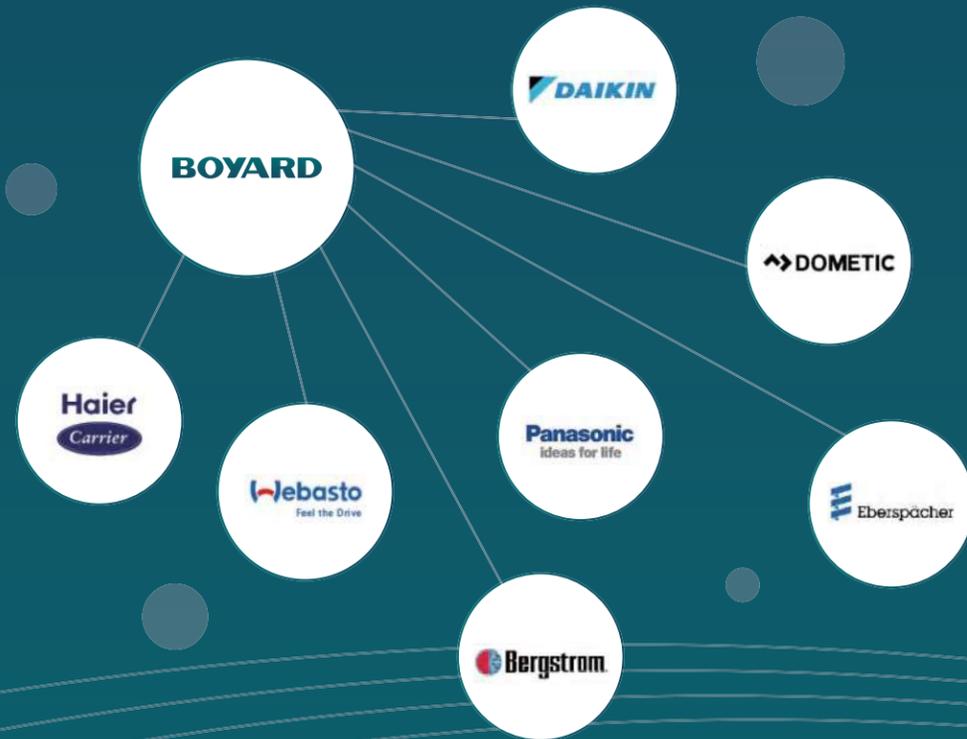
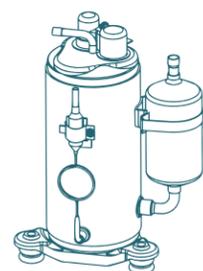


BUSSINESS PARTNER

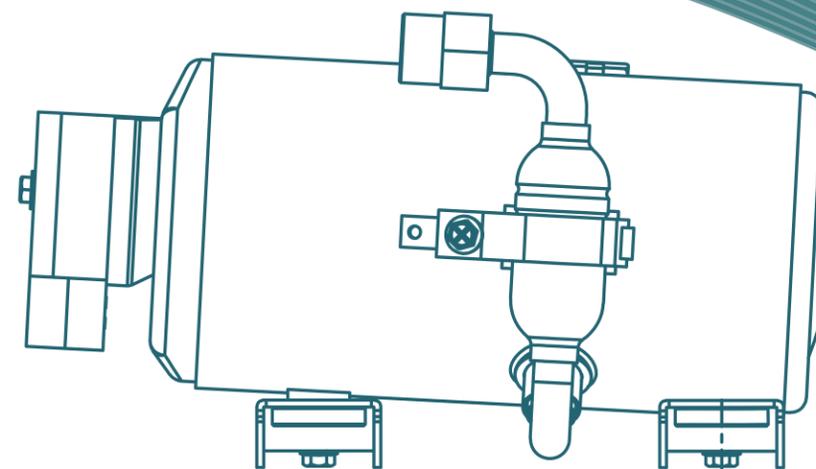


COMPRESSOR CATALOG



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CONTENTS

About Us	03
Milestones	04
Product Features	06
Company Honors	06
Rotary Solutions For Commercial Refrigeration	07
Dc Variable Speed Rotary Solutions	08
Cooling Capacity Range	09
Nomenclature	10
Variable-Speed RV Air Conditioner Compressor	11
Fixed-Speed RV Air Conditioner Compressor	12
Train/Railway Air Conditioner Compressor	13
Truck/Off-Road Vehicle Air Conditioner Compressor	15
Portable Air Conditioner Compressor	16
Other Compressor	17
MBP Air Conditioner Compressor	18
Variable-Speed Transport Refrigeration Compressor	18
Variable-Speed Commercial Refrigeration Compressor	19
Fixed-Speed Commercial Refrigeration Compressor	20

ABOUT US

Boyard Compressor Co., Ltd., established in 2001, is a national high-tech enterprise specializing in the R&D, production, manufacturing, sales, and service of refrigeration compressors for trucks, new energy vehicles, RVs, mobile cold chain transport vehicles, as well as medium-low temperature compressors and condensing units. Adhering to the core corporate values of "integrity, dedication, innovation, and win-win," the company has achieved a leading position in the industry through years of continuous innovation and development.

Rooted in technological innovation and advocating green environmental protection, the company's products have been honored as Zhejiang Famous Brand Products. It operates as a provincial-level high-tech enterprise R&D center and serves as a drafting unit for cold chain compressor standards under the National Household Appliance Standardization Technical Committee. The company was also invited to participate in drafting the "Industry Standard for Liquid-Injected Rotary Compressors for Refrigeration and Freezing." With a strong emphasis on independent innovation, the company has been granted 34 patents by the National Patent Office, including 7 invention patents and 29 utility model patents. The company covers an area of 33,000 m² with a building area of 21,000 m² and employs nearly 300 people.

Equipped with modern standard workshops, a technical R&D center, and advanced testing facilities, it holds an industrial product production license and has an annual production capacity of 1 million rotary compressors. The company has established a comprehensive product quality assurance system and an environmental management system, certified with IATF 16949 quality system certification, ISO 14001 environmental management system certification, as well as CCC, CE, UL, RoHS, REACH, and other certifications.

Adhering to the principle of "quality first, reputation first," the company leverages scientific management and strong technical capabilities to continuously deepen reforms, innovate mechanisms, adapt to the market, and achieve comprehensive development. It continually expands the application fields of compressors, which are widely used in commercial refrigerated counters, logistics cold chains, cold storage, dehumidification and drying equipment, liquid cooling, battery thermal management, new energy vehicles, trucks, ships, and other diverse areas. With excellent product cost-effectiveness and a comprehensive after-sales service system, the company has established strong cooperative relationships with numerous domestic and international clients, exporting products to the EU, North America, Australia, the Middle East, Southeast Asia, South Africa, South America, and other regions and countries.



MILESTONES

2001

Company founded. Developed high-efficiency rotary compressors (PRESwR, 318)

2004

Successfully developed medium-low temperature compressors and horizontal vehicle air conditioner compressors

2006

Achieved product transformation, focusing on specialized compressors and units as leading products

2010

Established provincial R&D center. Recognized as a National High-Tech Enterprise

2013

DC inverter compressors for pure electric vehicles put into production

2018

R134a/R410A production lines put into use

2025

Continue to advance the lightweighting and miniaturization of compressors

2002

Company passed ISO9001 quality system certification

2005

Company's main products obtained CCC/CE/TUV/RoHS/IES certifications

2008

Successfully developed DC12/24/48V TBARS IARI series compressors

2012

Invested in production technology upgrades, achieving an annual capacity of 1 million units.

2016

IATF 16949 (formerly TS16949) quality system fully implemented

2022

R290 models fully applied

FEATURES



Commercial Refrigeration Compressor

- Complete series, power range from 1/3HP to 3HP
- High efficiency, low power consumption, compact design
- Dual rotary structure option available
- High temperature resistance, high reliability
- Horizontal structure provides more display space



Transport Refrigeration Compressor

- Horizontal low-height design
- DC12V/24V/48V/312V power supply
- Adapts to various road conditions
- Suitable for multiple types of vehicles
- High temperature resistance, high durability



Caravan & RV A/C Compressor

- Capable of adapting to vibration and various road conditions
- AC or DC12V/24V/48V/312V power supply options available
- Horizontal low-height design
- Dual rotary structure, low noise and vibration



Truck & Off-Road Vehicle A/C Compressor

- Capable of adapting to vibration and various road conditions
- DC12V/24V/48V/72V/96V/312V power supply
- High-strength connections, high protection rating
- Full series features dual rotary structure, low noise and vibration

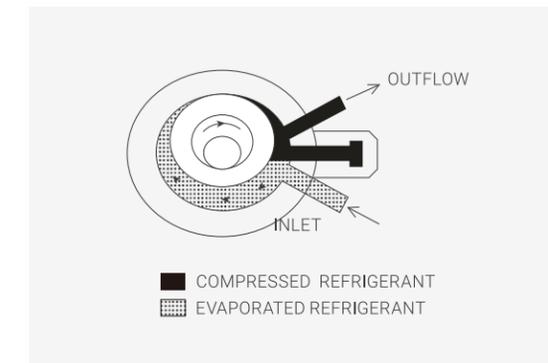
ROTARY SOLUTIONS FOR COMMERCIAL REFRIGERATION

Features

- Higher efficiency compared with reciprocating
- Liquid injecting technique to prevent overheating
- Low vibration and noise thanks to twin rotary technique
- Horizontal low profile available

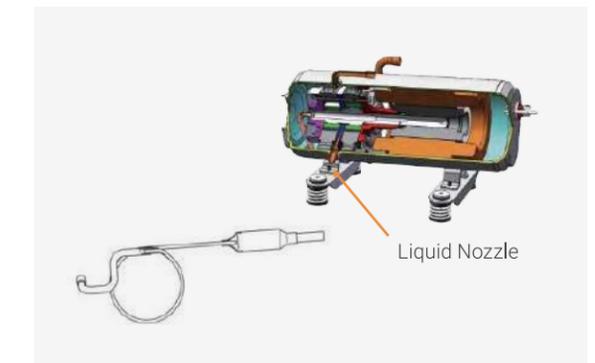
Higher Efficiency

Due to mechanism difference, rotary compressor has higher volumetric efficiency than reciprocating ones, leads to 20% higher cooling capacity with same displacement.



Liquid Injecting Technique

Liquid refrigerant from system high pressure side being piped into the compression chamber, cool down the key components and oil, prevent compressor from overheating in high compression ratio working status.



Horizontal Low Profile

Optimized and mature horizontal rotary series help to save space for displaying



Refrigeration Solution

The whole process from transportation to end market



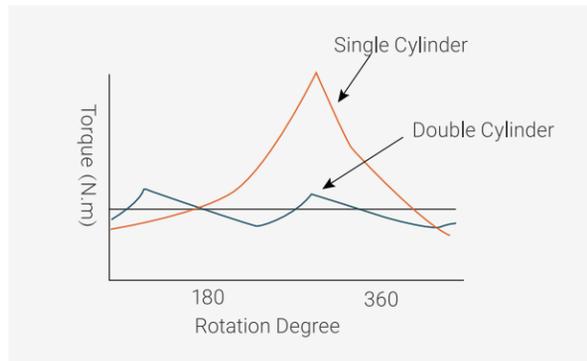
DC VARIABLE SPEED ROTARY SOLUTIONS

Key Features

- Design for various road conditions
- Low vibration and noise thanks to twin rotary technique
- High efficiency and wide RPM range
- Robust and high reliability

Twin Rotary

Two 180° opposite compression chamber drastically improves the dynamic balancing and torque ripple characteristics, improves mechanical efficiency, helps to provide a silent operation and broad rpm range.



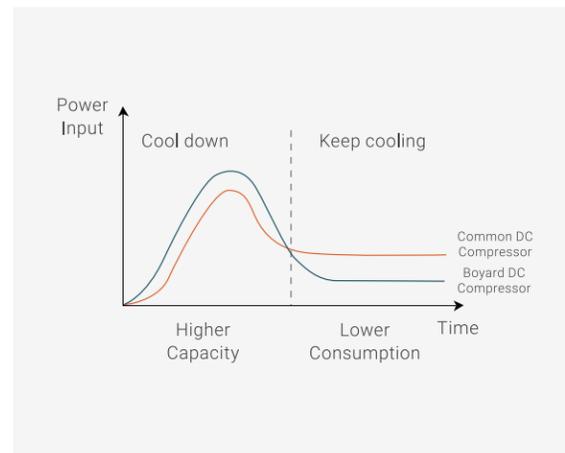
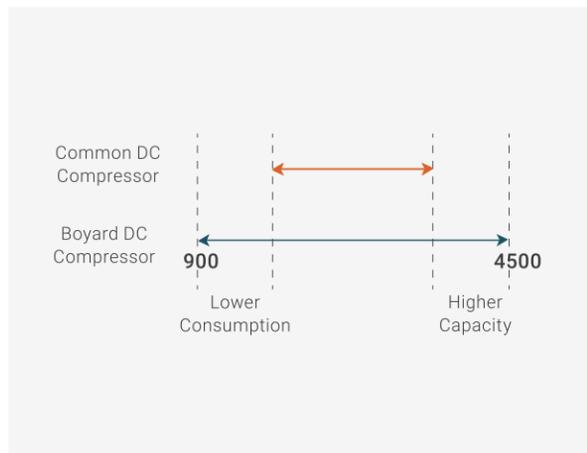
Reliable Oil Supply

Mature oil supplying mechanism to pump oil into cylinder within maximum 45° angel, working on a ramp would not be problem.



Wide RPM Range

Lower minimum speed helps to save energy, especially critical when powered by lithium battery. Higher RPM brings faster cooling experience.



COOLING CAPACITY RANGE

HBP

	1KW	2KW	3KW	4KW	5KW	6KW	7KW
Fixed Speed		1.1-5.9 KW					
Variable Speed	0.6-6.0 KW						

MBP

	1KW	2KW	3KW	4KW	5KW	6KW	7KW
Fixed Speed		1.0-5.3 KW					
Variable Speed	0.9-5.7 KW						

LBP

	0.5KW	1KW	1.5KW	2KW	2.5KW	3KW	3.5KW
Fixed Speed		0.8-3.0 KW					
Variable Speed	0.9-3.2 KW						

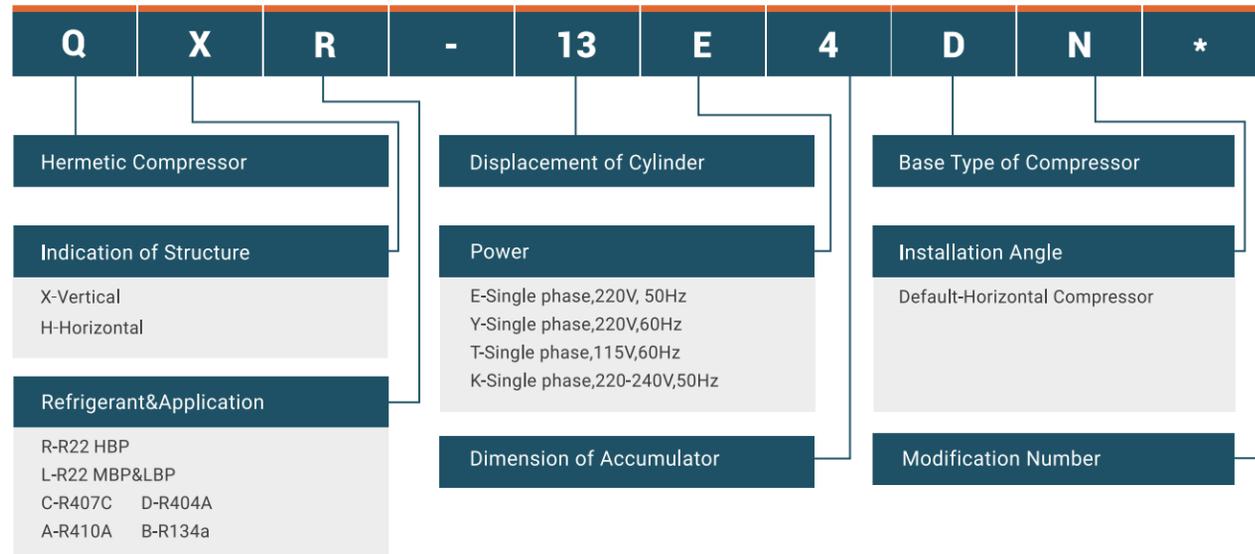
Test Conditions

Test Condition	Evaporating Temp.	Condensing Temp.	Suction Temp.	Liquid Temp.
HBP	7.2 C	54.5 C	18.3 C	46.1 C
MBP	-6.7 C	54.5 C	18.3 C	32.2 C
LBP	-23.3 C	54.5 C	18.3 C	32.2 C

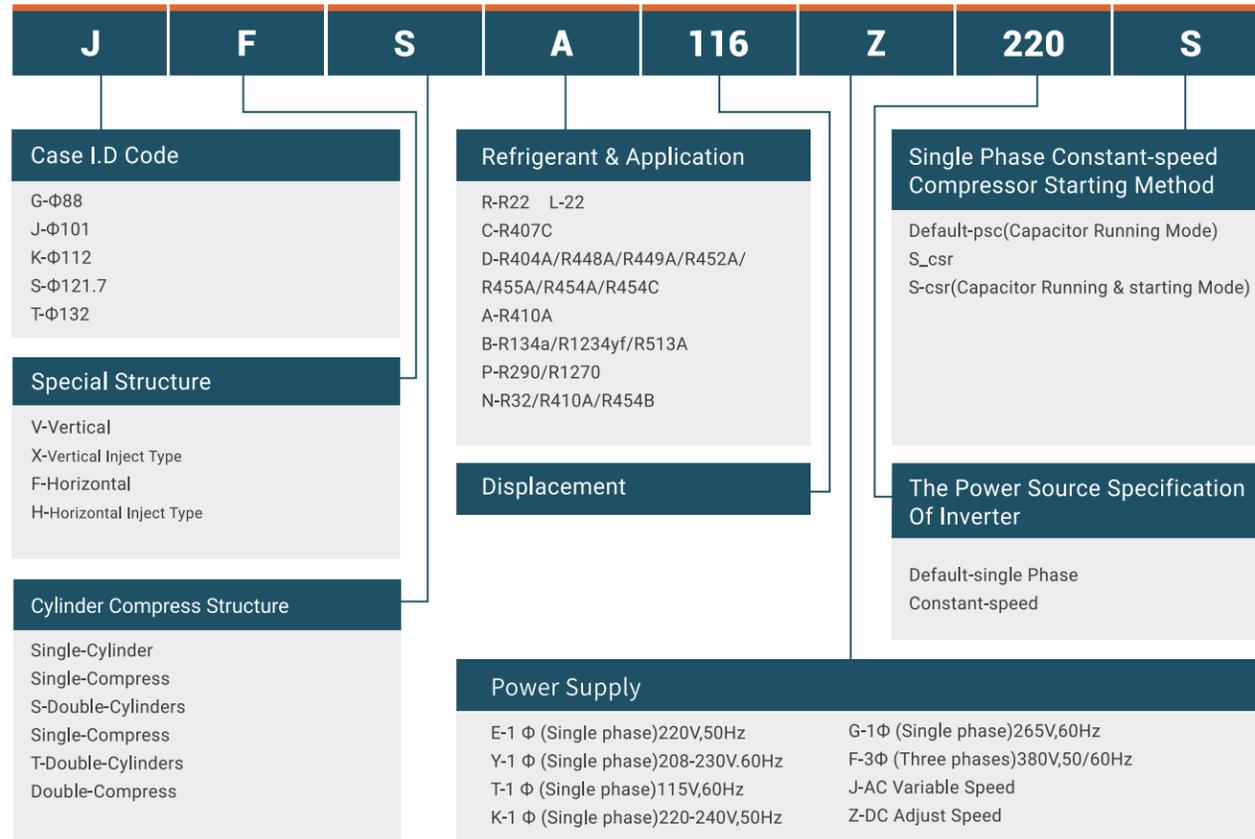


NOMENCLATURE

Naming Method 1



Naming Method 2



PERFORMANCE PARAMETERS

Variable-Speed RV Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Speed Range (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290/R513A/R1234yf/R1270 1PH DC312V												
JFSP116Z312	11.6	2000	6860	635	2.1	3.15	3600	900-5400	115	HBP	H	2
JFSP150Z312	15.0	2600	8920	825	2.7	3.20	3600	900-5400	115	HBP	H	2
JFSP180Z312	18.0	3200	10975	1000	3.3	3.20	3600	900-4500	115	HBP	H	2
JVSP116Z312	11.6	2000	6860	635	2.9	3.15	3600	900-5400	250	HBP	V	2
JVSP150Z312	15.0	2600	8920	825	3.8	3.15	3600	900-5400	250	HBP	V	2
R32/R454B/R410A DC312V												
GFSN075Z312	7.5	2315	7940	785	2.6	2.95	3600	900-5400	101	HBP	H	2
JFSN116Z220	11.6	3650	12520	1175	5.4	3.10	3600	900-5400	115	HBP	H	2
JFSN150Z220	15.0	4850	16635	1600	7.3	3.05	3600	900-4500	115	HBP	H	2
GVSNO65Z312	6.5	2050	7030	695	2.3	2.95	3600	900-5400	220	HBP	V	2
R32/R454B/R410A DC160V												
GFSN075Z160	7.5	2315	7940	785	5.0	2.95	3600	900-5400	101	HBP	H	2
JFSN116Z160	11.6	3650	12520	1175	7.4	3.10	3600	900-5400	115	HBP	H	2
R32/R454B/R410A DC48V												
GFSN075Z48	7.5	2315	7940	785	17.0	2.95	3600	900-5400	101	HBP	H	2
JFSN116Z48	11.6	3650	12520	1175	25.0	3.10	3600	900-5400	115	HBP	H	2
JFSN150Z48	15.0	4850	16635	1600	34.0	3.05	3600	900-4500	115	HBP	H	2
R410A DC312V												
JFSA116Z220	11.6	3395	11645	1130	5.2	3.00	3600	900-5400	140	HBP	H	2
R134a/R1234yf/R513A DC48V												
JFSB180Z48	18.0	2420	8300	768	16.0	3.15	3600	900-4500	146	HBP	H	2
KFSB300Z48	30.0	5250	18000	1750	36.5	3.00	4500	900-5400	177	HBP	H	2
R134a/R1234yf/R513A DC12V												
JFSB150Z12	15.0	2100	7200	725	60.5	2.95	3600	900-4000	146	HBP	H	2

Fixed-Speed RV Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290/R513A/R1234yf/R1270 1PH 220-240V ~ 50Hz										
KFSP138K	13.8	2070	7100	650	3.0	3.20	148	HBP	H	2
KFSP203K	20.3	3050	10460	955	4.4	3.20	148	HBP	H	2
JFP075K	7.5	1100	3770	370	1.8	3.00	140	HBP	H	1
KFP113K	11.3	1690	5790	520	2.4	3.25	148	HBP	H	1
KFP142K	14.2	2130	7300	655	3.0	3.25	148	HBP	H	1
KFP164K	16.4	2470	8470	760	3.5	3.25	148	HBP	H	1
R32/R454B/R410A 1PH 115V ~ 60Hz										
JFN058T	5.8	1780	6100	630	5.6	2.85	140	HBP	H	1
JFN075T	7.5	2320	7950	815	7.3	2.85	140	HBP	H	1
KFN088T	8.8	2710	9290	950	8.3	2.85	148	HBP	H	1
KFN092T	9.2	2850	9770	1000	8.8	2.85	148	HBP	H	1
KFN113T	11.3	3500	12000	1230	10.9	2.85	148	HBP	H	1
R32/R454B/R410A 1PH 220-240V ~ 50Hz										
KFN113K *S	11.0	2780	9530	975	4.6	2.85	148	HBP	H	2
KFSN138K	13.8	3560	12200	1250	5.8	2.85	148	HBP	H	2
JFN058K	5.8	1555	5330	545	2.5	2.85	140	HBP	H	1
JFN065K	6.5	1750	6000	610	2.9	2.85	140	HBP	H	1
KFN088K	8.8	2220	7610	780	3.6	2.85	148	HBP	H	1
KFN102K	10.2	2570	8810	900	4.2	2.85	148	HBP	H	1
KFN113K	11.3	2850	9770	1000	4.7	2.85	148	HBP	H	1
KFN125K	12.5	3250	11140	1140	5.4	2.85	148	HBP	H	1
SFN138K	13.5	3420	11730	1200	5.7	2.85	154	HBP	H	1
JVN086K	8.6	2250	7710	785	3.8	2.87	270	HBP	V	1
SVN120K	12.0	3050	10460	1070	5.2	2.75	240	HBP	V	1
R32/R454B/R410A 1PH 208-230V ~ 60Hz										
JFN058Y	5.8	1780	6100	630	2.9	2.80	140	HBP	H	1
KFN088Y	8.8	2710	9290	950	4.3	2.85	148	HBP	H	1
KFN092Y	9.2	2850	9770	1000	4.7	2.85	148	HBP	H	1
KFN113Y	11.3	3500	12000	1230	5.6	2.85	148	HBP	H	1

Fixed-Speed RV Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R32/R454B/R410A 1PH 265V ~ 60Hz										
JFN058G	5.8	1780	6100	630	2.5	2.80	140	HBP	H	1
KFN088G	8.8	2710	9290	950	3.7	2.85	148	HBP	H	1
KFN092G	9.2	2850	9770	1000	3.9	2.85	148	HBP	H	1
KFN113G	11.3	3500	12000	1230	4.8	2.85	148	HBP	H	1
R410A 1PH 115V ~ 60Hz										
JFA058T	5.8	1680	5760	600	5.3	2.85	140	HBP	H	1
JFA075T	7.5	2180	7470	780	6.9	2.85	140	HBP	H	1
KFA092T	9.2	2710	9290	950	8.5	2.85	148	HBP	H	1
KFA102T	10.2	2960	10150	1040	9.3	2.85	148	HBP	H	1
KFA113T	11.3	3280	11250	1150	10.3	2.85	148	HBP	H	1
SFA138T	13.5	3910	13400	1370	12.3	2.85	154	HBP	H	1
R410A 1PH 220-240V ~ 50Hz										
KFSA138K	13.8	3350	11490	1175	5.4	2.85	148	HBP	H	2
R410A 1PH 208-230V ~ 60Hz										
JFA058Y	5.8	1680	5760	600	2.8	2.80	140	HBP	H	1
JFA075Y	7.5	2180	7470	780	3.6	2.80	140	HBP	H	1
KFA092Y	9.2	2710	9290	950	4.4	2.85	148	HBP	H	1
KFA102Y	10.2	2960	10150	1040	4.8	2.85	148	HBP	H	1
KFA113Y	11.3	3280	11250	1150	5.4	2.85	148	HBP	H	1
SFA138Y	13.5	3910	13410	1370	6.4	2.85	154	HBP	H	1
R410A 1PH 265V ~ 60Hz										
JFA058G	5.8	1680	5760	630	2.3	2.80	140	HBP	H	1
JFA075G	7.5	2180	7470	780	3.0	2.80	140	HBP	H	1
KFA092G	9.2	2710	9290	950	3.6	2.85	148	HBP	H	1
KFA102G	10.2	2960	10150	1040	4.0	2.85	148	HBP	H	1
KFA113G	11.3	3280	11250	1150	4.5	2.85	148	HBP	H	1
SFA138G	13.5	3910	13410	1370	5.3	2.85	154	HBP	H	1

Fixed-Speed RV Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R134a 1PH 115V ~ 60Hz										
SFB236T	23.6	3200	10970	1085	9.6	2.95	154	HBP	H	1
R407C 1PH 220-240V ~ 50Hz										
QHC-10K	9.2	1580	5420	540	2.6	2.90	148	HBP	H	1
QHC-13K	13.4	2120	7270	730	3.4	2.90	148	HBP	H	1
QHC-16K	16.4	2750	9430	930	4.4	2.95	148	HBP	H	1
QHC-19K	19.2	3200	10970	1100	5.1	2.91	154	HBP	H	1
QHC-23K	23.6	3830	13130	1280	6.0	2.99	154	HBP	H	1
QHC-30K	30.7	5080	17420	1800	8.6	2.83	195	HBP	H	1
QHC-36K	35.7	5960	20440	2090	9.8	2.85	195	HBP	H	1
R407C 1PH 220-240V ~ 50Hz										
SFC236F	23.6	3850	13200	1350	3.1	2.85	160	HBP	H	1
TFC307F	30.7	5130	17590	1800	3.3	2.85	170	HBP	H	1

Train/Railway Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R407C/R134a 3PH 380V ~ 50Hz										
SFC236F	23.6	3850	13200	1350	3.1	2.85	160	HBP	H	1
TFC307F	30.7	5130	17590	1800	3.3	2.85	170	HBP	H	1

Truck/Off-Road Vehicle Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Speed Range (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R32/R454B/R410A DC12V												
GFSN065Z12	6.5	2050	7030	720	61.0	2.85	3600	900-4800	101	HBP	H	2
R32/R454B/R410A DC24V												
GFSN075Z24	7.5	2315	7940	785	33.5	2.95	3600	900-4800	101	HBP	H	2
JFSN116Z24	11.6	3650	12520	1250	54.0	3.00	3600	900-5000	113	HBP	H	2
R32/R454B/R410A DC48V												
GFSN075Z48	7.5	2315	7940	785	17.0	2.95	3600	900-5400	101	HBP	H	2
JFSN116Z48	11.6	3650	12520	1250	26.0	3.00	3600	900-5400	113	HBP	H	2
R134a/R1234yf/R513A DC12V												
JFSB116Z12	11.6	1605	5480	555	46.3	2.90	3600	900-4800	146	HBP	H	2
JVSB116Z12	11.6	1605	5480	555	46.3	2.90	3600	900-4000	256	HBP	V	2
JFSB150Z12	15.0	2100	7200	725	60.5	2.95	3600	900-4000	146	HBP	H	2
JVSB150Z12	15.0	2100	7200	725	62.0	2.90	3600	900-4000	256	HBP	V	2
R134a/R1234yf/R513A DC24V												
JFSB150Z24	15.0	2100	7200	656	27.5	3.20	3600	900-4800	115	HBP	H	2
JVSB150Z24	15.0	2100	7200	675	28.0	3.10	3600	900-4000	256	HBP	V	2
JFSB180Z24	18.0	2500	8570	785	32.0	3.20	3600	900-4800	115	HBP	H	2
JVSB180Z24	18.0	2420	8300	780	32.5	3.10	3600	900-4800	256	HBP	V	2
R134a/R1234yf/R513A DC48V												
JFSB150Z48	15.0	2100	7200	656	14.0	3.20	3600	900-4800	115	HBP	H	2
JVSB150Z48	15.0	2100	7200	665	13.8	3.15	3600	900-4500	256	HBP	V	2
JFSB180Z48	18.0	2500	8575	785	16.0	3.20	3600	900-4800	115	HBP	H	2
JVSB180Z48	18.0	2420	8300	768	16.0	3.15	3600	900-4800	256	HBP	V	2
KFSB300Z48	30.0	4200	14400	1400	30.0	3.00	3600	900-5400	145	HBP	H	2
R407C/R134a/R22 DC48V												
KVSC300Z48	30.0	6000	20580	2100	44.0	2.85	3600	900-5400	340	HBP	V	2

Portable Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Speed Range (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290/R513A/R1234yf/R1270 DC24V												
GFSP040Z24	4.0	695	2380	235	10.0	2.95	3600	900-5400	101	HBP	H	2
GFSP075Z24	7.5	1375	4715	450	19.3	3.05	3600	900-5400	101	HBP	H	2
GVSP040Z24	4.0	695	2380	235	10.0	2.95	3600	900-5400	198	HBP	V	2
GVSP075Z24	7.5	1375	4715	450	19.3	3.05	3600	900-5400	198	HBP	V	2
R290/R513A/R1234yf/R1270 DC48V												
GFSP040Z48	4.0	695	2380	235	5.0	2.95	3600	900-5400	101	HBP	H	2
GFSP075Z48	7.5	1375	4715	450	10.0	3.05	3600	900-5400	101	HBP	H	2
GVSP040Z48	4.0	695	2380	235	5.0	2.95	3600	900-5400	198	HBP	V	2
GVSP065Z48	6.5	1190	4060	390	8.3	3.05	3600	900-5400	198	HBP	V	2
GVSP075Z48	7.5	1375	4715	450	10.0	3.05	3600	900-5400	198	HBP	V	2
GVSP096Z48	9.6	1740	5960	570	12.0	3.05	3600	900-5400	205	HBP	V	2
R32/R454B/R410A DC24V												
GFSN040Z24	4.0	1220	4180	420	18.0	2.90	3600	900-5400	101	HBP	H	2
GVSN040Z24	4.0	1220	4180	420	18.0	2.90	3600	900-5400	225	HBP	V	2
R32/R454B/R410A DC48V												
GFSN040Z48	4.0	1220	4180	420	9.0	2.90	3600	900-5400	101	HBP	H	2
GVSN040Z48	4.0	1220	4180	420	9.0	2.90	3600	900-5400	225	HBP	V	2
R134a/R1234yf/R152a DC24V												
GFSB040Z24	4.0	605	2075	205	8.8	2.95	3600	900-5400	101	HBP	H	2
GFSB075Z24	7.5	1040	3560	330	14.0	3.15	3600	900-5400	101	HBP	H	2
GVSB040Z24	4.0	605	2075	205	8.8	2.95	3600	900-5400	198	HBP	V	2
GVSB075Z24	7.5	1040	3560	330	14.0	3.15	3600	900-5400	198	HBP	V	2
R134a/R1234yf/R152a DC48V												
GFSB040Z48	4.0	605	2075	205	4.5	2.95	3600	900-5400	101	HBP	H	2
GFSB075Z48	7.5	1040	3560	330	7.0	3.15	3600	900-5400	101	HBP	H	2
GVSB040Z48	4.0	605	5075	205	4.5	2.95	3600	900-5400	198	HBP	V	2
GVSB075Z48	7.5	1040	3560	330	7.0	3.15	3600	900-5400	198	HBP	V	2

Other Compressor

Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R407C 1PH 220-240V ~ 50Hz										
QXC-13K	13.5	2260	7750	760	3.6	2.97	300	HBP	V	1
QXC-16K	16.4	2670	9160	900	4.1	2.97	300	HBP	V	1
QXC-19K	19.2	3200	10970	1060	5.0	3.02	315	HBP	V	1
QXC-21K	20.8	3500	12000	1180	5.6	2.97	330	HBP	V	1
QXC-23K	23.5	3900	13370	1320	6.0	2.95	330	HBP	V	1
QXC-30K	30.7	5080	17420	1710	8.1	2.97	340	HBP	V	1
QXC-36K	35.7	5960	20440	2030	9.8	2.94	340	HBP	V	1
R22 1PH 220V ~ 50Hz										
QHR-13E	13.5	2250	7710	750	3.5	3.00	180	HBP	H	1
QHR-16E	16.4	2800	9600	950	4.5	2.95	180	HBP	H	1
QHR-19E	19.6	3250	11140	1120	5.1	2.90	190	HBP	H	1
QHR-23E	23.6	3920	13440	1360	6.3	2.88	190	HBP	H	1
QXR-13E	13.5	2280	7820	740	3.5	3.08	300	HBP	V	1
QXR-16E	16.4	2800	9600	910	4.2	3.08	300	HBP	V	1
QXR-19E	19.2	3250	11140	1070	5.0	3.04	310	HBP	V	1
QXR-21E	20.8	3520	12070	1180	5.6	2.98	330	HBP	V	1

MBP Air Conditioner Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290/R513A/R1234yf/R1270/R134a 1PH 220-240V ~ 50Hz										
SVP120K	12.0	1010	3465	530	2.5	1.90	245	MBP	V	1
SVP150K	15.0	1300	4460	635	3.0	2.05	245	MBP	V	1

Variable-Speed Transport Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Speed Range (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R134a/R1234yf /R513A DC 12V												
JFSB116Z12	11.6	916	3125	508	42.5	1.80	3600	900~4000	146	MBP	H	2
JFSB150Z12	15.0	1175	4009	655	54.6	1.80	3600	900~4000	146	MBP	H	2
R134a/R1234yf/R513A DC 24V												
JFSB116Z24	11.6	916	3125	458	19.0	2.00	3600	900~4500	146	MBP	H	2
JFSB150Z24	15.0	1175	4009	590	24.6	2.00	3600	900~4500	146	MBP	H	2
JFSB180Z24	18.0	1400	4777	700	29.2	2.00	3600	900~4500	146	MBP	H	2
R134a/R1234yf /R513A DC 48V												
JFSB116Z48	11.6	916	3125	436	9.1	2.10	3600	900~4500	146	MBP	H	2
JFSB150Z48	15.0	1175	4009	560	11.7	2.10	3600	900~4500	146	MBP	H	2
JFSB180Z48	18.0	1400	4777	665	13.9	2.10	3600	900~4500	146	MBP	H	2
R404A/R448A/R449A/455A DC 48V												
JHSD116Z48	11.6	1535	5237	930	19.5	1.65	3600	1800~4500	150	MBP	H	2
	11.6	880	3003	770	16.0	1.14				LBP		
KXSD300Z48	30.0	3900	13307	2300	48.0	1.70	3600	900~5400	340	MBP	V	2
	30.0	2250	7677	1875	39.0	1.20				LBP		
KHSD300Z48	30.0	3900	13307	2300	48.0	1.70	3600	900~5400	166	MBP	H	2
	30.0	2250	7677	1875	39.0	1.20				LBP		
R410A/R32 DC48V												
JHSN116Z48	11.6	2250	7677	1185	25.0	1.90	3600	1800~4800	150	MBP	H	2
		1035	3531	1078	23.0	0.96				LBP		
R404A/R448A/R449A/455A DC 144V												
JHSD116Z144	11.6	1600	5459	889	6.2	1.80	3600	1800~4500	150	MBP	H	2
		915	3122	740	5.2	1.25				LBP		
JHSD150Z144	15.0	2070	7063	1150	8.0	1.80	3600	1800~4500	150	MBP	H	2
		1180	4026	945	6.0	1.25				LBP		

Variable-Speed Commercial Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Speed Range (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R404A/R448A/R449A/455A DC 312V												
JXSD150Z312	15.0	2070	7063	1150	3.8	1.80	3600	1800~4800	300	MBP	V	2
		1180	4026	945	3.1	1.25				LBP		
JHSD150Z312	15.0	2070	7063	1150	3.8	1.80	3600	1800~4800	150	MBP	H	2
		1180	4026	945	3.1	1.25				LBP		
KXSD203Z312	20.3	2800	9554	1550	5.0	1.80	3600	1800~4800	350	MBP	V	2
		1590	5425	1270	4.1	1.25				LBP		
KHSD203Z312	20.3	2800	9554	1550	5.0	1.80	3600	1800~4800	180	MBP	H	2
		1590	5425	1270	4.1	1.25				LBP		
KXSD300Z312	30.0	3900	13307	2300	7.4	1.70	3600	1800~4800	350	MBP	V	2
		2250	7677	1890	6.1	1.20				LBP		
KHSD300Z312	30.0	3900	13307	2300	7.4	1.70	3600	1800~4800	180	MBP	H	2
		2250	7677	1890	6.1	1.20				LBP		
TXSD456Z312	45.6	5700	19448	3560	11.2	1.60	3600	1800~4800	450	MBP	V	2
		3200	10918	2900	9.2	1.10				LBP		
THSD456Z312	45.6	5700	19448	3560	11.2	1.60	3600	1800~4800	200	MBP	H	2
		3200	10918	2900	9.2	1.10				LBP		
R290 DC 312V												
JXSP150Z312	15.0	1800	6142	818	2.6	2.20	3600	1800~5400	243	MBP	V	2
		1000	3412	740	2.3	1.35				LBP		
JHSP150Z312	15.0	1800	6142	818	2.6	2.20	3600	1800~5400	170	MBP	H	2
		1000	3412	740	2.3	1.35				LBP		
KXSP203Z312	20.3	2430	8286	1130	3.6	2.15	3600	1800~5400	300	MBP	V	2
		1350	4603	1000	3.2	1.35				LBP		
KHSP203Z312	20.3	2430	8286	1130	3.6	2.15	3600	1800~5400	185	MBP	H	2
		1350	4603	1000	3.2	1.35				LBP		
KXSP300Z312	30.0	3500	11935	1750	5.6	2.00	3600	1800~4800	300	MBP	V	2
		1975	6479	1520	4.8	1.30				LBP		
KHSP300Z312	30.0	3500	11935	1750	5.6	2.00	3600	1800~4800	185	MBP	H	2
		1975	6479	1520	4.8	1.30				LBP		

Fixed-Speed Commercial Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R404A/R448A/R449A/R455A/R454C/R452A 1PH 220-240V ~ 50Hz											
QXD-13K	13.5	1700	5800	850	3.9	2.00	2850	310	MBP	V	1
		820	2798	780	3.6	1.05					
QHD-13K	13.5	1700	5800	850	3.9	2.00	2850	185	MBP	H	1
		820	2798	780	3.6	1.05					
QXD-16K	16.4	2070	7063	1035	4.9	2.00	2850	310	MBP	V	1
		1000	3412	950	4.5	1.05					
QHD-16K	16.4	2070	7063	1035	4.9	2.00	2850	185	MBP	H	1
		1000	3412	950	4.5	1.05					
KXSD176KS	17.6	2220	7575	1140	5.3	1.94	2850	310	MBP	V	2
		1080	3685	1000	4.8	1.08					
KXSD203KS	20.3	2480	8462	1240	5.7	2.00	2850	345	MBP	H	2
		1200	4094	1060	4.8	1.13					
KHSD203KS	20.3	2480	8462	1240	5.7	2.00	2850	185	MBP	H	2
		1200	4094	1060	4.8	1.13					
QXD-23K	23.6	2780	9485	1545	7.3	1.80	2850	330	MBP	V	1
		1450	4947	1380	6.5	1.05					
QHD-23K	23.6	2780	9485	1545	7.3	1.80	2850	195	MBP	H	1
		1450	4947	1380	6.5	1.05					
QXD-30K	30.7	3200	10918	1883	8.7	1.70	2850	340	MBP	V	1
		1800	6142	1714	8.0	1.05					
QHD-30K	30.7	3200	10918	1883	8.7	1.70	2850	195	MBP	H	1
		1800	6142	1714	8.0	1.05					
THSD329KS	32.9	3400	11601	2000	9.3	1.70	2850	200	MBP	H	2
		1850	6312	1762	8.0	1.05					
QXD-36K	35.7	3720	12693	2190	10.3	1.70	2850	340	MBP	V	1
		2085	7114	1986	9.3	1.05					
QHD-36K	35.7	3720	12693	2190	10.3	1.70	2850	195	MBP	H	1
		2085	7114	1986	9.3	1.05					
TXSD456KS	45.6	4710	16071	2771	12.9	1.70	2850	435	MBP	V	2
		2530	8632	2400	11.4	1.05					
THSD456KS	45.6	4710	16071	2771	12.9	1.70	2850	200	MBP	H	2
		2530	8632	2400	11.4	1.05					

Fixed-Speed Commercial Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R404A/R448A/R449A/R455A/R454C/R452A 1PH 208-230V ~ 60Hz											
KXD135YS	13.5	2050	6995	1025	4.8	2.00	3460	310	MBP	V	1
		950	3241	905	4.3	1.05					
KHD135YS	13.5	2050	6995	1025	4.8	2.00	3460	185	MBP	H	1
		950	3241	905	4.3	1.05					
KXD164YS	16.4	2500	8530	1250	5.8	2.00	3460	310	MBP	V	1
		1230	4197	1130	5.3	1.08					
KHD164YS	16.4	2500	8530	1250	5.8	2.00	3460	185	MBP	H	1
		1230	4197	1130	5.3	1.08					
KXSD176YS	17.6	2550	8701	1315	6.1	1.94	3460	310	MBP	V	2
		1360	4640	1160	5.4	1.17					
KXSD203YS	20.3	2964	10113	1520	13.5	1.95	3460	345	MBP	V	2
		1625	5545	1300	12.2	1.25					
KHSD203YS	20.3	2888	9854	1520	13.5	1.90	3460	185	MBP	H	2
		1560	5523	1300	12.2	1.20					
SXD236YS	23.6	3350	11430	1862	8.6	1.80	3460	330	MBP	V	1
		1760	6005	1660	7.5	1.06					
SHD236YS	23.6	3350	11430	1862	8.6	1.80	3460	195	MBP	H	1
		1760	6005	1660	7.5	1.06					
TXD307YS	30.7	3775	12880	2221	10.0	1.70	3460	340	MBP	V	1
		2185	7455	1980	9.6	1.10					
THD307YS	30.7	3775	12880	2221	10.0	1.70	3460	195	MBP	H	1
		2185	7455	1980	9.6	1.10					
THSD329YS	32.9	4182	14269	2460	11.5	1.70	3460	195	MBP	H	1
		2205	7523	2100	10.1	1.05					
TXD357YS	35.7	4390	14979	2582	12.3	1.70	3460	340	MBP	V	1
		2540	8666	2300	11.0	1.10					
THD357YS	35.7	4390	14979	2582	12.3	1.70	3460	195	MBP	H	1
		2540	8666	2300	11.0	1.10					
TXSD456YS	45.6	5528	18862	3350	15.6	1.65	3460	435	MBP	V	2
		3000	10236	2857	13.3	1.05					
THSD456YS	45.6	5275	17998	3450	16.3	1.53	3460	200	MBP	H	2
		2900	9889	2750	13.0	1.05					

Fixed-Speed Commercial Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R404A&R448A&R449A&455A 1PH 115V ~ 60Hz											
KXSD110TS	11.0	1600	5459	800	7.0	2.00	3460	330	MBP	V	2
		880	3003	704	6.3	1.25					
KHSD110TS	11.0	1565	5340	803	7.0	1.95	3460	180	MBP	H	2
		850	2900	708	6.5	1.20					
KXSD176TS	17.6	2575	8786	1288	11.5	2.00	3460	320	MBP	V	2
		1275	4350	927	8.3	1.25					
KHSD176TS	17.6	2520	8598	1292	11.5	1.95	3460	185	MBP	H	2
		1232	4204	1026	9.2	1.20					
KXSD203TS	20.3	2964	10113	1520	13.5	1.95	3460	345	MBP	V	2
		1625	5545	1300	12.2	1.25					
KHSD203TS	20.3	2888	9854	1520	13.5	1.90	3460	180	MBP	H	2
		1560	5323	1300	12.2	1.20					
R404A&R448A&R449A&455A 3PH 380V ~ 60Hz											
TXD307F	30.7	4065	13870	2247	4.02	1.80	3460	330	MBP	V	1
		2137	7291	2040	3.65	1.05					
THD307F	30.7	4032	13757	2223	3.97	1.80	3460	195	MBP	H	1
		2107	7189	2035	3.64	1.04					
TXD357F	35.7	4727	16129	2613	4.67	1.80	3460	330	MBP	V	1
		2485	8479	2372	4.24	1.05					
THD357F	35.7	4689	15999	2585	4.62	1.80	3460	195	MBP	H	1
		2450	8359	2366	4.23	1.04					
TXSD456F	45.6	5445	18578	3105	5.55	1.75	3460	435	MBP	V	2
		2944	10045	2769	4.95	1.06					
THSD456F	45.6	5080	17333	3116	5.57	1.63	3460	200	MBP	H	2
		2795	9537	2657	4.75	1.05					
R404A&R448A&R449A&455A 3PH 220V ~ 60Hz											
THD357I	35.7	4615	15746	2539	7.84	1.80	3460	180	MBP	H	1
		2455	8376	2186	6.75	1.12					

Fixed-Speed Commercial Refrigeration Compressor



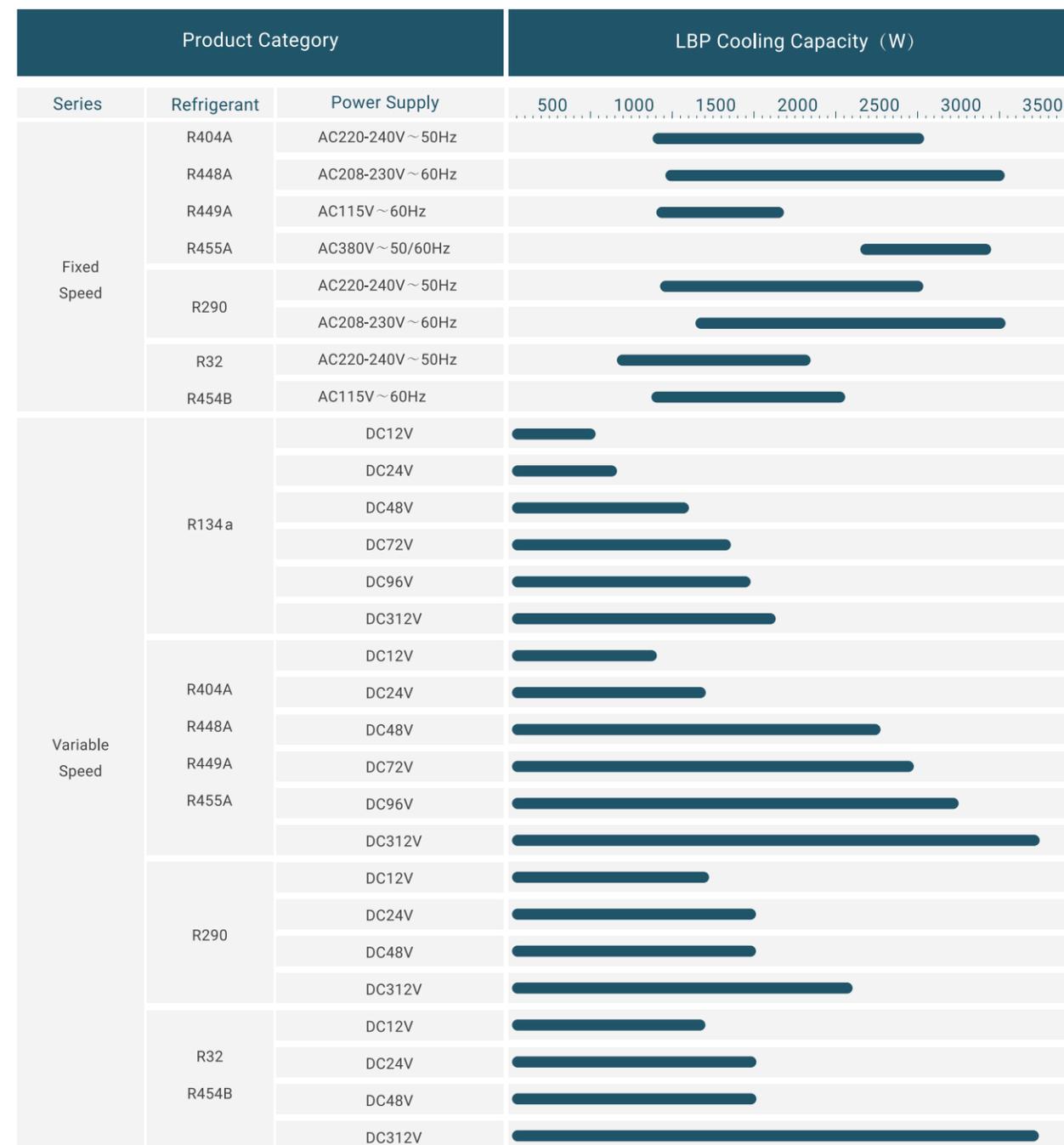
Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290 1PH 220-240V ~ 50Hz											
KHP164KS	16.4	1510	5152	735	3.4	2.05	2850	185	MBP	H	1
		905	3088	670	3.0	1.35					
KXSP176KS	17.6	1620	5527	790	3.7	2.05	2850	345	MBP	V	2
		970	3310	720	3.4	1.35					
KHSP176KS	17.6	1620	5527	790	3.7	2.05	2850	185	MBP	H	2
		970	3310	720	3.4	1.35					
KXSP203KS	20.3	1870	6380	912	4.3	2.05	2850	345	MBP	V	2
		1120	3821	830	3.9	1.35					
KHSP203KS	20.3	1870	6380	912	4.3	2.05	2850	185	MBP	H	2
		1120	3821	830	3.9	1.35					
SHP236KS	23.6	2240	7643	1092	5.2	2.05	2850	195	MBP	H	1
		1280	4367	964	4.7	1.33					
THSP329KS	32.9	3030	10338	1805	8.5	1.70	2850	200	MBP	H	2
		1734	5916	1460	6.9	1.19					
THSP456KS	45.6	4200	14330	2500	11.7	1.68	2850	200	MBP	H	2
		2490	8496	2075	9.5	1.20					
R290 1PH 115V ~ 60Hz											
KHSP203TS	20.3	2270	7745	1107	9.9	2.05	3460	185	MBP	H	2
		1345	4589	996	8.8	1.35					

Fixed-Speed Commercial Refrigeration Compressor



Model	Displacement (cc/rev)	Capacity (W)	Capacity (Btu/h)	Input Power (W)	Current (A)	COP (W/W)	Rated Speed (rpm)	Height (mm)	Test Conditions	Form	Number of Cylinders
R290 1PH 208-230V ~ 60Hz											
KHP164YS	16.4	1835	6261	895	4.2	2.05	3460	185	MBP	H	1
		1100	3753	810	3.8	1.36					
KHSP176YS	17.6	1965	6705	958	4.5	2.05	3460	185	MBP	H	2
		1175	4009	865	4.0	1.35					
KHSP203YS	20.3	2270	7745	1107	5.2	2.05	3460	185	MBP	H	2
		1345	4589	996	4.7	1.35					
SHP236YS	23.6	2720	9281	1327	6.2	2.05	3460	195	MBP	H	1
		1550	5289	1170	5.5	1.32					
THSP329YS	32.9	3679	12553	2164	10.4	1.70	3460	200	MBP	H	2
		2100	7165	1750	8.0	1.20					
THSP456YS	45.6	5043	17207	3000	14.0	1.68	3460	200	MBP	H	2
		2990	10202	2490	11.5	1.20					
R410A/R32 1PH 220-240V ~ 50Hz											
THSN329KS	32.9	5150	17572	2900	13.4	1.78	2850	190	MBP	H	2
		2535	8649	2585	12.2	0.98					

Nominal Rating of Refrigeration Compressor



Test Condition

Test Condition	Evaporating Temp.	Condensing Temp.	Subcooling	Suction Temp.
LBP	-23.3 C	54.4 C	22.2 C/K	18.3 C

Performance Data – R290 1PH 220-240V ~ 50Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
KHP164KS	Cooling Capacity (W)	35	629	966	1424	2076
		45	544	847	1249	1824
		55	485	731	1052	1524
	Input Power (W)	35	475	516	556	595
		45	514	565	613	659
		55	552	614	671	726
KXSP176KS & KHSP176KS	Cooling Capacity (W)	35	674	1035	1526	2226
		45	583	908	1339	1955
		55	520	783	1127	1633
	Input Power (W)	35	510	555	597	640
		45	552	607	658	708
		55	593	660	722	780
KXSP203KS & KHSP203KS	Cooling Capacity (W)	35	779	1196	1762	2570
		45	673	1049	1546	2258
		55	601	904	1302	1886
	Input Power (W)	35	588	639	688	737
		45	636	700	759	816
		55	684	761	832	899
SXP236KS & SHP236KS	Cooling Capacity (W)	35	889	1367	2014	2937
		45	768	1198	1767	2851
		55	687	1033	1488	2155
	Input Power (W)	35	683	742	799	857
		45	740	813	882	948
		55	795	885	966	1044
THSP329KS	Cooling Capacity (W)	35	1205	1851	2728	3979
		45	1043	1624	2394	3496
		55	930	1400	2016	2920
	Input Power (W)	35	1034	1125	1211	1297
		45	1119	1231	1335	1436
		55	1203	1338	1463	1582
THSP456KS	Cooling Capacity (W)	35	1731	2658	3917	5713
		45	1496	2332	3438	5020
		55	1336	2011	2894	4193
	Input Power (W)	35	1470	1599	1721	1843
		45	1591	1749	1897	2041
		55	1710	1902	2080	2249

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R290 1PH 208-230V ~ 60Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
KHP164YS	Cooling Capacity (W)	35	765	1174	1730	2524
		45	661	1030	1519	2218
		55	590	888	1279	1852
	Input Power (W)	35	574	624	672	719
		45	621	683	741	797
		55	667	743	812	878
KXSP176YS & KHSP176YS	Cooling Capacity (W)	35	817	1254	1848	2696
		45	706	1100	1622	2369
		55	630	949	1366	1978
	Input Power (W)	35	613	666	717	768
		45	663	729	791	851
		55	713	793	867	937
KXSP203YS & KHSP203YS	Cooling Capacity (W)	35	935	1436	2116	3086
		45	808	1259	1857	2711
		55	721	1086	1563	2265
	Input Power (W)	35	706	767	826	885
		45	764	840	911	980
		55	821	913	998	1079
SXP236YS & SHP236YS	Cooling Capacity (W)	35	1077	1655	2438	3556
		45	931	1451	2140	3125
		55	831	1252	1802	2610
	Input Power (W)	35	829	901	970	1039
		45	897	986	1070	1151
		55	964	1073	1173	1268
THSP329YS	Cooling Capacity (W)	35	1460	2242	3303	4818
		45	1261	1966	2899	4233
		55	1126	1696	2441	3536
	Input Power (W)	35	1240	1348	1451	1554
		45	1342	1475	1600	1721
		55	1442	1604	1754	1896
THSP456YS	Cooling Capacity (W)	35	2078	3192	4704	6860
		45	1796	2800	4128	6028
		55	1604	2414	3475	5034
	Input Power (W)	35	1764	1918	2065	2212
		45	1909	2099	2277	2449
		55	2052	2283	2496	2698

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R404A 1PH 220-240V ~ 50Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
QXD-16K & QHD-16K	Cooling Capacity (W)	35	805	1242	1828	2757
		45	687	1106	1590	2338
		55	539	958	1361	1946
	Input Power (W)	35	617	674	718	773
		45	710	780	839	912
		55	828	900	966	1048
KXSD203KS & KHSD203KS	Cooling Capacity (W)	35	964	1489	2190	3303
		45	823	1325	1905	2801
		55	646	1148	1631	2332
	Input Power (W)	35	739	807	860	926
		45	851	934	1006	1093
		55	992	1078	1157	1256
QXD-23K & QHD-23K	Cooling Capacity (W)	35	1081	1669	2454	3702
		45	923	1485	2136	3140
		55	724	1287	1828	2614
	Input Power (W)	35	921	1006	1072	1154
		45	1060	1164	1253	1362
		55	1236	1344	1442	1565
QXD-30K & QHD-30K	Cooling Capacity (W)	35	1244	1921	2825	4262
		45	1062	1709	2459	3614
		55	833	1481	2105	3009
	Input Power (W)	35	1122	1226	1307	1406
		45	1292	1418	1527	1660
		55	1506	1638	1757	1907
QXD-36K & QHD-36K	Cooling Capacity (W)	35	1446	2233	3284	4954
		45	1234	1987	2858	4201
		55	969	1722	2447	3498
	Input Power (W)	35	1305	1425	1520	1636
		45	1503	1649	1776	1931
		55	1752	1905	2044	2218
TXSD456KS & THSD456KS	Cooling Capacity (W)	35	1831	2827	4158	6273
		45	1563	2516	3619	5320
		55	1227	2180	3098	4429
	Input Power (W)	35	1651	1804	1923	2070
		45	1902	2087	2247	2443
		55	2216	2410	2586	2806

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R404A 1PH 115V ~ 60Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
KXSD110TS & KHSD110TS	Cooling Capacity (W)	35	622	960	1413	2131
		45	531	855	1229	1807
		55	417	740	1052	1504
	Input Power (W)	35	477	521	555	597
		45	549	603	649	705
		55	640	696	747	810
KXD135TS & KHD135TS	Cooling Capacity (W)	35	811	1253	1843	2779
		45	693	1115	1604	2357
		55	544	966	1373	1962
	Input Power (W)	35	638	696	742	799
		45	734	806	868	943
		55	856	931	999	1084
KXSD176TS & KHSD176TS	Cooling Capacity (W)	35	1001	1546	2273	3429
		45	855	1375	1978	2908
		55	671	1192	1694	2421
	Input Power (W)	35	767	838	894	962
		45	884	970	1045	1136
		55	1030	1120	1202	1304
KXSD203TS & KHSD203TS	Cooling Capacity (W)	35	1123	1733	2550	3846
		45	958	1543	2219	3262
		55	752	1337	1900	2716
	Input Power (W)	35	901	984	1049	1129
		45	1038	1139	1226	1333
		55	1209	1315	1411	1531

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R404A 1PH 208-230V ~ 60Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
KXD135YS & KHD135YS	Cooling Capacity (W)	35	797	1230	1810	2730
		45	680	1095	1575	2315
		55	534	949	1348	1928
	Input Power (W)	35	611	667	711	766
		45	703	772	831	904
		55	820	891	957	1038
KXSD176YS & KHSD176YS	Cooling Capacity (W)	35	991	1531	2251	3396
		45	846	1362	1959	2880
		55	664	1180	1677	2398
	Input Power (W)	35	783	856	912	982
		45	902	990	1066	1159
		55	1052	1144	1227	1332
KXSD203YS & KHSD203YS	Cooling Capacity (W)	35	1152	1779	2617	3947
		45	984	1583	2277	3348
		55	772	1372	1949	2787
	Input Power (W)	35	906	989	1055	1135
		45	1043	1145	1233	1340
		55	1216	1322	1419	1539
SXD236YS & SHD236YS	Cooling Capacity (W)	35	1302	2011	2958	4461
		45	1112	1789	2574	3784
		55	872	1550	2203	3150
	Input Power (W)	35	1109	1212	1292	1391
		45	1278	1402	1510	1642
		55	1489	1619	1738	1886
TXD307YS & THD307YS	Cooling Capacity (W)	35	1467	2266	3333	5027
		45	1253	2016	2900	4264
		55	983	1747	2483	3550
	Input Power (W)	35	1323	1446	1541	1659
		45	1524	1673	1801	1958
		55	1777	1932	2073	2249
TXD357YS & THD357YS	Cooling Capacity (W)	35	1706	2635	3876	5846
		45	1457	2345	3373	4958
		55	1143	2032	2887	4128
	Input Power (W)	35	1538	1681	1792	1928
		45	1772	1945	2094	2276
		55	2065	2246	2410	2615
TXSD456YS & THSD456YS	Cooling Capacity (W)	35	2149	3318	4881	7362
		45	1834	2953	4247	6243
		55	1440	2558	3636	5198
	Input Power (W)	35	1996	2180	2325	2502
		45	2299	2523	2717	2953
		55	2680	2913	3127	3393

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R448A 1PH 220-240V ~ 50Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
QXD-16K & QHD-16K	Cooling Capacity (W)	35	817	1272	1885	2856
		45	719	1164	1679	2476
		55	590	1049	1490	2127
	Input Power (W)	35	578	644	698	763
		45	664	745	816	901
		55	770	857	938	1035
KXSD203KS & KHSD203KS	Cooling Capacity (W)	35	978	1525	2258	3422
		45	861	1394	2012	2966
		55	707	1257	1786	2549
	Input Power (W)	35	692	771	836	914
		45	796	892	978	1080
		55	923	1026	1123	1241
QXD-23K & QHD-23K	Cooling Capacity (W)	35	1097	1709	2530	3835
		45	965	1562	2256	3325
		55	792	1409	2002	2857
	Input Power (W)	35	862	962	1042	1139
		45	991	1112	1218	1346
		55	1149	1279	1400	1546
QXD-30K & QHD-30K	Cooling Capacity (W)	35	1263	1967	2913	4415
		45	1111	1798	2597	3827
		55	911	1622	2305	3289
	Input Power (W)	35	1050	1172	1270	1388
		45	1208	1354	1484	1640
		55	1401	1559	1706	1884
QXD-36K & QHD-36K	Cooling Capacity (W)	35	1468	2287	3386	5132
		45	1291	2090	3018	4449
		55	1060	1886	2679	3823
	Input Power (W)	35	1221	1362	1477	1615
		45	1405	1575	1726	1908
		55	1629	1814	1985	2191
TXSD456KS & THSD456KS	Cooling Capacity (W)	35	1858	2895	4287	6499
		45	1635	2647	3822	5634
		55	1342	2387	3392	4841
	Input Power (W)	35	1545	1725	1869	2043
		45	1778	1993	2184	2414
		55	2061	2294	2511	2772

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R448A 1PH 115V ~ 60Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
KXSD110TS & KHSD110TS	Cooling Capacity (W)	35	631	876	1457	2208
		45	555	899	1298	1914
		55	456	810	1152	1644
	Input Power (W)	35	446	498	539	589
		45	513	576	631	697
		55	595	663	725	800
KXD135TS & KHD135TS	Cooling Capacity (W)	35	823	1142	1900	2879
		45	725	1173	1694	2496
		55	595	1058	1503	2144
	Input Power (W)	35	597	665	721	789
		45	686	770	844	932
		55	796	886	970	1071
KXSD176TS & KHSD176TS	Cooling Capacity (W)	35	1016	1408	2343	3552
		45	894	1447	2089	3080
		55	734	1305	1855	2646
	Input Power (W)	35	718	801	869	949
		45	827	926	1016	1122
		55	958	1066	1167	1288
KXSD203TS & KHSD203TS	Cooling Capacity (W)	35	1140	1580	2629	3984
		45	1002	1623	2343	3454
		55	823	1464	2081	2969
	Input Power (W)	35	843	941	1020	1114
		45	971	1088	1192	1317
		55	1124	1252	1370	1513

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R448A 1PH 208-230V ~ 60Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
KXD135YS & KHD135YS	Cooling Capacity (W)	35	809	1260	1866	2828
		45	711	1152	1663	2452
		55	584	1039	1476	2107
	Input Power (W)	35	572	638	691	756
		45	657	737	808	893
		55	763	848	929	1026
KXSD176YS & KHSD176YS	Cooling Capacity (W)	35	1006	1568	2321	3518
		45	885	1433	2069	3050
		55	726	1292	1836	2621
	Input Power (W)	35	733	818	886	969
		45	843	945	1036	1145
		55	978	1089	1191	1316
KXSD203YS & KHSD203YS	Cooling Capacity (W)	35	1169	1822	2698	4089
		45	1029	1665	2405	3546
		55	845	1502	2134	3046
	Input Power (W)	35	848	945	1025	1120
		45	975	1093	1198	1324
		55	1131	1259	1378	1521
SXD236YS & SHD236YS	Cooling Capacity (W)	35	1322	2059	3050	4622
		45	1163	1882	2718	4007
		55	954	1697	2412	3443
	Input Power (W)	35	1038	1159	1256	1373
		45	1195	1339	1468	1622
		55	1385	1541	1688	1863
TXD307YS & THD307YS	Cooling Capacity (W)	35	1489	2320	3436	5208
		45	1311	2121	3062	4516
		55	1075	1913	2719	3880
	Input Power (W)	35	1238	1382	1498	1637
		45	1425	1598	1751	1935
		55	1653	1839	2013	2222
TXD357YS & THD357YS	Cooling Capacity (W)	35	1732	2698	3996	6056
		45	1524	2467	3562	5251
		55	1250	2225	3161	4512
	Input Power (W)	35	1440	1607	1742	1903
		45	1657	1857	2035	2249
		55	1920	2138	2340	2584
TXSD456YS & THSD456YS	Cooling Capacity (W)	35	2181	3398	5032	7627
		45	1918	3107	4485	6611
		55	1575	2801	3981	5681
	Input Power (W)	35	1868	2084	2260	2469
		45	2150	2409	2641	2918
		55	2492	2773	3036	3352

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R449A 1PH 220-240V ~ 50Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
QXD-16K & QHD-16K	Cooling Capacity (W)	35	746	1166	1735	2641
		45	660	1073	1555	2301
		55	544	971	1385	1985
	Input Power (W)	35	613	596	647	709
		45	616	693	759	840
		55	721	803	878	969
KXSD203KS & KHSD203KS	Cooling Capacity (W)	35	894	1398	2078	3164
		45	791	1285	1863	2756
		55	652	1164	1660	2379
	Input Power (W)	35	735	713	775	849
		45	739	829	910	1007
		55	864	962	1052	1162
QXD-23K & QHD-23K	Cooling Capacity (W)	35	1002	1567	2329	3547
		45	887	1440	2089	3090
		55	731	1305	1861	2666
	Input Power (W)	35	916	889	966	1058
		45	920	1034	1134	1254
		55	1077	1199	1311	1448
QXD-30K & QHD-30K	Cooling Capacity (W)	35	1153	1804	2681	4083
		45	1021	1658	2405	3556
		55	841	1502	2143	3069
	Input Power (W)	35	1116	1084	1178	1289
		45	1121	1259	1382	1529
		55	1312	1461	1597	1764
QXD-36K & QHD-36K	Cooling Capacity (W)	35	1340	2097	3117	4746
		45	1186	1927	2795	4134
		55	979	1746	2491	3568
	Input Power (W)	35	1299	1260	1370	1500
		45	1305	1464	1607	1778
		55	1526	1699	1858	2052
TXSD456KS & THSD456KS	Cooling Capacity (W)	35	1697	2655	3946	6010
		45	1502	2441	3539	5235
		55	1239	2211	3154	4518
	Input Power (W)	35	1643	1595	1733	1898
		45	1651	1853	2034	2250
		55	1930	2150	2351	2596

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R449A 1PH 115V ~ 60Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
KXSD110TS & KHSD110TS	Cooling Capacity (W)	35	577	803	1341	2041
		45	510	829	1202	1778
		55	421	750	1071	1534
	Input Power (W)	35	412	461	500	547
		45	477	535	587	649
		55	557	621	679	749
KXD135TS & KHD135TS	Cooling Capacity (W)	35	752	1047	1749	2662
		45	666	1082	1569	2319
		55	549	980	1398	2001
	Input Power (W)	35	551	615	669	733
		45	637	716	786	869
		55	746	830	908	1003
KXSD176TS & KHSD176TS	Cooling Capacity (W)	35	928	1291	2157	3285
		45	822	1334	1934	2861
		55	678	1209	1724	2469
	Input Power (W)	35	663	741	805	882
		45	767	861	946	1046
		55	897	999	1093	1206
KXSD203TS & KHSD203TS	Cooling Capacity (W)	35	1041	1449	2420	3684
		45	921	1497	2170	3210
		55	760	1356	1934	2770
	Input Power (W)	35	778	870	945	1035
		45	901	1011	1110	1228
		55	1053	1173	1283	1416

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R449A 1PH 208-230V ~ 60Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
KXD135YS & KHD135YS	Cooling Capacity (W)	35	739	1155	1718	2615
		45	653	1062	1540	2278
		55	539	962	1372	1967
	Input Power (W)	35	528	590	641	702
		45	610	686	752	833
		55	714	795	870	960
KXSD176YS & KHSD176YS	Cooling Capacity (W)	35	919	1438	2136	3253
		45	813	1321	1916	2834
		55	671	1197	1707	2446
	Input Power (W)	35	677	757	822	900
		45	783	879	965	1067
		55	916	1020	1115	1232
KXSD203YS & KHSD203YS	Cooling Capacity (W)	35	1068	1670	2484	3781
		45	946	1536	2227	3294
		55	780	1391	1984	2843
	Input Power (W)	35	783	874	951	1041
		45	905	1017	1116	1234
		55	1059	1179	1290	1424
SXD236YS & SHD236YS	Cooling Capacity (W)	35	1207	1888	2807	4274
		45	1069	1735	2517	3723
		55	881	1572	2243	3213
	Input Power (W)	35	958	1071	1164	1276
		45	1109	1245	1367	1512
		55	1297	1444	1580	1745
TXD307YS & THD307YS	Cooling Capacity (W)	35	1360	2128	3163	4816
		45	1204	1956	2836	4196
		55	993	1771	2528	3621
	Input Power (W)	35	1143	1278	1388	1521
		45	1323	1486	1630	1803
		55	1548	1723	1884	2080
TXD357YS & THD357YS	Cooling Capacity (W)	35	1581	2474	3678	5600
		45	1400	2275	3299	4879
		55	1154	2060	2939	4211
	Input Power (W)	35	1329	1486	1615	1768
		45	1538	1727	1895	2096
		55	1799	2003	2191	2419
TXSD456YS & THSD456YS	Cooling Capacity (W)	35	1992	3116	4632	7053
		45	1762	2864	4154	6143
		55	1454	2594	3701	5302
	Input Power (W)	35	1725	1927	2095	2294
		45	1996	2240	2459	2720
		55	2334	2598	2842	3139

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R455A 1PH 220-240V ~ 50Hz

Model	Condensing Temp.(°C)	Evaporating Temp.(°C)				
		-35	-25	-15	-5	
QXD-16K & QHD-16K	Cooling Capacity (W)	35	804	1256	1865	2840
		45	694	1128	1638	2432
		55	558	920	1429	2043
	Input Power (W)	35	573	637	689	754
		45	650	729	797	908
		55	748	972	908	1003
KXSD203KS & KHSD203KS	Cooling Capacity (W)	35	963	1505	2234	3402
		45	831	1352	1962	2913
		55	669	1102	1713	2449
	Input Power (W)	35	686	763	826	903
		45	779	872	956	1089
		55	896	1164	1088	1202
QXD-23K & QHD-23K	Cooling Capacity (W)	35	1080	1687	2503	3813
		45	932	1515	2200	3266
		55	750	1236	1919	2745
	Input Power (W)	35	855	951	1029	1125
		45	970	1087	1190	1357
		55	1116	1452	1355	1498
QXD-30K & QHD-30K	Cooling Capacity (W)	35	1243	1942	2882	4390
		45	1073	1743	2533	3759
		55	863	1422	2210	3159
	Input Power (W)	35	1041	1159	1255	1371
		45	1182	1324	1451	1653
		55	1360	1769	1652	1825
QXD-36K & QHD-36K	Cooling Capacity (W)	35	1445	2258	3350	5103
		45	1246	2027	2944	4369
		55	1004	1653	2569	3673
	Input Power (W)	35	1211	1347	1459	1595
		45	1375	1540	1687	1923
		55	1582	2057	1921	2123
TXSD456KS & THSD456KS	Cooling Capacity (W)	35	1829	2858	4241	6461
		45	1579	2566	3728	5533
		55	1271	2093	3253	4650
	Input Power (W)	35	1532	1705	1846	2018
		45	1740	1949	2135	2433
		55	2001	2603	2431	2685

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R455A 1PH 115V ~ 60Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
KXSD110TS & KHSD110TS	Cooling Capacity (W)	35	621	864	1441	2195
		45	536	872	1266	1879
		55	432	710	1094	1579
	Input Power (W)	35	443	492	533	582
		45	502	563	617	702
		55	578	752	702	775
KXD135TS & KHD135TS	Cooling Capacity (W)	35	810	1127	1880	2862
		45	700	1137	1652	2451
		55	564	927	1428	2060
	Input Power (W)	35	592	658	712	779
		45	672	753	825	939
		55	773	1005	939	1037
KXSD176TS & KHSD176TS	Cooling Capacity (W)	35	1000	1390	2318	3532
		45	864	1403	2037	3024
		55	695	1144	1762	2542
	Input Power (W)	35	712	792	858	938
		45	809	906	993	1131
		55	930	1210	1130	1248
KXSD203TS & KHSD203TS	Cooling Capacity (W)	35	1122	1560	2601	3961
		45	968	1574	2286	3392
		55	779	1284	1976	2852
	Input Power (W)	35	836	930	1007	1101
		45	950	1064	1165	1328
		55	1092	1420	1326	1465

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection

Performance Data – R455A 1PH 208-230V ~ 60Hz

Model	Condensing Temp.(°C)		Evaporating Temp.(°C)			
			-35	-25	-15	-5
KXD135YS & KHD135YS	Cooling Capacity (W)	35	796	1244	1846	2812
		45	687	1117	1622	2408
		55	553	911	1415	2024
	Input Power (W)	35	567	630	683	747
		45	643	721	789	900
		55	740	962	900	993
KXSD176YS & KHSD176YS	Cooling Capacity (W)	35	990	1548	2296	3498
		45	854	1389	2018	2995
		55	688	1133	1761	2518
	Input Power (W)	35	727	809	876	957
		45	825	925	1013	1154
		55	950	1236	1153	1275
KXSD203YS & KHSD203YS	Cooling Capacity (W)	35	1151	1799	2669	4065
		45	994	1615	2345	3482
		55	800	1317	2046	2926
	Input Power (W)	35	841	935	1013	1107
		45	954	1069	1171	1335
		55	1098	1428	1334	1473
SXD236YS & SHD236YS	Cooling Capacity (W)	35	1301	2033	3017	4595
		45	1123	1825	2651	3935
		55	903	1488	2313	3308
	Input Power (W)	35	1029	1145	1240	1356
		45	1169	1309	1435	1635
		55	1345	1749	1634	1805
TXD307YS & THD307YS	Cooling Capacity (W)	35	1466	2291	3400	5178
		45	1266	2056	2987	4435
		55	1018	1677	2607	3728
	Input Power (W)	35	1228	1366	1479	1618
		45	1394	1563	1711	1950
		55	1605	2087	1949	2152
TXD357YS & THD357YS	Cooling Capacity (W)	35	1704	2664	3954	6021
		45	1472	2392	3474	5156
		55	1184	1951	3031	4334
	Input Power (W)	35	1427	1589	1720	1880
		45	1621	1817	1989	2267
		55	1865	2426	2265	2503
TXSD456YS & THSD456YS	Cooling Capacity (W)	35	2147	3354	4979	7583
		45	1852	3012	4374	6493
		55	1492	2456	3818	5458
	Input Power (W)	35	1852	2060	2232	2439
		45	2104	2356	2581	2941
		55	2420	3146	2939	3247

Test Condition

Subcooling Temp.	Return Gas Temp.	Motor Type	Compressor Type
8.3 °C	18.3 °C	CSR	Liquid Injection