

ANNEXES: POLYNOMIALS FOR HP/ORC REVERSIBLE UNIT

$$T_{w,ev,ex,HP} = a_1 + a_2 \cdot T_{w,cd,su} + a_3 \cdot T_{w,cd,su}^2 + a_4 \cdot T_{w,ev,su} + a_5 \cdot T_{w,ev,su}^2$$

$$\dot{W}_{el,ORC} = b_1 + b_2 \cdot \dot{m}_{w,ev} + b_3 \cdot \dot{m}_{w,ev}^2 + b_4 \cdot \dot{m}_{w,cd} + b_5 \cdot \dot{m}_{w,cd}^2 + b_6 \cdot T_{w,cd,su} + b_7 \cdot T_{w,cd,su}^2 + b_8 \cdot T_{w,ev,su} + b_9 \cdot T_{w,ev,su}^2$$

$$T_{w,ev,ex,ORC} = c_1 + c_2 \cdot \dot{m}_{w,ev} + c_3 \cdot \dot{m}_{w,ev}^2 + c_4 \cdot \dot{m}_{w,cd} + c_5 \cdot \dot{m}_{w,cd}^2 + c_6 \cdot T_{w,cd,su} + c_7 + c_8 \cdot T_{w,ev,su} + c_9 \cdot T_{w,ev,su}^2$$

$$\begin{aligned} \dot{W}_{el,HP} = & d_1 + d_2 \cdot \dot{m}_{w,ev} + d_3 \cdot \dot{m}_{w,ev}^2 + d_4 \cdot sc + d_5 \cdot sc^2 + d_6 \cdot \dot{m}_{w,cd} + \\ & d_7 \cdot \dot{m}_{w,cd}^2 + d_8 \cdot T_{w,cd,su} + d_9 \cdot T_{w,cd,su}^2 + d_{10} \cdot T_{w,ev,su} + d_{11} \cdot T_{w,ev,su}^2 + d_{12} \cdot \dot{m}_{w,ev} \cdot sc + d_{13} \cdot \dot{m}_{w,ev} \cdot \dot{m}_{w,cd} + \\ & d_{14} \cdot \dot{m}_{w,ev} \cdot T_{w,cd,su} + d_{15} \cdot \dot{m}_{w,ev} \cdot T_{w,ev,su} + d_{16} \cdot sc \cdot \dot{m}_{w,cd} + d_{17} \cdot sc \cdot T_{w,cd,su} + \\ & d_{18} \cdot sc \cdot T_{w,ev,su} + d_{19} \cdot \dot{m}_{w,cd} \cdot T_{w,cd,su} + d_{20} \cdot \dot{m}_{w,cd} \cdot T_{w,ev,su} + d_{21} \cdot T_{w,cd,su} \cdot T_{w,ev,su} \end{aligned}$$

$$\dot{Q}_{cd,HP} = e_1 + e_2 \cdot \dot{m}_{w,ev} + e_3 \cdot \dot{m}_{w,ev}^2 + e_4 \cdot sc + e_5 \cdot sc^2 + e_6 \cdot \dot{m}_{w,cd} + e_7 \cdot \dot{m}_{w,cd}^2 + e_8 \cdot T_{w,cd,su} + e_9 \cdot T_{w,cd,su}^2 + e_{10} \cdot T_{w,ev,su} + e_{11} \cdot T_{w,ev,su}^2$$

Coefficient for the polynomial of the HP/ORC reversible unit

a_1	-9.87428468	b_1	2.71543730E+02
a_2	0.121624764	b_2	-2.18706646E+03
a_3	-2.40859537E - 04	b_3	-6.82084229E+03
a_4	1.23728511	b_4	0.07222890E+03
a_5	-3.96640941E	b_5	1.65290727E+02
d_1	8.40807593E+02	b_6	-0.47805165E+01
d_2	1.89837540E+03	b_7	1.10412192E-01
d_3	-2.74503287E+03	b_8	9.48391483E+01
d_4	3.33788461E+02	b_9	-8.47467828E-02
d_5	-1.12136838E-01	c_1	-4.11634724E+00
d_6	+6.96662715E+02	c_2	3.97569704E-01
d_7	1.76531001E+02	c_3	-3.40747425E+00
d_8	4.34845595E +02	c_4	-5.07916414E-01
d_9	9.73420594E-01	c_5	1.44562242E-01*

d_{10}	6.34277013E+01	c_6	3.08137710E-02
d_{11}	9.52076505E-01	c_7	+1.47207257E-04
d_{12}	-5.46566625E+02	c_8	+1.10360430E+00
d_{13}	-2.00942356E+03	c_9	-5.81198164E-03
d_{14}	7.08494196E+02	e_1	4964
d_{15}	-9.65352859E+00	e_2	-414.2
d_{16}	-8.38139478E-01	e_3	15435
d_{17}	-1.02958290E-01	e_4	-8.24
d_{18}	2.43267726E-01	e_5	0.08991
d_{19}	-1.93089374E+00	e_6	437
d_{20}	-7.16484773E-01	e_7	-125.7805
d_{21}	-2.23569289E+00	e_8	-0.28.72
		e_9	-0.2311
		e_{10}	121.6
		e_{11}	2.993