



# CDK

## Refrigerant Air Dryer



**Stainless Steel Plate  
Heat Exchanger**

**Warranty**  
Compressor  
Evaporator **2 years** Energy Saving / High-Efficiency / High-Quality

## DIT Refrigerated Air Dryer

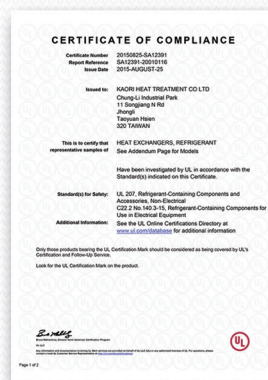
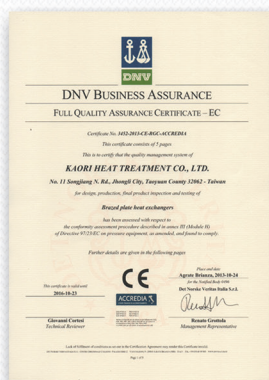
DIT Plate Refrigerated Air Dryer offers the best solutions to prevent energy loss, reduce corrosion level, prolong life of compressed air systems and decrease maintenance cost.

### About DIT Refrigerated Air Dryer

In compressed air systems, the prevention of corrosion caused by condensed water is an important issue. This is a critical factor as corrosion would minimize the performance and shorten the lifetime of compressed air systems. To prevent this problem from occurring, the air dryer is the most commonly used tool. In these kinds of equipment, the main problems which affect the performance of compressed air systems are huge volume, high pressure loss and complicated traditional types of heat exchangers which are insufficiently efficient. DIT successfully develop the Brazed Heat Exchanger for air dryer systems. This technology is supported by complete research and proven test data. This unique design has enabled DIT to obtain patents in France, USA and Southeast Asia successfully.

### The main advantage of 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.



# DIT Refrigerated Air Dryer Features

## Easy to Install

DIT's compact design and well-structured component layout provides extreme installation flexibility. The easily accessible components ensure that DIT dryer occupies less valuable plant floor space.



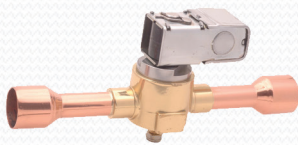
High quality refrigerant compressor (HITACHI / MITSUBISHI / COPELAND) Hermetic, suction gas is cooled and protected against thermal and current overloads. The compressor is mounted on anti-vibration rubber supports to ensure quiet running of the dryer.



Reliable solenoid valve  
This design is standard for all models. The discharge and pause times on the solenoid are also adjustable. The flexible and adaptable operation of the valve ensures effective discharge of condensates.



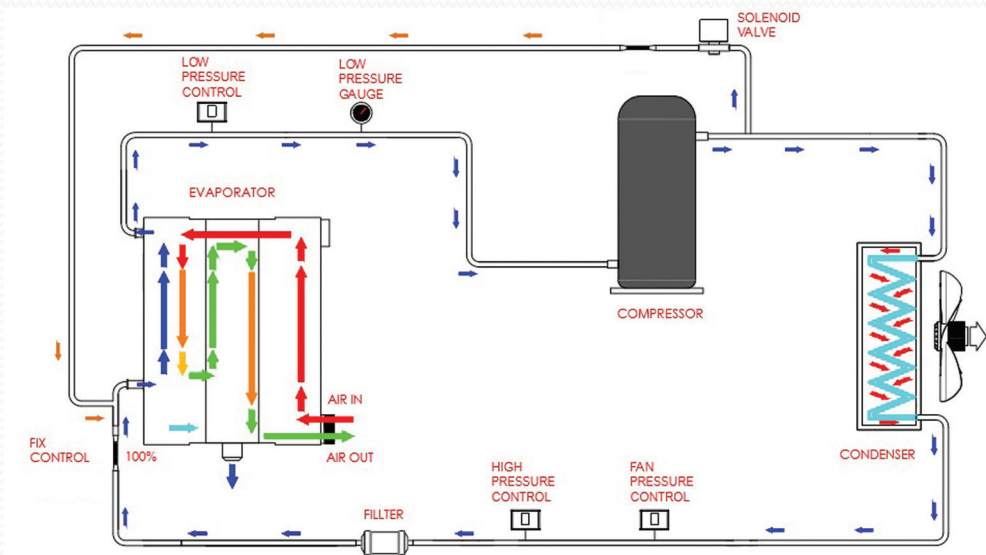
Easy to operate Control Panel (CAREL)  
The advance digital display allows DIT's dryer operation to be easily monitored at a glance.



Hot gas by-pass valve (EMERSON / DANFOSS)  
The valve prevents the freezing of the evaporator in low load conditions, It also ensures optimum dew point control under all operation conditions.



UL / CE Cooling Fan  
Provide qualified cooling fans with UL / CE safety certification for long using life.



## Technical Specification of CDK-SA Series Air Cooled Dryers

MODEL	AIR FLOW		Power Supply	Nominal	Connection	Dimension (mm)			Weight	Refrigerant	Pressure
	(m <sup>3</sup> /min)	(CFM)	V / PH / Hz	Power kW	inch	W.	L.	H.	Kg		Bar(Max.)
CDK-3SA	0.45	16	220/1/50	0.21	1/2" PT	382	450	430	31	R134a	16
CDK-5SA	0.65	23	220/1/50	0.22	1/2" PT	382	450	430	32	R134a	16
CDK-8SA	0.9	31	220/1/50	0.37	1/2" PT	382	450	430	33	R134a	16
CDK-10SA	1.4	49	220/1/50	0.47	3/4" PT	382	502	480	38	R134a	16
CDK-15SA	1.8	63	220/1/50	0.63	3/4" PT	382	502	480	40	R134a	16
CDK-20SA	2.7	94	220/1/50	0.84	1" PT	393	723	650	65	R134a	16
CDK-30SA	4.3	150	220/1/50	0.97	1-1/2" PT	393	723	650	69	R134a	16
CDK-40SA	5.5	192	220/1/50	1.23	1-1/2" PT	404	875	761	92	R134a	16
CDK-50SA	6.8	237	220/1/50	1.42	1-1/2" PT	404	875	761	101	R407c	16
CDK-60SA	8.1	283	220/1/50	1.94	2" PT	451	1190	882	115	R407c	10
CDK-75SA	11	384	220/1/50	2.51	2" PT	451	1190	882	135	R407c	10
CDK-100SA	15	524	220/1/50	3.09	2-1/2" PT	451	1190	882	145	R407c	10
CDK-125SA	18	628	220/1/50	4.09	2-1/2" PT	451	1190	882	165	R407c	10
CDK-150SA	23	803	380/3/50	4.44	2-1/2" PT	588	1204	1005	198	R407c	10
CDK-200SA	30	1047	380/3/50	5.68	3" PT	588	1204	1005	225	R407c	10
CDK-250SA	36	1256	380/3/50	6.29	3" PT	588	1204	1005	256	R407c	10
CDK-300SA	43	1501	380/3/50	8.86	4" FL	1004	1852	1615	420	R407c	10
CDK-400SA	61	2129	380/3/50	11.32	5" FL	1004	1852	1615	500	R407c	10
CDK-500SA	72	2513	380/3/50	12.51	5" FL	1004	1852	1615	570	R407c	10
CDK-600SA	89	3106	380/3/50	17.69	6" FL	1200	2580	1815	930	R407c	10
CDK-800SA	122	4258	380/3/50	22.53	6" FL	1200	2580	1815	1120	R407c	10
CDK-1000SA	144	5026	380/3/50	25.01	8" FL	1200	2580	1815	1260	R407c	10
CDK-1500SA	185	6457	380/3/50	37.74	10" FL	2000	2580	1815	2400	R407C	10

## Technical Specification of CDK-SW Series Water Cooled Dryers

MODEL	AIR FLOW		Power Supply	Nominal	Connection	Dimension (mm)			Weight	Refrigerant	Pressure
	(m <sup>3</sup> /min)	(CFM)	V / PH / Hz	Power kW	inch	W.	L.	H.	Kg		Bar(Max.)
CDK-100SW	15	524	220/1/50	2.97	2-1/2" PT	451	602	1300	172	R407c	10
CDK-150SW	23	803	380/3/50	4.24	2-1/2" PT	451	602	1300	198	R407c	10
CDK-200SW	30	1047	380/3/50	5.35	3" PT	451	602	1300	257	R407c	10
CDK-250SW	36	1256	380/3/50	6.01	3" PT	451	602	1300	279	R407c	10
CDK-300SW	43	1501	380/3/50	8.67	4" FL	700	802	1300	378	R407c	10
CDK-400SW	61	2129	380/3/50	10.78	5" FL	700	802	1300	502	R407c	10
CDK-500SW	72	2513	380/3/50	11.67	5" FL	700	802	1300	553	R407c	10
CDK-600SW	89	3106	380/3/50	16.34	6" FL	800	1204	1400	755	R407c	10
CDK-800SW	122	4258	380/3/50	21.22	6" FL	800	1204	1400	1001	R407c	10
CDK-1000SW	144	5026	380/3/50	22.34	8" FL	800	1500	1500	1270	R407c	10
CDK-1500SW	185	6457	380/3/50	34.01	10" FL	1000	2000	1500	1780	R407C	10
CDK-2000SW	288	10051	380/3/50	45.68	10" FL	1500	1500	1600	2300	R407C	10
CDK-2500SW	330	11517	380/3/50	57.35	12" FL	1500	1800	1600	2850	R407C	10
CDK-3000SW	430	15007	380/3/50	69.21	12" FL	1500	2000	1600	3300	R407C	10

Dryers maximum air flow = Dryers air flow x K1 xK2 x K3 xK4

Correction Factor										
Ambient temperature °C	20	22	25	30	35	37	38	40	42	43
Factor (K1) CDK-SA	1.21	1.18	1.1	1.06	1	0.96	0.91	0.88	0.83	0.78
Air inlet temperature °C	30	35	38	40	45	50	55	60	65	70
Factor (K2)	1.26	1.23	1.2	1.18	1	0.9	0.75	0.63	0.53	0.42
Working pressure Bar	2	3	4	6	7	8	9	10	13	16
Factor (K3)	-	-	0.86	0.96	1	1.03	1.06	1.08	1.09	1.1
Pressure Dew point °C	-	-	2	3	4	5	6	7	8	10
Factor (K4)	-	-	0.9	0.96	1	1.02	1.03	1.05	1.07	1.09

Water temperature °C	20	23	25	26	28	30	32	34	36	37
Factor (K1) CDK-SW	1.18	1.14	1.1	1.08	1.06	1	0.96	0.91	0.83	0.74

- 1, CDK-SA & CDK-SW Series Air Inlet Temperature 70°C(max.)
- 2, Dew point Temperature 2-10°C
- 3, CDK-SA Ambient Temperature 2-43°C, CDK-SW Water Temperature 18-37°C
- 4, Air Inlet - Outlet Pressure Drop 0.2Bar
- 5, CDK-SA & CDK-SW Stainless plate heat exchanger, CDK-SW Stainless plate condenser

