

PH 230 - 635 HE - Welded vessel heatless adsorption dryers

Features & Benefits

- ▶ Advanced energy management for lowest operating costs
 - Compressor synchronization
 - Purge nozzle optimization (optional)
 - PDP control (optional)
- ▶ High-quality, high-efficient desiccant, selected for the right application
 - PDP -40°C/-40°F (std): activated alumina
 - PDP -70°C/-94°F (option): molecular sieves
- ▶ Minimal risk of crushed desiccant thanks to the large vessel diameter and the optional sonic nozzle
- ▶ Counter-current regeneration for optimal energy efficiency and guaranteed dry air
- ▶ High reliability and robust design
- ▶ Low noise levels while purging
- ▶ Designed for transportability
- ▶ Optimal control and monitoring thanks to the Purelogic™ controller (for variants with PDP control)



Options



General Specifications

- ▶ Heatless adsorption dryers: welded vessel design
- ▶ Dew points achievable: -40°C/-40°F & -70°C/-94°F
- ▶ Pressure range: 4-14,5 bar/58-210 PSI
- ▶ Ambient temperature range: 1-50°C/34-122°F
- ▶ Inlet temperature range: 1-50°C/34-122°F
- ▶ Power supply: 230V 50/60Hz

Incorporating high-quality components, PH heatless adsorption dryers provide you with clean, dry air to extend the life of your equipment and products. Heatless adsorption dryers use dry, expanded purge air to remove moisture from the desiccant material.

PH 230-635 HE adsorption dryers are capable of drying air to a PDP of -40°C/-40°F as standard and -70°C/-94°F as option. The desiccant is housed in welded vessels, which are coated and can operate up to 14.5 bar/210 PSI (fatigue load). All dryers

are standard equipped with 2 coalescing pre-filters before and 1 particulate filter after the dryer, and have the possibility to connect the filter alarms (optional) to the Purelogic™ controller.

Variants with PDP control have the Purelogic™ as central brain of the adsorption dryer. The Purelogic™ optimizes operating costs; ensures maximum reliability by monitoring the most important parameters; and offers impressive control and monitoring capabilities.

Technical specifications for PH 230 HE up to PH 635 HE (standard version, PDP -40 °C)

Specification	Unit	PH 230 HE	PH 320 HE	PH 390 HE	PH 530 HE	PH 635 HE
Nominal volume flow at dryer inlet ⁽¹⁾	l/s	107	150	185	250	300
	m ³ /hr	385	540	666	900	1080
Average purge air consumption	%	18	18	18	18	18
Inlet and outlet connections	G	1 1/2"	1 1/2"	1 1/2"	2"	2"
	NPT	1 1/2"	1 1/2"	1 1/2"	2"	2"
Pressure drop at max. flow	Bar	0.12	0.16	0.2	0.14	0.19
	PSI	1.74	2.32	2.90	2.03	2.76
Included pre & after filter size	General purpose coalescing filter	6 G HE	7 G HE	8 G HE	9 G HE	9 G HE
	High efficiency coalescing filter	6 C HE	7 C HE	8 C HE	9 C HE	9 C HE
	Particulate filter	6 S HE	7 S HE	8 S HE	9 S HE	9 S HE
Mass	Kg	340	415	445	600	650
	Lb	750	915	981	1323	1433
Height	mm	1695	1731	1731	1816	1854
	inch	66.7	68.1	68.1	71.5	73.0
Width	mm	950	1089	1089	1106	1173
	inch	37.4	42.9	42.9	43.5	46.2
Length	mm	728	848	848	960	1116
	inch	28.7	33.4	33.4	37.8	43.9

1. Flow is measured at reference conditions: 1 Bar(a) and 20°C at operating pressure of 7 bar (g), inlet temperature 35°C & std PDP of -40°C at the outlet.

Flow correction factors due to air inlet pressure Kp

Operating pressure	Bar(g)	4	5	6	7	8	9	10	11	12.5	13	14	15	16
	psi (g)	58	72	87	100	116	130	145	160	181	189	203	218	232
Pressure correction factor	Kp	0.47	0.68	0.84	1	1.1	1.2	1.3	1.38	1	1.04	1.11	1.19	1.24

Flow correction factors due to air inlet temperature Kt

Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Temperature correction factor	Kt	1	1	1	1	0.84	0.71	0.55

Flow correction factors due to pressure dew point Kdp

Dew point	°C	0	-10	-20	-30	-40	-50	-60	-70
	°F	32	14	-4	-22	-40	-58	-76	-94
Dew point correction factor	Kdp	1	1	1	1	1	0.9	0.75	0.8