

Maximum Breaker Size (MOP) by Tonnage – Split-System Heat Pumps

208/230V single-phase outdoor units • GE NS18H & NS15H, Goodman GLZS4BA, Carrier GH5SAN5, Rheem RP14AY

Tonnage	GE NS18H 18 SEER2 Inverter, R-454B	GE NS15H 15 SEER2 Inverter, R-454B	Goodman GLZS4BA Single-Stage, R-32	Carrier GH5SAN5 Single-Stage, R-454B	Rheem RP14AY 14.3 SEER2, R-454B	Range Low – High
1.5 Ton	No model at this size	20A MCA 18A • NS15H18HA5	15A MCA 11.2A • GLZS4BA1810	15A MCA 10.9A • GH5SAN51800A	20A MCA 13A • RP14AY18AJ1NA	15A – 20A
2 Ton	30A MCA 21A • NS18H24HA5	20A MCA 18A • NS15H24HA5	15A MCA 11.2A • GLZS4BA2410	20A MCA 13.5A • GH5SAN52400A	25A MCA 16A • RP14AY24AJ2NA	15A – 30A
2.5 Ton	No model at this size	30A MCA 20A • NS15H30HA5	25A MCA 15A • GLZS4BA3010	25A MCA 16.3A • GH5SAN53000A	30A MCA 20A • RP14AY30AJ2NA	25A – 30A
3 Ton	35A MCA 24A • NS18H36HA5	30A MCA 20A • NS15H36HA5	35A MCA 21.5A • GLZS4BA3610	30A MCA 19.2A • GH5SAN53600A	30A MCA 20A • RP14AY36AJ2NA	30A – 35A
3.5 Ton	No model at this size	35A MCA 26A • NS15H42HA5	30A MCA 19.3A • GLZS4BA4210	40A MCA 24.9A • GH5SAN54200A	40A MCA 24A • RP14AY42AJ2NA	30A – 40A
4 Ton	60A MCA 37A • NS18H60HA5	35A MCA 26A • NS15H48HA5	40A MCA 25.5A • GLZS4BA4810	50A MCA 29.4A • GH5SAN54800A	45A MCA 27A • RP14AY48AJ2NA	35A – 60A
5 Ton	60A MCA 37A • NS18H60HA5	40A MCA 32A • NS15H60HA5	50A MCA 31.1A • GLZS4BA6010	50A MCA 31.1A • GH5SAN56000A	50A MCA 33A • RP14AY60AJ2NA	40A – 60A

Installer Notes

- **What the numbers mean: MOP** (Maximum Overcurrent Protection) is the largest breaker or fuse allowed for the outdoor unit. **MCA** (Minimum Circuit Ampacity) is used to size the wire. The breaker must never be larger than the MOP.
- **Don't assume one breaker fits all.** At the same tonnage, the required breaker can vary by up to 25A between brands and series. Replacing one brand with another may mean changing the breaker, and sometimes the wire.
- **GE NS18H:** Offered in 2, 3, 4 and 5 tons (NS18H24HA5, NS18H36HA5, NS18H60HA5). The NS18H60HA5 covers both 4 and 5 tons, and at those sizes it needs the largest circuit on this list (60A MOP).
- **Goodman GLZS4BA:** The 3-ton unit (35A) needs a larger breaker than the 3.5-ton (30A). Goodman requires time-delay fuses or HACR-type breakers.
- **Carrier:** Values are for the current GH5SAN5 (R-454B). Older GH5SAN4 (R-410A) units may differ. **Rheem:** Values are for single-phase. 3–5 ton RP14AY units are also offered in 3-phase 208/230V and 460V with lower ratings.

Sources: GE NS18H Product Data Sheet; GE NS15H Quick Specs; Goodman SS-GLZS4B-R32 spec sheet; Carrier GH5SAN5 Product Data; Rheem Endeavor Line heat pumps, Form P22-840. Ratings are subject to change by the manufacturer. Always verify against the unit nameplate before sizing breakers or wire.