Type VBII Safety Switches

Guide Form Specifications

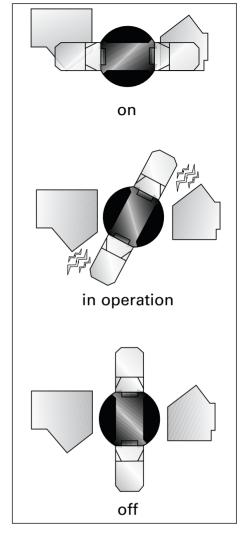
Product Overview

| | General Duty | Heavy Duty | Double Throw | | |
|--|--|---|---|--|--|
| Application | General Duty Switches are intended for applications where reliable performance and continuity of service are needed, but where duty requirements are not severe and usual service conditions prevail. (These switches are intended for use primarily with supply circuits rated 240V AC or less where the available fault current is less than 100,000A when used with Class R or T fuses or 10,000A max. when used with Class H fuses.) | Heavy Duty Switches are intended for use in applications where: 1. Rugged construction, reliable performance, continuity of service and ease of maintenance are emphasized, or 2. Available fault currents higher than 10,000A are likely to be encountered, such as in manufacturing plants, mass production industries, and commercial, institutional and other large buildings served by network systems or transformers of higher capacities. 3. System voltage is 600V AC or DC Max. 4. A Type 12 or 4/4X enclosure is required. | Double throw switches are intended to transfer loads from one power source to another. All double throw switches are CSA certified. Switches are rated for use on systems with an available fault current of up to 10,000 AIC when protected with Class H fuses or 200,000 AIC when protected with Class R, J or Class T fuses. They can also be used to connect a single source of power to either of two loads. In this application it is necessary to field modify fusible switches so that the fuses are on the load side of the switching mechanism. | | |
| Short Circuit Withstand Ratings | Suitable for use on systems capable of delivering not more than 100,000 RMS symmetrical amperes of fault current as follows: Sw. Rating AIC Rating Protective Device® 30-200A 10,000 Circuit Breaker 30-200A 10,000 Class H Fuse 30-200A 100,000 Class R Fuse 100-200A 100,000 Class J or T Fuse | All Heavy Duty & DT 10, | Rating Protective Device OUD Circuit Breaker OUD Class H Fuse OUD Class R, J or T Fuse OUD Class R, J or T Fuse | | |
| Fuses | Fusible switches will accept the following CSA class fuses: 30 "LF" - 30A max plug Fuses 30-200A "GD" Class H & K, Class R with kit 100-200A "GD" Class J-move base 100-200A "GD" Class T with kit | Fusible switches will accept the following CSA class fuses: 30-600A "HD" Class H & K, Class R with kit 30-600A, 600V "HD" Class J-move base 100-600A, 240V "HD" Class J-move base 100-200A "HD" Class T with kit 400-600A "HD" Class T-move bases 800-1200A "HD" Class L, Class T with kit ² | Fusible switches will accept the following CSA class fuses: 30-200A "DT" - Class H & K, Class R with kit 30 & 60A 600V "DT" - Class J-move base 100-200A "DT" - Class J-move base, Class T with kit 400-600A "DT" - Class J-standard, Class T-move bases | | |
| Cover Interlocks | Voidable – cover interlocks on switches prevent the switch door from being opened when in the "ON" position. No cover interlock on plug fuse type switches. | Voidable dual cover interlocks standard on all heavy duty switches. Prevents cover from being opened when switch is in the "ON" position and prevents switch from being turned "ON" when door is opened. | Dual cover interlocks standard on all double throw switches. Prevents cover from being opened when switch is in the "ON" position and prevents switch from being turned "ON" when door is opened. | | |
| Specifications | CSA certified under file #24563 as enclosed switch entrance when neutral bonded to the enclosure is i Switches. Meet NEMA standard KS-1-2001 for type GD | | CSA certified under file #24563 as enclosed switches. Meets CSA C22.2 No.4 Enclosed switches. Meet NEMA standard KS-1-2001 type HD for | | |
| Seismic Qualifications | switches. All GD & HD switches and "DT" type double throw so and with the 2009 International Building Code (IBC) - | switches. witches have been tested and comply with the 2010 Ca Compliance Level SDS = 1.85 g | "DT" switches. alifornia Building Code (CBC) | | |
| Groundable Neutral (All neutrals are bondable for service entrance use.) | Fusible switches have groundable neutral blocks factory installed. | All switches (both Fusible and Non-Fusible) are either supplied with factory installed neutrals or accept field addable neutrals. | All 2-3 pole DT will accept field addable neutrals. | | |
| Padlocks | Padlockable cover latch. OFF padlock provisions on handle. | Padlockable cover latch and multiple OFF padlock provisions on handle. | Padlockable cover latch and multiple OFF padlock provisions on handle. | | |
| HP & Load Break Ratings | All General Duty, Heavy Duty and Double Throw | Switches are both load break and horsepower rat | <u> </u> | | |

The protective device can either be a fuse installed in a fusible switch or an upstream fuse or circuit breaker protecting a non-fusible switch. The ampere rating of the upstream protective device must not exceed the switch ampere rating.

[®] Class T kit available for 240V max. applications on 1200A switches.

| General Duty | Heavy Duty | Double Throw | Features / Ratings | | | | |
|-----------------|---------------|-----------------|---|--|--|--|--|
| • | • | • | 30 thru 600 Amps | | | | |
| _ | • | _ | 800 and 1200 Amps | | | | |
| • | • | • | 240 Volt AC | | | | |
| _ | • | • | 600 Volt AC | | | | |
| • | • | • | 250 Volt DC | | | | |
| _ | • | _ | 600 Volt DC | | | | |
| • | • | • | Double-break visible blade design (30-200A) | | | | |
| • | • | • | Quick-make, quick-break switching action | | | | |
| | • | - | Highly visible ON/OFF handle indication | | | | |
| _ | | _ | Handle design for hook stick operation | | | | |
| | | | Padlockable cover latch | | | | |
| | | - | Padlockable handle | | | | |
| 3 | _ | - | Single voidable cover interlock | | | | |
| _ | • | | Dual voidable cover interlock | | | | |
| | | - | Type 1 enclosure | | | | |
| • | • | | Type 3R enclosure | | | | |
| _ | • | - | Type 12 enclosure | | | | |
| _ | | _ | Type 4/4X enclosures | | | | |
| • | • | • | Generous wiring gutters that meet CSA and CEC wire-bending space requirements | | | | |
| • | • | • | Lugs suitable for copper or aluminum at 60° or 75°C | | | | |
| • | • | • | CU/AL wire lugs that meet CSA C22.2 No.65-03 requirements | | | | |
| _ | • | • | Suitable for field-convertible compression connectors | | | | |
| • 6 | • | • | All plated copper current carrying parts (except lugs) | | | | |
| • | • | • | Spring reinforced Fuse Clips (except 30A general duty) [©] | | | | |
| _ | • | • | Clear pivoting line terminal shield | | | | |
| • | • | • | Replacement parts | | | | |
| _ | • | _ | Field addable 200% neutral | | | | |
| • ⑦ | ■①⑦ | ■①⑦ | Provisions for CSA Class T, R and H Fuses | | | | |
| _ | • | •① | Provisions for CSA Class J and L Fuses | | | | |
| _ | • | • | Metal nameplate | | | | |
| 60-200A | • | • | Aux. switch kits | | | | |
| _ | 4 | - | Type 4X with stainless steel interior parts | | | | |
| 5 | • | _ | Rolled flange enclosure design (30-200A) | | | | |
| _ | • | | Isolated ground kits | | | | |



Double Break Switching Action

Like the time-proven Vacu-Break Design, the Siemens VBII double break switching action breaks the arc in two places in 30-200A ratings. This reduces heat generation and increases switching speed by doubling the breaking distance. The result is enhanced performance and increased longevity. We also provide the most visible blade design available today. Unlike conventional knife blade switches, the blades are self-aligning to ensure positive contact. In addition, they have no wear and friction point since the "electrical hinge" has been eliminated. The result is a very fast, positive and reliable switching action for even the most severe applications.

 ^{0 400, 600}V & 600A fusible, double-throw switches accept only Class J or T fuses. Only 800 & 1200A HD switches will accept Class L fuses.

② 30A general duty switches have fuse clips constructed of spring type copper.

[®] Not supplied on 30A outdoor & plug fuse switches.
@ 30-200A Type VBII in stainless steel enclosures.
® 60-200A.

^{© 200}A general duty switches have aluminum neutral assemblies.

© 100-200A GD, 100-600A DT and 100-1200A HD switches

 ¹⁰⁰⁻²⁰⁰A GD, 100-600A DT and 100-1200A HD switches will accept Class T fuses.

Safety Switches

General Duty and Heavy Duty

Enclosure Types

- 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.
- 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.
- © **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.
- 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.

Load Break Ratings

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

| Switch | Number of ON/OFF | Number | of Operation | s |
|------------------|--------------------------|-----------------|--------------------|-------|
| Ampere Rating | Operations per Minute | 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. The assignment of such ratings is made by CSA 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 |

Product Overview







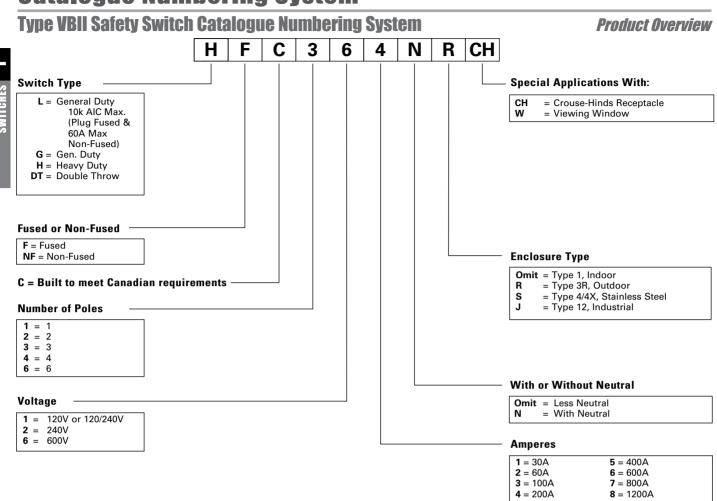


Non-Fusible Safety Switch AIC Ratings When Protected by a Circuit Breaker²³

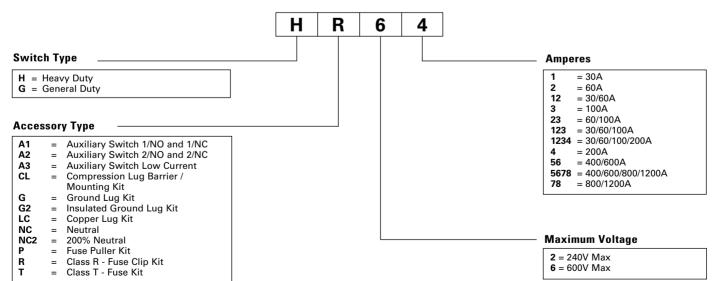
| Villett Fotostod by a circuit Broaker | | | | | | | | | |
|---------------------------------------|------------------------|---------------------------------|--|--|--|--|--|--|--|
| Breaker Frame | Non-Fused Switch | Short Circuit Current Rating | | | | | | | |
| NEG, NGB, ED4 | 30 DT (240V) | 18 kA Thru 240 VAC | | | | | | | |
| NEB, NEG, NGG, NGB, ED4 | 60-100A 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 DT (240V) | 18 kA Thru 240 VAC | | | | | | | |
| JD6-A, LD6-A | 400A HD & DT (600V) | 18 kA Thru 600 VAC | | | | | | | |
| LD6-A | 600A DT (240V) | 25kA Thru 240 VAC | | | | | | | |
| LD6-A | 600A HD & DT (600V) | 25kA Thru 600 VAC | | | | | | | |
| NNG | 1200A HD (600V) | 25 kA Thru 600 VAC | | | | | | | |

② All switches above are rated at 10 KA when protected by any CSA certified or cUL Listed CB

³ Circuit breaker trip rating must not exceed switch ampere rating



Type VBII Accessories Catalogue Numbering System





| | Ampere | Indoor | - Type 1 | 0 | Horsepower Ratings ^② | | | | | | |
|--------|--------|-----------|------------------|-------------------|---------------------------------|-------|---------|----------|---------|-----------|-------------|
| System | | illuoor | — туре т | Outdoor — Type 3R | | | 240V AC | | | | |
| | Rating | Catalogue | Ship. Wt. (lbs.) | Catalogue | Ship. Wt. (lbs.) | Hub | 1-Phase | , 2-Wire | 3-Phase | e, 3-Wire | 250 Volt DC |
| | | Number | Std. Pkg. | Number | Std. Pkg. | Type® | Std. | Max. | Std. | Max. | |

240 Volt Fusible[®]

| 2 | -Pole, 2- | Fuse an | d Solid Neu | tral③ (A | lso used for 2 | -Pole, 2-Wire | e Applicat | tions) | 2 | 40 Vol | t AC/25 | 50 Volt DC |
|----------|---------------|---------|-------------|----------|----------------|---------------|------------|--------|----|--------|---------|------------|
| | | 30 | HFC221N | 12 | HFC221NR | 13 | | 11/2 | 3 | 3 | 71/2 | 5 |
| | | 60 | HFC222N | 18 | HFC222NR | 19 | | 3 | 10 | 71/2 | 15 | 10 |
| ⊢ | りり [] | 100 | HFC223N | 23 | HFC223NR | 24 | ECHS | 71/2 | 15 | 15 | 30 | 20 |
| | L L L L | 200 | HFC224N | 47 | HFC224NR | 48 | | 15 | _ | 25 | 60 | 40 |
| | ا ااا 2 ح | 400 | HFC225N | 153 | HFC225NR | 157 | | 15 | _ | 50 | 125 | 50 |
| | ነነቸ∣ | 600 | HFC226N | 155 | HFC226NR | 159 | ECHV | 15 | _ | 75 | 200 | 50 |
| | 1 ' ' ' | 800 | HFC227N | 365 | HFC227NR | 365 | ECHV | _ | _ | 100 | 250 | 50 |
| | | 1200 | HFC228N | 385 | HFC228NR | 385 | | - | _ | 100 | 250 | 50 |

| 3-Pole, 3- | Fuse an | d Solid Neut | ral (A | (Also used for 3-Pole, 3-Wire Applications) | | | | | 240 Volt AC/250 Volt DC | | | |
|------------|---------|--------------|--------|---|-----|------|------|----|-------------------------|-----|----|--|
| | 30 | HFC321N | 14 | HFC321NR | 15 | | 11/2 | 3 | 3 | 7½ | 5 | |
| | 60 | HFC322N | 19 | HFC322NR | 20 | ECHS | 3 | 10 | 7½ | 15 | 10 | |
| コケケケト | 100 | HFC323N | 25 | HFC323NR | 26 | ЕСПО | 71/2 | 15 | 15 | 30 | 20 | |
| 1444 | 200 | HFC324N | 49 | HFC324NR | 50 | | 15 | _ | 25 | 60 | 40 | |
| 15550 | 400 | HFC325N | 158 | HFC325NR | 162 | | 15 | _ | 50 | 125 | 50 | |
| 11111 | 600 | HFC326N | 161 | HFC326NR | 165 | ECHV | 15 | _ | 75 | 200 | 50 | |
| | 800 | HFC327N | 375 | HFC327NR | 375 | ECHV | _ | _ | 100 | 250 | 50 | |
| | 1200 | HFC328N■ | 395 | HFC328NR■ | 388 | | _ | _ | 100 | 250 | 50 | |

240 Volt Fusible

200

HFC224S

2-Pole, 2-Fuse⁴ 240 Volt AC/250 Volt DC Type 4/4X Stainless® Type 12 Industrial[®] **Hub Type**® 11/2 71/2 HFC221S HFC221J 3 7^{1/2} 30 5 13 13 3 3 7^{1/2} 60 HFC222S 19 HFC222J 19 10 15 10 SSH 100 HFC223S 24 HFC223J 24 15 15 30 20

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HFC224J

| 3 | -Pol | e, 3-I | Fuse ^④ | (Also used | l for 2-Pole | 2-Wire Appl | ications in 4 | 100-800A | Ratings | s) 2 | 240 Volt AC/250 Volt DC 3 3 7 ^{1/2} 5 | | | | | |
|---|------|--------|---|----------------|--------------------|---------------|--------------------|-----------|---------|------|---|------------------------------------|-------|----|----|----|
| | | | | Type 4/4X Stai | nless ^⑦ | Type 12 Indus | trial [©] | Hub Type® | | | | | | | | |
| | | . | 3-Fuse ^④ (Also used for 2-Pol Type 4/4X Stainless [©] HFC321S 14 60 HFC322S 20 100 HFC323S 25 200 HFC324S 49 400 HFC325S 154 600 HFC326S 157 | 14 | HFC321J | 14 | | 11/2 | 3 | 3 | 71/2 | 5 | | | | |
| | ነ ነ | - と | 60 | HFC322S | 20 | HFC322J | 20 | SSH | 3 | 10 | 71/2 | 7 ^{1/2} 15 10 15 30 20 | | | | |
| | ĻĻ | ١ , | 100 | HFC323S | 25 | HFC323J | 25 | ээп | 71/2 | 15 | 15 | 30 | 30 20 | | | |
| | 7 | ' 🕇 | ' | ا ح ر | 7 7 1 | 200 | HFC324S | 49 | HFC324J | 49 | | 15 | _ | 25 | 60 | 40 |
| | 1 1 | | 400 | HFC325S | 154 | HFC325J∎ | 110 | | 15 | _ | 50 | 125 | 50 | | | |
| | | | 600 | HFC326S | 157 | HFC326J∎ | 161 | * | 15 | _ | 75 | 200 | 50 | | | |
| | | | 800 | HFC327S■ | 370 | HFC327J∎ | 365 | | _ | _ | 100 | 250 | 50 | | | |

- Built to order.
- ① Suitable for use as service equipment when neutral is bonded to the enclosure.

 ② Dual horsepower ratings: Std.- applies when non-time
- delay fuses are installed. Max.- applies when time-delay fuses are installed.
- ③ These switches are CSA certified for application on grounded B-phase systems and are suitable for 3-phase motor applications.
- (4) When a neutral is required use neutral kit displayed on p.1-19
- $\ensuremath{\mathfrak{G}}$ Also rated for Type 3S/3R application. Factory provided drain plug must be removed from the bottom of the enclosure for type 3S/3R application.
- 304 grade stainless steel.
- Hub type SSH are suitable for type 4/4X and type 12 applications.
- * Consult Siemens representant.

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General and Heavy Duty Safety Switches

Dimensions

Safety Switch Dimensions & Shipping Weights

SAFETY

| Salety Swi | 1 | | - Inphilia A | | /mama\ | Danish land | (mama) | | |
|--|--|--|--------------------------------------|--|--|--|--|----------------------------------|----------------------------|
| | Height - Inches | | VAC-41 | Width - Inches | · · · | Depth - Inches | 1 | V | Chinnin n |
| Catalogue Number | Box A | With Door B | With Rain Shed C | Box D | With Handle E | Box F | With Handle G | Knockout Diagram ^① | Shipping Weight (lbs.) |
| HFC223S HFC224J HFC224N HFC224NR HFC224S | 21.96 (558) 29.96 (761) 29.90 (760) 29.90 (760) 29.96 (761) | 23.16 (508) 31.07 (789) 31.07 (789) — 31.07 (789) | _ _ _ 31.42 (798) _ | 9.65 (245) 14.62 (371) 14.62 (371) 14.61 (371) 14.62 (371) | 12.02 (305) 16.95 (431) 16.98 (431) 16.99 (432) 16.95 (431) | 5.34 (136) 6.63 (168) 6.36 (162) 6.36 (162) 6.63 (168) | 10.46 (266) 12.58 (269) 12.33 (313) 12.33 (313) 12.58 (269) | - S12 S13 | 24 48 47 48 48 |
| HFC225N | 56.00 (1422) | 56.57 (1183) | - | 24.65 (626) | 26.21 (666) | 9.23 (234) | 14.68 (373) | S14 | 153 |
| HFC225NR | 56.07 (1424) | - | 57.19 (1453) | 24.65 (626) | 26.70 (678) | 9.23 (234) | 14.68 (373) | S15 | 162 |
| HFC226N | 56.00 (1422) | 56.57 (1183) | - | 24.65 (626) | 26.21 (666) | 9.23 (234) | 14.68 (373) | S14 | 155 |
| HFC226NR | 56.07 (1429) | - | 57.19 (1453) | 24.65 (626) | 26.70 (678) | 9.23 (234) | 14.68 (373) | S15 | 159 |
| HFC227N | 66.67 (1693) | 67.16 (1706) | - | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | _ | 360 |
| HFC227NR | 66.67 (1693) | — | 67.74 (1721) | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | | 362 |
| HFC228N | 66.67 (1693) | 67.16 (1706) | - | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | _ | 352 |
| HFC228NR | 66.67 (1693) | — | 67.74 (1721) | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | | 364 |
| HFC265 | 56.00 (1422) | 56.57 (1183) | _ | 24.65 (626) | 26.21 (666) | 9.23 (234) | 14.68 (373) | S14 | 149 |
| HFC265J | 56.14 (1426) | 56.57 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.64 (372) | - | 155 |
| HFC265R | 56.07 (1424) | - | 57.19 (1453) | 24.65 (626) | 26.70 (678) | 9.23 (234) | 14.68 (373) | S15 | 152 |
| HFC265S | 56.14 (1426) | 56.57 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.64 (372) | - | 153 |
| HFC266 | 56.00 (1422) | 56.57 (1183) | _ | 24.65 (626) | 26.21 (666) | 9.23 (234) | 14.68 (373) | S14 | 155 |
| HFC266J | 56.14 (1426) | 56.57 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.68 (373) | - | 156 |
| HFC266R | 56.07 (1424) | - | 57.19 (1453) | 24.65 (626) | 26.70 (678) | 9.23 (234) | 14.68 (373) | S15 | 155 |
| HFC266S | 56.14 (1426) | 56.57 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.68 (373) | - | 161 |
| HFC321J HFC321N HFC321NR HFC321S | 14.27 (363) 14.26 (362) 14.39 (366) 14.27 (363) | 17.33 (440) 15.45 (392) — 17.33 (440) | _ _ _ 15.77 (401) _ | 6.65 (169) 6.64 (169) 6.64 (169) 6.65 (169) | 9.02 (229) 9.01 (229) 9.01 (229) 9.02 (229) | 5.32 (135) 5.05 (128) 5.05 (128) 5.32 (135) | 10.46 (266) 10.17 (258) 10.17 (258) 10.46 (266) | _ S6 S8 _ | 14 14 15 14 |
| HFC322J | 16.27 (413) | 19.31 (490) | _ | 9.17 (233) | 11.47 (291) | 5.33 (135) | 10.46 (266) | _ | 20 |
| HFC322N | 16.26 (413) | 17.46 (443) | _ | 9.15 (232) | 11.53 (293) | 5.05 (128) | 10.17 (258) | S16 | 19 |
| HFC322NR | 16.26 (413) | — | 17.77 (451) | 9.16 (233) | 11.53 (293) | 5.05 (128) | 10.17 (258) | S17 | 20 |
| HFC322S | 16.27 (413) | 19.31 (440) | _ | 9.17 (233) | 11.47 (291) | 5.33 (135) | 10.46 (266) | _ | 20 |
| HFC323J | 21.96 (558) | 23.16 (588) | _ | 9.65 (245) | 12.02 (305) | 5.34 (136) | 10.46 (266) | _ | 25 |
| HFC323N | 21.96 (558) | 23.15 (588) | _ | 6.64 (169) | 12.01 (305) | 5.05 (128) | 10.17 (258) | S10 | 25 |
| HFC323NR | 21.95 (558) | - | 23.46 (596) | 6.64 (169) | 11.97 (304) | 5.05 (128) | 10.17 (258) | S11 | 26 |
| HFC323S | 21.96 (558) | 23.16 (588) | _ | 9.65 (245) | 12.02 (305) | 5.34 (136) | 10.46 (266) | _ | 25 |
| HFC324J | 29.96 (761) | 31.07 (789) | _ | 14.62 (371) | 16.95 (431) | 6.63 (168) | 12.58 (269) | | 49 |
| HFC324N | 29.90 (760) | 31.07 (789) | _ | 14.62 (371) | 16.98 (431) | 6.36 (162) | 12.33 (313) | S12 | 49 |
| HFC324NR | 29.90 (760) | — | 31.42 (798) | 14.61 (371) | 16.99 (432) | 6.36 (162) | 12.33 (313) | S13 | 50 |
| HFC324S | 21.96 (558) | 31.07 (789) | _ | 14.62 (371) | 16.95 (431) | 6.63 (168) | 12.58 (269) | | 49 |
| HFC325J HFC325N HFC325NR HFC325S | 56.14 (1426) 56.00 (1422) 56.07 (1424) 56.14 (1426) | 56.57 (1183) 56.57 (1183) - 56.57 (1183) | _ _ 57.19 (1453) _ | 24.82 (630) 24.65 (626) 24.65 (626) 24.82 (630) | 26.44 (672) 26.21 (666) 26.70 (678) 26.44 (672) | 9.19 (233) 9.23 (234) 9.23 (234) 9.19 (233) | 14.64 (372) 14.68 (373) 14.68 (373) 14.64 (372) | S14 S14 S15 | 160 158 162 158 |
| HFC326J | 56.14 (1426) | 56.57 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.64 (372) | _ | 161 |
| HFC326N | 56.00 (1422) | 56.57 (1183) | _ | 24.64 (626) | 26.21 (666) | 9.23 (234) | 14.68 (373) | S14 | 161 |
| HFC326NR | 56.07 (1424) | - | 57.19 (1453) | 24.64 (626) | 26.70 (678) | 9.23 (234) | 14.68 (373) | S15 | 165 |
| HFC326S | 56.14 (1426) | 56.67 (1183) | _ | 24.82 (630) | 26.44 (672) | 9.19 (233) | 14.64 (372) | _ | 161 |
| HFC327J | 66.67 (1693) | 67.16 (1706) | _ | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | _ | 367 |
| HFC327N | 66.67 (1693) | 67.16 (1706) | _ | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | _ | 380 |
| HFC327NR | 66.67 (1693) | — | 64.74 (1721) | 38.40 (975) | 40.25 (1022) | 9.24 (235) | 14.68 (373) | _ | 383 |
| HFC327S | 66.67 (1693) | 67.16 (1706) | _ | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | _ | 367 |
| HFC328N | 66.67 (1693) | 67.16 (1706) | - | 38.40 (975) | 39.96 (1015) | 9.24 (235) | 14.68 (373) | | 382 |
| HFC328NR | 66.67 (1693) | — | 67.74 (1721) | 38.40 (975) | 40.25 (1022) | 9.24 (235) | 14.68 (373) | | 385 |
| HFC361 HFC361J, JW HFC361N HFC361NR HFC361R HFC361S, SW | 14.26 (302) 14.27 (413) 14.26 (362) 14.39 (366) 14.39 (366) 14.27 (413) | 15.45 (1545) 17.33 (440) 15.45 (1545) — — 17.33 (440) | - - 15.77 (401) 15.77 (401) | 6.64 (169) 6.65 (245) 6.64 (169) 6.64 (169) 6.64 (169) 6.65 (245) | 9.01 (229) 9.02 (229) 9.01 (229) 9.01 (229) 9.01 (229) 9.02 (229) | 5.05 (128) 5.32 (135) 5.05 (128) 5.05 (128) 5.05 (128) 5.32 (135) | 10.17 (258) 10.46 (266) 10.17 (258) 10.17 (258) 10.17 (258) 10.46 (266) | S6 S6 S8 S8 | 14 14 14 15 15 |
| HFC362 | 16.26 (413) | 17.46 (443) | _ | 9.15 (232) | 11.53 (313) | 5.05 (128) | 10.17 (258) | S16 | 19 |