

Enclosure Types

- A Type 1** enclosures are intended for indoor use primarily to provide protection against contact with the enclosed equipment in locations where unusual service conditions do not exist.
 - B Type 3R** enclosures are intended for outdoor use primarily to provide a degree of protection against falling rain and sleet and must remain undamaged by the formation of ice on the enclosure. They are not intended to provide protection against conditions such as dust, internal condensation, or internal icing.
 - C Type 4, 4X** enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust, rain, splashing water and hose-directed water. They are not intended to provide protection against conditions such as internal condensation or internal icing. Also meets 4X definition by providing a high degree of protection against corrosion. Siemens 30-200A stainless steel 4X switches are supplied stainless interior parts and hardware as standard.
 - D Type 4** enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust, rain, splashing water and hose-directed water. They are not intended to provide protection against conditions such as internal condensation or internal icing.
 - E Type 12[ⓐ]** enclosures are intended for indoor use primarily to provide a degree of protection against dust, falling dirt and dripping water. They are not intended to provide protection against conditions such as internal condensation.
- Type 7/9** enclosures for use in hazardous locations. Use with molded case switches listed in Section 7.



Load Break Ratings

All Siemens safety switches are load break rated. The load break rating is assigned by UL after the switching unit has successfully performed the following tests:

Switch Ampere Rating	Number of ON/OFF Operations per Minute	Number of Operations		
		With Current	Without Current	Total
30-100	6	6000	4000	10000
200	5	6000	2000	8000
400	4	1000	5000	6000
600	3	1000	4000	5000
800	2	500	3000	3500
1200	1	500	2000	2500

Horsepower Ratings

All Siemens safety switches, where appropriate, are horsepower rated. Ratings are approved by UL only after the switching unit has undergone testing to determine its acceptability which includes repeated interruption of the locked rotor current of the motor for which it is to be rated as follows:

Max HP Rating	Number of ON/OFF Operations per minute	Number of Cycles of Operation
100	6	50
500	1	10

Non-Fusible Safety Switch AIC Ratings When Protected by a Circuit Breaker^{ⓐⓑ}

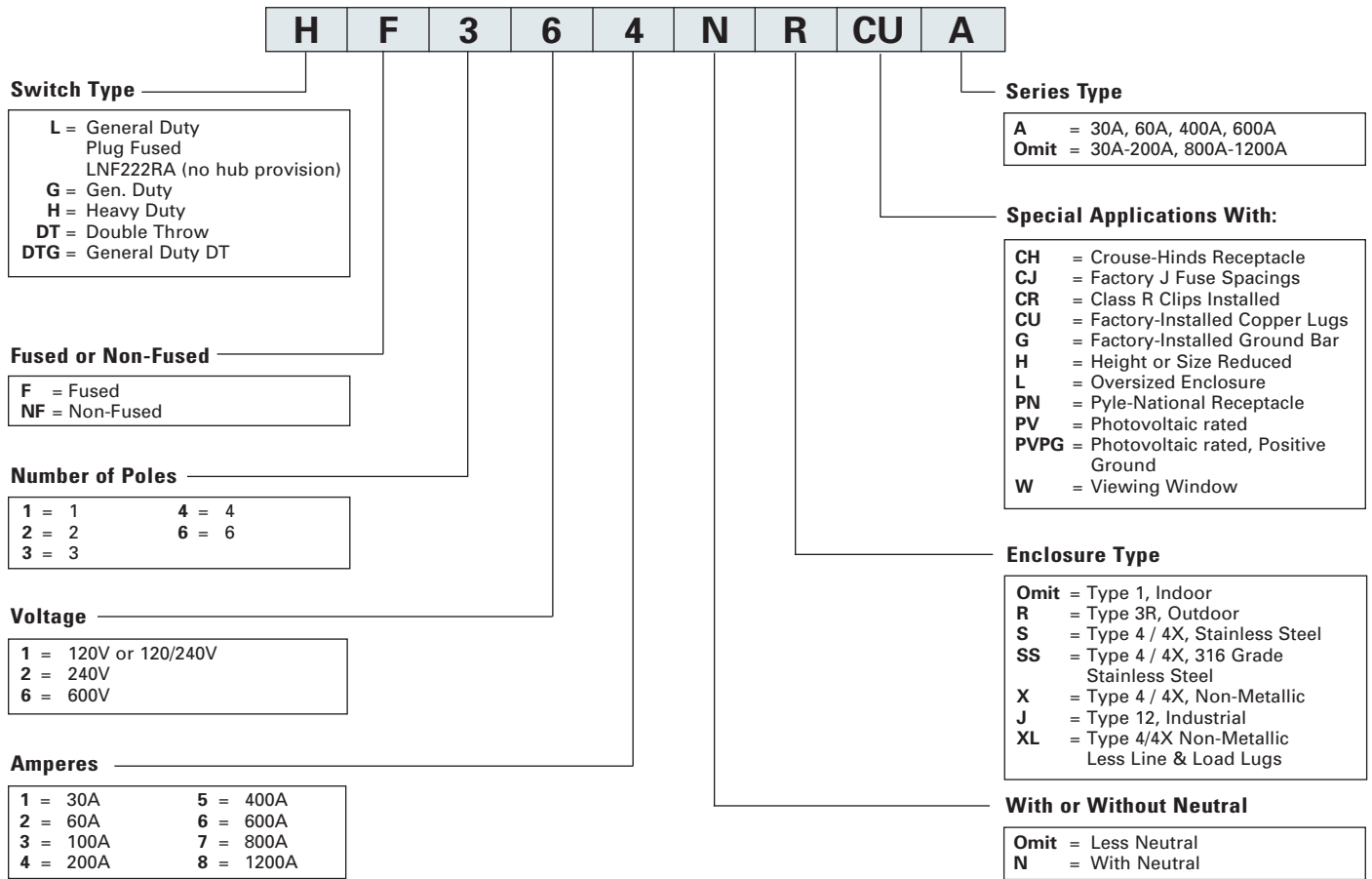
Breaker Frame	Non-Fused Switch	UL Listed Short Circuit Current Rating
NEG, NGB, ED4	30 DT (240V)	18 kA Thru 240 VAC
NEB, NEG, NGG, NGB, ED4	100A GD & DT (240V)	18 kA Thru 240 VAC
NEB, NEG, NGG, NGB, ED4	30-100A HD & DT (600V)	18 kA Thru 480 VAC
ED6	30-100A HD & DT (600V)	18 kA Thru 600 VAC
FD6-A, JD6-A	200A HD & DT (600V)	18 KA Thru 600 VAC
JD6-A, LD6-A	400A GD & DT (240V)	18 kA Thru 240 VAC
JD6-A, LD6-A	400A HD & DT (600V)	18 kA Thru 600 VAC
LD6-A	600A GD & DT (240V)	25kA Thru 240 VAC
LD6-A	600A HD & DT (600V)	25kA Thru 600 VAC
NNG	1200A HD & DT (600V)	25 kA Thru 600 VAC

[ⓐ] VBII Type 12 switches are also rated 3R & 3S for outdoor use. Type 3R is defined in B above. 3S rated enclosures provide a degree of protection against windblown dust and allow operation when the enclosure is ice laden.
[ⓑ] All switches above are rated at 10 KA when protected by any UL Listed CB
[ⓒ] Circuit breaker trip rating must not exceed switch ampere rating

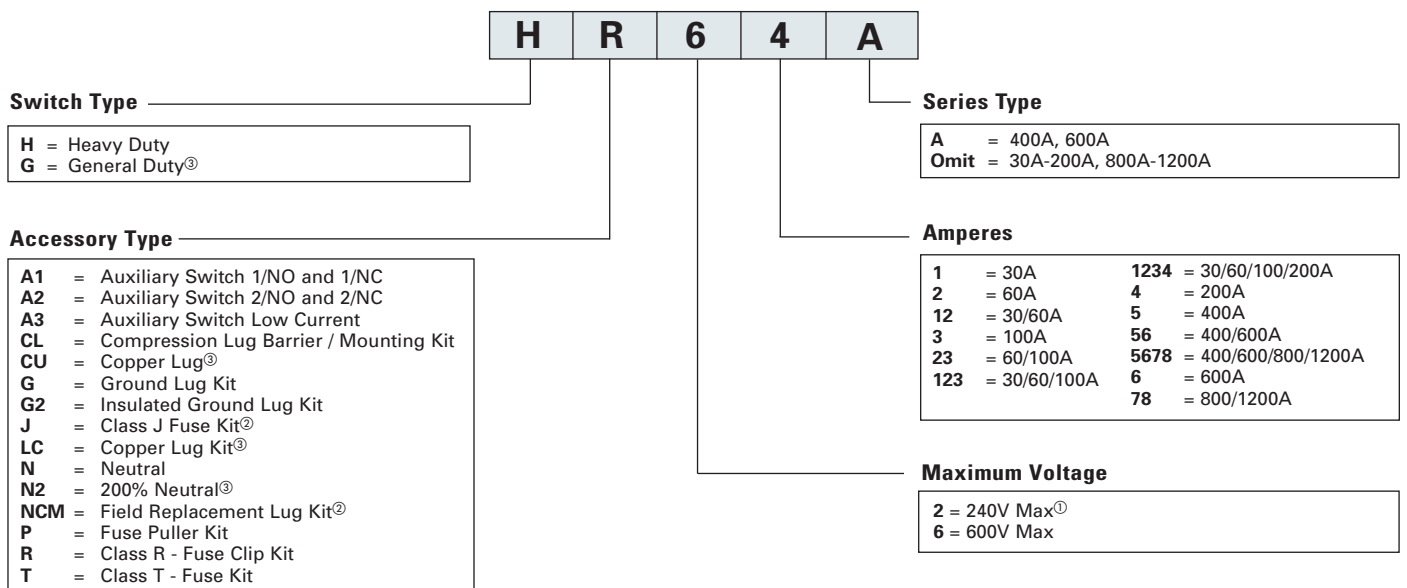
Safety Switches

Type VBII Safety Switch Catalog Numbering System

Product Overview



Type VBII Accessories Catalog Numbering System



Note: Catalog numbering systems above do not apply to 4-pole & Type "F" & "FR" double throw switches & accessories.

① For 400A, 600A use 680V max accessories except for T Fuse Kit.
 ② Only offered for 400A, 600A.

③ For 30A-200A, 800A-1200A.

Safety Switches

Plug Fuse and 60A Special Application Type

Selection

Features

- Compact size
- Horsepower rated
- Indoor and outdoor enclosures
- Quick make-quick break mechanism
- Visible "ON"-"OFF" indications
- Padlock-off handle feature
- Door padlock provision
- Bondable neutral (where indicated)
- Lugs suitable for copper or aluminum wire
- UL Listed
- Fuses — not included
- Switches accept Edison base plug fuses
- Hubs — see page 18/23
- Lugs — see page 18/23

Dimensions (inches)

Type	Height	Width	Depth
1	8½	5½	3
3R	8½	5½	3½

Wire Range Table

Switch Type	Wire Range
120/240 Volt Fusible 30 Amp	Cu/Al #14 to #8 AWG ^①
240 Volt Non-Fusible 60 Amp	Cu #14 to #6 AWG



Ampere Rating	Indoor — Type 1		Outdoor — Type 3R		Horsepower Ratings ^①	
	Catalog Number	Ship. Wt. (lbs.) Pkg. of 10	Catalog Number	Ship. Wt. (lbs.) Pkg. of 10	Standard	Maximum

120/240 Volt Fusible

1-Pole and Solid Neutral^② 120 Volt — 1-Phase, 2-Wire

30	LF111N	35	LF111NR	35	½	2
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2-Pole and No Neutral

120/240 Volt — 1-Phase, 2-Wire

30	Use 2-Pole and Solid Neutral				
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2-Pole and Solid Neutral^②

120/240 Volt — 1-Phase, 3-Wire

30	LF211N	35	LF211NR	35	1½	3
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240 Volt Non-Fusible

2-Pole Special Application Switch 1 or 2-Pole — No Fuse 240 Volt — 1-Phase, 2-Wire

30	—	—	LNF221RLA ^③	30	—	3
30	—	—	LNF221RLLA ^{③④}	38 (pkg. of 5)	—	3
60	—	—	LNF222RA ^③	30	—	10
60	—	—	LNF222RLA ^{③⑤}	38 (pkg. of 5)	—	10

For inches / millimeters conversion, multiply inches by 25.4.

①Dual horsepower ratings:

Std. — applies when non-time delay plug fuses are installed.

Max — applies when time-delay plug fuses are installed.

②Has service entrance label.

UL Listed as "Enclosed Switches" (suitable for use as service equipment where indicated) under File #E4776. (NEMA) — Type G.D.

Federal Spec. — W-S-865C — type LD or type NDS

③Bottom cable entry and exit only. No hub provision supplied. Ground lug is included and factory installed.

④Line lugs will accept and are UL approved for #14 to #6 Cu/Al cable.

⑤ PLUS series: Larger enclosure compared to LNF222RA.

⑥ MAX series: Larger enclosure compared to LNF221RLA.

Safety Switches

General and Heavy Duty Safety Switches

Dimensions

Safety Switch Dimensions (Inches)* & Shipping Weights

Catalog Number	Height			Width			Depth		Knockout Diagram [Ⓞ]	Approx. Shipping Weight (lbs.)
	Box A	With Door B	With Rain Shed C	Box D	With Handle E	Box F	With Handle G			
GF221NA, GF321NA	8.4	8.56	—	5.08	5.44	2.93	3.96	S4	30(10)	
GF221NRA, GF321NRA	8.4	8.56	8.56	5.08	5.44	2.93	3.96	S5	30(10)	
GF221NLA, GF321NLA	9.91	10.07	10.07	6.06	6.42	3.21	4.24	S26	20(5)	
GF221NRLA, GF321NRLA	9.91	10.07	—	6.06	6.42	3.21	4.24	S25	20(5)	
GF222NA, GF322NA	9.91	10.07	—	6.06	6.42	3.21	4.24	S21	20(5)	
GF222NRA, GF322NRA	9.91	10.07	10.07	6.06	6.42	3.21	4.24	S22	20(5)	
GF223N	21.95	23.15	—	9.64	11.7	5.05	8.63	S10	23	
GF223NR	21.95	—	23.46	9.64	11.67	5.05	8.7	S11	24	
GF224N	29.9	31.07	—	14.62	16.68	6.36	10.92	S12	47	
GF224NR	29.9	—	31.42	14.61	16.68	6.36	10.92	S13	48	
GF225NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	91.1	
GF225NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	91.1	
GF226NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	95.6	
GF226NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	95.6	
GF323N	21.95	23.15	—	9.64	11.7	5.05	8.63	S10	25	
GF323NR	21.95	—	23.46	9.64	11.67	5.05	8.7	S11	25	
GF324N	29.9	31.07	—	14.62	16.68	6.36	10.92	S12	49	
GF324NR	29.9	—	31.42	14.61	16.68	6.36	10.92	S13	50	
GF325NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	94.6	
GF325NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	94.6	
GF326NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	99.6	
GF326NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	99.6	
GF326NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	99.6	
GNF221A, GNF321A	6.18	6.35	—	4.2	4.56	2.88	3.93	S4	20(10)	
GNF221RA, GNF321RA	6.18	6.35	6.35	4.2	4.56	2.88	3.93	S5	20(10)	
GNF321LA, GNF221LA	8.4	8.56	—	5.08	5.43	2.93	3.95	S4	30(10)	
GNF321LLA, GNF221LLA	9.91	10.07	—	6.06	6.42	3.21	4.24	S24	20(5)	
GNF321RLA, GNF221RLA	8.4	8.56	8.56	5.08	5.43	2.93	3.95	S5	30(10)	
GNF321RLLA, GNF221RLLA	9.91	10.07	10.07	6.06	6.42	3.21	4.24	S23	20(5)	
GNF222A, GNF322A	8.4	8.56	—	5.08	5.43	2.93	3.95	S4	30(10)	
GNF322LA, GNF222LA	9.91	10.07	—	6.06	6.42	3.21	4.24	S24	20(5)	
LNF222RA, LNF221RLA	8.4	8.56	8.56	5.08	5.43	2.93	3.95	S20	30(10)	
GNF322RLA, GNF222RLA	9.91	10.07	10.07	6.06	6.42	3.21	4.24	S23	20(5)	
GNF222RA, GNF322RA	8.4	8.56	8.56	5.08	5.43	2.93	3.95	S5	30(10)	
LNF221RLLA, LNF222RLA	9.91	10.07	—	6.06	6.42	3.21	4.24	S23	20(5)	
GNF323	21.95	23.15	—	9.64	11.7	5.05	8.63	S10	23	
GNF323R	21.95	—	23.46	9.64	11.67	5.05	8.7	S11	24	
GNF324	29.9	31.07	—	14.62	16.68	6.36	10.92	S12	46	
GNF324R	29.9	—	31.42	14.61	16.68	6.36	10.92	S13	47	
GNF325A	33.47	33.96	—	22.4	23.404	6.94	9.93	S18	75	
GNF326A	33.47	33.96	—	22.4	23.404	6.94	9.93	S18	77	
HF221J also HF261J	14.27	17.33	—	6.65	9.02	5.32	10.46	—	13	
HF221N also HF261	14.26	14.60	—	6.64	7.75	4.71	8.89	S6	13	
HF221NR also HF261R	14.34	—	14.91	6.64	7.88	5.00	9.18	S8	14	
HF221S also HF261S	14.27	17.33	—	6.65	9.02	5.32	10.46	—	13	
HF222J also HF262J	16.22	19.31	—	9.17	11.47	5.33	10.46	—	19	
HF222N also HF262	16.26	16.62	—	9.16	10.37	4.71	8.67	S16	18	
HF222NR also HF262R	16.26	—	16.93	9.16	10.41	5.05	9.21	S17	19	
HF222S also HF262S	16.22	19.31	—	9.17	11.47	5.33	10.46	—	19	
HF223J also HF263J	21.96	23.16	—	9.65	12.02	5.34	10.46	—	24	
HF223N also HF263	21.95	23.15	—	9.64	12.01	5.05	10.17	S10	23	
HF223NR also HF263R	21.95	—	23.46	9.64	11.97	5.05	10.17	S11	24	
HF223S also HF263S	21.96	23.16	—	9.65	12.02	5.34	10.46	—	24	
HF224J	29.96	31.07	—	14.62	16.95	6.63	12.58	—	48	
HF224N	29.9	31.07	—	14.62	16.98	6.36	12.33	S12	47	
HF224NR	29.9	—	31.42	14.61	16.99	6.36	12.33	S13	48	
HF224S	29.96	31.07	—	14.62	16.95	6.63	12.58	—	48	
HF225NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	91.1	
HF225NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	91.1	
HF226NA	45.32	45.81	—	22.4	23.404	6.94	9.93	S18	95.6	
HF226NRA	45.32	45.81	—	22.4	23.404	6.94	9.93	S19	95.6	
HF227N	66.67	67.16	—	38.4	39.96	9.24	14.68	—	360	
HF227NR	66.67	—	67.74	38.4	39.96	9.24	14.68	—	362	
HF228N	66.67	67.16	—	38.4	39.96	9.24	14.68	—	362	
HF228NR	66.67	—	67.74	38.4	39.96	9.24	14.68	—	364	

*For inches / millimeters conversion, multiply inches by 25.4.

Ⓞ Knocks not provided on Type 4 / 4X and 12 or in 800 & 1200A switches.