

# HVACR Component and Refrigerant Matrix

## Quick Reference

FORM 5-541 / 032025



With all the numerous refrigerant options in the HVACR industry, it's important to know which system components are compatible. To ease in your product selection, Sporlan provides this document as a reference to use when selecting Sporlan HVACR components for a specific refrigerant.

| REFRIGERANT TYPE (SAFETY CLASS)      |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
|--------------------------------------|---------|---------|---------|--|------|-----|--|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|------------------------|--|------|
| REFRIGERANT<br>(SPORLAN LETTER CODE) | HFO     | HFO     | HFO     |  | N    | HFC |  | HFC   | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | N     | REFERENCE<br>MATERIALS |  |      |
| REFRIGERANT TYPE                     | R1233zd | R1234yf | R1234ze |  | R290 | R32 |  | R410A | R448A       | R449A       | R454A       | R454B       | R454C       | R455A       |             | R513A       | R515B |                        |  | R744 |
|                                      |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| LETTER CODE                          | A1      | A2L     | A2L     |  | O    | Z   |  | Z     | D           | D           | T           | Y           | V           | V           |             | J           | C     |                        |  |      |
| SAFETY CLASS                         | A1      | A2L     | A2L     |  | A3   | A2L |  | A1    | A1          | A1          | A2L         | A2L         | A2L         | A2L         |             | A1          | A1    | A1                     |  |      |
| GWP (AR4)                            | 1       | 1       | 1       |  | 3    | 675 |  | 2,088 | 1,387       | 1,397       | 237         | 466         | 146         | 145         |             | 631         | 299   | 1                      |  |      |
| TEV - Thermostatic Expansion Valves  |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| BBI                                  |         | X       |         |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           |       | —                      |  |      |
| HX, FX                               |         |         |         |  |      | X   |  | X     |             |             |             | X           |             |             |             |             |       | —                      |  |      |
| NX                                   |         | X       |         |  | X    |     |  |       | X           | X           | X           |             | X           | X           |             | X           |       | 10-10-10               |  |      |
| ER, SR                               |         | X       |         |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           |       | 10-10-8                |  |      |
| S                                    |         | X       | X       |  |      |     |  |       | X           | X           | X           |             | X           | X           |             | X           | X     | 10-10                  |  |      |
| EBS                                  |         | X       | X       |  | X    |     |  | X     | X           | X           | X           |             | X           | X           |             | X           | X     | 10-10                  |  |      |
| Q, EQ, SQ                            |         | X       |         |  |      |     |  |       | X           | X           | X           |             | X           | X           |             | X           |       | 10-10                  |  |      |
| BQ, EBQ, SBQ                         |         | X       |         |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           |       | 10-10                  |  |      |
| EF                                   |         | X       |         |  | X    |     |  |       | X           | X           | X           |             | X           | X           |             | X           |       | 10-10                  |  |      |
| G, EG                                |         | X       |         |  |      |     |  |       | X           | X           | X           |             | X           | X           |             | X           |       | 10-10                  |  |      |
| EBF, SBF                             |         | X       |         |  |      | X   |  | X     | X           | X           | X           |             | X           | X           |             | X           |       | 10-10                  |  |      |
| O                                    |         | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | 10-10                  |  |      |
| RD - Distributors                    |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| 11xx and 16xx Series                 | X       | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| BV - Ball Valves                     |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| EBVP                                 |         | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| EBV(T)-PR                            |         | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Couplings                            |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| 5400                                 | X       | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| 5500                                 | X       | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| 5700                                 | X       | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Copper Check Valves                  |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| CV Series                            | X       | X       | X       |  | X    | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| ZoomLock                             |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| ZoomLock Max                         |         | X       | X       |  |      | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| ZoomLock Push                        |         |         |         |  |      | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Electronics - Kelvin II Controller   |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| Superheat                            | X       | X       | X       |  |      | X   |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Subcool                              | X       | X       | X       |  |      |     |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Pressure                             | X       | X       | X       |  |      |     |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Chiller                              | X       | X       | X       |  |      |     |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Temperature                          | X       | X       | X       |  |      |     |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |
| Electronics - S3C Controller         |         |         |         |  |      |     |  |       |             |             |             |             |             |             |             |             |       |                        |  |      |
| S3C Case Controller                  |         |         |         |  | X    |     |  | X     | X           | X           | X           | X           | X           | X           |             | X           | X     | X                      |  |      |



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# HVACR Component and Refrigerant Matrix (Continued)

| REFRIGERANT TYPE (SAFETY CLASS)          |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
|------------------------------------------|---------|---------|---------|------|-----|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|--------------------------------------------------|----------------------------------------|
| REFRIGERANT<br>(SPORLAN LETTER CODE)     | HFO     | HFO     | HFO     | N    | HFC | HFC   | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | HFC/<br>HFO | N   | REFERENCE<br>MATERIALS                           |                                        |
| REFRIGERANT TYPE                         | R1233zd | R1234yf | R1234ze | R290 | R32 | R410A | R448A       | R449A       | R454A       | R454B       | R454C       | R455A       | R513A       | R515B       | CO2 |                                                  |                                        |
| LETTER CODE                              | J       | C       |         | O    | Z   | Z     | D           | D           | T           | Y           | V           | V           | J           | C           |     |                                                  |                                        |
| SAFETY CLASS                             | A1      | A2L     | A2L     | A3   | A2L | A1    | A1          | A1          | A2L         | A2L         | A2L         | A2L         | A1          | A1          | A1  | Bulletin                                         | Fieldman<br>Bulletin                   |
| GWP (AR4)                                | 1       | 1       | 1       | 3    | 675 | 2,088 | 1,387       | 1,397       | 237         | 466         | 146         | 145         | 631         | 299         | 1   |                                                  |                                        |
| Electric Stepper Motor Valves            |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| SER-AA thru SER-D                        |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 100-20<br>100-20-1<br>100-20-2                   | —                                      |
| SERI-F thru SERI-L                       |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 100-20<br>100-20-4                               | F100-20-12<br>F100-20-13<br>F100-20-14 |
| SEHI-175                                 |         | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 100-20                                           | F100-20-14                             |
| SEH-P                                    |         | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 100-20-5                                         | F100-20-12<br>F100-20-14               |
| SEHI-400                                 |         | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 100-20                                           | F100-20-12<br>F100-20-14               |
| SEHI-T                                   |         | X       | X       |      | X   |       | X           | X           | X           | X           | X           | X           | X           | X           |     | 100-20-7                                         | F100-20-12<br>F100-20-14               |
| SER-AA-HP thru<br>SER-C-HP               |         | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 100-20-1<br>100-20-2                             | —                                      |
| CDS                                      | X       | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 100-40                                           | F100-20-14                             |
| GCM                                      |         |         |         |      |     |       |             |             |             |             |             |             |             |             | X   | 100-595                                          | —                                      |
| GC-10 - 50                               |         |         |         |      |     |       |             |             |             |             |             |             |             |             | X   | 100-80                                           | —                                      |
| FGB-60 - 70                              |         |         |         |      |     |       |             |             |             |             |             |             |             |             | X   | 100-80                                           | —                                      |
| SV - Solenoid Valves                     |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| E-HP Series (E2S1 thru<br>E43S1)         | X       | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | Catalog 410A<br>30-10-11<br>30-10-12<br>30-10-14 | F30-10-8<br>F30-10-9                   |
| Three-way Valves (B5D, 8D,<br>12D, 16D)  | X       | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 30-20                                            | F30-10-11                              |
| Pulse Width Solenoid (SPW)               | X       | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 30-30                                            | —                                      |
| PRV - Pressure Regulating Valves         |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| CRO(T)                                   |         | X       | X       | X    |     |       | X           | X           | X           |             | X           | X           | X           | X           |     | 90-10                                            | —                                      |
| (A)DRI, (A)DRH,<br>(A)DRP, (A)DRS        |         | X       | X       | X    |     |       | X           | X           | X           |             | X           | X           | X           | X           |     | 90-40                                            | —                                      |
| ORI, ORD                                 |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 90-30                                            | —                                      |
| LAC                                      |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 90-30                                            | —                                      |
| HGBE-1,5,6 (ATEX)                        |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | Catalog 410A<br>(HGBE-5 only)                    | —                                      |
| HGBE-8                                   |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | Catalog 410A                                     | —                                      |
| SHGBE-8, 15                              |         | X       | X       | X    |     |       | X           | X           | X           |             | X           | X           | X           | X           |     | 90-40                                            | —                                      |
| ORIT                                     |         | X       | X       | X    |     |       | X           | X           | X           |             | X           | X           | X           | X           |     | 90-20                                            | F290-20-1                              |
| CAF - Filter-Driers                      |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| Catch-All                                | X       | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 40-10                                            | F240-10-19                             |
| 90HP Series Catch-All                    |         |         |         |      |     |       |             |             |             |             |             |             |             |             | X   |                                                  |                                        |
| Replaceable Core Filter-Driers           |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| Replaceable Core Catch-All               |         | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | 40-10                                            | -                                      |
| Filters                                  |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| Suction Filter                           | X       | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 80-10                                            | F240-10-19                             |
| Oil Filter                               | X       | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 110-10                                           | F240-10-19                             |
| 90HP Series Oil Filter                   |         |         |         |      |     |       |             |             |             |             |             |             |             |             | X   |                                                  |                                        |
| SA - Sight Glasses / Moisture Indicators |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| SA-12 thru SA-217                        | X       | X       | X       | X    | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           | X   | 70-10                                            | F270-10-1                              |
| Accumulators and Receivers               |         |         |         |      |     |       |             |             |             |             |             |             |             |             |     |                                                  |                                        |
| VA, PA, & VPA Series                     | X       | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | C-1                                              |                                        |
| RT & PR Series                           | X       | X       | X       |      | X   | X     | X           | X           | X           | X           | X           | X           | X           | X           |     | C-1                                              |                                        |

