

Testing noPCM

May 31, 2018

Table 1: Invalid Input Tests

Ref	Test Name	Purpose	Inputs	Ouput
1	energyWaterTest1	Checks the change in heat energy of the water in the tank	Inputed directly into test case	Correct output calculated with $Ew(t) = Cw * mW(Tw(t)Tinit)$
2	energyWaterTest2	Checks the change in heat energy of the water in the tank	Inputed directly into test case	”
3	energyWaterTest3	Checks the change in heat energy of the water in the tank	Inputed directly into test case	”

Table 2: Invalid Input Tests

Ref	Test Name	Purpose	Inputs
1	invalidTest01	Checks the tank's length to ensure it is > 0	FI01.txt (negative value)
2	invalidTest02	”	FI02.txt (zero value)
3	invalidTest03	Checks the tank's diameter to ensure it is > 0	FI03.txt (negative value)
4	invalidTest04	”	FI04.txt (zero value)
5	invalidTest05	Checks the Ac (heating coil surface area) to ensure it is > 0	FI05.txt (zero value)
6	invalidTest06	”	FI06.txt (negative value)
7	invalidTest07	Checks the hc (convective heat transfer coefficient between coil and water)to ensure it is ≥ 0	FI07.txt (zero value)
8	invalidTest8	Checks the Tc (temperature of coil)to ensure it is between > 0 and < 100	FI08.txt (zero value)
9	invalidTest9	”	FI09.txt (greater than value)