RS Series Refrigerants

R-480A (RS-20)

REFRIGERANT SOLUTIONS LTD
RS SERIES
ZERO ODP
DROP-IN
REFRIGERANT

RS-20 (R-480A): Drop-In Replacement for R-134a in Automotive Applications

RS-20 (R-480A) is a high-safety (A1) refrigerant gas designed for the replacement of R-134a. Its main characteristics are based on its low GWP (291), which allows it to be the R-134a substitute for automotive applications with the lowest rate under the fluorinated gas tax, while offering cooling capacity and efficiency similar to R-134a.

Components / Chemical Name:	ASHRAE Code:
RS-20	R-480A

Technical specifications:

0	291	A1	POE
ODP	GWP	Safety classification	Compatible lubricants

Temperature Range: High and Medium

Replacement: R-134a

Type of replacement: Direct Drop-in

Applications:

- Commercial Refrigeration (Preservation)
- Industrial Refrigeration
- A/C Automotive
- Refrigerated Transport
- Chillers

Packaging sizes for R-480A (RS-20):

- Cylinders
- Roll Drums
- ISO Tanks

Instructions:

Charge the system in the liquid phase. When using an automotive gas charging unit, refill the unit's tank when it reaches 50% of its capacity.

Thermodinamic properties chart:

Bubble point

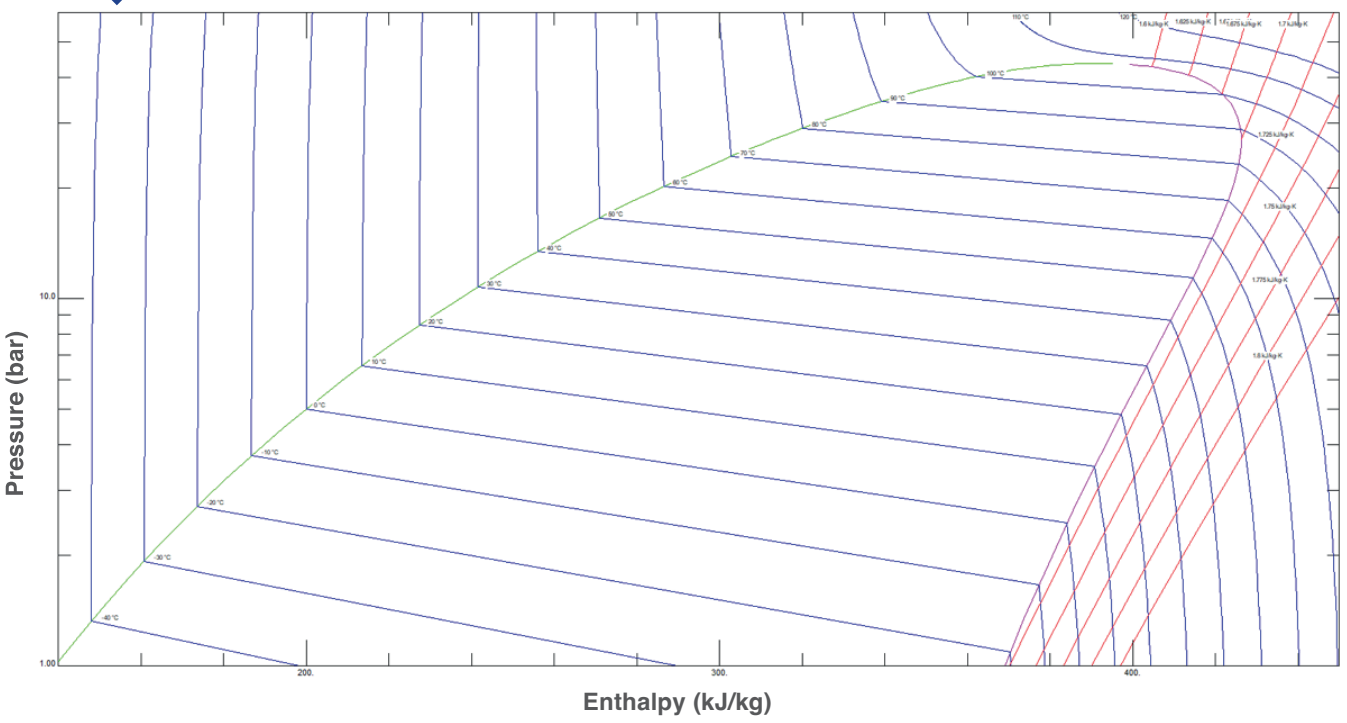
Temperature (ºC)	Absolute pressure (bar)		Liquid density (kg/l)	Gas density (kg/l)	Liquid enthalpy (kJ/kg)		Gas enthalpy (kJ/kg)
-30	0,92	1,339	0,0064	160,7	406,4	0,849	2,003
-25	1,29	1,325	0,0077	167,2	407,4	0,875	1,977
-20	1,71	1,311	0,0092	173,6	408,4	0,900	1,954
-15	2,19	1,296	0,0109	180,1	409,5	0,926	1,933
-10	2,72	1,281	0,0128	186,7	410,7	0,951	1,913
-5	3,32	1,266	0,0150	193,3	411,9	0,976	1,895
0	3,99	1,251	0,0175	200,0	413,2	1,000	1,878
5	4,74	1,235	0,0204	206,7	414,5	1,024	1,863
10	5,56	1,219	0,0236	213,5	415,9	1,048	1,848
15	6,47	1,202	0,0272	220,4	417,2	1,072	1,835
20	7,46	1,185	0,0312	227,4	418,6	1,096	1,823
25	8,55	1,168	0,0357	234,4	420,0	1,119	1,812
30	9,74	1,150	0,0408	241,5	421,3	1,142	1,801
35	11,02	1,131	0,0465	248,7	422,7	1,166	1,791
40	12,42	1,112	0,0529	256,0	423,9	1,189	1,782
45	13,93	1,091	0,0601	263,4	425,2	1,212	1,773
50	15,56	1,070	0,0682	271,0	426,3	1,235	1,764
55	17,31	1,048	0,0772	278,7	427,4	1,258	1,756
60	19,19	1,025	0,0875	286,5	428,3	1,281	1,748

Thermodinamic properties chart:

Dew point

Temperature (ºC)	Absolute pressure (bar)		Liquid density (kg/l)	Gas density (kg/l)	Liquid enthalpy (kJ/kg)		Gas enthalpy (kJ/kg)
-30	-0,31	1,348	0,0038	162,4	363,3	0,835	1,700
-25	-0,13	1,334	0,0047	168,6	366,8	0,860	1,697
-20	0,09	1,320	0,0059	174,9	370,3	0,885	1,694
-15	0,35	1,306	0,0072	181,2	373,8	0,910	1,692
-10	0,66	1,292	0,0087	187,6	377,3	0,935	1,690
-5	1,02	1,277	0,0105	194,0	380,7	0,959	1,689
0	1,44	1,262	0,0126	200,5	384,1	0,983	1,688
5	1,93	1,247	0,0149	207,1	387,5	1,007	1,687
10	2,48	1,231	0,0176	213,7	390,8	1,031	1,687
15	3,12	1,215	0,0207	220,3	394,0	1,054	1,687
20	3,83	1,199	0,0243	227,1	397,2	1,077	1,687
25	4,64	1,182	0,0283	233,9	400,3	1,101	1,687
30	5,55	1,164	0,0328	240,8	403,4	1,124	1,687
35	6,57	1,146	0,0379	247,8	406,4	1,147	1,687
40	7,71	1,128	0,0437	255,0	409,2	1,170	1,687
45	8,97	1,108	0,0503	262,2	411,9	1,193	1,688
50	10,36	1,088	0,0577	269,5	414,5	1,216	1,688
55	11,91	1,066	0,0662	277,0	417,0	1,239	1,688
60	13,60	1,044	0,0758	284,7	419,3	1,262	1,687

Pressure diagram chart:



Normative:

GRIT (Gases Research Innovation & Technology) is committed to the continuous improvement of our inbuilt Quality Control, Environment and Major Accident Prevention Systems as well as close collaboration with our product and service providers. The scope of the system includes the packaging, commercialisation, storage and innovation of technical gases and the management of residual fluorinated gas and halogenated solvents.

All this work is reflected in our certificates ISO 9001 & ISO 14001. GRIT also meets AHRI 700 standard for new and recycled refrigerants.

More information:

If you want more information about our products, contact us.

EUROPE — GRIT, Gases Research Innovation & Technology

BARCELONA

Our plant:
P. I. "El Punsic", parcela 8.3,
08279 Avinyó, Barcelona. Spain.

Our office:
Avda. Diagonal 403, 6º 3ª
08008 Barcelona. Spain.

Phone: (+34) 932 721 400
E-mail: grit@grit.es
Website: www.gasesgrit.com

USA — Summit Refrigerants

HOUSTON

8541 East North Belt
Humble, Texas 77396

Phone: (+1) 281-540-2653
Toll-Free: (+1) 866-971-2653
Fax: (+1) 281-540-0385

DALLAS

2080 McDaniel Drive
Suite 200
Carrollton, Texas 75006

Phone: (+1) 469-458-3195
Fax: (+1) 469-458-3085

BATON ROUGE

10080 Industriplex Avenue
Gonzales, LA 70737

Phone: (+1) 225-744-2653
Fax: (+1) 225-677-6106