CATALOG SECTION 700

BULLETIN 700

February, 1991

Supersedes Bulletin 700 dated October, 1989

Southern States, Inc.

Type PKR

BY-PASS DISCONNECTING SWITCH
7.8-15-27 kV 400-600 AMPS

The Type PKR is a compact, easily installed by-pass disconnect switch for by-passing and disconnecting pole mounted regulators or oil circuit reclosers.

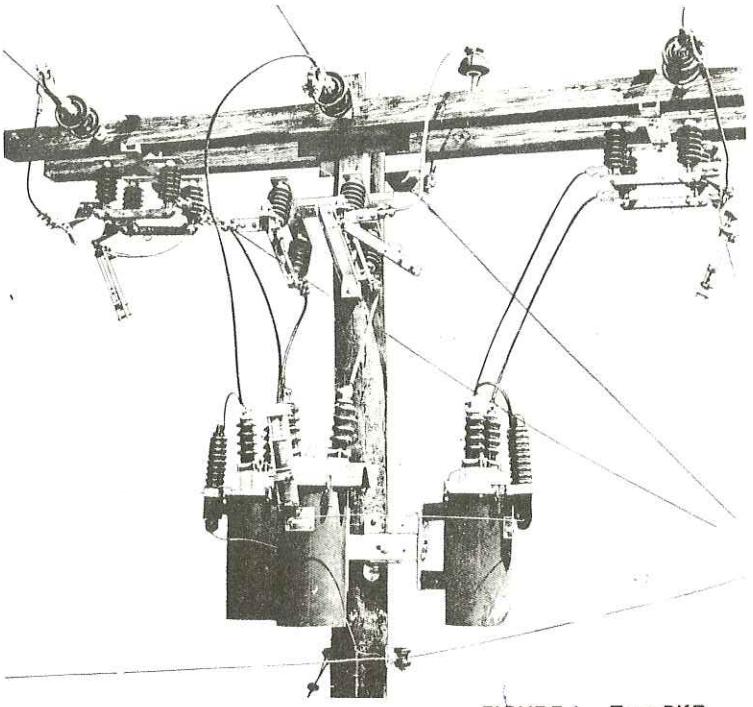


FIGURE 1 – Type PKR

GREATER SAFETY AND CONVENIENCE:

1. The PKR allows hooksticks to be used to de-energize all circuits to the regulator or recloser.
2. Operation of the PKR is fast and easy, requiring much less time than hot line clamps.
3. Switch by-pass eliminates the possibility of personnel injury from closing a by-pass fuse on a high current fault after recloser lockout.
4. Switches provide greater thermal capacity than hot line clamps.

TERMINALS:

Line terminals are tinned, flat pads with NEMA Standard two hole drilling. Clamp type terminals for aluminum or copper can be supplied at additional cost. Integral, clamp type hinge end terminals are tinned and accommodate a wide range of copper or aluminum conductors.

SIMPLICITY OF OPERATION:

Regulators may be live line tested in place without disturbing the line voltage. With the by-pass switch blade closed and one isolating switch blade closed and one open, the contact making voltmeter may be manually run through its paces without having the regulating winding connected to the system. This is not good practice with "one pull" regulator by-pass switches, since it involves a partially open switch position.

FULL VALUE BREAK DISTANCE PROVIDED:

The PKR provides a quickly operable line sectionalizing point with air gap insulation at each recloser or regulator. Break distance across the open gap of the by-pass switch is "full value" as compared to the 10 percent value supplied on the conventional regulator by-pass switch.

BIL COORDINATION:

The PKR is available in BIL's of 95 kV, 110 kV, 125 kV and 150 kV. These insulation levels coordinate with distribution class oil circuit reclosers, cutouts, and other distribution apparatus.

The crossarm-mounted PKR's can be used on either single or double crossarms, and a mounting strap and bolts are supplied. Pole-mounted PKR's are supplied with welded, galvanized steel mounting brackets, which can be quickly attached to wooden poles. No extra hardware, such as additional crossarms or brackets, are needed to install either mounting style.

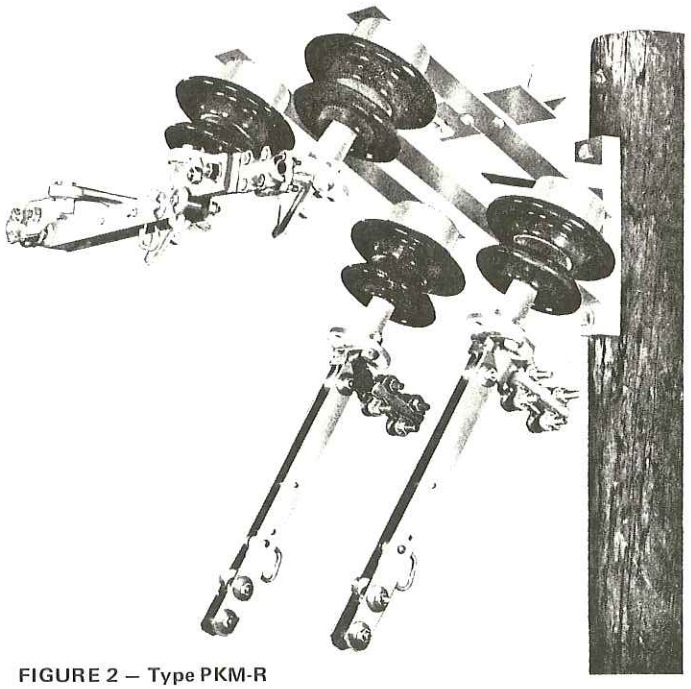


FIGURE 2 – Type PKM-R

The PKM-R is mounted on NEMA Standard insulators. In all other respects, it is identical to the PKR. It is available in continuous current ratings of 400 and 600 amperes, and voltage ratings of 7.2, 14.4, and 23 kV.

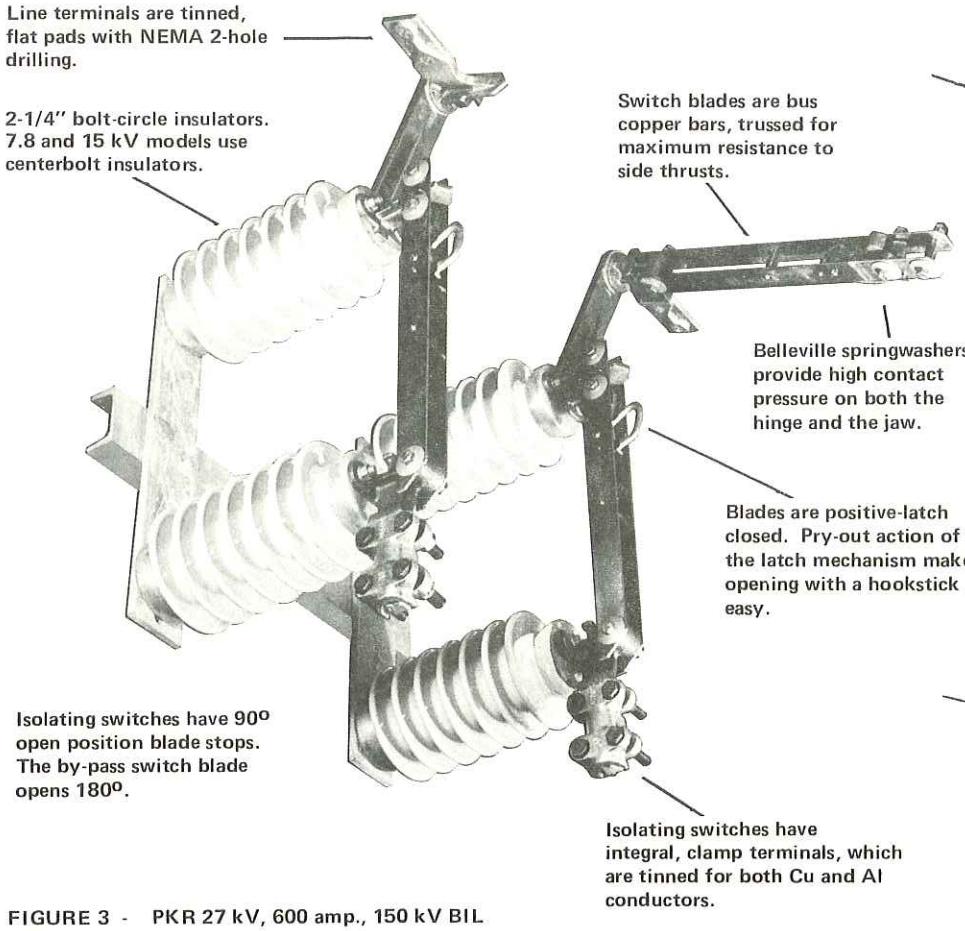


FIGURE 3 - PKR 27 kV, 600 amp., 150 kV BIL

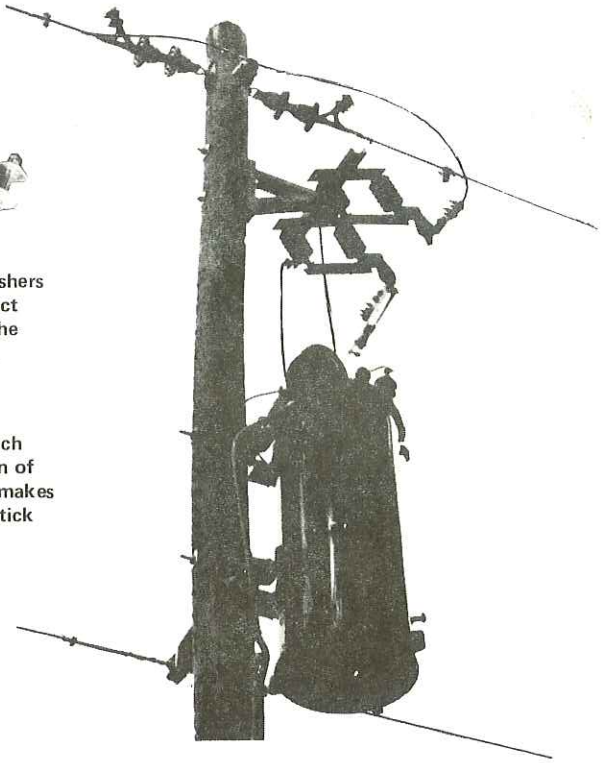
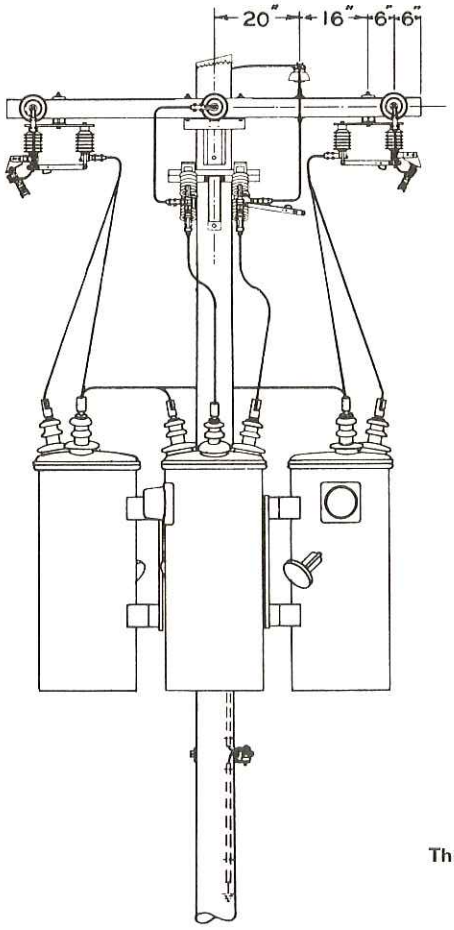


FIGURE 4
Single phase regulator installation



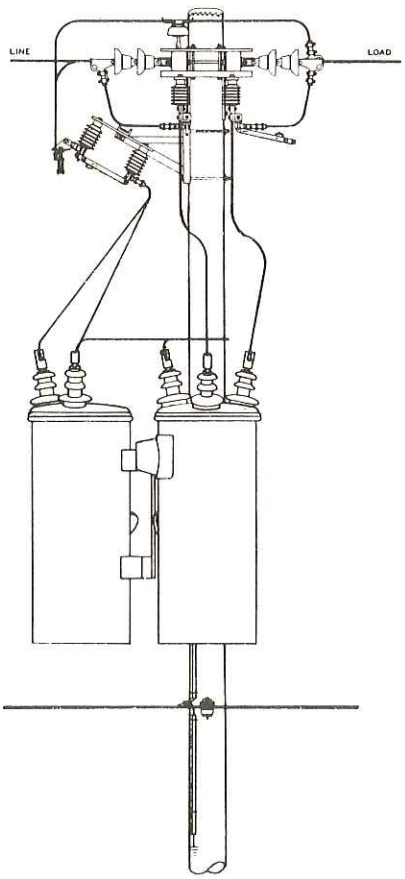
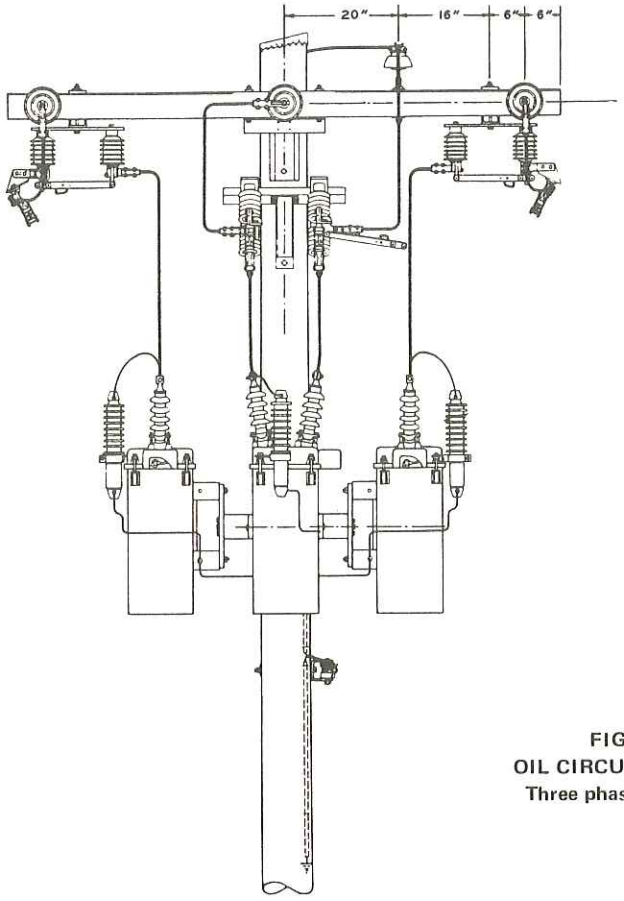


FIGURE 5
REGULATOR
Three phase installation



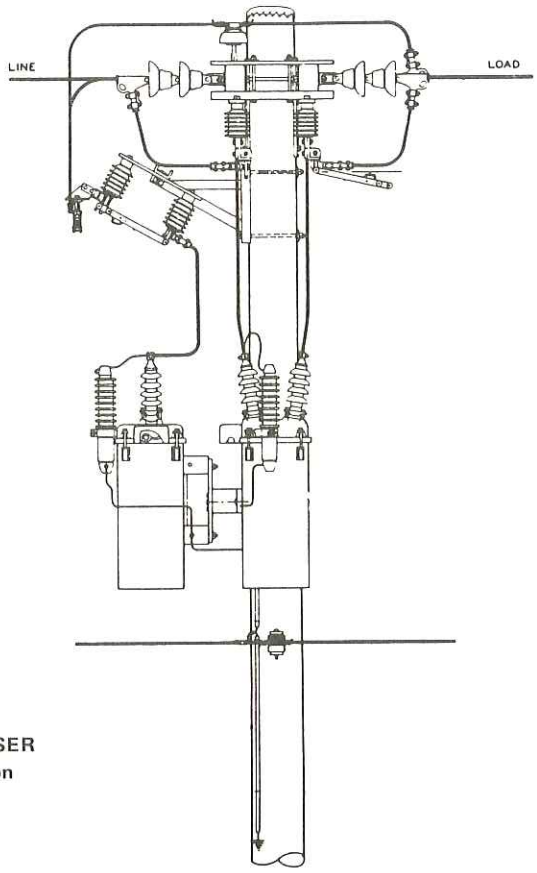
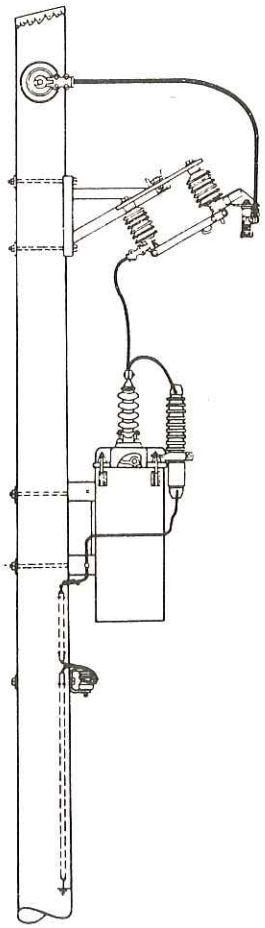


FIGURE 6
OIL CIRCUIT RECLOSER
Three phase installation



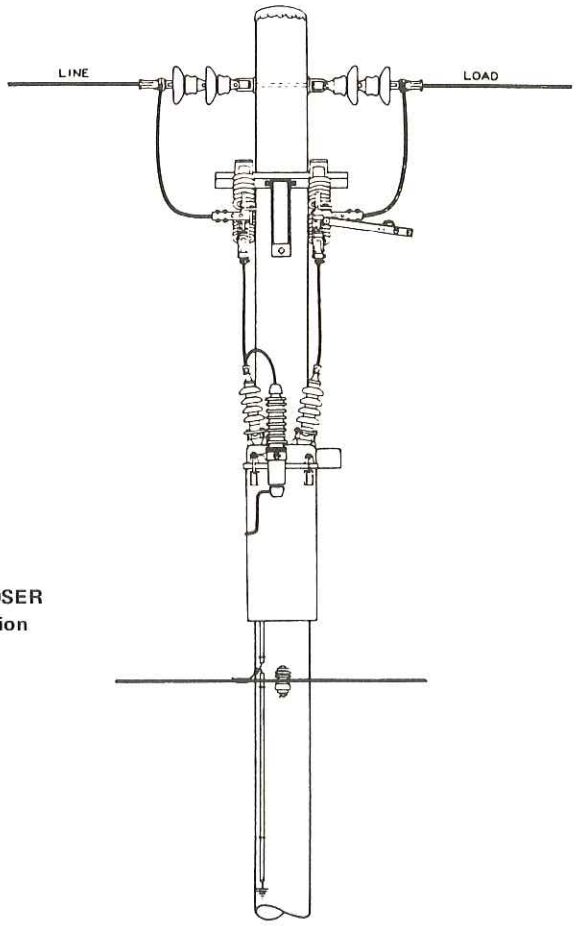
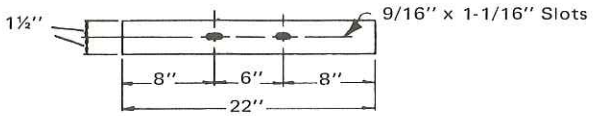
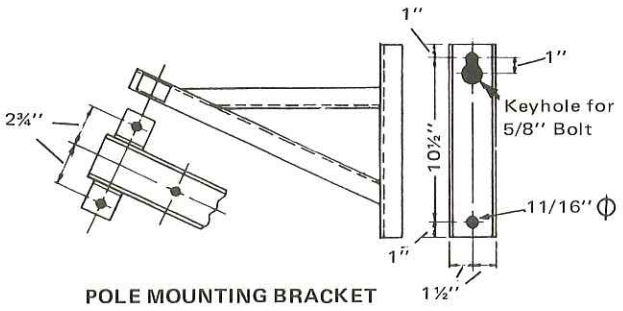


FIGURE 7
OIL CIRCUIT RECLOSER
Single phase installation



CROSSARM MOUNTING STRAP



POLE MOUNTING BRACKET

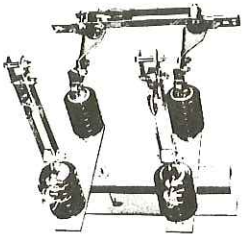


FIGURE 8 — Left Hand Unit

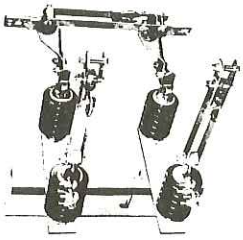


FIGURE 9 — Right Hand Unit

The crossarm mounted units on a three-phase installation are supplied left hand and right hand. The classification of the unit is determined by facing the switch in the position shown above. The left hand unit has the jaw end of the by-pass switch to the observer's left; the right hand unit has the jaw end of the by-pass switch on the right.

Field conversion from one hand to the other can be accomplished by exchanging jaw and hinge end castings.

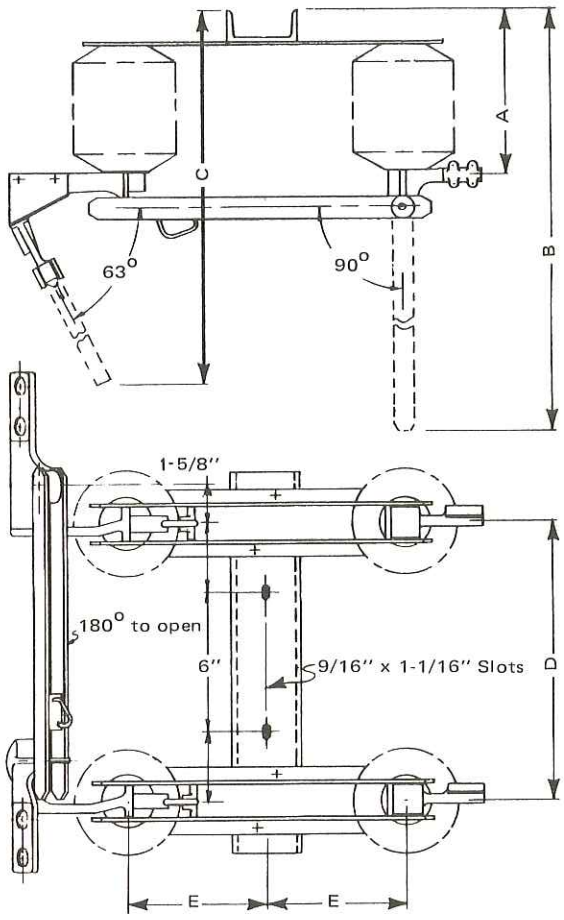


Table of Conductor Sizes for Integral Terminals

	SWITCH RATING		
	200 Amps	**400 Amps**	**600 Amps**
Copper	#6-4/0 Cu.	#2-350 MCM Cu.	#4/0-750 MCM Cu.
Aluminum	#8-3/0 ACSR	#3-300 MCM ACSR	#3/0-666 MCM ACSR

RATINGS					CATALOG NUMBERS			DIMENSIONS inches meters				
VOLT. Nom. kV	CURRENT - Amp. Cont.	Mom.	INSUL. B.C.	BIL kV	Pole Mounted	X-Arm Mounted Left Hand	X-Arm Mounted Right Hand	A	B	C	D	E
7.2	400	20,000	CB	75	PKR72400P	PKR72400L	PKR72400R	8-1/2	24	28	12	6
7.2	600	20,000	CB	75	PKR72600P	PKR72600L	PKR72600R	.267	.610	.710	.305	.153
14.4	400	20,000	2-1/4	95	PKR15400P	PKR15400L	PKR15400R	12	29	33	12	7-1/2
14.4	400	20,000	CB	95	PKR15400CP	PKR15400CL	PKR15400CR	.305	.735	.838	.305	.191
14.4	600	20,000	2-1/4	95	PKR15600P	PKR15600L	PKR15600R					
14.4	600	20,000	CB	95	PKR15600CP	PKR15600CL	PKR15600CR					
14.4*	600	20,000	2-1/4	95	PKR15600TP	PKR15600TL	PKR15600TR					
23	400	20,000	2-1/4	125	PKR23400P	PKR23400L	PKR23400R	12	29	33	15	7-1/2
23	600	20,000	2-1/4	125	PKR23600P	PKR23600L	PKR23600R	.305	.735	.838	.381	.191
23	600	20,000	2-1/4	150	PKR23615P	PKR23615L	PKR23615R	14-3/8 .371	32-3/8 .812	37 .938	15-1/4 .387	7-1/2 .191

*Supplied with integral terminal connectors (No. 2 - 350 MCM Cu.)
All dimensions approximate

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