

Heavy Duty Safety Switches

Type VBII 4 & 6-Pole Heavy Duty Safety Switches

Selection

Application

4 & 6-pole Switches are commonly used as a disconnecting means for two-speed, two-winding motors. Fused switches provide both over current and short circuit protection. Non-fusible switches normally provide a local disconnection means for two-speed motors which are remote from their motor controller. 4-pole switches are also used in 3-phase, 4-wire circuits when a switching neutral is required. All 4 & 6-pole switches are service entrance rated.

Description

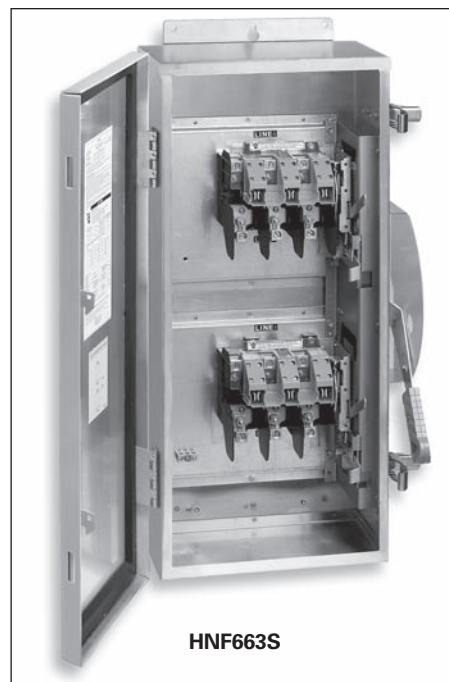
4 & 6-pole switches are available in 30-200A ratings and in both fusible and non-fusible versions. 4-pole switches are supplied with either Type 1 or Type 12/3R enclosures. 6-pole switches are available with either Type 12/3R or Type 4X stainless steel enclosures.

Standards

- UL & CUL listed under file #E4776
- Meets UL98 for enclosed switches
- 4 & 6-Pole switches are suitable for use as service entrance
- Meets NEMA Standard KS-1 for enclosed switches
- Meets NEC wire bending space requirements

Features

- Visible blade, double break switching action
- Highly visible ON/OFF indication
- Defeatable dual cover interlock
- Padlock option in OFF position
- All copper current carrying parts^①
- Tangenital knockouts (Type 1, 4-pole switches)



HNF663S

4-Pole Type VBII Switches^{①②}

System	Amp Rating	Indoor Type 1		Type 12/3R Industrial ^③		Horsepower Ratings ^③				480V, 3Ø		600V, 3Ø		250V DC
		Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	240V, 2Ø, 4W		240V 3Ø		Std.	Max.	Std.	Max.	

Fusible 600 Volt AC, 250 Volt DC — 4-Pole, 4 Fuse^④

System	Amp Rating	Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	Std.	Max.	Std.	Max.	Std.	Max.	Std.	Max.	DC
	30	HF461	36	HF461J	36	3	10	3	7½	5	15	7½	20	5
	60	HF462	40	HF462J	40	7½	20	7½	15	15	30	15	50	10
	100	HF463	43	HF463J	43	15	30	15	30	25	60	30	75	20
	200	HF464	88	HF464J	88	25	50	25	60	50	125	60	150	40

Non-fusible 600 Volt AC, 250 Volt DC — 4-Pole

System	Amp Rating	Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	Std.	Max.	Std.	Max.	Std.	Max.	Std.	Max.	DC
	30	HNF461	32	HNF461J	32	—	10	—	10	—	20	—	30	5
	60	HNF462	34	HNF462J	34	—	20	—	20	—	50	—	60	10
	100	HNF463	36	HNF463J	36	—	30	—	40	—	75	—	100	20
	200	HNF464	78	HNF464J	78	—	50	—	60	—	125	—	150	4

6-Pole Type VBII Switches^{①②⑤}

System	Amp Rating	Type 12/3R Industrial		Type 4X Stainless Steel		Horsepower Ratings ^③						250V DC
		Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	240V 3Ø		480V, 3Ø		600V, 3Ø		

Fusible 600 Volt AC, 250 Volt DC — 6-Pole, 6 Fuse^④

System	Amp Rating	Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	Std.	Max.	Std.	Max.	Std.	Max.	Std.	Max.	DC
	30	HF661J	37	HF661S	37	3	7½	5	15	7½	20	5	10	
	60	HF662J	41	HF662S	41	7½	15	15	30	15	50	10	20	
	100	HF663J	44	HF663S	44	15	30	25	60	30	75	20	40	
	200	HF664J	90	HF664S	90	25	60	50	125	60	150	40	40	

Non-fusible 600 Volt AC, 250 Volt DC — 6-Pole

System	Amp Rating	Catalog Number	Ship Wt. (lbs.)	Catalog Number	Ship Wt. (lbs.)	Std.	Max.	Std.	Max.	Std.	Max.	Std.	Max.	DC
	30	HNF661J	33	HNF661S	33	—	10	—	20	—	30	—	5	
	60	HNF662J	35	HNF662S	35	—	20	—	50	—	60	—	10	
	100	HNF663J	37	HNF663S	37	—	40	—	75	—	100	—	20	
	200	HNF664J	80	HNF664S	80	—	60	—	125	—	150	—	40	

■ Built to order. Allow 3-5 weeks for delivery.

① Lugs are aluminum alloy as standard. Optional copper body lugs are available.

② All 4 & 6-pole VBII switches are suitable for use as service equipment when a neutral is installed or equipment ground kit is properly connected.

③ Dual horsepower ratings: Std. – applies when non-time-delay fuses are installed. Max. – applies when time delay fuses are installed.

④ Fusible switches accept Class H Fuses as the standard. Class R & J fuses can also be installed and increase the rating from 10,000 to 200,000 AIC. For

Class J, the load base is moved upward. For Class R fuses, rejection kits are required.

⑤ Supplied with factory installed ground lugs.

Heavy Duty Safety Switches

Special Application Switches / Interlocked Receptacle Switches

Selection

Application

Receptacle Safety Switches provide cord connection protection of heavy-duty portable equipment (welders, infrared ovens, batch feeders, portable conveyors, assembly line fixtures and tools, refrigerator trucks, etc.) under load or fault conditions.

Standards

All receptacle switches are UL listed under file #E4776. Those with a viewing window are also CSA certified under file #1079316.

Description^{①②}

Type 12 and 4/4X Receptacle Safety Switches are available with 3-phase, 4-wire grounded type Crouse-Hinds Arkite™ 2 or Pyle-National receptacle, pre-wired and mounted with interlock linkage to the switch mechanism. Insertion or removal of the plug is prevented by the interlock linkage while the switch is in the "ON" position. Receptacle prevents operation of switch if incorrect plug is inserted.



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Crouse-Hinds Interlocked Receptacle Switches

Ampere Rating ^④	Type 12 ^⑤	Type 4/4X ^⑥	Shipping Wt. (lbs.) Std. Pkg.	Accepts Crouse-Hinds Arkite [®] Plug Catalog Number
	Catalog Number	Catalog Number		

240V Fusible, 3-Pole, 3-Wire

30	HF321JCH	HF321SCH▲	23	APJ3485 & NPJ3485
60	HF322JCH	HF322SCH▲	30	APJ6485 & NPJ6485
100	HF323JCH	HF323SCH▲	36	APJ10487 & NPJ10487

600V Fusible, 3-Pole, 3-Wire

30	HF361JCH	HF361SCH	24	APJ3485 & NPJ3485
60	HF362JCH	HF362SCH	30	APJ6485 & NPJ6485
100	HF363JCH	HF363SCH▲	36	APJ10487 & NPJ10487

600V Non-Fusible, 3-Pole, 3-Wire

30	HNF361JCH▲	HNF361SCH▲	22	APJ3485 & NPJ3485
60	HNF362JCH	HNF362SCH	29	APJ6485 & NPJ6485
100	HNF363JCH▲	HNF363SCH▲	35	APJ10487 & NPJ10487

600V Fusible, 3-Pole, 3-Wire with Viewing Window

30	HF361JCHW▲	HF361SCHW▲	24	APJ3485 & NPJ3485
60	HF362JCHW	HF362SCHW	30	APJ6485 & NPJ6485
100	HF363JCHW▲	HF363SCHW▲	36	APJ10487 & NPJ10487

600V Non-Fusible, 3-Pole, 3-Wire with Viewing Window

30	HNF361JCHW▲	HNF361SCHW▲	22	APJ3485 & NPJ3485
60	HNF362JCHW	HNF362SCHW▲	29	APJ6485 & NPJ6485
100	HNF363JCHW▲	HNF363SCHW▲	35	APJ10487 & NPJ10487

Pyle-National Interlocked Receptacle Switches 3-Poles Fusible and Non-Fusible

Ampere Rating		Voltage Rating	Type 12 Catalog Number ^⑤	Type 12 Stainless Steel Catalog Number ^⑥	Shipping Wt. (lbs.) Std. Pkg.	Accepts Pyle-National QuelArc™ ^{②③} Plugs Plug Catalog Number
Switch	Receptacle					
30	30	600 (F)	HF361JPN▲	HF361SPN▲	23	JPD-83046
		600 (N-F)	HNF361JPN	HNF361SPN	21	
60	60	240 (F)	HF322JPN▲	—	28	JPD-116046
		600 (F)	HF362JPN▲	HF362SPN▲	28	
		600 (N-F)	HNF362JPN	HNF362SPN	27	

▲ Built to order. Allow 6–8 weeks for delivery.

① Arkite™ is a registered trademark of the Crouse-Hinds Company. Plugs are not sold or supplied by Siemens.

② Indicates plug with maximum diameter cable bushing.

③ QuelArc™ is a registered trademark of the Pyle-National Company.

④ Ampere rating of both switch and receptacle.

⑤ Also rated Type 3R/3S.

⑥ Enclosure is constructed of Type 304 stainless steel.

Heavy Duty

Special Application Safety Switches / Type VBII Non-Metallic & 316 Grade Stainless Steel

Application

Siemens Non-metallic and 316 grade stainless steel switches provide a superior level of corrosion resistance to assure trouble free performance in the most severe conditions. 316 grade stainless steel provides increased corrosion resistance when compared to 304 grade, especially in atmospheres containing a high level of chlorine commonly encountered in marine and waste management applications. Our non-metallic enclosures are constructed from fiberglass reinforced polyester and are extremely resistant to a wide range

of corrosive atmospheres. They allow a wide range of operating temperatures and their insulating properties virtually eliminate problems caused by internal condensation.

Description

30-200A, 600V Max, fusible and non-fusible switches are available in both non-metallic and 316 grade stainless steel versions. All are supplied with factory installed ground bars as standard. Viewing windows are also available in the stainless offering.



Type 4/4X Non-Metallic

Ampere Rating	Catalog Number	Ship Weight Std. pkg. (lbs.)	Horsepower Rating—3-Phase						250 Volts DC	600 Volts DC
			240 Volt AC		480 Volt AC		600 Volt AC			
			Std.	Max.	Std.	Max.	Std.	Max.		
3-Pole, 4-Wire, 240 Volt Fusible, Type 4X^③										
30	HF321NX	21	3	7½	—	—	—	—	5	—
60	HF322NX▲	22	7½	15	—	—	—	—	10	—
3-Pole, 4-Wire, 600 Volt AC Fusible, Type 4X^{②③⑤}										
30	HF361NX	21	3	7½	5	15	7½	20	5	15 ^④
60	HF362NX	22	7½	15	15	30	15	50	10	30 ^④
100	HF363NX▲ ^①	39	15	30	25	60	30	75	20	50 ^④
200	HF364NX▲ ^①	83	25	60	50	125	60	150	40	50
3-Pole, 3-Wire, 600 AC Volt Non-Fusible,^① Type 4X^{②③}										
30	HNF361X	20	—	7½	—	20	—	30	5	15 ^④
60	HNF362X	20	—	15	—	50	—	60	10	30 ^④
100	HNF363X▲	38	—	30	—	75	—	100	20	50 ^④
200	HNF364X▲	81	—	60	—	125	—	150	40	50

Type 4/4X 316 Grade Stainless Steel

Ampere Rating	Standard		Ship Weight (lbs.)	Horsepower Rating—3-Phase						250 Volts DC	600 Volts DC
	Catalog Number	With Viewing Window		240 Volt AC		480 Volt AC		600 Volt AC			
		Catalog Number		Std.	Max.	Std.	Max.	Std.	Max.		
240V AC, 250V DC Fusible 3-Pole, 3-Wire											
30	HF321SS▲	—	15	3	7½	—	—	—	—	5	—
60	HF322SS▲	—	19	7½	15	—	—	—	—	10	—
100	HF323SS▲	—	27	15	30	—	—	—	—	20	—
200	HF324SS▲	—	48	25	60	—	—	—	—	40	—
600V AC, 250V DC Fusible 3-Pole, 3-Wire^③											
30	HF361SS	HF361SSW	17	3	7½	5	15	7½	20	5	—
60	HF362SS	HF362SSW▲	21	7½	15	10	30	15	50	10	30 ^④
100	HF363SS	HF363SSW▲	28	15	30	25	60	30	75	20	50 ^④
200	HF364SS	HF364SSW▲	54	25	60	50	125	60	150	40	50
600V AC, 250 V DC Non-Fusible 3-Pole, 3-Wire^{①③}											
30	HNF361SS	HNF361SSW	15	—	10	—	20	—	30	5	—
60	HNF362SS	HNF362SSW▲	21	—	20	—	50	—	60	10	30 ^④
100	HNF363SS	HNF363SSW▲	26	—	40	—	75	—	100	20	50 ^④
200	HNF364SS	HNF364SSW▲	51	—	60	—	125	—	150	40	50

▲ Built to order. Allow 6-8 weeks for delivery.

① Also used for 240 volt applications.

② Add "L" to end of catalog number for switches less line & load lugs with mounting hardware for crimp type or copper body lugs.

③ 200A switches are also rated 600V DC max.

④ 600V DC voltage and horsepower rating shown requires (2) poles to be connected in series.

⑤ Supplied with factory installed neutral.

Heavy Duty Safety Switches

Enclosed Solar Photovoltaic (PV) Switches

Selection

Application

Solar disconnect switches are designed to be used in the DC portion of photovoltaic power generation circuits. They incorporate powerful magnets within the switch line base which work in combination with a double break switching action to quickly dissipate the very hot arc that is generated when a 600V DC circuit is opened under load. These circuits are defined by article 690 of the NEC which requires the grounded conductor to be at ground potential at all times and therefore cannot be switched.

Description

30-200A switches are available in both Type 1 and 3R enclosures and in both fusible and non-fusible versions. They are provided with an additional door mounted warning label as required by the NEC and are supplied with a factory installed equipment ground bar. They are built to UL98 requirements but are UL listed in file number E335018 as UL1741 photovoltaic disconnect switches. They are 3 pole switches that are approved to switch 3 separate 600V DC circuits (one per pole). The design incorporates

many of the standard VBII switch features including a rolled out enclosure front flange, a large metal operating handle, oversized line and load lugs and large wire gutters. 1000VDC photovoltaic switches are UL98B listed for solar applications and comply with article 690 of the NEC. The new 400-600Amp switches are also UL98B listed at 600VDC and come in NEMA Type 3R.

Solar Photovoltaic Enclosed Disconnect Switches

Ampere Rating	Indoor – Type 1		Outdoor – Type 3R		Rated Isc Per NEC Article 690
	Catalog Number	Ship Wt* Std. Pkg.	Catalog Number	Ship Wt* Std. Pkg.	
Negative Ground 3 Pole 3 Wire Fusible 600Volt DC					
30	HF361PV	14	HF361RPV	15	19.2 A
60	HF362PV	20	HF362RPV	21	38.4 A
100	HF363PV▲	25	HF363RPV	26	64.0 A
200	HF364PV▲	49	HF364RPV	50	128.0 A
Negative Ground 3 Pole 3 Wire Non-Fusible 600Volt DC					
30	HNF361PV	12	HNF361RPV	13	24.0 A
60	HNF362PV	19	HNF362RPV	20	48.0 A
100	HNF363PV▲	24	HNF363RPV	25	80.0 A
200	HNF364PV▲	47	HNF364RPV	48	160.0 A
NEW Positive and Negative Ground, 1 Pole, Fusible 1000 Volt DC					
200	HF1104NPV▲	52	HF1104NRPV▲	53	128.0A
NEW Positive and Negative Ground, 1 Pole, Non-Fusible 1000 Volt DC					
200	HNF1104NPV▲	50	HNF1104NRPV▲	51	160.0A
Positive Ground 3 Pole 3 Wire Fusible 600Volt DC					
30	HF361PVPG	14	HF361RPVPG	15	19.2 A
60	HF362PVPG▲	20	HF362RPVPG	21	38.4 A
100	HF363PVPG▲	25	HF363RPVPG▲	26	64.0 A
200	HF364PVPG▲	49	HF364RPVPG▲	50	128.0 A
Positive Ground 3 Pole 3 Wire Non-Fusible 600Volt DC					
30	HNF361PVPG	12	HNF361RPVPG	13	24.0 A
60	HNF362PVPG▲	19	HNF362RPVPG	20	48.0 A
100	HNF363PVPG▲	24	HNF363RPVPG▲	25	80.0 A
200	HNF364PVPG▲	47	HNF364RPVPG▲	48	160.0 A
NEW Positive and Negative Ground, 2 Wire, 600Volt DC, Type 3R					
Amperage Rating	No. Poles	Fuse Type	Catalog Number	Ship Wt* Std. Pkg	Rated Isc Per NEC Article 690
400A	1	Fusible	HF165NRPV▲	165	256A
400A	1	Non-fusible	HNF165NRPV▲	127	256A
400A	2	Fusible	HF265NRPV▲	325	256A
400A	2	Non-fusible	HNF265NRPV▲	315	256A
600A	1	Fusible	HF166NRPV▲	167	384A
600A	1	Non-fusible	HNF166NRPV▲	129	384A
600A	2	Fusible	HF266NRPV▲	327	384A
600A	2	Non-fusible	HNF266NRPV▲	315	384A

▲ Built to order. Allow 6-8 weeks for delivery.

* In pounds (lbs)

Note: All disconnects are rated at 10,000 AIC per UL requirements when used with or protected by Class K, J or R fuses rated at 600VDC.

