

# JEDNA FÁZA - VÝKONNOST

## VÝMENNÍK TEPLA: E8THx40/1P

SWEP SSP G8 2023.609.1.0

Dátum: 13/06/2023

Alias v SSP: E8T

| TECHNICKÉ ZADANIE |                   | Strana 1     | Strana 2     |
|-------------------|-------------------|--------------|--------------|
| Tekutina          |                   | Water        | Water        |
| Typ toku          |                   |              | Protiprúd    |
| Okruh             |                   | Vnútorná     | Vonkajšia    |
| Výkon             | kW                |              | 60.45        |
| Vstupná teplota   | °C                | <b>70.00</b> | <b>40.00</b> |
| Výstupná teplota  | °C                | 49.93        | 59.80        |
| Prietok           | m <sup>3</sup> /h | <b>2.650</b> | <b>2.650</b> |
| Termická dĺžka    |                   | 1.993        | 1.966        |

| DOSKOVÝ VÝMENNÍK TEPLA                    |                        | Strana 1    | Strana 2    |
|---|------------------------|-------------|-------------|
| Celková plocha výmeny tepla               | m <sup>2</sup>         |             | 0.874       |
| Tepelný tok                               | kW/m <sup>2</sup>      |             | 69.2        |
| Stredný log. teplotný rozdiel             | K                      |             | 10.07       |
| Koef. prestupu tepla (vypočítaný/žiadaný) | W/m <sup>2</sup> , °C  |             | 6870/6870   |
| Tlaková strata - celková*                 | kPa                    | 20.6        | 19.9        |
| - v portoch                               | kPa                    | 6.34        | 6.52        |
| Priemer pripojenia (hore/dole)            | mm                     | 16.0/16.0   | 16.0/16.0   |
| Počet kanálov na priechod                 |                        | 19          | 20          |
| Počet dosiek                              |                        |             | 40          |
| Plošná rezerva                            | %                      |             | 0           |
| Faktor znečistenia                        | m <sup>2</sup> , °C/kW |             | 0.000       |
| Reynoldovo číslo                          |                        | 2222        | 1825        |
| Rýchlosť v porte (hore/dole)              | m/s                    | 3.64/3.64   | 3.68/3.68   |
| Rýchlosť v kanáloch                       | m/s                    | 0.264       | 0.253       |
| Strihové napätie                          | Pa                     | 45.2        | 42.6        |
| Priemerná teplota steny                   | °C                     | 55.67       | 54.57       |
| Max. tepelný rozdiel na stene             | K                      |             | 1.32        |
| Min./Max. teplota steny                   | °C                     | 45.76/65.71 | 44.47/64.39 |

\*S výnimkou tlakovej straty v konetoroch.

| FYZIKÁLNE VLASTNOSTI           |                       | Strana 1 | Strana 2 |
|--------------------------------|-----------------------|----------|----------|
| Referenčná teplota             | °C                    | 59.97    | 49.90    |
| Dynamická viskozita            | cP                    | 0.467    | 0.548    |
| Dynamická viskozita - na stene | cP                    | 0.499    | 0.508    |
| Hustota                        | kg/m <sup>3</sup>     | 983.2    | 988.1    |
| Merná tepelná kapacita         | kJ/kg, °C             | 4.185    | 4.181    |
| Tepelná vodivosť               | W/m, °C               | 0.6543   | 0.6435   |
| Koeficient prestupu tepla      | W/m <sup>2</sup> , °C | 16300    | 15300    |

| ÚHRNÉ HODNOTY                              |                 | Strana 1 | Strana 2 |
|--|-----------------|----------|----------|
| Celková hmotnosť prázdny (bez konektorov)* | kg              |          | 3.34     |
| Celková hmotnosť plný (bez konektorov)*    | kg              |          | 4.84     |
| Hold-up objem (Vnútorná Okruh)             | dm <sup>3</sup> |          | 0.74     |
| Hold-up objem (Vonkajšia Okruh)            | dm <sup>3</sup> |          | 0.78     |
| Veľkosť portu F1/P1                        | mm              |          | 16       |
| Veľkosť portu F2/P2                        | mm              |          | 16       |
| Veľkosť portu F3/P3                        | mm              |          | 16       |
| Veľkosť portu F4/P4                        | mm              |          | 16       |
| Uhlíková stopa                             | kg              |          | 23.45    |

\*Hmotnosť závisí od zvoleného produktu.



**ROZMERY**

|   | FRONT | SIDE |   | mm |                 |
|---|-------|------|---|----|-----------------|
| A |       |      | A | mm | 315 ±2          |
| B |       |      | B | mm | 73 ±1           |
| C |       |      | C | mm | 278 ±1          |
| D |       |      | D | mm | 40 ±1           |
| E |       |      | E | mm | 12 (opt. 20) ±1 |
| F |       |      | F | mm | 87.12 +4%/-3.3% |
| G |       |      | G | mm | 7 ±1            |
| Q |       |      | Q | mm | 2               |
| R |       |      | R | mm | 16              |

\*To je schematický náčrt. Pre správne výkresy použite funkciu "Objednaj výkres" alebo sa obráťte na SWEP zástupcu.

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