

Regenerative Desiccant Dryers – P3TJA



Specifications

- Flow Range –**
3 SCFM to 20 SCFM @ 100 PSIG
(85 L/min to 567 L/min @ 7 bar)
- Minimum Operating Pressure**.....58 PSIG (4 bar)
- Maximum Operating Pressure**.....175 PSIG (12 bar)
- Minimum Operating Temperature**.....35°F (1.5°C)
- Maximum Inlet Temperature**.....122°F (50°C)
- Noise Level (Average)**.....70dB(A)
- Pressure Dewpoint –**
Standard -40°F (-40°C) pdp
Optional100°F (-70°C) pdp
- Standard Electrical Supply –**
+230/1ph/50Hz (Tolerance +/- 10%)
115/1ph/60Hz (Tolerance +/- 10%)
- Controls**..... Electronic Control Timer
- Inlet Connections** 3/8 NPT (BSP Available upon Request)
- Outlet Connections**... 3/8 NPT (BSP Available upon Request)

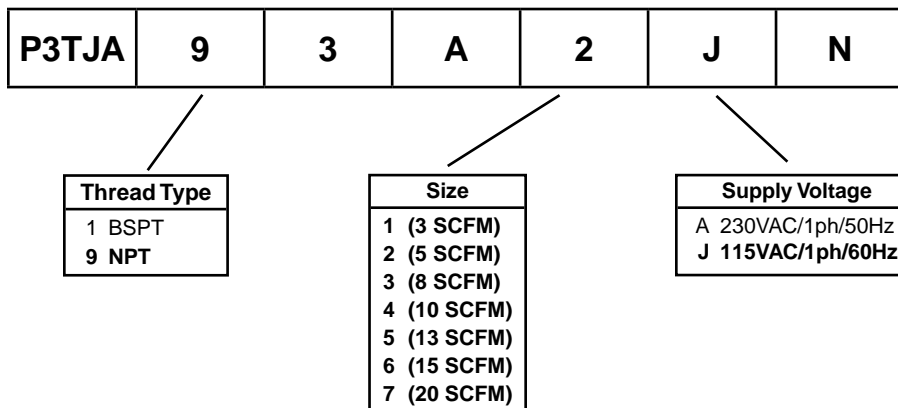
Selection Criteria

To correctly select the dryer best suited for your application, the following details are required to ensure optimum performance and trouble free operation.

- **Maximum Inlet Flow.**
- **Minimum Inlet Pressure.**
- **Maximum Inlet Temperature.**

Once these operating parameters have been established, you can select the most economical Regenerative Desiccant Dryers for your application.

Ordering Information

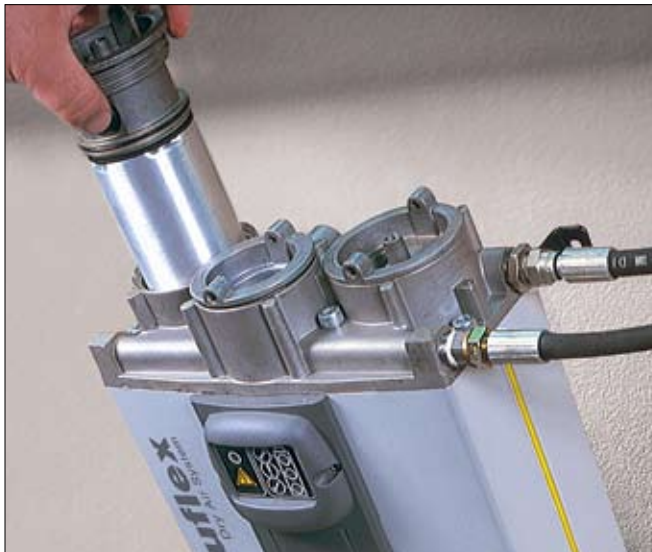


BOLD ITEMS ARE MOST POPULAR.

The Benefits are Obvious

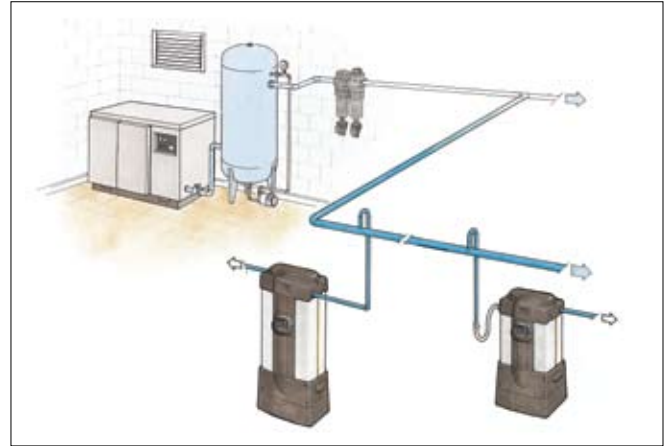
- **Point Of Use Application**
Bringing Clean Dry Air just where you need it.
- **Approved to International Standards**
Designed in accordance with ASME VIII Div.1, approved to CSA/UL/CRN and fully CE Marked (PED, EMC, LVD) as standard.
- **Simple to Install**
Flexible installation utilising the multiple in-line inlet & outlet connection ports.
- **Compact and Lightweight**
Can be Floor, Bench or Wall / Canopy mounted.
- **Very Quiet Operation**
Noise level less than 70dB(A).
- **Can Be Installed Almost Anywhere**
IP66 / NEMA 4 protection as standard.
- **Audible Alarm**
Indicating service interval for optimal performance.
- **Simple & Easy To Maintain**
Due to the quick release top cap arrangement, which does NOT require the inlet / outlet ports to be disconnected as with traditional systems, maintenance can be achieved in under 15 minutes.

The Regenerative Desiccant Dryer, is the reliable, cost effective and flexible way to provide Clean Dry Air exactly where needed.



Easy Desiccant Cartridge Replacement

Product Applications



The Regenerative Desiccant Dryers will benefit users who have a specific need for Clean Dry Air (CDA) directly after a compressor, or for a particular application where the air is critical to the operating process or end product.

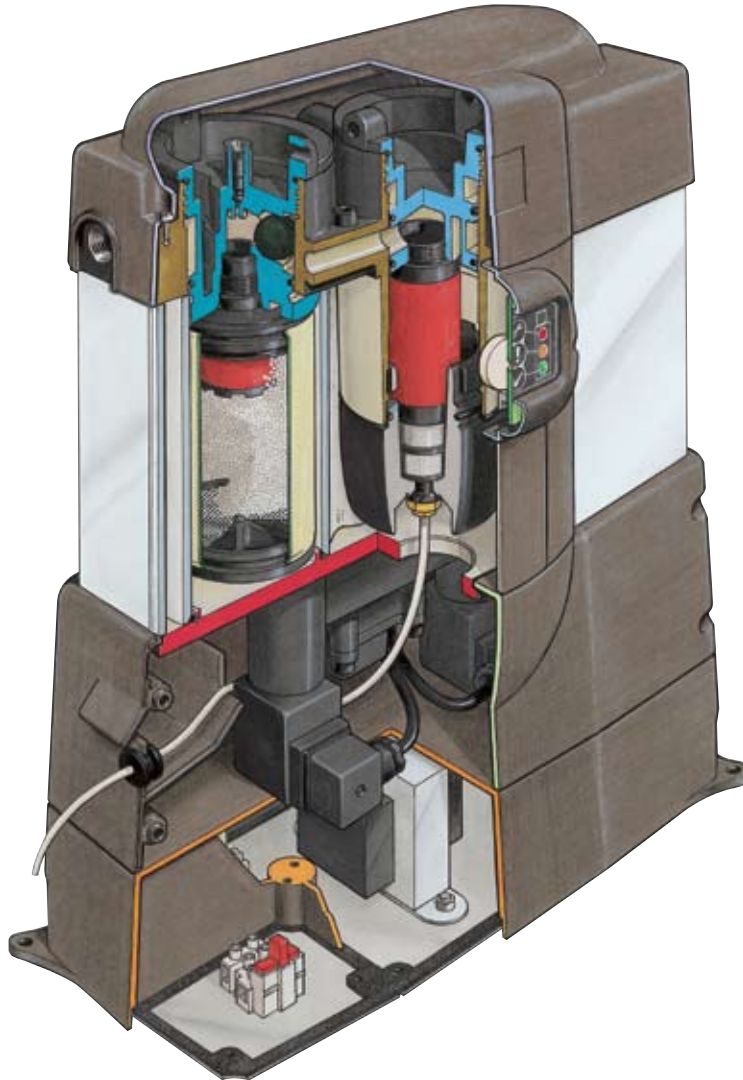


A Regenerative Desiccant Dryer System Installed to Supply Control Air for a CNC Machining Center.

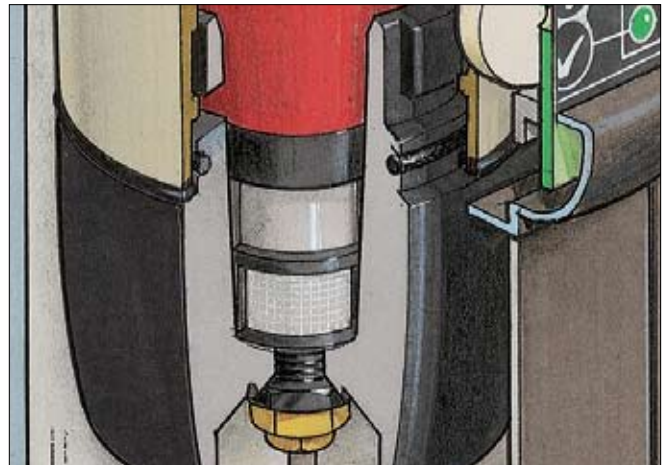
Typical Applications:

- **Computer Numerical Control (CNC) Machines**
- **Coordinate Measuring Machines**
- **Laboratories**
- **Lasers**
- **Packaging Machines**
- **Instrumentation**
- **Processing equipment**
- **Conveying Machines**

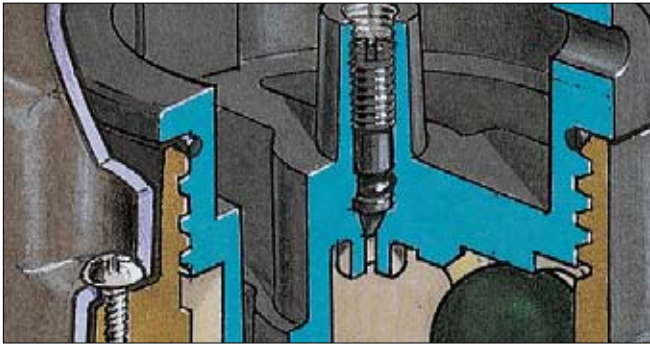
Features



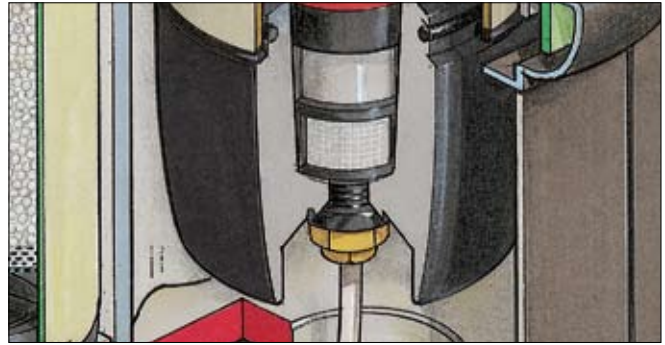
ISO7000 inlet & outlet symbols cast into the top cover ensure correct piping installation.



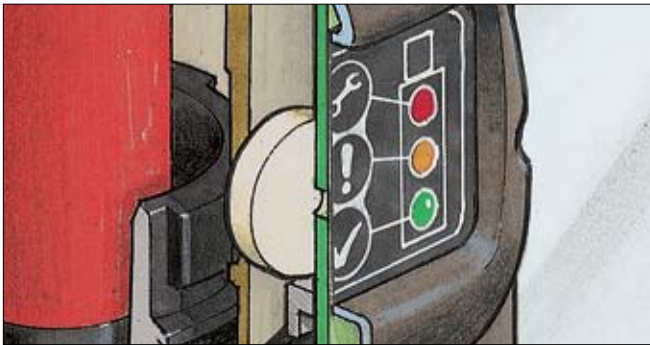
Integral 0.01µm high efficiency filter.



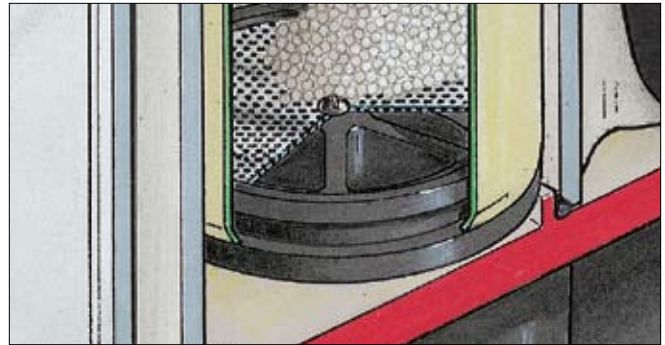
Top End Repressurisation – ensuring uninterrupted compressed air at all times.



Positive removal of prefilter condensate by piping away for remote collection.



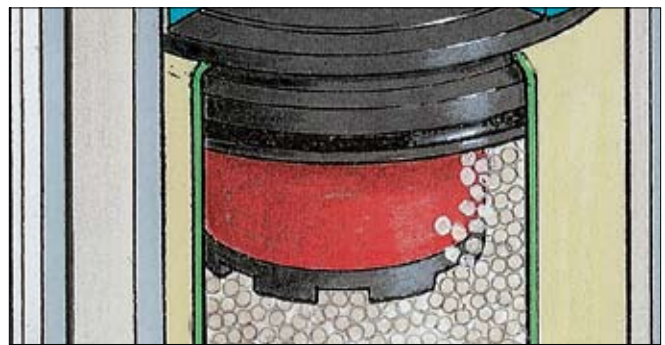
Electronic display providing high visibility LED indication with an internal audible alarm.



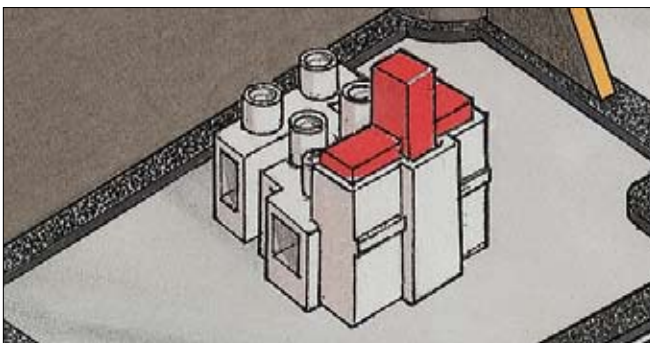
Patented high tensile extruded aluminium column with twin drying chambers.



Alarm reset facility to cancel the audible alarm for 24 hours while replacement components are sourced.



One Combi-Cartridge per column containing DRYFIL® MS desiccant and a 1µm particulate filter.



Easy access to electronic control box for mains connection.



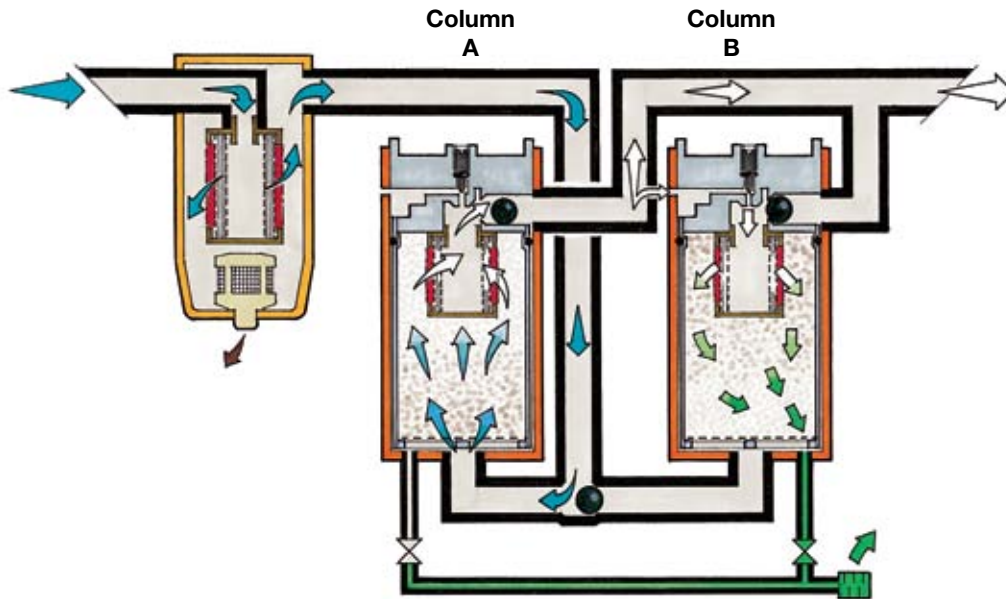
Corrosion protected by alocrom and epoxy painting.

Operation

1

Compressed air enters the integral pre-filter and passes into the left hand chamber (Column A) where the air is dried before passing to the application.

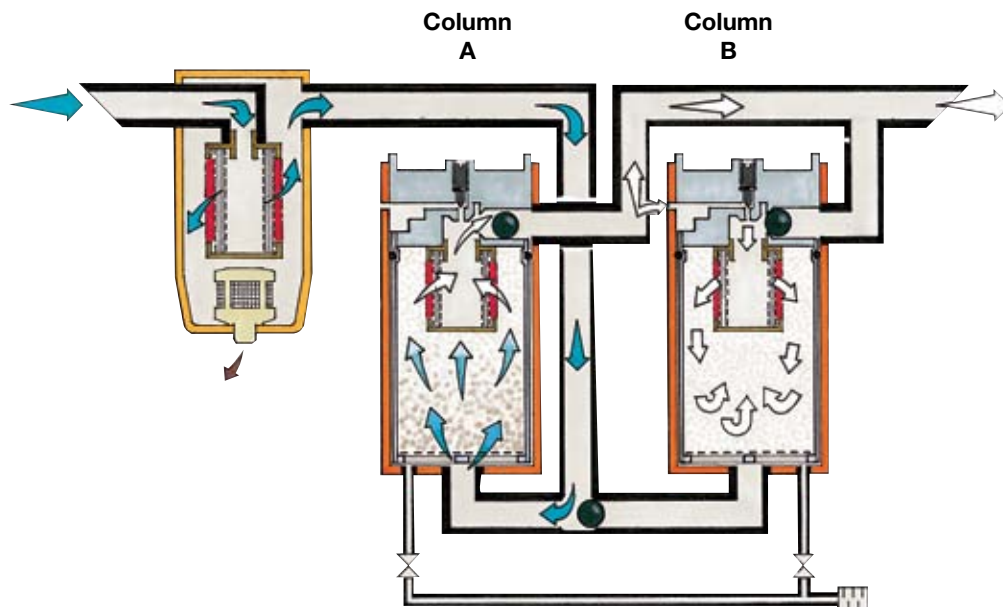
A small amount of dry purge air is used to regenerate the right hand chamber (Column B) which is wet, using the PSA (Pressure Swing Adsorption) method of regeneration, venting the saturated air to atmosphere under pressure. The same regeneration air is also used to "back flush" the integral filter to prolong its working life.



2

Prior to changeover, the right hand chamber (Column B) enters repressurisation where the exhaust.

This process ensures a smooth uninterrupted changeover, preventing the loss of any system pressure, before the process repeats itself.



Optional Features

- For totally quiet operation, the regeneration exhaust air can be positively piped away.
- Remote indication provides a warning of the dryers need for servicing. (Audible alarm not included)
- Wall mounting kit for vertically securing the dryer to a wall or canopy.



A 45° tilt, wall mounting kit is also available for vertically securing the dryer to a wall, canopy or inside a customers product where access to the top of the dryer is restricted.

- In conditions of limited access, the electronic control box (base) can be detached and relocated remotely from the dryer.



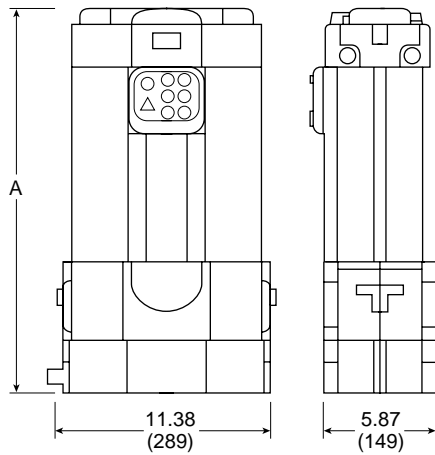
Electronic control box can be remotely located

Service Indication Sequence & Alarm

During operation, The Regenerative Desiccant Dryers Power On (yellow) LED and Check (Green) LED indicators will illuminate, remaining in this configuration for 11500 hours. At this time, the Warning (Yellow) LED will illuminate and cancel the Check (Green) LED. This signals the user to order service replacement components at the optimum time.

500 hours later (a total of 12000 hours from initial start up) the Service (Red) LED will illuminate and cancel the Warning (Yellow) LED, the Audible Alarm housed inside the display will sound intermittently (every 6 seconds) drawing attention to the need for a service.





Weights and Dimensions

Model Number	Dimensions Inches (mm) A	Weight lbs (kg)
P3TJA93A1JN	16.6 (422)	24.2 (11)
P3TJA93A2JN	19.7 (500)	28.7 (13)
P3TJA93A3JN	24.2 (616)	35.3 (16)
P3TJA93A4JN	27.2 (692)	39.7 (18)
P3TJA93A5JN	33.3 (847)	44.1 (20)
P3TJA93A6JN	35.7 (906)	50.7 (23)
P3TJA93A7JN	43.2 (1098)	61.7 (28)

Maintenance Kits

Model Number	Maintenance Kit
P3TJA93A1JN	P3TKA00JA1
P3TJA93A2JN	P3TKA00JA2
P3TJA93A3JN	P3TKA00JA3
P3TJA93A4JN	P3TKA00JA4
P3TJA93A5JN	P3TKA00JA5
P3TJA93A6JN	P3TKA00JA6
P3TJA93A7JN	P3TKA00JA7

Installation Kits

Description	Kit
Fixed Wall Mounting Bracket	P3TKA00MJ
45° Tilt Wall Mounting Bracket	P3TKA00MK

Standard Nominal Flow Rate SCFM (NI/min) at Pressure Dew Point -40°C

Model Number	Port Size	Max Inlet Temperature	Inlet Pressure PSIG (bar)								
			58 (4)	72.5 (5)	87 (6)	101.5 (7)	116 (8)	130.5 (9)	145 (10)	159.5 (11)	174 (12)
P3TJA93A1JN	3/8"	68° (20°C)	1.87 (53)	2.22 (63)	2.65 (75)	3.00 (85)	2.90 (82)	3.25 (92)	3.53 (100)	3.88 (110)	4.17 (118)
		95° (35°C)	1.17 (33)	1.66 (47)	2.33 (66)	3.00 (85)	2.82 (80)	3.50 (99)	4.17 (118)	5.05 (142)	5.83 (165)
		104° (40°C)	1.13 (32)	1.62 (46)	2.26 (64)	2.90 (82)	2.72 (77)	3.43 (97)	4.03 (114)	4.87 (138)	5.65 (160)
		113° (45°C)	1.02 (29)	1.48 (42)	2.05 (58)	2.65 (75)	2.47 (70)	3.07 (87)	3.67 (104)	4.41 (125)	5.12 (145)
		122° (50°C)	0.85 (24)	1.24 (35)	1.70 (48)	2.19 (62)	2.05 (58)	2.58 (73)	3.04 (86)	3.64 (103)	5.01 (142)
P3TJA93A2JN	3/8"	68° (20°C)	3.18 (90)	3.78 (107)	4.41 (125)	5.01 (142)	4.84 (137)	5.40 (153)	5.90 (167)	6.46 (183)	6.99 (198)
		95° (35°C)	2.01 (57)	2.83 (80)	3.88 (110)	5.01 (142)	4.70 (133)	5.83 (165)	6.96 (197)	8.33 (236)	9.78 (277)
		104° (40°C)	1.94 (55)	2.75 (78)	3.74 (106)	4.87 (138)	4.56 (129)	5.69 (161)	6.71 (190)	8.09 (229)	9.50 (269)
		113° (45°C)	1.77 (50)	2.51 (71)	3.39 (96)	4.41 (125)	4.10 (116)	5.12 (145)	6.14 (174)	7.38 (209)	8.62 (244)
		122° (50°C)	1.45 (41)	2.08 (59)	2.83 (80)	3.67 (104)	3.43 (97)	4.27 (121)	5.09 (144)	6.07 (172)	8.40 (238)
P3TJA93A3JN	3/8"	68° (20°C)	5.05 (143)	6.00 (170)	7.06 (200)	9.78 (277)	7.77 (220)	8.65 (245)	9.43 (267)	10.31 (292)	11.19 (317)
		95° (35°C)	3.18 (90)	4.52 (128)	6.22 (176)	9.78 (277)	7.52 (213)	9.36 (265)	11.12 (315)	13.31 (377)	15.67 (444)
		104° (40°C)	3.07 (87)	4.38 (124)	6.00 (170)	7.77 (220)	7.31 (207)	9.08 (257)	10.74 (304)	12.89 (365)	15.22 (431)
		113° (45°C)	2.79 (79)	3.96 (112)	5.44 (154)	7.06 (200)	6.60 (187)	8.23 (233)	9.82 (278)	11.76 (333)	13.77 (390)
		122° (50°C)	2.33 (66)	3.32 (94)	4.52 (128)	5.86 (166)	5.51 (156)	6.85 (194)	8.12 (230)	9.68 (274)	13.42 (380)
P3TJA93A4JN	3/8"	68° (20°C)	6.29 (178)	7.52 (213)	8.83 (250)	9.99 (283)	9.71 (275)	10.84 (307)	11.83 (335)	12.89 (365)	14.02 (397)
		95° (35°C)	3.96 (112)	5.65 (160)	7.77 (220)	9.99 (283)	9.43 (267)	11.72 (332)	13.95 (395)	16.63 (471)	19.63 (556)
		104° (40°C)	3.85 (109)	5.47 (155)	7.52 (213)	9.71 (275)	9.15 (259)	11.37 (322)	13.49 (382)	16.10 (456)	19.07 (540)
		113° (45°C)	3.46 (98)	4.98 (141)	6.82 (193)	8.79 (249)	8.26 (234)	10.31 (292)	12.29 (348)	14.69 (416)	17.23 (488)
		122° (50°C)	2.90 (82)	4.13 (117)	5.65 (160)	7.31 (207)	6.89 (195)	8.58 (243)	10.17 (288)	12.11 (343)	16.81 (476)
P3TJA93A5JN	3/8"	68° (20°C)	8.19 (232)	9.78 (277)	11.41 (323)	12.99 (368)	12.61 (357)	14.06 (398)	15.36 (435)	16.77 (475)	18.19 (515)
		95° (35°C)	5.16 (146)	7.35 (208)	10.03 (284)	12.99 (368)	12.223 (346)	15.19 (430)	18.12 (513)	21.65 (613)	25.46 (721)
		104° (40°C)	5.01 (142)	7.13 (202)	9.71 (275)	12.61 (357)	11.87 (336)	14.76 (418)	17.52 (496)	20.98 (594)	24.70 (700)
		113° (45°C)	4.52 (128)	6.46 (183)	8.79 (249)	11.44 (324)	10.70 (303)	13.35 (378)	15.96 (452)	19.14 (542)	22.35 (633)
		122° (50°C)	3.78 (107)	5.37 (152)	7.31 (207)	9.50 (269)	8.93 (253)	11.09 (314)	13.21 (374)	15.79 (447)	21.82 (618)
P3TJA93A6JN	3/8"	68° (20°C)	9.46 (268)	11.23 (318)	13.17 (373)	15.01 (425)	14.55 (412)	16.17 (458)	17.73 (502)	19.35 (548)	21.01 (595)
		95° (35°C)	5.97 (169)	8.44 (239)	11.58 (328)	15.01 (425)	14.13 (400)	17.48 (495)	20.91 (592)	24.97 (707)	29.42 (833)
		104° (40°C)	5.76 (163)	8.19 (232)	11.19 (317)	14.55 (412)	13.67 (387)	16.99 (481)	20.20 (572)	24.19 (685)	28.57 (809)
		113° (45°C)	5.19 (147)	7.42 (210)	10.14 (287)	13.21 (374)	12.36 (350)	15.36 (435)	18.43 (522)	22.07 (625)	25.85 (732)
		122° (50°C)	4.34 (123)	6.18 (175)	8.44 (239)	10.95 (310)	10.35 (293)	12.78 (362)	15.26 (432)	18.19 (515)	25.21 (714)
P3TJA93A7JN	3/8"	68° (20°C)	12.60 (357)	15.01 (425)	17.59 (498)	20.02 (567)	19.42 (550)	21.61 (612)	23.59 (668)	25.85 (732)	28.00 (793)
		95° (35°C)	7.95 (225)	11.27 (319)	15.47 (438)	20.02 (567)	18.86 (534)	23.34 (661)	27.83 (788)	33.34 (944)	39.20 (1110)
		104° (40°C)	7.70 (218)	10.95 (310)	14.94 (423)	19.42 (550)	18.26 (517)	22.71 (643)	26.91 (762)	32.32 (915)	38.07 (1078)
		113° (45°C)	6.92 (196)	9.92 (281)	13.53 (383)	17.62 (499)	16.53 (468)	20.52 (581)	25.54 (695)	29.45 (834)	34.43 (975)
		122° (50°C)	5.79 (164)	8.26 (234)	11.27 (319)	14.62 (414)	13.80 (391)	17.06 (483)	20.27 (574)	24.30 (688)	33.62 (952)

