

BIOGAS DRYER GC 400-35-5

GENERAL DATA

Gas flow	400	[Nm ³ /h]
Inlet temperature	35	[degC]
Outlet temperature	5	[degC]
Relative humidity at inlet	100	[%]
Relative humidity at outlet (before reheater)	100	[%]
Pressure loss (+3 mbar at demister)	8	[mbar]
Operating pressure	0	[bar(g)]
min. operating pressure	5	[mbar(g)]
max. operating pressure	0.5	[bar(g)]
Required cooling power	17.2	[kW]
Condensate removal	14.4	[kg/h]

COOLING MACHINE

Installed cooling power	18.0	[kW]
At ambient temperature	35	[degC]
Inlet temperature cooling circuit	9	[degC]
Outlet temperature cooling circuit	5	[degC]
Cooling media	R-410A	
Rated power consumption including pump and fan	6.0	[kW]
max. current consumption	15.6	[A]
max. starting current	88	[A]
Power supply	3~400V+N+PE 50Hz TN-C-S	
Cold brine buffer storage	100	[ltr.]
Sound pressure level in 10 m distance (+/- 2 dB(A))	42	[dB(A)]

INSTALLATION & CONNECTIONS

Installation site	Outside installation; No ex-zone	
max. installation altitude	500	[m.a.s.l.]
min. ambient temperature	-20	[degC]
max. ambient temperature	42	[degC]
Inlet connection	125/6	[DN/PN]
Outlet connection	125/6	[DN/PN]
Condensate drain	R1 1/2"	

DIMENSIONS

Length	3600	[mm]
Width	1800	[mm]
Height	1700	[mm]
Transport weight	1000	[kg]
Operation weight	1250	[kg]

BIOGAS DRYER CONSISTS OF:

Liquid chilling unit
Gas cooler / heat exchanger
Base frame
Condensate removal (via siphon from -20 to +20 mbar)
Insulation
Demister
First filling with Water / Glycol

ELECTRIC GAS REHEATER (OPTIONAL)

Gas flow	400	[Nm ³ /h]
Inlet temperature	5	[degC]
Outlet temperature	15	[degC]
Relative humidity at inlet	100	[%]
Relative humidity at outlet	51	[%]
Pressure loss	2.7	[mbar]
Operating pressure	0	[bar(g)]
max. operating pressure	0.5	[bar(g)]
Required heating power	1.6	[kW]
Installed electric heating power	2.0	[kW]
Electric heater control	0-100% modulating	
Temperature control	PID, outlet temperature controlled	
Overtemperature protection	Included	
Power supply	1~230V 50Hz	
Rated current	approx. 8.7	[A]
Connection gas inlet / outlet	DN125/6	[DN/PN]
Length / diameter	1200 / Ø 219.1	ca. [mm]
Weight (transport / operation)	110 / 135	ca. [kg]

OPTIONS:

1 pc. Electric inline heater for reheating the gas to reduce the relative humidity

1 pc. Outlet temperature sensor and PID controller

1 pc. Independent overtemperature limiter

1 pc. Siphon monitoring

1 pc. Condensate removal via condensate collecting tank with pump

1 pc. Trace heating

Transport to site

Supervision for installation / start up on site (on request) - excl. flight, hotel, extra charges, etc