

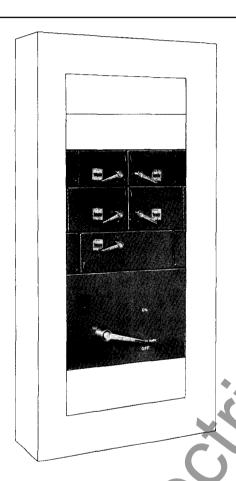


Westinghouse Electric Corporation Low Voltage Breaker Division Beaver, Pennsylvania 15009 Technical Data 29-620

Page 1

March, 1978 Supersedes Price List 29-620, pages 1-4 dated February 19, 1974, and Supp. Page .01 dated September 26, 1974. Mailed to: E, D, C/1904/1928, 1929/PL 250, 600 Volts Ac, 250 Volts Dc 30-1200 Amperes

Type FDP Fusible Panelboard Switches



Ratings

30-1200 Amperes, 250 and 600 Volts Ac, 250 Volts Dc, 2 and 3 Pole Switch units rated 30-1200 amperes are UL Listed. Two pole, 30-600 amp switches, are UL Listed for use on 3-phase Delta, grounded B phase applications as indicated in Hp table page 3.

Application

Type FDP fusible panelboard switches are designed for commercial, industrial and service entrance applications to protect and switch feeder and branch circuits.

Description

Type FDP fusible panelboard units incorporate special quick-make, quick-break open switches, housed in sheet steel enclosures. The units are designed for installation in conventional type CDP Distribution Panelboard chassis.

All standard FDP switches rated 30 thru 600 amperes are designed for use with the standard N.E.C. fuse. However, the latest design switches with catalog number suffix "R" are adaptable for use with Class R, or Class J fuses as noted on page 4. Switches rated 800-1200 amperes accept NEMA class L fuses as noted on page 3.

These switches may be padlocked in either the ON or OFF position and, in addition, have a cover interlock which may be padlocked for optimum security.

Capacitor Switching

For application of FDP switches for capacitor switching, refer to Westinghouse.

Selection

Type FDP units are available in eight sizes. In order to select a particular unit, the following data must be known.

- 1. Voltage rating.
- 2. Current or horsepower rating (refer to horsepower table on page 3.)
- 3. Number of poles.

Knowing the voltage and current ratings, the proper size switch can be found by referring to the Application Table and Layout Drawing below. Knowing the number of poles, the particular FDP switch can be selected from the following pages.

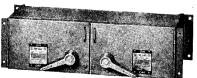
Application Table

Ampere Rating	Volts	Unit Required
30	250 Ac or Dc 600 Ac	5½" Twin 5½" Twin
60	250 Ac or Dc 600 Ac	5½" Twin 5½" Twin
100	250 Ac or Dc 600 Ac	5½" Twin 6%" Single or Twin
200	250 Ac or Dc 600 Ac	8%" Single 8%" Single
400	250 Ac or Dc 600 Ac	15%" Single 15%" Single
600	250 Ac or Dc 600 Ac	15%" Single 15%" Single
800	600 Ac	22" Single
1200	600 Ac	22" Single

Layout Drawing

,	D. a. trining	
4X	100A	5 <u> </u> "
5X	IOOA	5 <u>1</u> " 6 <u>7</u> "
6X	200A	8 <u>1</u> "
5X	A001	67"
ПХ	400 or 600A	15 <u>l</u> "
16 ×	800 or 1200A	22"

FDP Switch Units Assembled in Panelboard **Switch Selection Guide** For List Prices, Refer to Price List 29-020 5½ Inch Twin Unit 250, 600 Volts Ac, 250 Volts Dc, 100 Amps Max.



18 In. Wide, 4X Units (5½ In.) High

Panelboard Connectors: Included Class R Fuse Clip Conversion Kit: Page 4 Extension Wings: Page 4 Dimensions, Wire Range: DS 29-670, page 2 Current Limiting Fuse Provision: Page 4 Shipping Weights: 2 Pole, 18 Lbs. 3 Pole, 19 Lbs.

Horsepower Ratings: Page 3

Ampere Rating		Catalog Numb	Catalog Numbers				
Unit 1 Unit 2		2 Poles	3 Poles				
250 Volts Ac, 250 Volts Dc							
30	30	FDPT2211 R	FDPT3211R				
30	60	FDPT2212R	FDPT3212R				
30	100	FDPT2213R	FDPT3213R				
60	60	FDPT2222R	FDPT3222R				
60	100	FDPT2223R	FDPT3223R				
100	100	FDPT2233R	FDPT3233R				
600 Vol	ts Ac						
30	30	FDPT2611R	FDPT3611R				
30	60	FDPT2612R	FDPT3612R				
60	60	FDPT2622R	FDPT3622R				

6% Inch Single Units 600 Volts Ac, 100 Amps Max.



18 In. Wide, 5X Units (6% In.) High

Panelboard Connectors: Included Class R Fuse Clip Conversion Kit: Page 4 Extension Wings: Page 4 Dimensions, Wire Range: DS 29-670, Page 3 Current Limiting Fuse Provision: Page 4 Shipping Weights: 3 Pole, 17 Lbs. Horsepower Ratings: Page 3

Ampere	Catalog Numbers			
Rating	2 Poles	3 Poles		
100	FDPS263R	FDPS363R		

81/4 Inch Single Unit 250, 600 Volts Ac, 250 Volts Dc, 200 Amps



18 In. Wide, 6X Units (8% In.) High

Panelboard Connectors: Page 4 Class R Fuse Clip Conversion Kit: Page 4 Extension Wings: Page 4 Extension Wings: Page 4
Dimensions, Wire Range: DS 29-670, page 4
Current Limiting Fuse Provision: Page 4
Shipping Weights: 2 Pole, 23 Lbs.
3 Pole, 23 Lbs.
Horsepower Ratings: Page 3

Ampere	Catalog Numbers				
Rating	2 Poles	3 Poles			
250 Volts Ac	, 250 Volts Dc				
200	FDPS224R	FDPS324R			
600 Volts Ac					
200	FDPS264R	FDPS364R			

6% Inch Twin Unit 600 Volts Ac, 100 Amps Max.



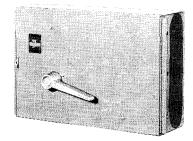
22 In. Wide, 5X Units (6% In.) High

Panelboard Connectors: Included
Class R Fuse Clip Conversion Kit: Page 4
Dimensions, Wire Range: DS 29-670, Page 5
Current: Limiting Fuse Provision: Page 4
Shipping Weights: 2 Pole, 21 Lbs.
3 Pole, 22 Lbs.

Horsepower Ratings: Page 3

Ampere Rating		Catalog Numbers					
⊎nit 1	Unit 2	2 Poles	3 Poles				
30	100	FDPT2613R	FDPT3613R				
60 100		FDPT2623R	FDPT3623R				
100	100	FDPT2633R	FDPT3633R				

15% Inch Single Unit 400 and 600 Amps 250, 600 Volts Ac, 250 Volts Dc, Horizontal Design, Line Side of Switch to Left



22 In. Wide, 11X Units (15% In.) High

Options: Page 4 Class R Fuse Clip Conversion Kit: Page 4 Panelboard Connectors: Page 4
Dimensions, Wire Range: DS 29-670, Page 6
Current Limiting Fuse Provision: Page 4
Shipping Weights: 2 Pole, 51 Lbs.
3 Pole, 52 Lbs.

Ampere	Catalog Numbers				
Rating	2 Poles	3 Poles			
250 Volts Ac	250 Volts Dc				
400	FDP225R	FDP325R			
600	FDP226R	FDP326R			
600 Volts Ac	D				
400	FDP265R	FDP365R			
600	FDP266R	FDP366R			

① Class R fuse rating is 480 volts Ac 100,000 amps.

Page 3 400A LUGS STRE# 1270 C90HO2 & 600 A LUGS " 18/270 C9/Ho2 ...

Switch Selection Guide, Continued For List Prices, Refer to Price List 29-020

400 and 600 Amps. 250, 6000 Volts Ac. 250 Volts Dc Vertical Design, Line Side of Switch at Top or Bottom 18 In. Wide, 16X Units (22 In.) High



Switch With Line Side at Top

Class R Fuse Clip Conversion Kit: Page 4 Dimensions; DS 29-670, Pages 6.1, 6.2 Current Limiting Fuse Provision: Page 4 Shipping Weights: 2 Pole, 51 lbs. 3 Pole, 52 lbs.

Am-	Catalog Numbers							
pere	Line Side a	Тор	Line Side at Bottom					
ing	Line Side a	3 Poles	2 Poles	3 Poles				
250	Volts Ac, 2	50 Volts Do	:					
			FDP225BR FDP226BR					

600 Volts Ac3 400 FDP265TR FDP365TR FDP265BR FDP365BR 600 FDP266TR FDP366TR FDP266BR FDP366BR

800 and 1200 Amps 600 Volts Ac

Horizontal Design, Line Side of Switch 22 In. Wide, 16X Units (22 In.) High



Switch with Line Side at Left

Panelboard Connectors: Page 4 (Must be ordered Terminals: See Below (Order Separately) Options: Page 4 Dimensions, Wire Range: DS 29-670, Page 7 Shipping Weights: 2 Pole Units, 100 Lbs. 3 Pole Units, 100 Lbs.

Ampere	Fusing	Catalog Numbers				
Ratings	Arrangement	2 Pole	3 Poles			
800 1200	Single② Single②	FDPS267 FDPS268	FDPS367			

800 and 1200 Amps 600 Volts Ac

Vertical Design, Line Side of Switch at Top or Bottom 22 In. Wide, 16X Units (22 In.) High



Switch With Line Side at Top



Switch With Line Side at Bottom

Panelboard Connectors: Page 4 (Must be ordered Terminals: See Below (Order Separately) Options: Page 4 Dimensions, Wire Range: DS 29-670, Pages 8, 9 Shipping Weights: 2 Pole Units, 100 Lbs. 3 Pole Units, 100 Lbs.

		•					
Ampere	Fusing	Catalog Numbers					
Ratings	Arrangement	t 2 Pole 3 Pole					
Line Side	at Top						
800 1200	Single② Single②	FDPS267T FDPS268T	FDPS367T FDPS368T				
Line Side	at Bottom						
800 1200	Single② Single②	FDPS267B FDPS268B	FDPS367B FDPS368B				

Terminals for 800, 1200 Amp Switches Terminals are required for line side of main switches and load side of branch switches. Order separately.

Terminal No., Size and Type of Catalog Conductor Per Terminal Number	Max. Terms. Per. Phase
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For 800 and 1200 Ampere Switches **TA 1200FDP**

(1) #4 to 600 MCM Al/Cu, or 4⑦ (2) 1/0 to 3/0 Cu, or

(2) 1/0 to 250 MCM AI

(3) 500 to 1000 MCM AI/Cu

Optional for 800 Ampere Switches Only TA800FDP (2) 500 to 1000 MCM AI/Cu Optional for 1200 Ampere Switches Only

TA1201FDP

Horsenower Ratings 600 Amnere Maximum Switches

norsepower natings, doo Ampere Maximum Switches												
Max. Poles Amps	240 Volts Ac		480	480 Volts Ac 600 Volts Ac		240 Volts 3 Ph⑤		480 Volts 3 Ph⑤		250 Volts		
	Std. NEC Fuse	Max Time Delay Fuse	Dc									
30	2 3	1½ 3	3 7½	3 5	7½ 15	3 7½	10 20	3	7½	5	15	5
60	2	3 7½	10 15	5 15	20 30	10 15	25 50	7½ 	15 	15 	30	10
100	2 3	7½ 15	15 30	10 25	30 60	15 30	40 75	15 	30	25 	60	20
200	2 3	15 25	. 60	25 50	50 125	30 60	50 150	25 	60 	50	100	40
400	2 3	50	100	100	250	125 ⑥	350⑥	④	④ 	④	④ · · · ·	
600	2 3	 75	100	150	400	2006	 500@	4	④	4	4	

2 Accepts following NEMA Class L fuses, suitable for

(2) Accepts following NEMA Class L Tuses, 200,000 amps maximum available current. Bussman "Hi-Cap" KRP-C Bussman "Limitron" KTU General Electric "CLF" Chase Shawmut "Amp Trap" Form 480. Federal Pacific Electric "Econolim" LCL.

3 Class R fuse rating is 480 volts Ac, 100,000 amps maximum.

4 UL listed as a general use, amp rated switch only when used on 3 phase Delta grounded B phase systems. (5) Two pole switches used on 3-phase Delta grounded B phase system

6 Not applicable to switches using Class R fuses.

To Order as required for switch rating and conductor.



Panelboards Connectors

Main Connector Kits

Kits include all connectors, mounting brackets and insulators, for one switch.

Switch	Catalog Numbers		
Amps 2 Poles		3 Poles	
8¼ Inch	Single Units		
200	CM220FDP	CM320FDP	
15% Inch	Single Units		
400	CMA240FDP@6	CMA340FDP46	
	CMA240FDPJ(5)(6)	CMA340FDPJ⑤⑥	
600	CMA260FDP46	CMA360FDP@6	
	CMA260FDPJ56	CMA360FDPJ56	

Branch Connector Kits

Kits include all connectors, mounting brackets and insulators, for one switch.

Switch	Catalog Numbers		
Amps	2 Poles	3 Poles	
8¼ Inch Si	ngle Units		
200	CB220FDP	CB320FDP	
15% Inch 9	Single Units		
400	CBA240FDP®	CBA340FDP6	
600	CBA260FDP®	CBA360FDP@	

Center Connectors

Center connectors are used for sequence phasing of two pole switches on 3 phase, 3 wire or 3 phase, 4 wire panel-boards.

Unit Used With	Ampere Rating	Style Number
5½ Inch Twin	All Ratings	2603 D1 9G06
6½ Inch Single	All Ratings	2603 D1 9G04
6½ Inch Twin	All Ratings	2603 D1 9G06

Branch or Main Connector Kits

For 800 and 1200 Amp. Switches only. Kits include all connectors, mounting brackets and insulators for one switch

una mou	ators for one switten.		
Switch	Catalog Numbers		
Amps	2 Pole	3 Poles	
Horizonta	l Design Switches	.	
800	CMB280FDP	CMB380FDP	
1200	CMB2120FDP	CMB3120FDP	
Vertical D	esign Switches		
800	CMB280FDPV	CMB380FDPV	
1200	CMB2120FDPV	CMB3120FDPV	

- ② Field mounting does not void listing of U.L. Listed
- switch.

 Not Underwriters' Laboratories, Inc., listed.

 Do not use with switches having class."J" fuse clips.

 Use only with switches having class."J" fuse clips.

 Use with horizontal design switches only.

 Except 30 and 60 amp switches in 6%" twin units.

- 8 480 volts Ac max.
- 9 When ordered for use with Class R fuses, order Class R fuse conversion kit separately.

Options

Optional Terminals for 400 and 600 Ampere Switches (Factory Modification Only-Kits are not available for field conversion of existing switches) Will accommodate 600-750 MCM AI/Cu cable: one cable per pole on 400 amp, two cables per pole on 600 amp. For Branch switches, order switch as "special", specifying terminals for 600-750 MCM AI/Cu cable, and use standard branch connector kit. For Main switches, order standard switch and special connector kit for 600-750 MCM Al/Cu cable.

Extension Wings

Extension Wings are used with 18 in. wide switch units to fill in gap between switch and panelboard trim when used in panelboards designed for 22 in, wide switch units.

Unit Used With	Style Number
5½ Inch Twin	114B812H02
6% Inch Single	114B812H03
8¼ Inch Single	114B812H05
URDER 2 PER UN	7
For 800 and 1200 Am	p. Switches only.

Field Mtg. Shunt Trip Attachment (Includes cut-off switch)

For use with ground fault protective devices. Use on switches applied at 480 volts max. 120 volt, 60 Hz for field mounting. Style Number: 5682D73G01®

Field Mtg. Bell Alarm Contact Kit
For use with above shunt trip. Contact closes when switch is tripped.

Style Number: 5682D73G053

Field Mtg. Auxiliary Contact Kits

For use only with above shunt trip.

1A and 1B contacts.

Style Number: 5682D73G06®

or use on switches not equipped with optional shunt trip.3

Contacts	Style Number
1A and 1B	5682D73G03
2A and 2B	5682D73G04

Factory Installed Shunt Trips - 120 Volt 60 Hz

For use with Ground Fault Protective devices. Shunt trip is UL listed when supplied on a UL Listed switch. (Cut-off switch included.) 400 and 600 amp switches are listed for use with Class J current limiting or Class R fuses only.

400 and 600 Amp Switches

Order by adding suffix letters "DS" to catalog number

Example: FDP366J + DS = FDP366JDS, or FDP366R + DS = FDP366RDS9

800 and 1200 Amp Switches

Suitable for use on switches applied at 480 volts maximum. Order by changing the 6th digit of catalog number (6) to 4 and add suffix letters "DS"

Example: FDPS368 becomes FDPS348 + DS = FDPS348DS

Optional Fuse Provisions

Class J Fuses

30-600 amp, 600 volt FDP switches are available factory modified for use with NEMA Class "J" fuses and are UL listed for applications up to 200,000 amps sym. available faults. Order switches by substituting (no price addition) suffix J for suffix R in the catalog number.

Class R Fuses

To use NEMA Class R fuses with standard 30-600 amp FDP switches having suffix "R" on the catalog number, order the following field mounting conversion kits. These kits do not void the UL Listing of UL Listed switches.

Switch Rating Kits			
Amps	Volts	Catalog	Style
		Number	Number
20	250	DEK1 21	2000007004
30	250	RFK121	2609D97G01
30	600	RFK161	2609D97G02
60	250	RFK222	2609D97G03
60	600	RFK262	2609D97G04
100	250/600	RFK464	750B249G01
200	250/600	RFK464	750B249G01
400	250/600	RFK666	750B427G01
600	250/600	RFK666	750B427G01

FDP Fuse-Switch Application

Maximum switch-fuse application based on short circuit current withstand (symmetrical amperes).

Switch Rating	Maximum Application at 240, 480 or 600 Volts Ac		
Amps	Class R Fuses	Current Limit Fuse Class J	Two Pole Switches With Class R Fuses on Three Phase Grounded B Phase
30	200,000	200,000	100,000®
60	200,000	200,000	100,000®
100	200,000	200,000	100,000®
200	200,000	200,000	100,000®
400	100,000®	200,000	
600	100,000®	200,000	

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