

PROTEUS L O Z N I C A Milan Rikalović, dipl.inž. Aplikacija Vitex-v3T-04	RATING - DESIGN PROBLEM		TEČNOST - TEČNOST	
	NARUČILAC:	MESTO:	Datum: 31-Mar-04	
	FIRMA	Mesto	Br. ponude VIT-br/GOD	
	VITUS		RT84p-550v2-Cu18U / 2.6 , A = 50.91 m2	

POSTUPAK DESIGN

RATING PROBLEM

KONFIGURACIJA STRUJANJA		
TIP RT	RT84	RT84
Režim	PROJEKTNI	KLIZNI

A. ZADATE VELIČINE

kA [kW/°C]	42.65783482	36.40264964
tp' [°C]	150	70
ts' [°C]	70	43

mp [kg/s]	2.52405742	2.52405742
ms [kg/s]	9.53743443	9.53743443
Konfig. [a]	4	4

B. IZRAČUNATE VELIČINE

cp [kW/kg°C]	4.225	4.18
cs [kW/kg°C]	4.194	4.177
$\theta = tp' - ts'$	80	27
Wp [kW/°C]	10.6641426	10.55056
Ws [kW/°C]	40	39.8378636
W [kW/°C]	10.6641426	10.55056
Wv [kW/°C]	40	39.8378636
R	0.26660357	0.2648375
NTU=kA/W	4.00011856	3.45030497
E	2.81499194	2.44077037
Pa	0.58106518	0.53543
P	0.95498362	0.93540056
Iz dijag. ϵ [-]		
E1		
P		
$\Delta tv = P \cdot \theta$	76.39869	25.2558151
$\Delta tm = R \cdot \Delta tv$	20.3681631	6.68868681
LMTD	19.9617684	7.56332186
ϵ	0.95678429	0.96781271
$\Delta te = LMTD \cdot \epsilon$	19.0991064	7.31987906

Q=Wv* Δtm	814.726525	266.462993
Q=Wm* Δtv	814.726525	266.462993
Q=kA* Δte	814.726525	266.462993

C. ODZIV SISTEMA

tp'' [°C]	73.60131	44.744185
ts'' [°C]	90.368163	49.688687
tp sr	111.800655	57.3720925
ts sr	80.1840816	46.3443434

TIP RT	RT84	RT84
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DESIGN PROBLEM

KONFIGURACIJA STRUJANJA		
TIP RT	RT84	RT84
Režim	PROJEKTNI	KLIZNI

A. ZADATE VELIČINE

Poznat izlaz	SEKUNDARA	SEKUNDARA
tp' [°C]	150	70
ts' [°C]	70	43
t'' [°C]	90	49.8850508
mp [kg/s]	2.52405742	2.52405742
ms [kg/s]	9.53743443	9.53743443
Konfig. [a]	4	4

B. IZRAČUNATE VELIČINE

cp [kW/kg°C]	4.225	4.18
cs [kW/kg°C]	4.194	4.177
$\theta = tp' - ts'$	80	27
Wp [kW/°C]	10.6641426	10.55056
Ws [kW/°C]	40	39.8378636
W [kW/°C]	10.6641426	10.55056
Wv [kW/°C]	40	39.8378636
R	0.26660357	0.2648375
Δts	20	6.88505079
Δtp	75.0177515	25.9972659
Δtv	75.0177515	25.9972659
P	0.93772189	0.9628617
Pa	0.54055379	0.60293509
P, Pa max	0.86898629	0.86982515
P(Δt_{max})	0.99937981	0.99939822
Δtv_{max}	79.9503849	26.9837518
Δtm_{max}	21.3150577	7.14630926
NTU=kA/W	3.51070887	4.2900185
kA	37.4387	45.2620977
LMTD	22.1091275	6.37343029
ϵ	0.96649057	0.95081335
$\Delta te = LMTD \cdot \epsilon$	21.3682633	6.0599426
Q=Wv* Δtm	800	274.285714
Q=Wm* Δtv	800	274.285714
Q=kA* Δte	800	274.285714

C. ODZIV SISTEMA

tp'' [°C]	74.982249	44.002734
ts'' [°C]	90	49.885051
tp''min [°C]	70.0496151	43.0162482
ts''max [°C]	91.3150577	50.1463093
tp sr	112.491124	57.0013671
ts sr	80	46.4425254

TIP RT	RT84	RT84
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