

Heatless Desiccant Dryer



Pneumatech Pride

Pneumatech has been manufacturing energy-efficient desiccant dryers for nearly 50 years. We are proud to introduce this new design heatless desiccant dryer with low pressure drop, user-friendly controls, compact design and many other features you have come to expect from Pneumatech.

PH 2-45 HE (High Efficiency)

Delivered with a pre-filter TF PF C & dust filtration integrated in the desiccant cartridge;

Desiccant type - Molecular Sieves;

Pressure Dew Point - 100°F can be achieved by flow de-rating;

Working pressure up to 232 PSIG as standard.

PH 2-45 HE



| Design standards | PH 2-45 HE |
|------------------------|--|
| Dew point | -40°F |
| Working Pressure range | 58 - 232 psig |
| Voltages | 115 V |
| Frequency | 60 Hz |
| Technology | Heatless desiccant |
| Usage | Continuous |
| Handling | Easy to maneuver and install |
| Applications | Food & beverage, electronics, general industry |

| Important features & benefits |
|---|
| Low pressure drop accross the whole range |
| Inlet and outlet can be reversed and dryer can be installed vertically or horizontally |
| Integrated silencers ensure extremely low noise |
| Full electronic controller IP65 protected against water & dust |
| Purge Saver function included as standard (can be wired to pause drying cycle when compressor stops or unloads) |
| Adjustable purge to tune the purge air consumption according to the actual pressure (optional) |

| Options | PH 2-45 HE |
|---------------------------------|---------------------|
| Optimized purge nozzle | • |
| Wall mounting (up to PH HE 150) | • |
| DPD kit (hygrometer) | • |
| PDP -70°C/-94°F | ✓ (by de-rating) |
| IP65 | ✓ |

- ✓ Standard
- Optional
- Not available



Technical data

| MODEL | SCFM FLOW at -40°C/ -40°F PDP | SCFM FLOW at -70°C/ -100°F PDP | INLET CONN SIZE (in)** | OUTLET CONN SIZE (in)** | L x W x H (in) | APPROX. SHIPPING WT (lbs) | RECOMMENDED INLET FILTER TYPE C |
|----------|-------------------------------------|--------------------------------------|---------------------------|----------------------------|-------------------|---------------------------------|---------------------------------|
| PH-HE 2 | 2.1 | 1.5 | 1/4 | 1/4 | 4 x 8 x 21 | 15 | 3 |
| PH-HE 3 | 3.2 | 2.2 | 1/4 | 1/4 | 4 x 8 x 23 | 18 | 3 |
| PH-HE 4 | 4.2 | 2.9 | 1/4 | 1/4 | 4 x 8 x 28 | 20 | 3 |
| PH-HE 5 | 5.3 | 3.7 | 1/4 | 1/4 | 4 x 8 x 33 | 22 | 3 |
| PH-HE 6 | 6.4 | 4.5 | 1/4 | 1/4 | 4 x 8 x 34 | 24 | 3 |
| PH-HE 11 | 10.6 | 7.4 | 3/8 | 1/2 | 25 x 13 x 6 | 42 | TF PF 1 |
| PH-HE 15 | 14.8 | 10.4 | 3/8 | 1/2 | 29 x 13 x 6 | 49 | TF PF 1 |
| PH-HE 20 | 21.2 | 14.8 | 3/8 | 1/2 | 34 x 13 x 6 | 55 | TF PF 1 |
| PH-HE 25 | 25.4 | 17.8 | 1/2 | 1/2 | 40 x 13 x 6 | 64 | TF PF 2 |
| PH-HE 35 | 36.0 | 25.2 | 1/2 | 1/2 | 50 x 13 x 6 | 77 | TF PF 2 |
| PH-HE 45 | 46.6 | 32.6 | 1/2 | 1/2 | 59 x 13 x 6 | 97 | TF PF 2 |

* Reference pressure is 100 psig (design pressure is 232 psig, and maximum working pressure 232 psig)

** Inlet connection refers to inlet filter. Outlet refers to the dryer outlet.

***For conditions differing from the reference conditions, use the below correction factor table.

Correction factors

| (Kd) Pressure dew point (°C/°F) | -40/-40 | -70/-100 |
|---------------------------------|---------|----------|
| PH 2-45 HE | 1 | 0.7 |

| (Kt) Air inlet temperature (°C/°F) | 20/68 | 25/77 | 30/86 | 35/95 | 40/104 | 45/113 | 50/122 |
|------------------------------------|-------|-------|-------|-------|--------|--------|--------|
| PH 2-45 HE | 1.07 | 1.06 | 1.04 | 1 | 0.88 | 0.67 | 0.55 |

| (Kp) Air inlet pressure (bar/psi) | 4/58 | 5/73 | 6/87 | 7/102 | 8/116 | 9/131 | 10/145 | 11/160 | 12/174 | 13/189 | 14/203 | 15/218 | 16/232 |
|-----------------------------------|------|------|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| PH 2-45 HE | 0.62 | 0.75 | 0.87 | 1 | 1.12 | 1.25 | 1.37 | 1.50 | 1.62 | 1.75 | 1.87 | 2 | 2.12 |

Example:

What is the capacity of a PH 15 HE, working at 8 bar(g)/116 psi(g), with an inlet temperature of 40°C/104°F and with a required pressure dew point of -70°C/-100°F?

Find each correction factor:

Kd=0.7

Kt=0.88

Kp=1.12

Actual capacity =

Normal capacity x Kd x Kp x Kt

14.8 x 0.7 x 0.88 x 1.12

10.2 cfm



Pneumatech reserves the right to change or revise specifications and product design in connection with any features of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

© 2015 Pneumatech. All rights reserved.



Pneumatech
1800 Overview Drive
Rock Hill, SC 29730 USA
1-800-336-2285
www.pneumatech.com

