

# Replacing FH compressor with new FH<sup>2</sup>



## KEY FEATURES AND BENEFITS

- ▶ Energy Efficient
- ▶ Compact Solution
- ▶ Highly Reliable

### ▶ Performance

5 to 20% more energy efficiency, and better acoustics (1 - 3 dBA) quieter.

### ▶ Unchanged footprint and lighter

- Same mounting footprint as current FH
- One size for entire cooling capacity up to 36mm shorter compared to FH

### ▶ Robust & Reliable

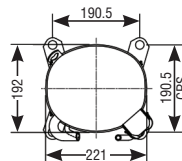
Designed to meet the rigorous demands of commercial refrigeration applications where reliability is a must.



## SPECIFICATIONS

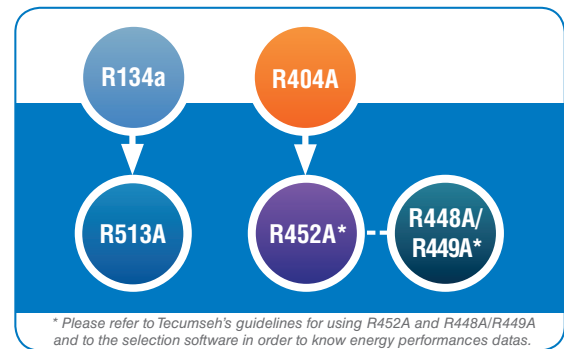
|                    |                           |
|--------------------|---------------------------|
| EVAP. RANGE        | High Back / Low Back      |
| MOUNTING FOOTPRINT | Same as previous FH's one |
| COOLING CAP.       | 1000-6560 Watts           |
| CONNECTIONS        | Tubes / valves            |
| OIL                | Polyolester (POE)         |
| FOOTPRINT          | 190.5 x 190.5mm           |
| MOTOR TYPE         | CSR / TRI                 |

|                   |     |
|-------------------|-----|
| HEIGHT (mm)       |     |
| without grommets: | 323 |
| with grommets:    | 354 |



CRS: distance between centers of mountingholes

## REFRIGERANTS

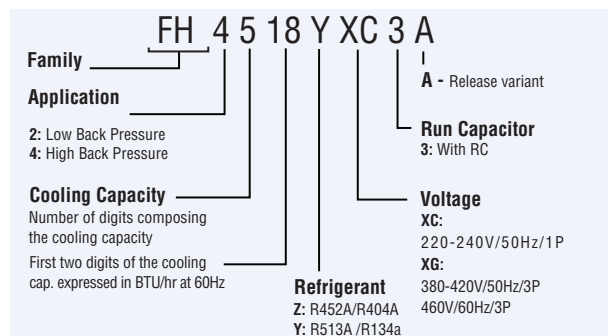


## COMPRESSOR MODEL NOMENCLATURE

▶ No more "T" to name the three-phase compressors.  
Ex: TFH2480Z-TZ -> FH2480Z-XG1A

▶ Voltage codes at the end of their designation differentiate 3 and 1 phase compressors

|              |  |
|--------------|--|
| SINGLE PHASE | FH4538Z- <b>XC3A</b>                         |
| THREE PHASE  | FH4538Z- <b>XG1A</b><br>FH4538Z- <b>KZ1A</b> |



FH<sup>2</sup> 3 phase models will use new designation like FH2511Z-XG1A instead of TFH2511Z



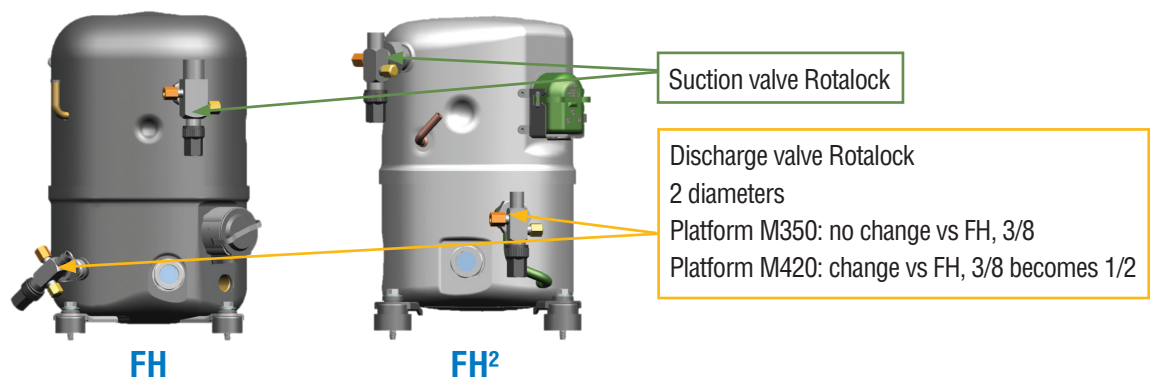
# Replacing FH compressor

What's different in new FH<sup>2</sup>

## EXPLANATIONS OF VOLTAGE RANGE AND CODE CHANGES

| PHASE                            | 1~                    |                       | 3~                    |                       |  |  |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
|                                  | FH                    | FH <sup>2</sup>       | FH                    | FH <sup>2</sup>       | FH   | FH <sup>2</sup>                                |
| <b>Voltage code</b>              | FZ                    | XC                    | TZ                    | XG                    | KZ   | KZ   |
| <b>Voltage</b>                   | 220-240V<br>~50Hz     | 220-240V<br>~50Hz     | 400V<br>~50Hz         | 380-420V<br>~50Hz     | 220V<br>~50Hz/60Hz                             | 220V<br>~50Hz/60Hz                             |
| <b>Frequency / Voltage range</b> | 50Hz :<br>198 to 253V | 50Hz :<br>198 to 254V | 50Hz :<br>340 to 440V | 50Hz :<br>342 to 462V | 50Hz :<br>180 to 253V<br>60Hz :<br>187 to 264V | 50Hz :<br>180 to 253V<br>60Hz :<br>187 to 264V |

## VALVES CHANGES



Note: It's mandatory to replace the FH discharge Roto-Lock value also while replacing FH compressor with new FH<sup>2</sup>.

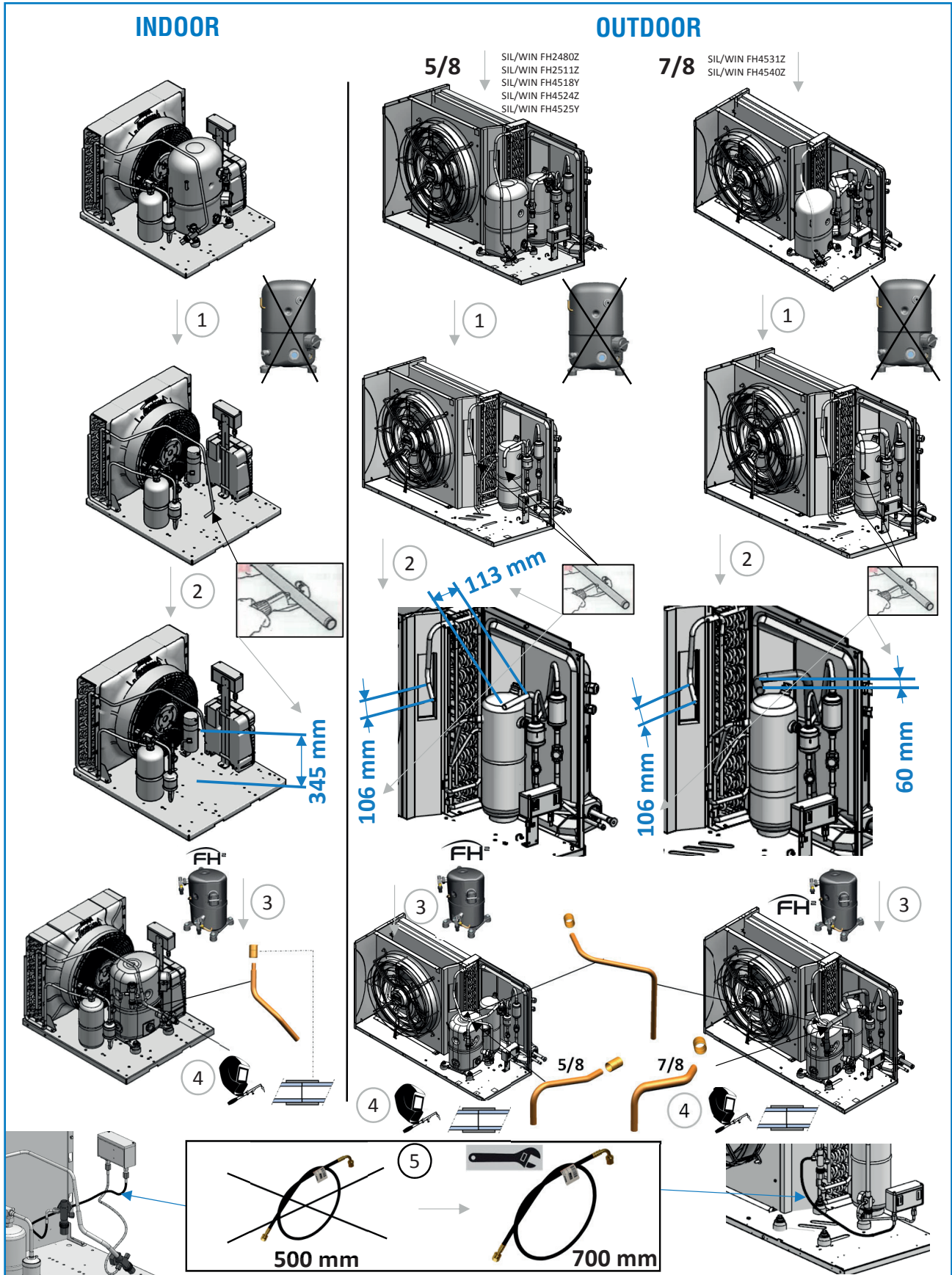
## CROSS REFERENCE

| LBP R452A / R449A / R448A |                 |
|---------------------------|-----------------|
| FH                        | FH <sup>2</sup> |
| TFH2480Z-KZ               | FH2480Z-KZ1A    |
| FH2480Z-FZ                | FH2480Z-XC3A    |
| TFH2480Z-TZ               | FH2480Z-XG1A    |
| TFH2511Z-KZ               | FH2511Z-KZ1A    |
| FH2511Z-FZ                | FH2511Z-XC3A    |
| TFH2511Z-TZ               | FH2511Z-XG1A    |
| HBP R134a / R513A         |                 |
| TFH4518Y-TZ               | FH4518Y- XG1A   |
| FH4518Y-FZ                | FH4518Y-XC3A    |
| FH4525Y-FZ                | FH4525Y-XC3A    |
| TFH4525Y-TZ               | FH4525Y-XG1A    |

| HBP R452A / R449A / R448A |                 |
|---------------------------|-----------------|
| FH                        | FH <sup>2</sup> |
| TFH4522Z-KZ               | FH4522Z-KZ1A    |
| FH4522Z-FZ                | FH4522Z-XC3A    |
| TFH4522Z-TZ               | FH4522Z-XG1A    |
| TFH4524Z-KZ               | FH4524Z-KZ1A    |
| FH4524Z-FZ                | FH4524Z-XC3A    |
| TFH4524Z-TZ               | FH4524Z-XG1A    |
| TFH4531Z-KZ               | FH4532Z-KZ1A    |
| FH4531Z-FZ                | FH4532Z-XC3A    |
| TFH4531Z-TZ               | FH4532Z-XG1A    |
| TFH4540Z-KZ               | FH4538Z-KZ1A    |
| FH4540Z-FZ                | FH4538Z-XC3A    |
| TFH4540Z-TZ               | FH4538Z-XG1A    |

# with new FH<sup>2</sup>

## STEPS TO REPLACE FH COMPRESSOR WITH NEW FH<sup>2</sup> ON TECUMSEH CONDENSING UNIT



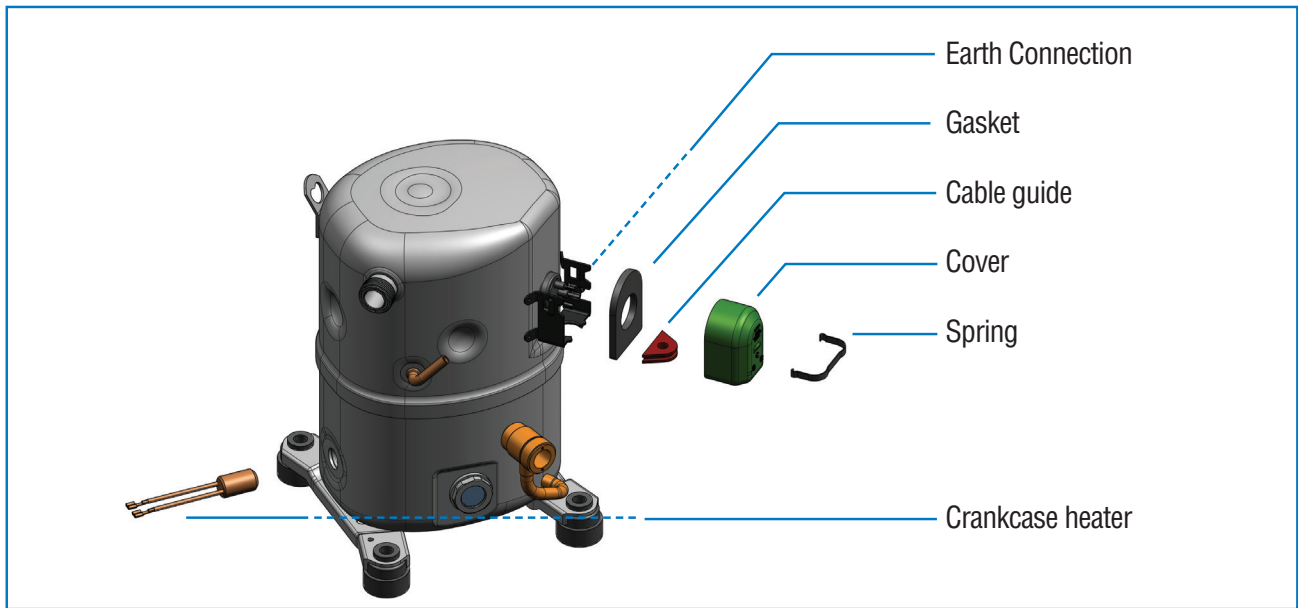
Note: Above pictorial explanation is not a detailed replacement guideline. Installer/technician replacing need to follow local regulations and good refrigeration installation practices.



# Replacing FH compressor with new FH<sup>2</sup>



What's different in new FH<sup>2</sup>

## FH<sup>2</sup> COMPRESSOR



Note: The accessories silent block, gasket, cable guide, cover and spring are not assembled on compressor. They are supplied inside the single pack box of compressor.

## FH<sup>2</sup> CONVERSION KIT FOR FH CONDENSING UNITS

|  |  | DISCHARGE ADAPTOR |       | SUCTION ADAPTOR |       | BRAZE COPPER SLEEVE FF 3/8 | BRAZE COPPER SLEEVE FF 1/2 | BRAZE COPPER SLEEVE FF 5/8 | BRAZE COPPER SLEEVE FF 7/8 | FLEXIBLE PRESSO SWITCH BP | TECUMSEH PRODUCT CODE |
|--|--|-------------------|-------|-----------------|-------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|-----------------------|
|  |  | Ø 3/8             | Ø 1/2 | Ø 5/8           | Ø 7/2 | FF 3/8                     | FF 1/2                     | FF 5/8                     | FF 7/8                     | 700MM                     |                       |
| INDOOR<br>  | <b>TRADITIONAL KIT ALL SIZES</b>   | x                 |       |                 |       | x                          |                            |                            |                            | x                         | 8664150               |
|  | <b>WINTSYS/SILENSYS 5/8 KIT</b><br>FH2480Z<br>FH2511Z<br>FH4518Y<br>FH4524Z<br>FH4525Y |                   | x     | x               |       |                            | x                          | x                          |                            | x                         | 8664151               |
|  | <b>WINTSYS/SILENSYS 7/8 KIT</b><br>FH4531Z<br>FH4540Z                                  |                   | x     |                 | x     |                            | x                          |                            | x                          | x                         | 8664152               |
| OUTDOOR<br> | <b>WINTSYS/SILENSYS KIT</b><br>All sizes   | x                 | x     | x               |       | x                          | x                          | x                          | x                          | x                         | 8664153               |

