GDA-KA Series
For High Temperature Application

Technical Specification of GDA-KA Series Compressed Air Dryer with Built-In After-Cooler

Dryer Model	Refri. Type	Flow Capacity (FAD)		Conn. Size	Nominal Power	Power Supply	Dimension and Weight			
		m³/min	cfm	inch	kW	V/Ph/Hz	Width mm	Depth mm	Height mm	Wt. kg
GDA0040KA	R134A	0.63	22	1/2"	0.23	220/1/50	380	500	750	60
GDA0060KA	R134A	0.86	30	1/2"	0.28	220/1/50	380	500	750	65
GDA0080KA	R134A	1.34	47	1"	0.40	220/1/50	388	718	880	80
GDA0110KA	R134A	1.73	61	1"	0.46	220/1/50	388	718	880	88
GDA0160KA	R134A	2.59	91	1"	0.97	220/1/50	388	718	880	91
GDA0210KA	R134A	3.36	119	1 1/2"	0.99	220/1/50	388	868	1200	97
GDA0260KA	R134A	4.13	146	1 1/2"	0.99	220/1/50	388	868	1200	102
GDA0330KA	R134A	5.28	186	1 1/2"	1.22	220/1/50	388	868	1200	113
GDA0410KA	R407C	6.53	230	1 1/2"	1.42	220/1/50	388	868	1200	128
GDA0480KA	R407C	7.78	275	2"	1.69	220/1/50	450	1200	1350	137
GDA0660KA	R407C	10.56	373	2"	2.30	220/1/50	450	1200	1350	150
GDA0900KA	R407C	14.40	508	2 1/2"	2.97	415/3/50	600	1200	1600	200
GDA1100KA	R407C	17.28	610	2 1/2"	3.39	415/3/50	600	1200	1600	230
GDA1400KA	R407C	22.08	779	2 1/2"	3.98	415/3/50	600	1200	1600	250
GDA1700KA	R407C	26.88	949	2 1/2"	4.70	415/3/50	600	1200	1600	260
GDA1800KA	R407C	28.80	1016	3"	5.36	415/3/50	1000	1500	1850	380
GDA2200KA	R407C	34.56	1220	3"	5.70	415/3/50	1000	1500	1850	420
GDA2600KA	R407C	41.28	1457	4" FL	7.65	415/3/50	1000	1800	2000	480
GDA2900KA	R407C	46.08	1626	4" FL	8.34	415/3/50	1000	1800	2000	520
GDA3300KA	R407C	52.80	1864	4" FL	10.10	415/3/50	1000	1800	2000	580
GDA3660KA	R407C	58.56	2067	4" FL	10.10	415/3/50	1000	1800	2000	600

Flowrate Correction Factor for Different **Pressure Dew-point**

Dew-point °C	3	4	5	7	10
Factor (K1)	1.00	1.04	1.06	1.09	1.13

Flowrate Correction Factor for Different **Inlet Temperature**

Temperature °C	55	65	70	80
Factor (K2)	1.00	0.83	0.76	0.63

Flowrate Correction Factor for Different **Operating Pressure**

Pressure, Bar g	4	6	7	8	10	13	16
Factor (K3)	0.79	0.94	1.00	1.05	1.12	1.20	1.26

Flowrate Correction Factor for Different **Ambient Temperature**

Temperature °C	35	38	40	43
Factor (K4)	1.00	0.94	0.91	0.86

The airflow rate shown refer to the free air delivery from the compressor (suction 20ºC and 1 bar absolute) and at the following rated operating conditions: Working pressure 7 bar g, compressed air inlet temperature 55ºC, ambient temperature 35ºC and pressure dew-point 3ºC Maximum operating conditions: Maximum designed pressure 16 bar g, maximum room temperature 45ºC, maximum inlet temperature 80ºC

The GLOBAL dryer correction factors should be used for calculating performance in different condition from the above. The correction factors in the following table should be used as a guide only.
CAPACITY correction factors (indicative values) CAPACITY = RATED VALUE (7bar) x K1 X K2 X K3 X K4

Distributor

Global Equipment reserves the right to modify all the data without prior notice.
* Terms & Conditions apply.

Refrigerated Air Dryer
Stainless Steel Plate Heat Exchanger

GDA- KA & GDN-KA Series
with 2 years warranty on freon compressor and evaporator
GDA-KA Series – For High Temperature Application with Built-in After-Cooler
GDN-KA Series – For Normal Temperature Application with Bigger Heat Ex-changer

GLOBAL Refrigerated Air Dryer

GLOBAL Refrigerated Air Dryer offers the best solutions to minimize energy loss, reduce corrosion level, prolong life of compressed air systems and decrease maintenance costs.

About GLOBAL Refrigerated Air Dryer

In compressed air systems, moisture is a huge problem and the prevention of corrosion caused by condensed water is an important issue. This is a critical factor as moisture and corrosion would minimize the performance and shorten the lifetime of compressed air systems and pneumatically controlled tools and equipment.

To prevent this problem from occurring, the air dryer is the most commonly used solution. In these kinds of equipments, the main problems which affect the performance of compressed air systems are high volume, high pressure loss and complicated traditional types of heat exchangers which are not efficient.

For this, GLOBAL has successfully integrated the Brazed Heat Exchanger into their air dryer systems. This technology is supported by complete research and proven test data and the unique design is being patented in Japan, USA, Korea, Taiwan and China.

Refrigerated Air Dryer System
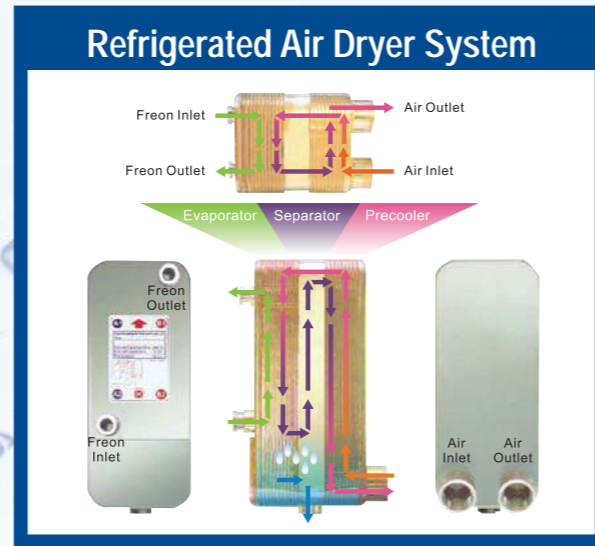
The main advantages of GLOBAL Plate Heat Exchanger

- A 3 in 1 configuration, the air-to-air exchanger, evaporators and demister separator are combined in one module. This ensures a very compact, robust and energy efficient design.
- High efficiency heat transfer performance.
- Unique patents for cross-flow design features with the condensate being separated as soon as it is created along the cooling path.
- Energy saving application due to low pressure drop.
- Simple and easy maintenance.
- Dry air down to 3°C pressure dew point at outlet.

Flow Diagram
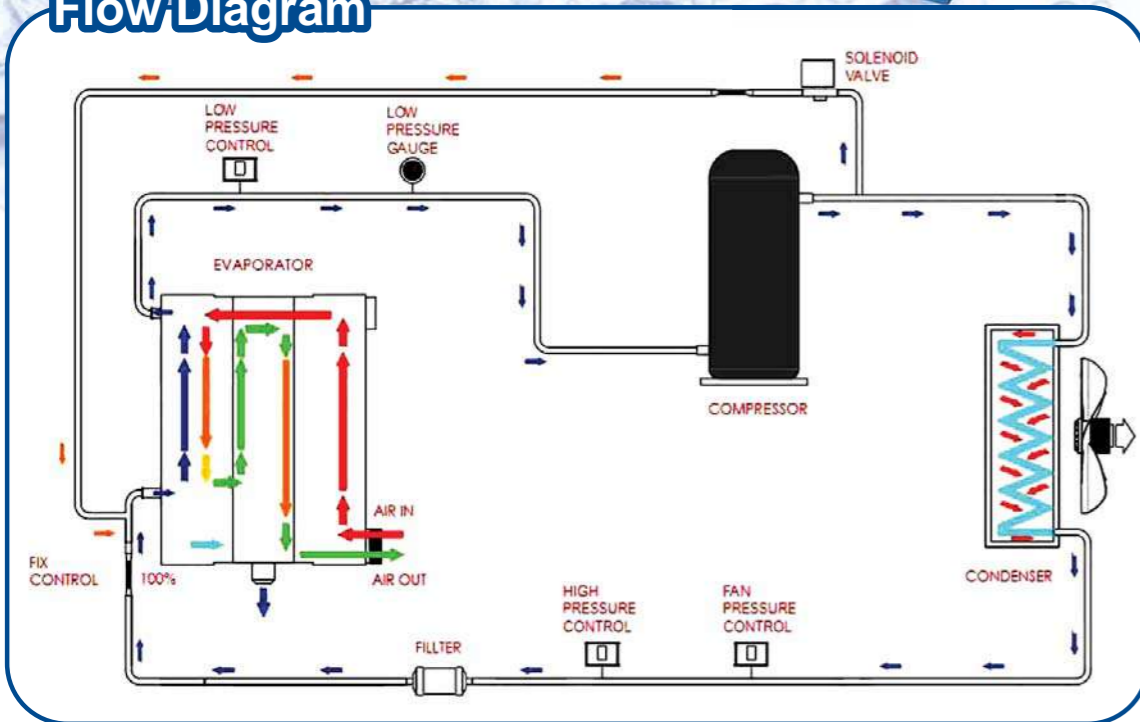
GDN-KA Series

For Normal Temperature Application

Technical Specification of GDN-KA Series Compressed Air Dryer with Bigger Heat Ex-changer

Dryer Model	Refri. Type	Flow Capacity (FAD)		Nominal Power	Conn. Size	Power Supply	Dimension and Weight			
		m³/min	cfm	kW	inch	V/Ph/Hz	Width mm	Depth mm	Height mm	Wt. kg
GDN0025KA	R134A	0.43	15	0.21	1/2"	220/1/50	382	450	430	31
GDN0035KA	R134A	0.62	22	0.22	1/2"	220/1/50	382	450	430	32
GDN0045KA	R134A	0.86	31	0.27	1/2"	220/1/50	382	450	430	33
GDN0075KA	R134A	1.34	47	0.39	1/2"	220/1/50	382	502	480	38
GDN0105KA	R134A	1.73	61	0.45	3/4"	220/1/50	382	502	480	40
GDN0155KA	R134A	2.59	91	0.64	3/4"	220/1/50	393	723	650	65
GDN0255KA	R134A	4.13	146	0.97	1"	220/1/50	393	723	650	69
GDN0325KA	R134A	5.28	186	1.20	1 1/2"	220/1/50	404	875	761	92
GDN0405KA	R407C	6.53	230	1.39	1 1/2"	220/1/50	404	875	761	101
GDN0485KA	R407C	7.78	275	1.66	1 1/2"	220/1/50	451	1190	882	115
GDN0655KA	R407C	10.56	373	2.25	2"	220/1/50	451	1190	882	135
GDN0895KA	R407C	14.40	508	2.91	2"	415/3/50	451	1190	882	145
GDN1075KA	R407C	17.28	610	3.32	2 1/2"	415/3/50	451	1190	882	165
GDN1375KA	R407C	22.08	779	3.90	2 1/2"	415/3/50	588	1204	1005	198
GDN1685KA	R407C	26.88	949	4.61	2 1/2"	415/3/50	588	1204	1005	208
GDN1795KA	R407C	28.80	1016	5.25	3"	415/3/50	588	1204	1005	225
GDN2155KA	R407C	34.56	1220	5.59	3"	415/3/50	588	1204	1005	256
GDN2575KA	R407C	41.28	1457	7.50	4" FL	415/3/50	1004	1560	1615	380
GDN2885KA	R407C	46.08	1626	8.18	4" FL	415/3/50	1004	1560	1615	400
GDN3655KA	R407C	58.56	2067	9.90	5" FL	415/3/50	1004	1560	1615	450
GDN4315KA	R407C	69.12	2439	12.48	5" FL	415/3/50	1004	1560	1615	510
GDN5335KA	R407C	85.44	3015	15.64	6" FL	415/3/50	1200	2200	1900	930
GDN5765KA	R407C	92.16	3253	16.36	6" FL	415/3/50	1200	2200	1900	1050
GDN7315KA	R407C	117.12	4134	22.36	6" FL	415/3/50	1200	2200	1900	1120
GDN8635KA	R407C	138.24	4879	24.96	8" FL	415/3/50	1200	2860	1900	1260
GDN10205KA	R407C	163.20	5760	31.28	8" FL	415/3/50	1200	2860	1900	1580
GDN11095KA	R407C	177.60	6268	31.28	10" FL	415/3/50	1200	3200	2050	2200
GDN17105KA	R407C	273.60	9656	31.28	12" FL	415/3/50	1200	5000	2050	2400
GDN20405KA	R407C	326.40	11520	31.28	12" FL	415/3/50	1200	5000	2050	3100

Flowrate Correction Factor for Different   Pressure Dew-point

Dew-point °C	3	4	5	7	10
Factor (K1)	1.00	1.04	1.06	1.10	1.13

Flowrate Correction Factor for Different   Inlet Temperature

Temperature °C	45	55	65
Factor (K2)	1.00	0.71	0.48

Flowrate Correction Factor for Different   Operating Pressure

Pressure, Bar g	4	6	7	8	10	13	16
Factor (K3)	0.79	0.94	1.00	1.05	1.12	1.20	1.26

Flowrate Correction Factor for Different   Ambient Temperature

Temperature °C	35	38	40	43
Factor (K4)	1.00	0.94	0.91	0.86

The airflow rate shown refer to the free air delivery from the compressor (suction 20°C and 1 bar absolute) and at the following rated operating conditions: Working pressure 7 bar g, compressed air inlet temperature 45°C, ambient temperature 35°C and pressure dew-point 3°C.
Maximum operating conditions: Maximum designed pressure 16 bar g, maximum room temperature 45°C, maximum inlet temperature 65°C.

The GLOBAL dryer correction factors should be used for calculating performance in different condition from the above. The correction factors in the following table should be used as a guide only.
CAPACITY correction factors (indicative values) CAPACITY = RATED VALUE (7bar) x K1 X K2 X K3 X K4