMATED ONLY - NOT FOR CONSTRUCTION



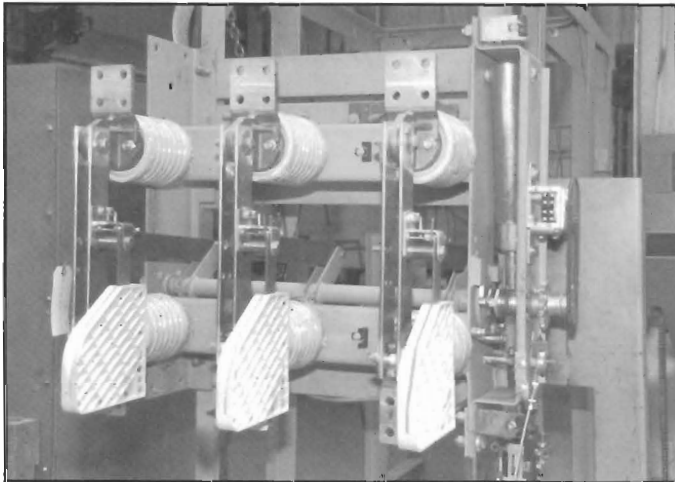
5KV, 600A Thru 1200A 60KV BIL Height 93-1/8 Depth 44"	DIM.	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
		24	22	36	15	36	15	36	--	36	--	36	15	36	15	36	15		
	WT.	600		950		950		950		1000		1150		1600		1150		1000	
	CAT.	473-009		473-019		473-029		473-039		473-049		473-059		473-069		473-079		473-089	
15KV, 600A Thru 1200A 95KV BIL Height 93-1/8 Depth 44"	DIM.	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
		24	22	36	15	36	15	36	--	36	--	36	15	54	15	36	15	36	15
	WT.	600		1000		1000		1000		1050		1200		1600		1200		1000	
	CAT.	474-009		474-019		474-029		474-039		474-049		474-059		474-069		474-079		474-089	
25KV, 600A Thru 1200A 125KV BIL Height 118 Depth 60"	DIM.	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
		24	30	48	20	48	20	--	--	48	--	48	20	*	30	48	20	48	20
	WT.	650		1050		1050				1100		1300		1800		1300		1100	
	CAT.	475-009		475-019		477-029				475-049		475-059		475-069		475-079		475-089	
38KV, 600A 150KV BIL Height 133-1/8 Depth 70"	DIM.	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
		24	35	60	32	60	32	--	--	60	--	60	45	--	--	60	32	60	32
	WT.	900		1500		1500				1500		2000				2000		1600	
	CAT.	476-009		476-019		476-029				476-049		476-059				476-079		476-089	
38KV, 600A 200KV BIL Height 167-1/8 Depth 84"	DIM.	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
		30	42	70	32	70	32	--	--	70	--	70	45	--	--	70	32	70	32
	WT.	1000		2000		2000				2000		2600				2600		2000	
	CAT.	477-009		477-019		477-029				477-049		477-059				477-079		477-089	

N.E.C. Table 110-34(a)

Minimum Depth of Clear Working Space in Front of Electric Equipment

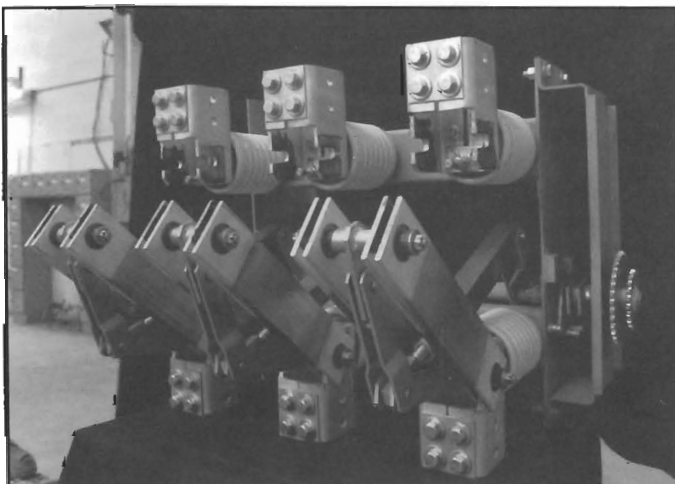
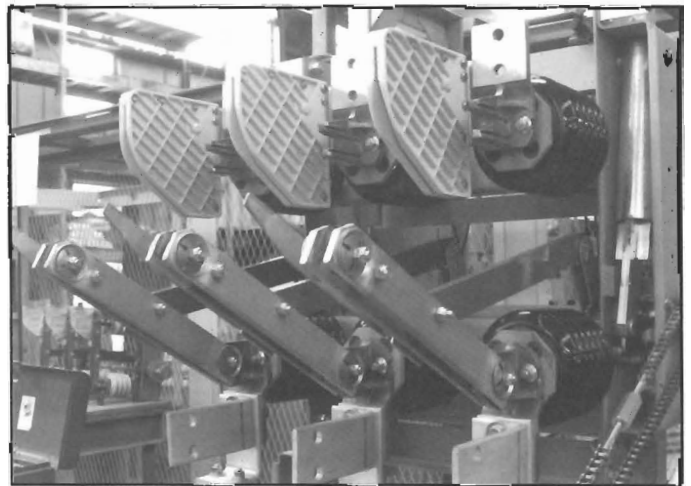
Nominal Voltage to Ground	Conditions		
	1	2	3
	(Feet)	(Feet)	(Feet)
601-2500	3	4	5
2501-9000	4	5	6
9001-25,000	5	6	9
25,001-75KV	6	8	10

Variations in Designs and Applications



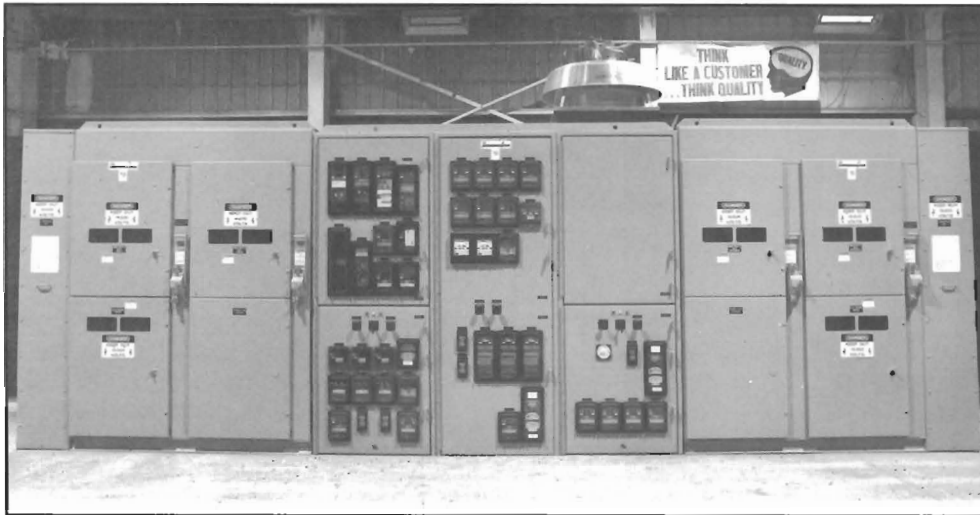
*1200A, 15kV Load Break Switch
95kV BIL, Inverted
with Shunt Trip*

*1400A, 15kV Load Break Switch
95kV BIL
80KA (Asym.) Withstand*

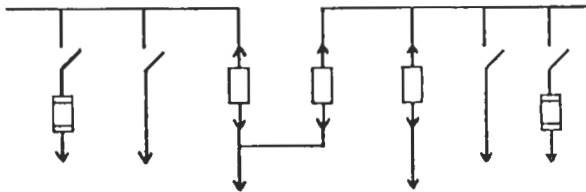


*3000A, 15kV Torque-Lok Switch
95kV BIL
100KA (Asym.) Withstand*

Variations in Designs and Applications



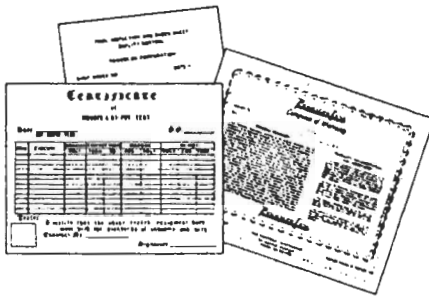
*Metal-Clad
Circuit Breaker
Incoming Line & Load
Interrupter Feeders*



*Duplex
Primary Selective with
Transition
for Transformer*



Switchgear by Powercon



Final testing assures that the product meets all industry standards and any special requirements of the customer. Detailed records are made of each test.

Quality Assurance, is a continuous operation in assuring customers of a quality product. Every product is fully checked for good workmanship, customers original requirements and further checked for any engineering changes that might have been involved. A detailed record of this final step is kept of each product.



Laboratory Testing

A large share of the value in the Powercon Fused Interrupter Switch is the research and development techniques and facilities which are devoted to provide outstanding performance and reliability. New materials are continuously sought and are carefully investigated before adoption.

After selection of materials and completion of design, the product is taken to laboratories for authenticated testing. Such laboratories used are the Kema in Chalfont, Pa. In addition, Powercon has available our own in-house medium-voltage testing laboratory. When required these laboratories can be used to perform seismic testing, chemical analysis, structural analysis, impulse testing, as well as other specialized testing requirements. However, any product is subject to improvement when newer materials are available, so that the product is on a progressive, advanced development program from it's conception.

Field Service

Once a product has been designed and manufactured, it is the obligation of the manufacturer to continue to follow through and service the equipment when required - not only through the warranty period but afterwards.

One of the strengths of any manufacturer is it's ability to furnish fast service at any location - when it is needed. Powercon's reputation for fast dependable service is without equal. When the job is completed satisfactorily, a report is generated and a copy of this report is mailed to the customer.



Switchgear by Powercon

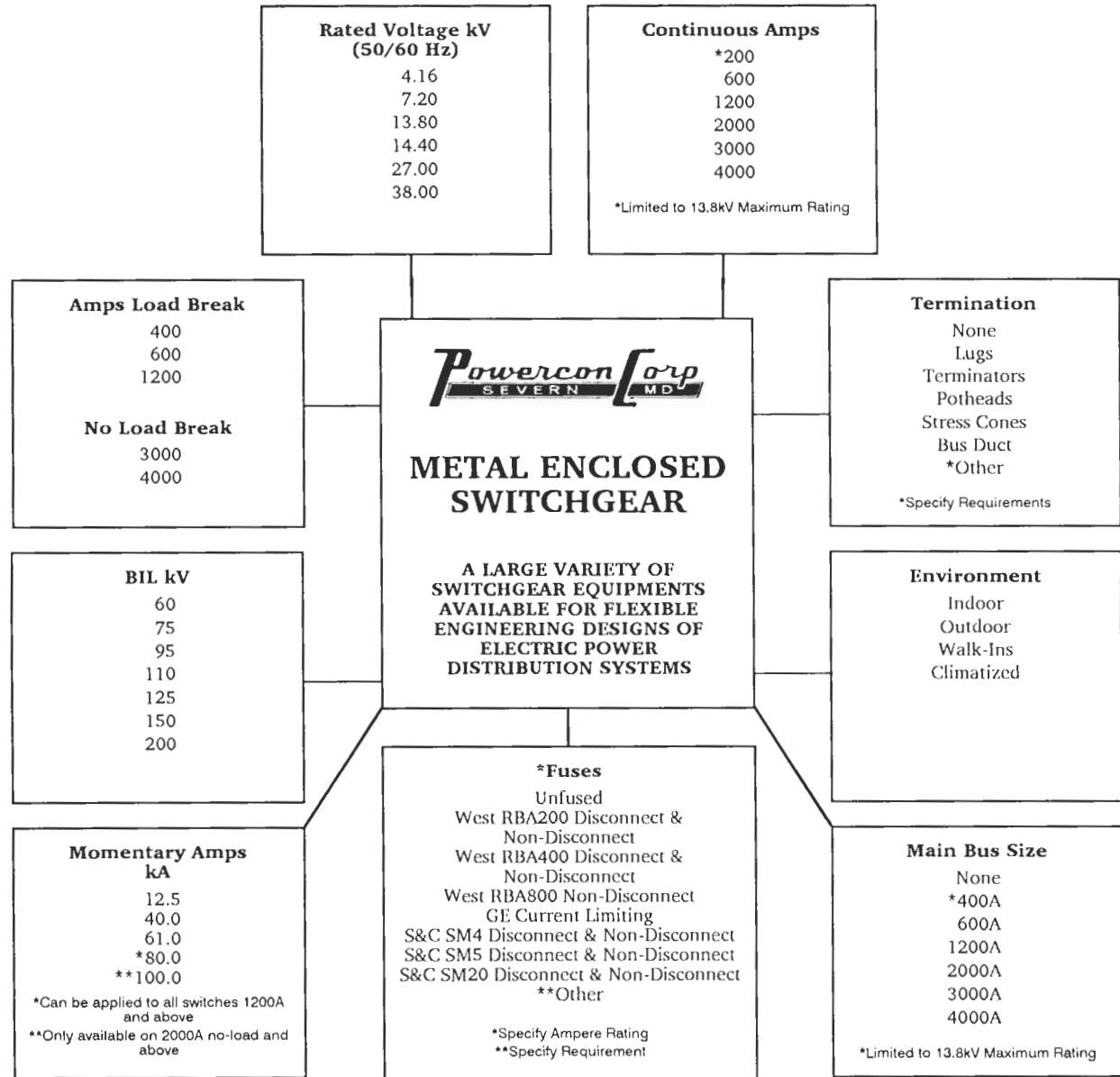


Custom engineered switchgear equipment to meet the individual needs has elevated Powercon to wide recognition in the electric power and distribution equipment industry.

Powercon has chosen to be a leader in value. This assumes a responsibility for scientific research, for innovation in development, for selecting manufacturing processes that maximize the probability of fault free production and to provide fast service. The significance of this background is to provide quality equipment that will minimize problems in the field.

Powercon welcomes the opportunity to create special products for applications that will meet customers needs. Whether it is a minor request or a complicated design, each product receives equal professional engineering attention in every detail.

Switchgear by Powercon



AVAILABLE AUXILIARY AND/OR ACCESSORIES

- Shaft connected auxiliary switches
- Solenoid instantaneous open/or close
- Manual instantaneous open and/or close
- Motor operators to close and open
- Spring charged indicator switch
- Operation counter
- Key interlocks

AVAILABLE AUXILIARY AND/OR ACCESSORIES

- Mechanical interlocks to grounding switch
- Grounding blades
- Automatic transfer systems
- CT's, PT's, CPT's - drawout and stationary
- Instrumentation
- Neon glow tubes
- Anti-Single phasing and a host of others

INSTRUCTION TAPE - VHS

CAT#TP002

**METAL ENCLOSED 5 kV Thru 38 kV
LOAD BREAK INTERRUPTER SWITCHGEAR**



*To be used in conjunction with Instruction Books:
PCIB-1008B, PCIB-1002*

with Instruction Information On:

Receiving • Inspection • Testing • Operation • Maintenance • Adjustments

Including:

Partial Safety Practices

Interlocks

Connections

Electric Operators

General Construction

Bolt Torquing

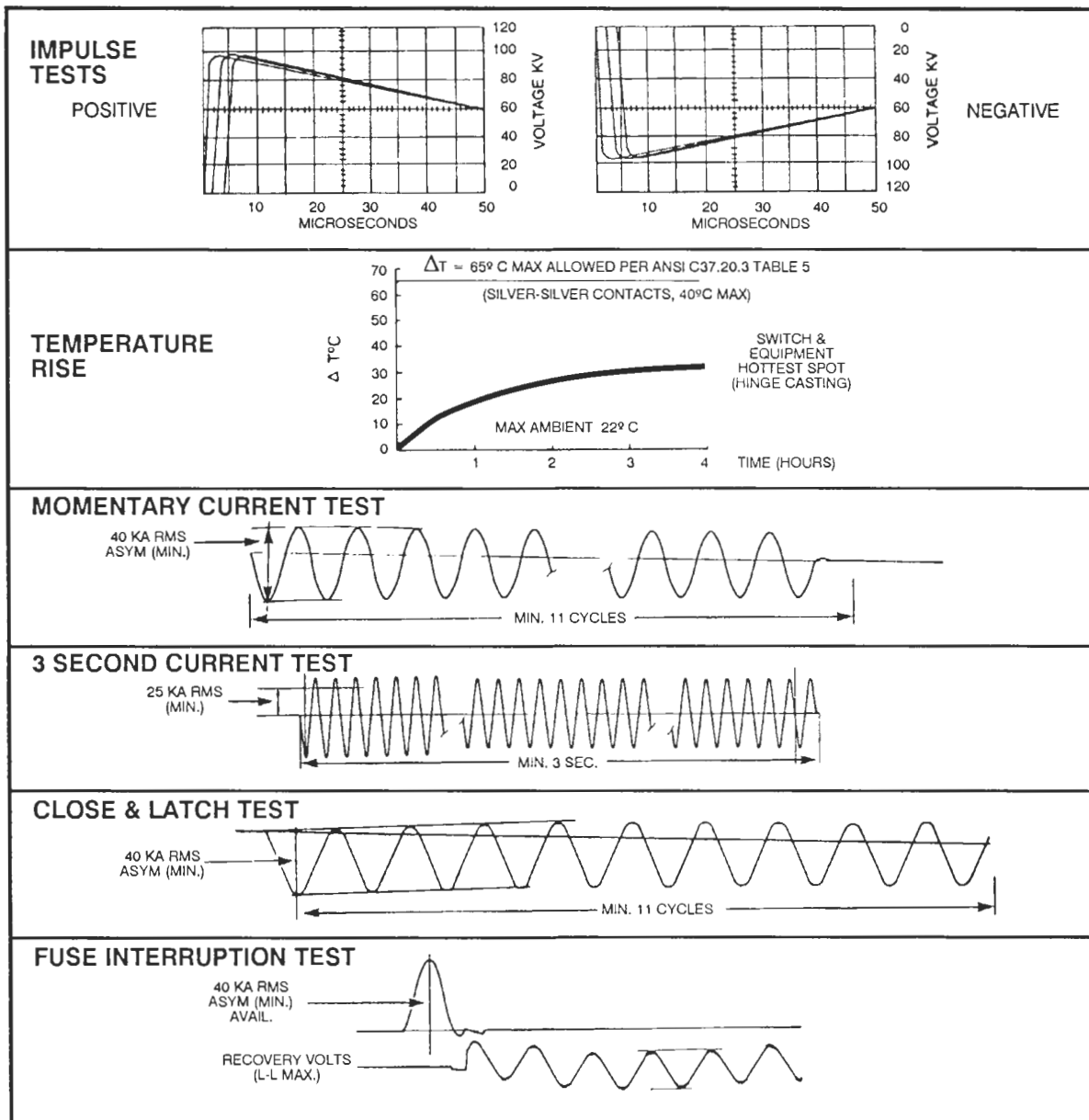
Demonstrations

Slow Motion Demonstration with 1100 Frame/Sec of Switch Operations

Net Price..... \$375.00

INTERRUPTER SWITCH TEST

REPRESENTATIVE CURVES



All Certified Test Reports are available for inspection at Powercon factory.

Other tests, such as Mechanical Life Tests, Timing Tests, Magnetizing Tests, Load Switching Tests, etc. have been completed and are available at the Powercon factory.

Product design, materials and construction methods are proof tested on prototype models. This test illustrates the thoroughness of Powercon's effort to assure that the product exceeds the applicable user and ANSI specification requirements. The switch being tested is closing in on a 3-phase fault in excess of 45,000 amperes, which is in excess of its close and latch rating. A test such as this is only one of a long series providing valuable design techniques. Some of these are the metallurgy of the metals; the strength and temper of materials, close and latch force requirements, cubical and withstand design parameters.

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