

HATCH PDS

Pressurisation equipment for staircases, escape routes and fire fighting lobbies, pursuant to European standard EN 12101-6

Pressurisation equipment for escape routes in the event of a fire, pursuant to the requirements of European standard EN 12101-6. The HATCH PDS automatically regulates the air flow and is able to maintain the 50 Pa overpressure, even in the presence of leakages in the installation. The system can maintain the overpressure (pressure criteria) and a speed of 0.75 m/s in an open door situation (airflow criteria) almost immediately.

HATCH PDS

It is formed by a HATCH-S ventilation unit with a motorised hatch opening function and a BOXPDS control panel.

- An extremely robust structure that is able to withstand severe weather changes.
- Equipment structure made of corrosive-proof galvanised sheet steel.
- Watertight design to prevent the entry of water.
- Heat insulation to prevent hot air loss in the winter.
- Adaptable skirting for correct, easy installation on the roof.

Opening system:

- Motorised opening arms, with encapsulated IP-65 mechanism.
- Supply voltage 230 V. AC 50Hz or 24V. DC.
- Reinforced, guaranteed system with more than 10,000 operations at maximum load.
- Maximum load 1000 Nw.
- Automatic opening via external control system signal (fire station, smoke detector, manual switch...).
- Control systems not included in the supply.
- Manual opening for environmental ventilation via switch.
- Limit switch to signal the hatch position.

Fan:

- HCT series extractor fans.
- Tubular wrap in sheet steel with polyester resin anti-corrosive treatment.
- Cast aluminium rotors.

Motor:

- IE2 efficiency motors for powers equal to or greater than 0.75kW and lower than 7.5kW.
- IE3 efficiency motors for powers equal to or greater than 7.5kW.
- Class F motors with ball bearings and IP55 protection.
- Three-phase 230/400V-50Hz (up to 4kW) and 400/690V-50Hz (powers greater than 4kW).
- Operating temperature: -25°C +50°C.

Finish:

- Anti-corrosive galvanised sheet steel.

On request:

- Fitted with F-300 and F-400 rated fans.
- Reversible pressurisation equipment for smoke evacuation in case of need.
- Polyester resin anti-corrosive paint finish.

BOXPDS

- Variable Frequency Drive.
- High precision differential pressure sensor.
- Electric panel with magneto thermal protections and general power supply failure indication.
- Electronic control for the management of alarms, maintenance, ModBUS RTU port for BMS (Building management systems) connection and DAMPER control.
- Certified power supply with batteries to ensure power supply to control equipment in the event of a power failure.

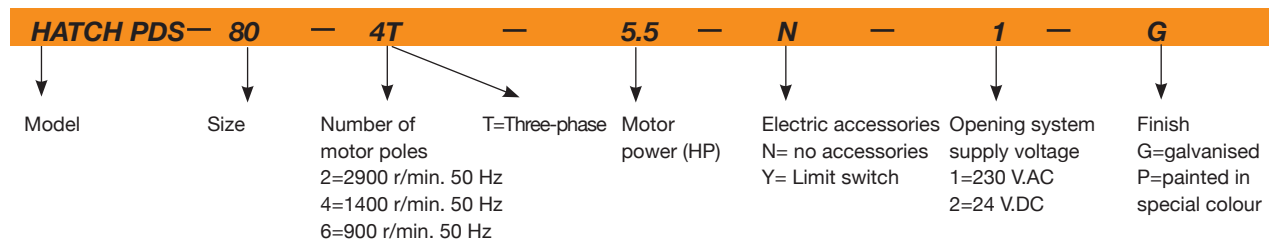
Control panel:

- External control panel for real-time viewing of pressure, alarm pilot lamps and manual system activation.



+50 Pa

Order code



Technical characteristics

| Model | Speed (r/min) | Maximum admissible current (A) | | | Installed power (kW) | Maximum flow rate (m³/h) | Sound pressure level dB(A) | Approx. weight (Kg) |
|----------------------|---------------|--------------------------------|-------|-------|----------------------|--------------------------|----------------------------|---------------------|
| | | 230V | 400V | 690V | | | | |
| HATCH PDS-40-2T-1 | 2850 | 3.15 | 1.80 | | 0.75 | 6115 | 72 | 184 |
| HATCH PDS-40-2T-1.5 | 2880 | 4.70 | 2.70 | | 1.10 | 7050 | 73 | 188 |
| HATCH PDS-45-2T-2 | 2880 | 5.90 | 3.40 | | 1.50 | 9405 | 75 | 193 |
| HATCH PDS-45-2T-3 | 2840 | 8.70 | 5.00 | | 2.20 | 11325 | 77 | 194 |
| HATCH PDS-50-2T-2 | 2880 | 5.90 | 3.40 | | 1.50 | 10100 | 77 | 197 |
| HATCH PDS-50-2T-3 | 2840 | 8.70 | 5.00 | | 2.20 | 11925 | 78 | 199 |
| HATCH PDS-50-2T-4 | 2880 | 11.20 | 6.50 | | 3.00 | 13860 | 79 | 206 |
| HATCH PDS-50-2T-5.5 | 2870 | | 9.30 | 5.40 | 4.00 | 15900 | 80 | 222 |
| HATCH PDS-56-2T-5.5 | 2870 | | 9.50 | 5.50 | 4.00 | 18840 | 85 | 226 |
| HATCH PDS-56-2T-7.5 | 2910 | | 10.60 | 6.14 | 5.50 | 22510 | 86 | 237 |
| HATCH PDS-56-2T-2 | 1440 | 6.20 | 3.60 | | 1.50 | 15020 | 72 | 205 |
| HATCH PDS-63-2T-3 | 1425 | 9.00 | 5.20 | | 2.20 | 22460 | 73 | 262 |
| HATCH PDS-63-2T-4 | 1430 | 11.40 | 6.60 | | 3.00 | 24460 | 74 | 271 |
| HATCH PDS-63-2T-1 | 940 | 4.70 | 2.70 | | 0.75 | 16025 | 63 | 252 |
| HATCH PDS-80-2T-3 | 1425 | 9.00 | 5.20 | | 2.20 | 25545 | 79 | 280 |
| HATCH PDS-80-2T-4 | 1430 | 11.40 | 6.60 | | 3.00 | 30410 | 80 | 289 |
| HATCH PDS-80-2T-5.5 | 1440 | | 8.40 | 4.80 | 4.00 | 32940 | 81 | 295 |
| HATCH PDS-80-2T-7.5 | 1460 | | 12.60 | 7.30 | 5.50 | 39820 | 82 | 311 |
| HATCH PDS-80-2T-1.5 | 945 | 5.50 | 3.20 | | 1.10 | 21580 | 69 | 279 |
| HATCH PDS-80-2T-2 | 945 | 7.40 | 4.30 | | 1.50 | 26090 | 70 | 288 |
| HATCH PDS-90-2T-7.5 | 1460 | | 12.60 | 7.30 | 5.50 | 46325 | 88 | 392 |
| HATCH PDS-90-2T-10 | 1460 | | 17.70 | 10.20 | 7.50 | 50315 | 89 | 403 |
| HATCH PDS-90-2T-15 | 1460 | | 22.00 | 12.70 | 11.00 | 59610 | 90 | 456 |
| HATCH PDS-90-2T-3 | 950 | 9.50 | 5.50 | | 2.20 | 34055 | 75 | 365 |
| HATCH PDS-90-2T-4 | 970 | 13.50 | 7.80 | | 3.00 | 39055 | 76 | 391 |
| HATCH PDS-100-2T-10 | 1460 | | 17.70 | 10.20 | 7.50 | 57650 | 90 | 413 |
| HATCH PDS-100-2T-15 | 1460 | | 22.00 | 12.70 | 11.00 | 66505 | 91 | 466 |
| HATCH PDS-100-2T-5.5 | 970 | | 11.00 | 6.40 | 4.00 | 47955 | 81 | 413 |
| HATCH PDS-100-2T-7.5 | 970 | | 12.40 | 7.20 | 5.50 | 53545 | 82 | 420 |

Technical characteristics of the dynamic discharge system based on standard EN 12101-3:2002/AC:2006

| Model | Approval °C | Motor insulation class | Durability | Minimum room temperature | Wind load (Pa) | Snow load (Pa) |
|-----------|-------------|------------------------|------------|--------------------------|----------------|----------------|
| HATCH PDS | - | Class F | RE 10000 | T(-15) | WL 1500 | SL 500 |



Erp. Maximum efficiency point (BEP) characteristics

| | | | |
|------|-----------------------------------|---------|--|
| <(°) | Blade inclination angle (degrees) | SR | Specific ratio |
| PN | Nominal motor power (kW) | ηe[%] | Efficiency |
| MC | Measurement category | N | Efficiency grade |
| EC | Efficiency category | [kW] | Electric power |
| S | Static | [m³/h] | Flow rate |
| T | Total | [mmH²O] | Static or total pressure (based on EC) |
| VSD | Variable speed drive | [RPM] | Speed |

| Model | <(°) | PN | MC | EC | VSD | SR | ηe[%] | N | (kW) | (m³/h) | (mmH²O) | (RPM) |
|----------------------|------|------|----|----|-----|------|-------|------|--------|--------|---------|-------|
| HATCH PDS-40-2T-1 | 16 | 0.75 | A | S | NO | 1.00 | 41.5% | 48.1 | 0.933 | 4420 | 32.19 | 2850 |
| HATCH PDS-40-2T-1.5 | 20 | 1.1 | A | S | NO | 1.00 | 33.6% | 38.9 | 1.445 | 5180 | 34.43 | 2884 |
| HATCH PDS-45-2T-2 | 16 | 1.5 | A | S | NO | 1.00 | 35.9% | 40.8 | 1.688 | 6802 | 32.70 | 2896 |
| HATCH PDS-45-2T-3 | 22 | 2.2 | A | S | NO | 1.01 | 37.7% | 41.6 | 2.405 | 8144 | 40.86 | 2854 |
| HATCH PDS-50-2T-2 | 8 | 1.5 | A | S | NO | 1.00 | 35.9% | 40.3 | 2.014 | 6731 | 39.48 | 2876 |
| HATCH PDS-50-2T-3 | 12 | 2.2 | A | S | NO | 1.01 | 36.8% | 40.5 | 2.586 | 7884 | 44.29 | 2843 |
| HATCH PDS-50-2T-4 | 16 | 3 | A | S | NO | 1.01 | 34.3% | 37.3 | 3.381 | 8962 | 47.55 | 2885 |
| HATCH PDS-50-2T-5.5 | 20 | 4 | A | S | NO | 1.01 | 32.6% | 35.1 | 4.131 | 9537 | 51.91 | 2885 |
| HATCH PDS-56-2T-5.5 | 16 | 4 | A | S | NO | 1.01 | 45.4% | 47.8 | 4.202 | 12896 | 54.34 | 2883 |
| HATCH PDS-56-2T-7.5 | 22 | 5.5 | A | S | NO | 1.01 | 41.2% | 42.6 | 6.055 | 15917 | 57.53 | 2913 |
| HATCH PDS-56-4T-2 | 36 | 1.5 | B | T | NO | 1.00 | 45.7% | 50.7 | 1.665 | 13581 | 20.60 | 1445 |
| HATCH PDS-63-4T-3 | 32 | 2.2 | B | T | NO | 1.00 | 62.0% | 65.9 | 2.443 | 20324 | 27.38 | 1430 |
| HATCH PDS-63-4T-4 | 38 | 3 | B | T | NO | 1.00 | 57.8% | 60.9 | 3.270 | 24239 | 28.64 | 1440 |
| HATCH PDS-63-4T-1 | 38 | 0.75 | B | T | NO | 1.00 | 48.4% | 54.4 | 1.099 | 15880 | 12.29 | 942 |
| HATCH PDS-80-2T-3 | 12 | 2.2 | C | S | NO | 1.00 | 47.1% | 51.0 | 2.413 | 16923 | 24.69 | 1430 |
| HATCH PDS-80-2T-4 | 16 | 3 | C | S | NO | 1.00 | 41.1% | 43.8 | 3.686 | 20444 | 27.19 | 1432 |
| HATCH PDS-80-2T-5.5 | 18 | 4 | C | S | NO | 1.00 | 41.2% | 43.5 | 4.246 | 22304 | 28.78 | 1448 |
| HATCH PDS-80-4T-7.5 | 26 | 5.5 | B | T | NO | 1.00 | 63.0% | 64.5 | 5.914 | 35186 | 38.92 | 1465 |
| HATCH PDS-80-2T-1.5 | 18 | 1.1 | C | S | NO | 1.00 | 35.4% | 40.8 | 1.389 | 14613 | 12.35 | 951 |
| HATCH PDS-80-4T-2 | 26 | 1.5 | B | T | NO | 1.00 | 57.5% | 62.1 | 1.825 | 23053 | 16.71 | 950 |
| HATCH PDS-90-2T-7.5 | 18 | 5.5 | C | S | NO | 1.00 | 44.1% | 45.2 | 6.749 | 31521 | 34.72 | 1460 |
| HATCH PDS-90-2T-10 | 22 | 7.5 | C | S | NO | 1.01 | 38.9% | 39.2 | 9.154 | 35009 | 37.36 | 1463 |
| HATCH PDS-90-4T-15 | 30 | 11 | B | T | NO | 1.01 | 67.1% | 67.1 | 11.526 | 52205 | 54.45 | 1463 |
| HATCH PDS-90-2T-3 | 24 | 2.2 | C | S | NO | 1.00 | 38.0% | 41.5 | 2.832 | 23831 | 16.58 | 950 |
| HATCH PDS-90-4T-4 | 30 | 3 | B | T | NO | 1.00 | 58.8% | 61.6 | 3.698 | 34203 | 23.37 | 971 |
| HATCH PDS-100-2T-10 | 16 | 7.5 | C | S | NO | 1.00 | 41.3% | 41.4 | 9.606 | 37591 | 38.73 | 1461 |
| HATCH PDS-100-2T-15 | 22 | 11 | C | S | NO | 1.01 | 43.6% | 43.5 | 12.145 | 44571 | 43.65 | 1461 |
| HATCH PDS-100-4T-20 | 28 | 15 | B | T | NO | 1.01 | 64.1% | 63.8 | 16.091 | 66559 | 56.95 | 1462 |
| HATCH PDS100-6T-5.5 | 26 | 4 | B | T | NO | 1.00 | 57.6% | 59.7 | 4.671 | 42042 | 23.50 | 973 |
| HATCH PDS-100-4T-7.5 | 32 | 5.5 | B | T | NO | 1.00 | 56.3% | 57.9 | 5.690 | 53520 | 22.00 | 975 |

Acoustic characteristics

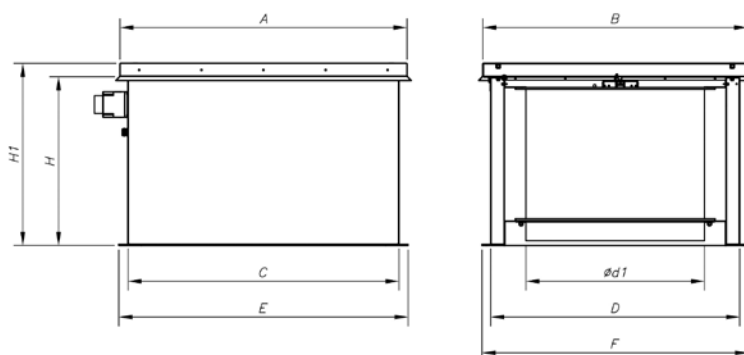
The values given are determined by measuring the sound power in dB(A) obtained in a free field at a distance equivalent to twice the size of the fan plus the rotor diameter, with a minimum of 1.5 m.

Sound power spectrum Lw(A) in dB(A) per Hz frequency band.

| Model | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Model | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|----------|----|-----|-----|-----|------|------|------|------|-----------|----|-----|-----|-----|------|------|------|------|
| 40-2-1 | 44 | 65 | 72 | 77 | 80 | 76 | 69 | 58 | 80-4-4 | 54 | 74 | 82 | 87 | 89 | 86 | 79 | 71 |
| 40-2-1.5 | 45 | 66 | 73 | 78 | 81 | 77 | 70 | 59 | 80-4-5.5 | 54 | 74 | 82 | 87 | 89 | 86 | 79 | 72 |
| 45-2-2 | 47 | 68 | 75 | 80 | 83 | 79 | 72 | 61 | 80-4-7.5 | 55 | 75 | 83 | 88 | 90 | 87 | 80 | 73 |
| 45-2-3 | 49 | 70 | 77 | 82 | 85 | 81 | 74 | 63 | 80-6-1.5 | 47 | 64 | 72 | 77 | 79 | 76 | 69 | 58 |
| 50-2-2 | 52 | 72 | 80 | 85 | 87 | 84 | 77 | 66 | 80-6-2 | 48 | 65 | 73 | 78 | 80 | 77 | 70 | 59 |
| 50-2-3 | 53 | 73 | 81 | 86 | 88 | 85 | 78 | 67 | 90-4-7.5 | 57 | 78 | 85 | 90 | 93 | 89 | 82 | 71 |
| 50-2-4 | 54 | 74 | 82 | 87 | 89 | 86 | 79 | 68 | 90-4-10 | 56 | 77 | 84 | 89 | 92 | 88 | 81 | 70 |
| 50-2-5.5 | 55 | 75 | 83 | 88 | 90 | 87 | 80 | 69 | 90-4-15 | 58 | 79 | 86 | 91 | 94 | 90 | 83 | 72 |
| 56-2-5.5 | 60 | 80 | 88 | 93 | 95 | 92 | 85 | 74 | 90-6-3 | 54 | 68 | 75 | 80 | 83 | 79 | 72 | 61 |
| 56-2-7.5 | 61 | 81 | 89 | 94 | 96 | 93 | 86 | 75 | 90-6-4 | 55 | 70 | 77 | 82 | 85 | 81 | 74 | 63 |
| 56-4-2 | 47 | 67 | 75 | 80 | 82 | 79 | 72 | 61 | 100-4-10 | 60 | 80 | 88 | 93 | 95 | 92 | 85 | 74 |
| 63-4-3 | 50 | 68 | 76 | 81 | 83 | 80 | 75 | 64 | 100-4-15 | 59 | 79 | 87 | 92 | 94 | 91 | 84 | 73 |
| 63-4-4 | 51 | 69 | 77 | 82 | 84 | 81 | 76 | 65 | 100-4-20 | 61 | 81 | 89 | 94 | 96 | 93 | 86 | 75 |
| 63-6-1 | 41 | 60 | 68 | 73 | 75 | 72 | 65 | 55 | 100-6-5.5 | 62 | 71 | 79 | 84 | 86 | 83 | 76 | 65 |
| 80-4-3 | 56 | 75 | 83 | 89 | 90 | 87 | 81 | 70 | 100-6-7.5 | 63 | 72 | 80 | 85 | 87 | 84 | 77 | 66 |

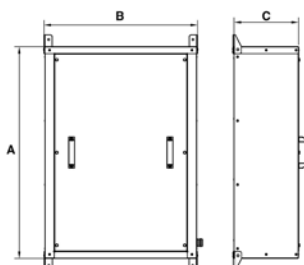
Dimensions mm

HATCH PDS



| Model | A | B | C | D | ød1 | E | F | H | H1 | Model | A | B | C | D | ød1 | E | F | H | H1 |
|---------------------|------|------|------|------|-----|------|------|-----|-----|----------------------|------|------|------|------|------|------|------|-----|-----|
| HATCH PDS-40-2T-1 | 1100 | 990 | 1022 | 920 | 400 | 1100 | 1000 | 760 | 820 | HATCH PDS-80-4T-4 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 |
| HATCH PDS-40-2T-1.5 | 1100 | 990 | 1022 | 920 | 400 | 1100 | 1000 | 760 | 820 | HATCH PDS-80-4T-5.5 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 |
| HATCH PDS-45-2T-2 | 1100 | 990 | 1022 | 920 | 450 | 1100 | 1000 | 760 | 820 | HATCH PDS-80-4T-7.5 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 |
| HATCH PDS-45-2T-3 | 1100 | 990 | 1022 | 920 | 450 | 1100 | 1000 | 760 | 820 | HATCH PDS-80-6T-1.5 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 |
| HATCH PDS-50-2T-2 | 1100 | 990 | 1022 | 920 | 500 | 1100 | 1000 | 760 | 820 | HATCH PDS-80-6T-2 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 |
| HATCH PDS-50-2T-3 | 1100 | 990 | 1022 | 920 | 500 | 1100 | 1000 | 760 | 820 | HATCH PDS-90-4T-7.5 | 1492 | 1392 | 1420 | 1320 | 900 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-50-2T-4 | 1100 | 990 | 1022 | 920 | 500 | 1100 | 1000 | 760 | 820 | HATCH PDS-90-4T-10 | 1492 | 1392 | 1420 | 1320 | 900 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-50-2T-5.5 | 1100 | 990 | 1022 | 920 | 500 | 1100 | 1000 | 760 | 820 | HATCH PDS-90-4T-15 | 1492 | 1392 | 1420 | 1320 | 900 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-56-2T-5.5 | 1100 | 990 | 1022 | 920 | 560 | 1100 | 1000 | 760 | 820 | HATCH PDS-90-6T-3 | 1492 | 1392 | 1420 | 1320 | 900 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-56-2T-7.5 | 1100 | 990 | 1022 | 920 | 560 | 1100 | 1000 | 760 | 820 | HATCH PDS-90-6T-4 | 1492 | 1392 | 1420 | 1320 | 900 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-56-4T-2 | 1100 | 990 | 1022 | 920 | 560 | 1100 | 1000 | 760 | 820 | HATCH PDS-100-4T-10 | 1492 | 1392 | 1420 | 1320 | 1000 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-63-4T-3 | 1295 | 1195 | 1222 | 1122 | 630 | 1300 | 1200 | 760 | 820 | HATCH PDS-100-4T-15 | 1492 | 1392 | 1420 | 1320 | 1000 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-63-4T-4 | 1295 | 1195 | 1222 | 1122 | 630 | 1300 | 1200 | 760 | 820 | HATCH PDS-100-4T-20 | 1492 | 1392 | 1420 | 1320 | 1000 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-63-6T-1 | 1295 | 1195 | 1222 | 1122 | 630 | 1300 | 1200 | 760 | 820 | HATCH PDS-100-6T-5.5 | 1492 | 1392 | 1420 | 1320 | 1000 | 1500 | 1400 | 860 | 920 |
| HATCH PDS-80-4T-3 | 1295 | 1195 | 1222 | 1122 | 800 | 1300 | 1200 | 760 | 820 | HATCH PDS-100-6T-7.5 | 1492 | 1392 | 1420 | 1320 | 1000 | 1500 | 1400 | 860 | 920 |

BOXPDS



| Model | A | B | C |
|--------|-----|-----|-----|
| BOXPDS | 900 | 650 | 280 |