

RKT-CQ

Refrigeration compressed air dryer for volume flows from 20 to 850m³/h CQ 0020 AB - C

The compressed air is being fed into the dryer and being pre-cooled in the air-to-air heat exchanger by the outgoing cold compressed air. The pre-cooled air then passes through the refrigerant-to-air heat exchanger where it is being cooled further down to the required pressure dew point. The moisture in the compressed air condenses out and gathers and discharges automatically. Finally, the cold discharged air is being reheated by the the incoming compressed air. This saves energy and prevents any moisture forming beyond the dryer in the compressed air system. The cooling capacity of the refrigeration cycle is being controlled by a microprocessor based controler to realize energy savings of up to 90 % and to avoid freezing of the condensate in the heat exchanger.



type	volume flow*	volume flow*	pressure drop	power supply	power consumption	cooling air requirement	air connections	weight
	m ³ /h	m ³ /min	bar	V/Ph/Hz	kW	m ³ /h	BSP	kg
CQ 0020 AB	20	0,33	0,15	230/1/50-60	0,16	200	3/8"	24
CQ 0035 AB	35	0,58	0,06	230/1/50-60	0,18	200	1/2"	26
CQ 0050 AB	50	0,83	0,09	230/1/50-60	0,19	200	1/2"	27
CQ 0065 AB	65	1,08	0,11	230/1/50-60	0,22	300	1/2"	29
CQ 0085 AB	85	1,42	0,15	230/1/50-60	0,29	300	1/2"	31
CQ 0105 AB	105	1,75	0,40	230/1/50-60	0,31	300	1/2"	31
CQ 0125 AB	125	2,08	0,22	230/1/50-60	0,39	300	1"	32
CQ 0150 AB	150	2,50	0,28	230/1/50-60	0,40	300	1"	33
CQ 0180 AB	180	3,00	0,22	230/1/50	0,53	350	1 1/4"	55
CQ 0225 AB	225	3,75	0,23	230/1/50	0,73	380	1 1/4"	56
CQ 0300 AB	300	5,00	0,42	230/1/50	0,80	600	1 1/4"	57
CQ 0360 AB	360	6,00	0,26	230/1/50	0,81	400	1 1/2"	61
CQ 0450 AB	450	7,50	0,35	230/1/50	0,76	450	1 1/2"	68
CQ 0550 AB	550	9,17	0,16	230/1/50	0,79	1400	2"	116
CQ 0650 AB	650	10,83	0,23	230/1/50	0,88	1900	2"	118
CQ 0750 AB	750	12,50	0,26	230/1/50	1,35	1900	2"	121
CQ 0850 AB	850	14,17	0,14	230/1/50	1,38	1900	2"	155

* according to ISO 7183, quality class 5 DIN ISO 8573-1

RKT- CQ 0020 AB - CQ 0850 AB

Features RKT dryers CQ 0020 AB - CQ 0850 AB	Benefits
Aluminium plate type heat exchanger	No corrosion inside the heat exchanger due to the contact with wet compressed air
High overload capacity up to a pressure dew point of approx. +20 °C	In case of overload, the dryer will only switch off at a dew point above than appr. +20 °C
Timed solenoid	Safe condensate derivation
All dryers in metal cabinet construction	Optimum protection against mechanical damage and against dirt
Lightweight & compact design	Minimum space requirement (on stock, for transport and for the installation in the compressed air network).
Optional package: electronic level controlled condensate drain and potential free alarm contact	Economical operation and safe system installation in the compressed air network

Product description:
Complete compressed air drying system, time solenoid valve drain, dew point indicator, metal housing, power plug. The heat exchanger is a aluminium heat exchanger including three functions: air-to-air heat exchanger, air-to-refrigerant heat exchanger and demister water separator. All dryers are air-cooled.

Refrigerant:
CQ 0020 AB - CQ 0180 AB : R134a
CQ 0225 AB - CQ 0850 AB : R407C

Operating Pressure:
CQ 0020 AB - CQ 0105 AB : min. 2 bar (g) / max. 16 bar (g)
CQ 0125 AB - CQ 0850 AB : min. 2 bar (g) / max. 14 bar (g)

Noise Pressure Level:
< 70 dB (A)

Protection Class:
IP 20

Medium Temperature:
max. +55 °C

Declaration of Conformity:
iht. 2006/42/EG tillæg II A

Medium
Compressed Air

Ambient Temperature:
min. +2 °C max. +45 °C

Sizing

Comp. Air Inlet Temp.	°C	30	35	40	45	50	55
Factor	f_{te}	1,17	1,00	0,88	0,75	0,58	0,48

Pressure Dew Point	°C	3	5	7	10
Factor	f_{tpd}	0,9	1,00	1,11	1,25

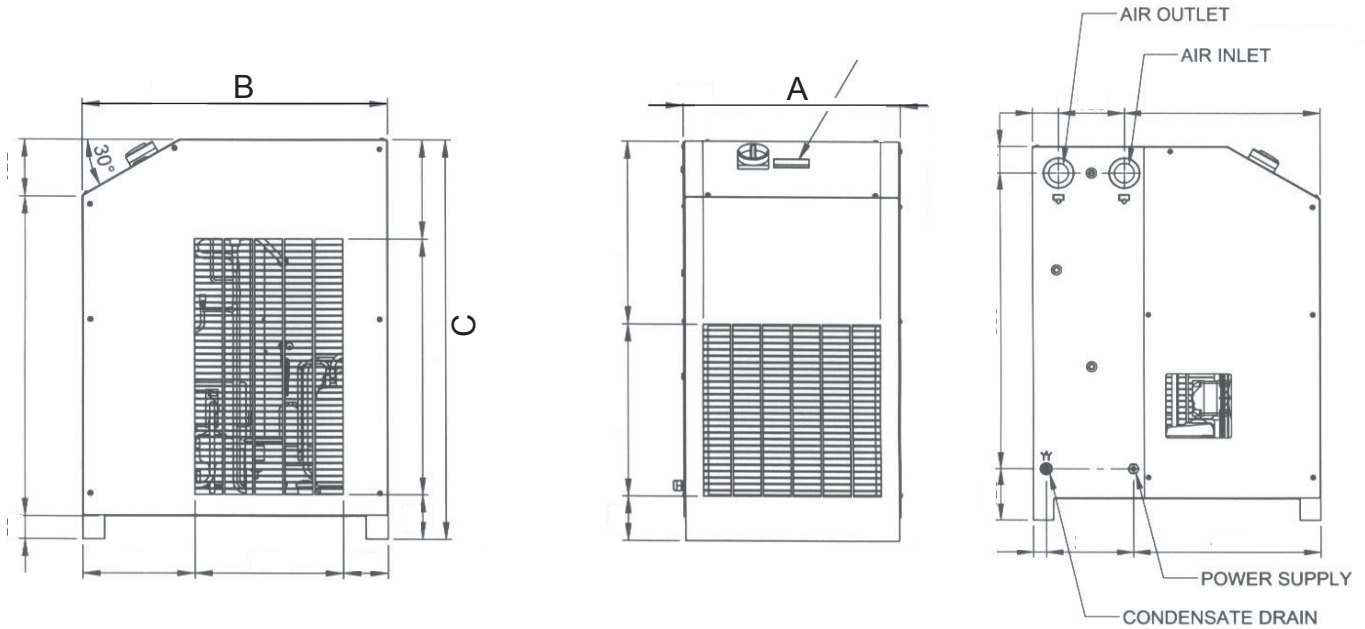
Operating Pressure	bar (ü)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Factor	f_{pg}	0,60	0,70	0,80	0,88	0,94	1,00	1,04	1,06	1,09	1,10	1,12	1,14	1,15	1,16	1,17

Ambient Temperature	°C	25	30	35	40	45
Factor	f_{tu}	1,00	0,97	0,94	0,87	0,78

Correct dryer capacity =
 Standard dryer capacity $\times f_{te} \times f_{tpd} \times f_{pg} \times f_{tu}$

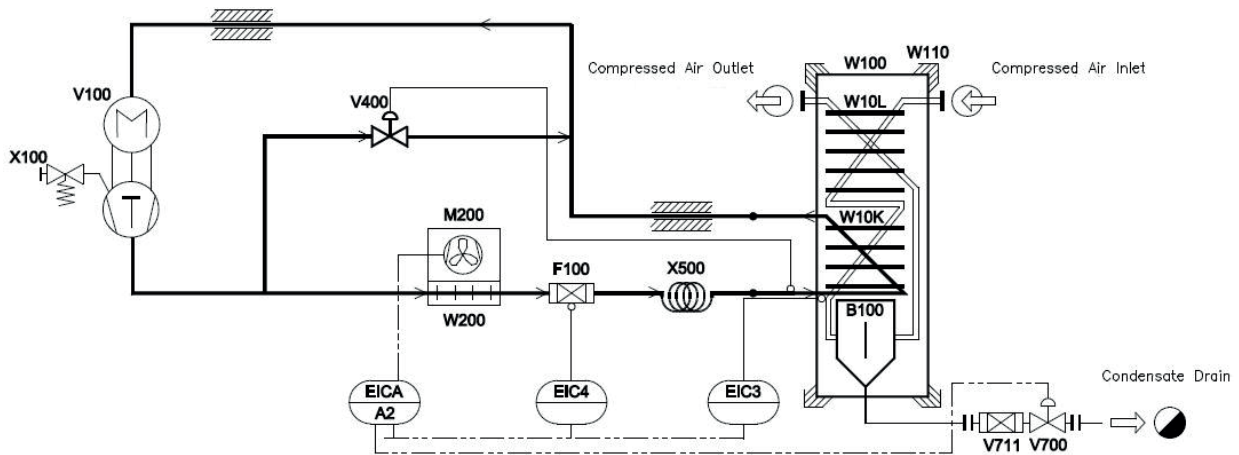
Technical data

RKT- CQ 0020 AB - CQ 0850 AB



Size	A	B	C
	mm	mm	mm
1	360	410	645
2	480	660	870
3	645	920	1055

Functional diagram



Dimensions