# The Direct Replacement of Choice!

One Shot®(C) Replaces R-502, R-507A, R-404A, R-402A, R-402B, R-408A & R-22 (Refrigeration).





Scan this QR Code to watch the One Shot-C Conversion Video on your mobile device!

- Direct Replacement
- HFC Non-Ozone Depleting
- ASHRAE Designated R-422C
- FPA SNAP Listed

Complete Specifications on Back

Impeccable Record of Field Performance

For more information or to find a distributor near you, visit www.icorinternational.com or call 1-800-497-6805.

For Free Online Training at ICOR's Virtual Training Center, visit WWW.iCOrVtC.COM.



## ONE SHOT®(C)

#### System requirements

- System must be designed for use with R-502, 404A, 507A or R-22 in refrigeration
- System must be designed for a direct expansion metering device, i.e. TEV, cap tube, or fixed orifice
- System should be operating within its design capacity.
- System should be leak free
- Compressor must be charged with lubricant as required by the OEM
- Suction, discharge and liquid piping must be sized, trapped and insulated for systems temperature and BTU design.

#### **Evaporator temperature range**

-40 °F to 30 °F

#### Oils

MO, AB, POE and PVE

#### **Direct Replacement for Refrigerants**

502, 402A/B, 404A, 408A, 422A, 428A (R-22 in refrigeration\*)

#### Pre and Post conversion data

System information must be recorded for warranty

Go to www.icorinternational.com for complete warranty information

#### Flooded systems

Must be approved by ICOR's Technical Support Supervisor

#### **Conversion considerations**

ONE SHOT is compatible with mineral oil, alkyl benzene and polyol ester. In most cases no change of lubricant is required. Oil return is determined by a number of operating and design conditions. Minor equipment modifications (e.g. seal replacement, TEV adjustment) may be required.



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#### **System Charging**

- 1.Initially Charge 95% of R-502, 110% of 404A, 109% of 507A and 97% of R-22. Do Not exceed 115% of OEM charge
- 2. Remove liquid only from cylinder
- 3. Charge refrigerant in the receiver or high side of the system with the compressor off.
- 4.Run system and add refrigerant if needed to design subcooling. Adjust TEV if needed. Never charge system by clearing sight glass
- 5. For Fixed Metering Device Systems. Charge by compressor superheat

#### **Benefits**

- Lower retrofit costs no POE oil changes
- No line set changes
- Can use R-502/404A TEV and power element
- Can be topped off after leak has been repaired
- 20% lower GWP vs. 404A and 507A
- Significantly lower energy usage vs. 22 in med and low temp refrigeration

#### **Application**

- R-502 low and medium temp refrigeration
- R-404A and 507A low and medium temp refrigeration
- R-22 low and medium temp refrigeration

#### **Performance Comparison**

- Higher than R-502
- Same as 404A and 507A
- Significantly higher than R-22 in refrigeration

\*TEV Power Element must be changed to R-404A/R-507A

EPA Hotline # 800.296.1996 www.epa.gov

### Technical Information ASHRAF Designation

ASHRAE Designation	422C
Environmental Classification	HFC
ASHRAE Standard 34 Safety Classification	A1
EPA/SNAP Accepted (S=Stationary M=Mobile)	S
Ozone Depletion Potential	0
*Global Warming Potential	2794
Oil Compatibilty	All
_Molar Mass Ibm/Ibmol	113.4
Normal Boiling Point (1 atm, °F)	-50.71
Critical Pressure (psia)	547.70
_Critical Temperature (°F)	163.53
Critical Density (lbm/ft3)	33.739
Liquid Density (70 °F, Ibm/ft3)	72.663
Vapor Density (NBP, Ibm/ft3)	0.390
Temperature Glide (NBP)	5
Temperature Glide (100 °F)	3
Pounds Per Gallon (70 °F)	9.71
Maximum Moisture (ppm)	10
_Maximum Non-Condensables (% vol)	1.5
Maximum High Boiling Impurities (% vol)	0.01
Recommended Maximum Exposure Limints in Air (ppm)	1000
R-125 (% Weight)	82
R-134a (% Weight)	15
R-600a (% Weight)	3

Distributed By:

\* Per IPCC AR5

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