

## **TF2 – T-comparison AUDI**

21.03.2019

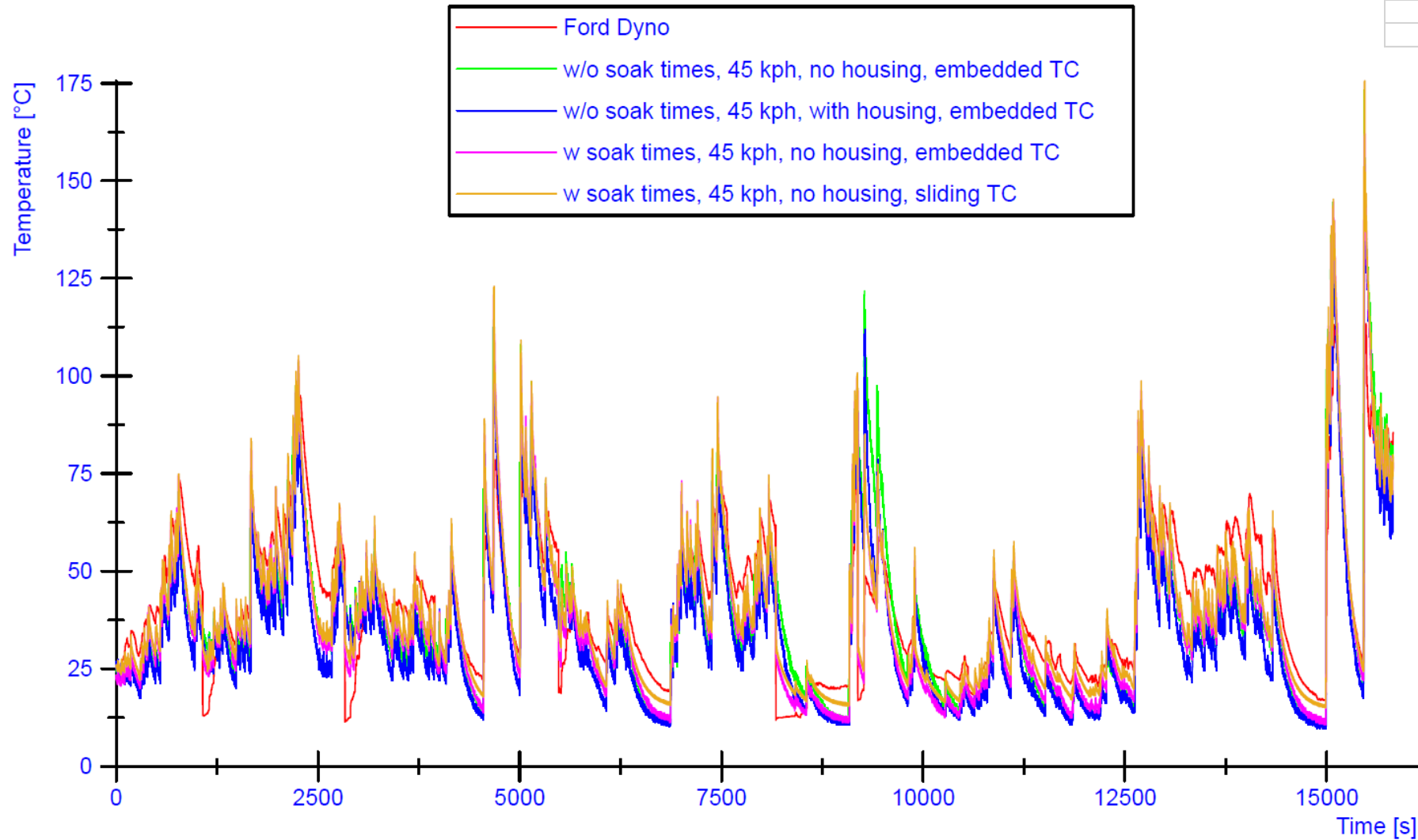
# Trip Info

TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	

	T with soak times [°C]	T without soak times [°C]
Trip 1	30	38
Trip 2	30	43
Trip 3	30	38
Trip 4	30	43
Trip 5	30	50
Trip 6	below 30	below 30
Trip 7	30	90
Trip 8	30	45
Trip 9	below 30	below 30

# Trips 1-10

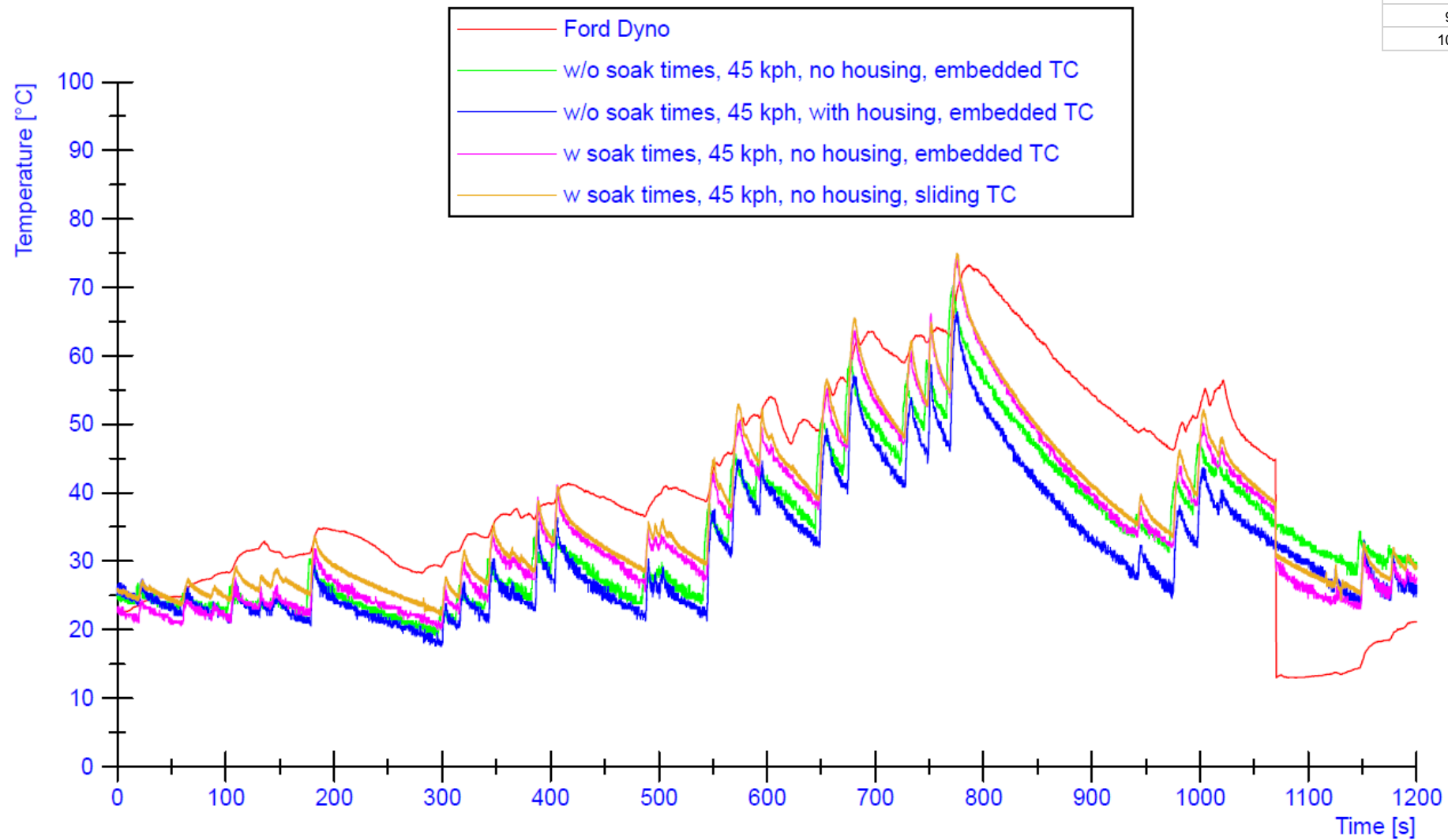
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST  $\approx$  38°C

# Trip 1

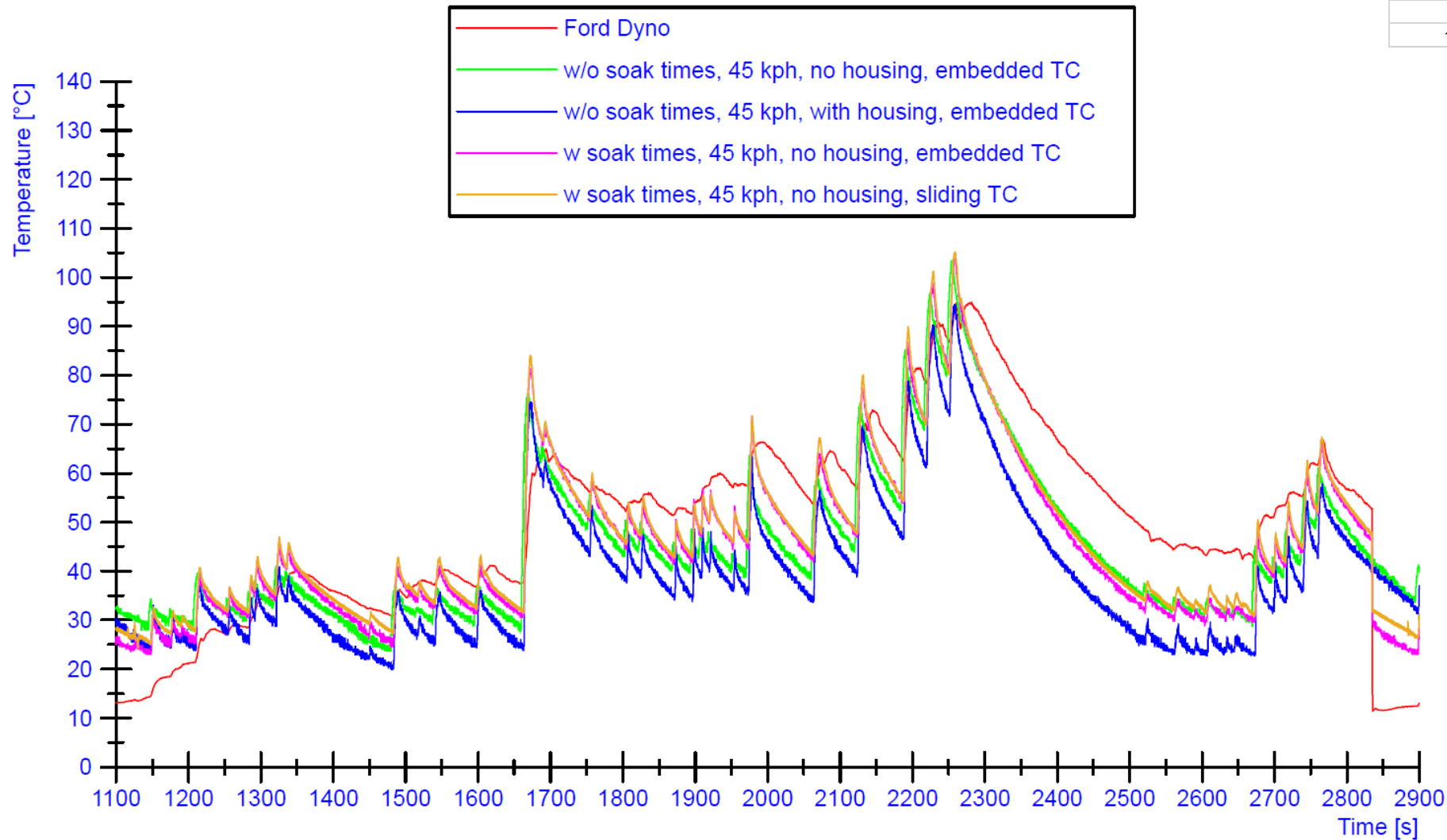
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST ≈ 43°C

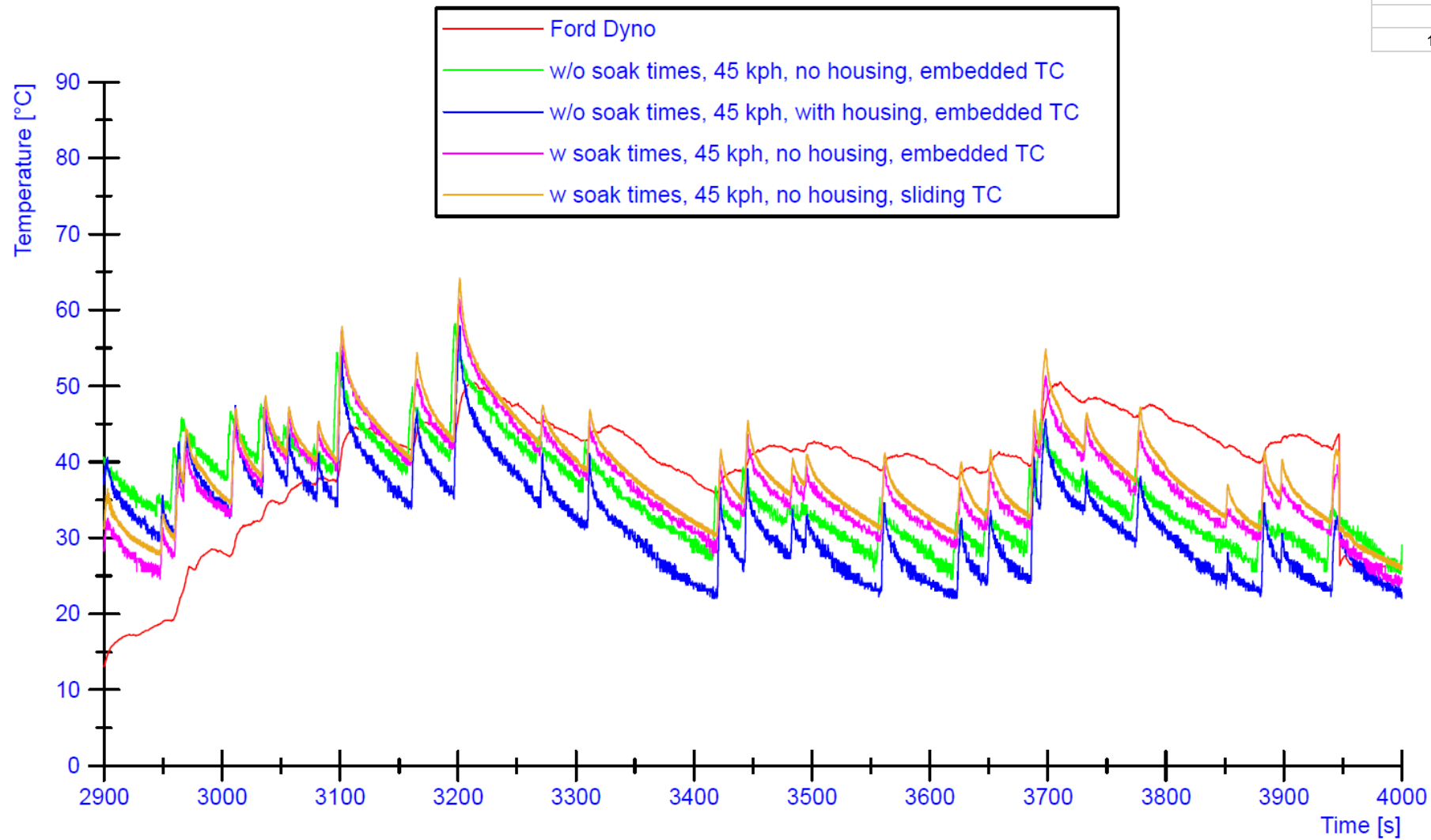
# Trip 2

TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



## Trip 3

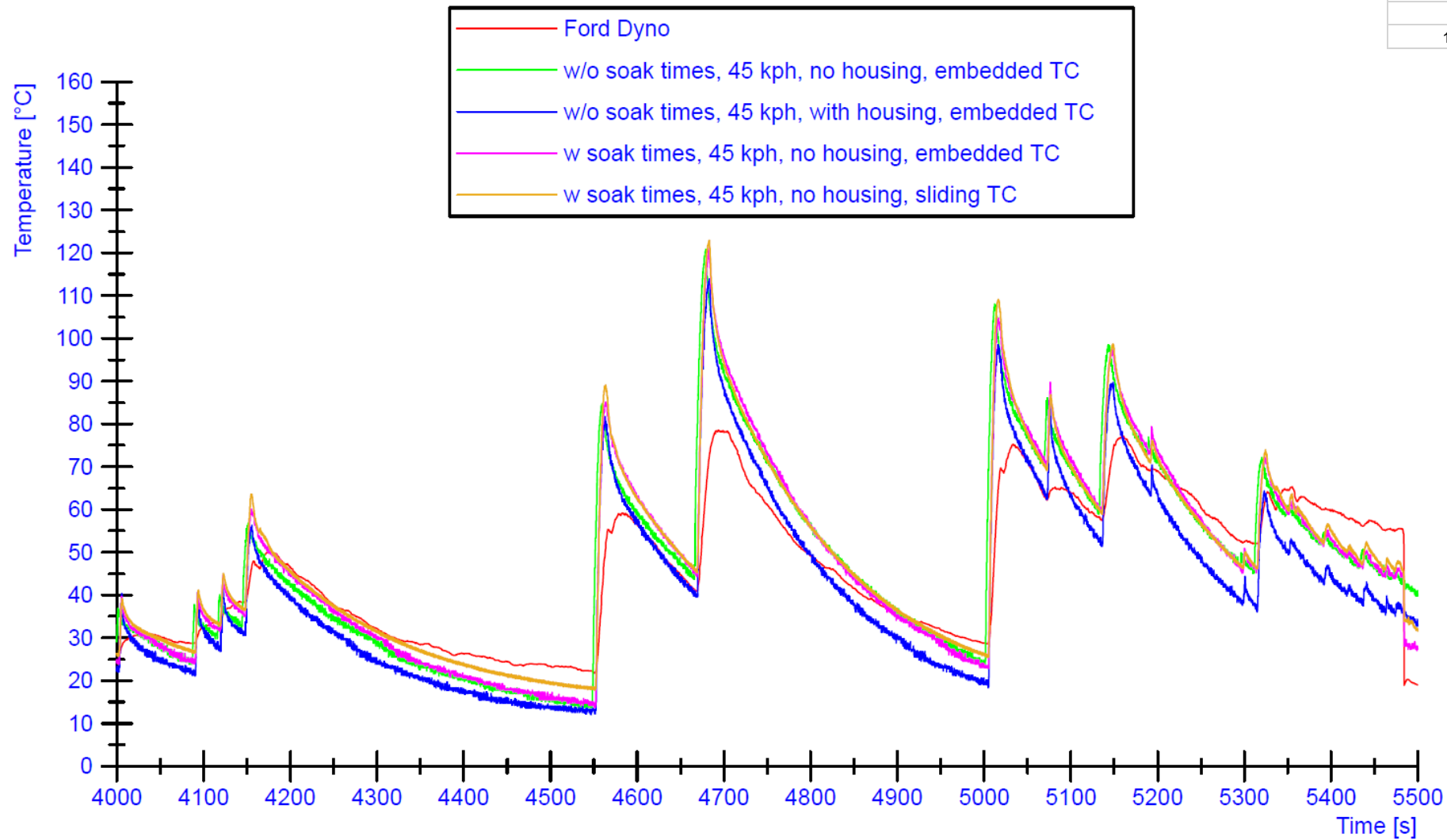
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST  $\approx$  43°C

## Trip 4

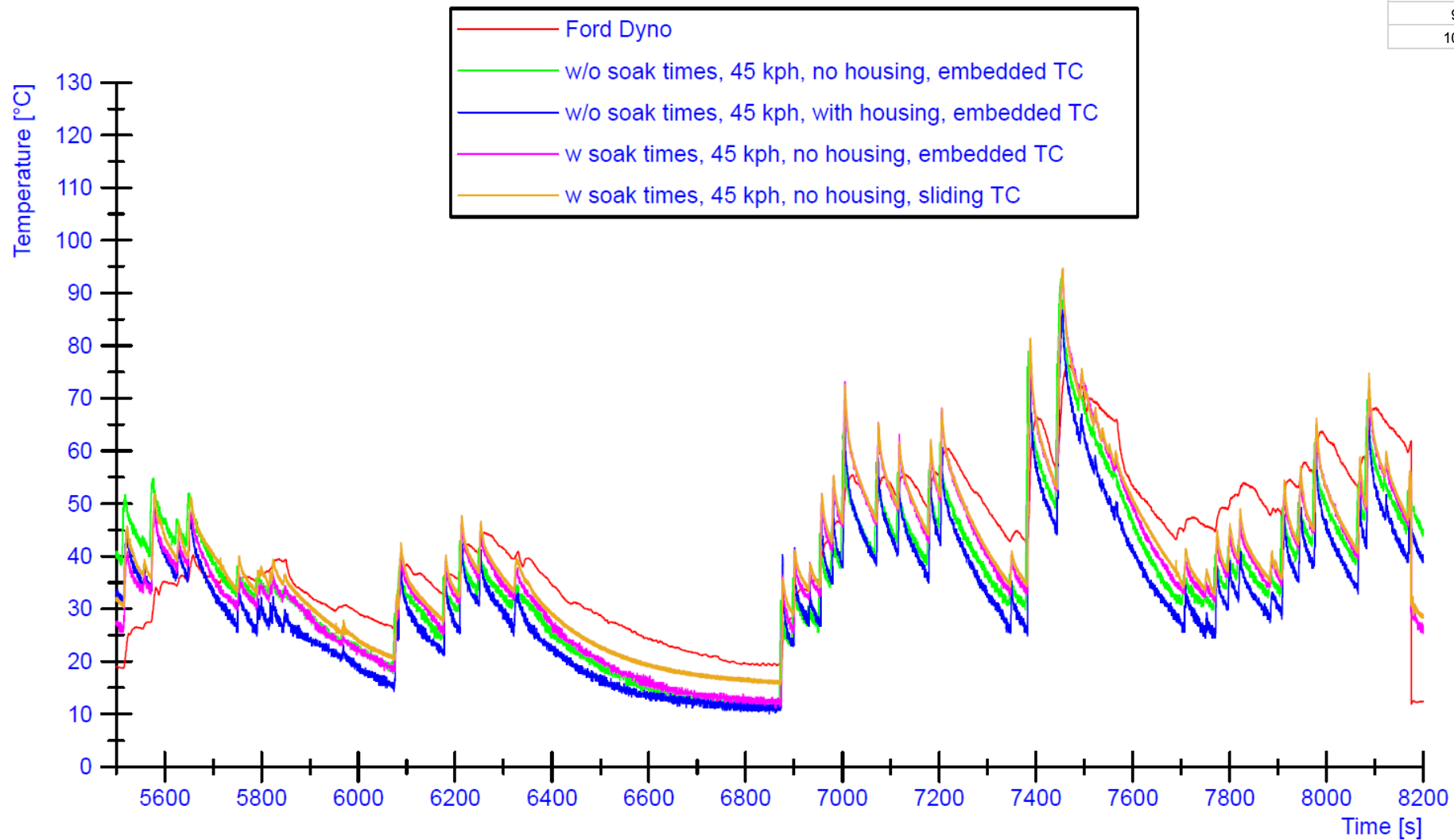
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST  $\approx$  50°C

## Trip 5

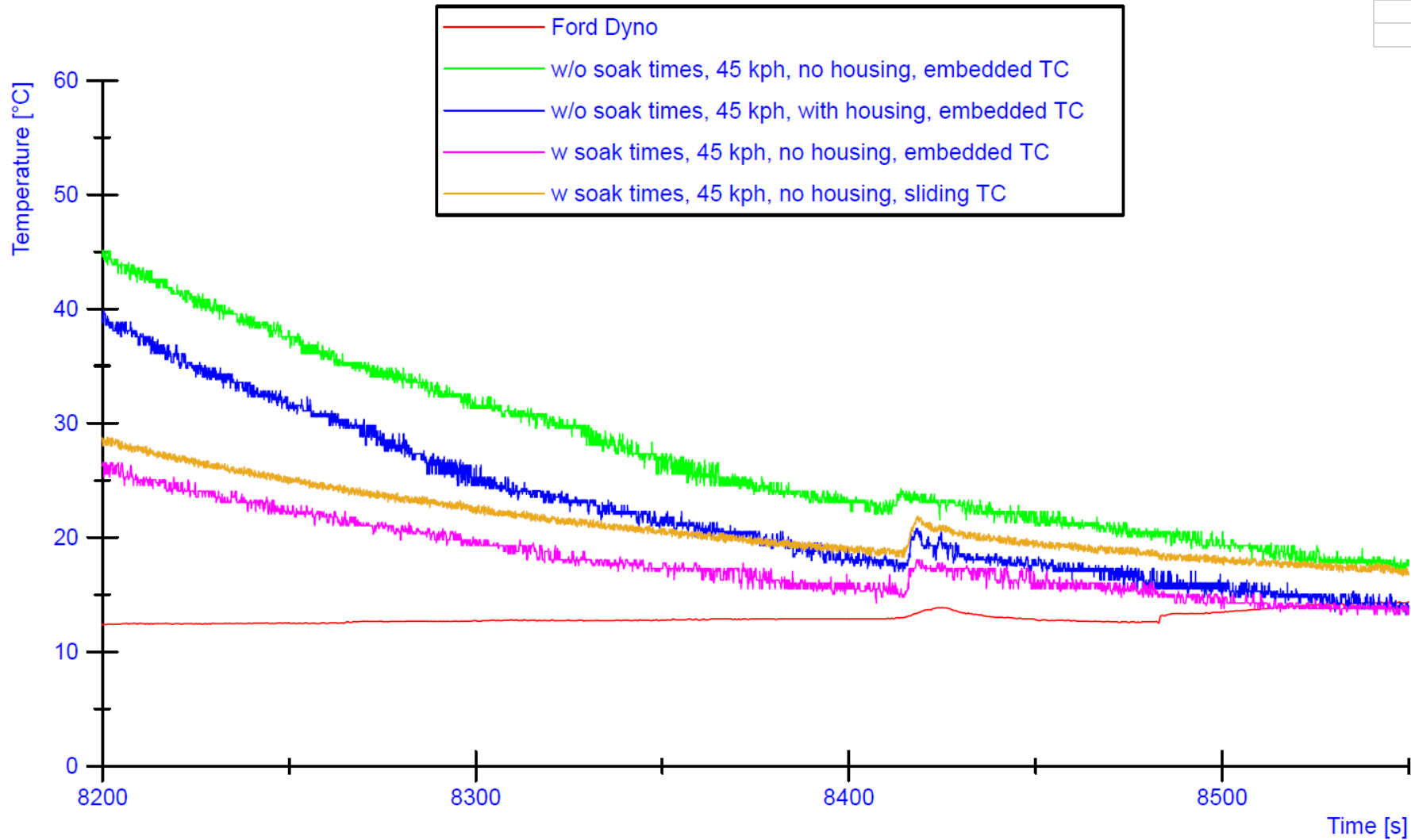
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	





# Trip 6

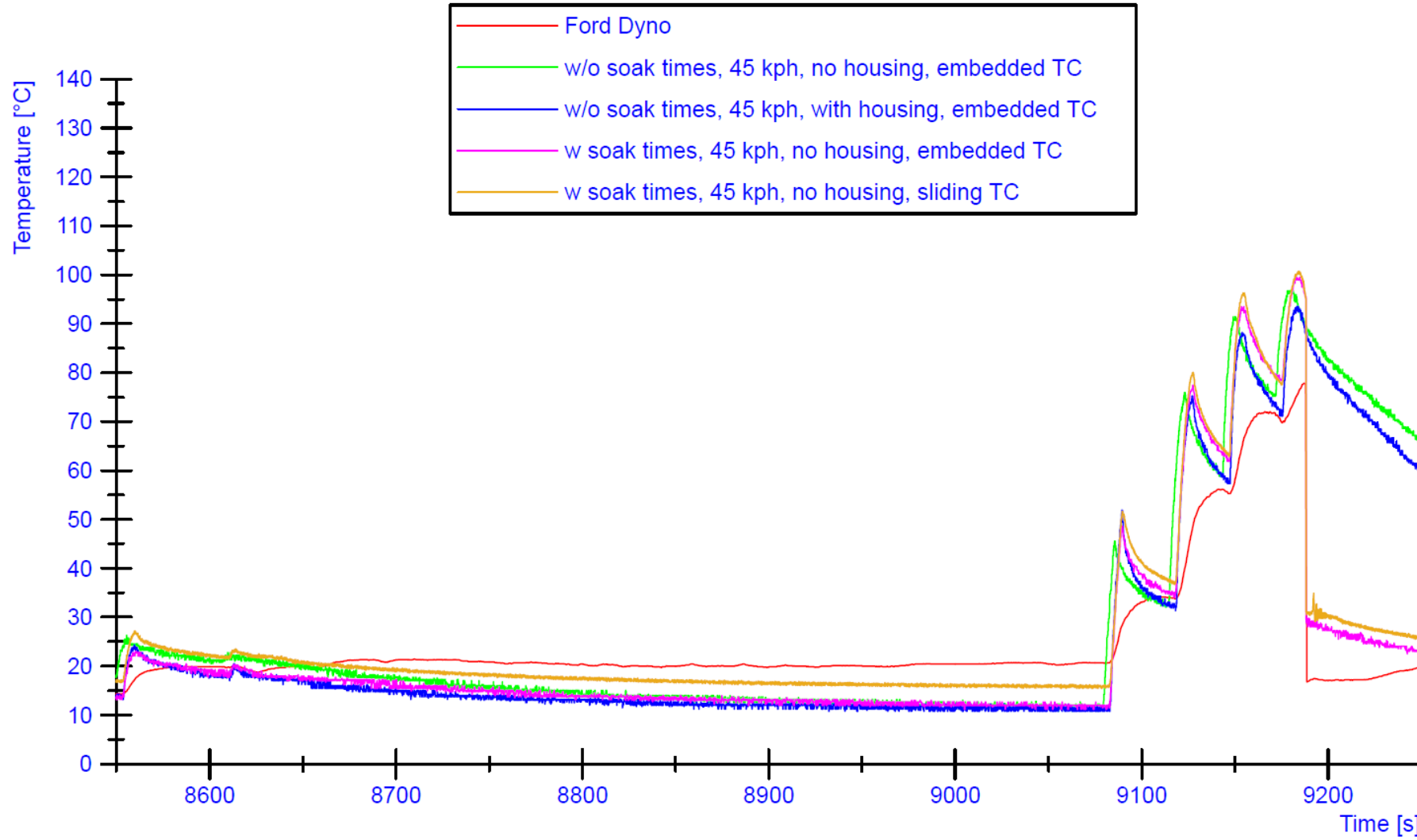
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST ≈ 90°C

# Trip 7

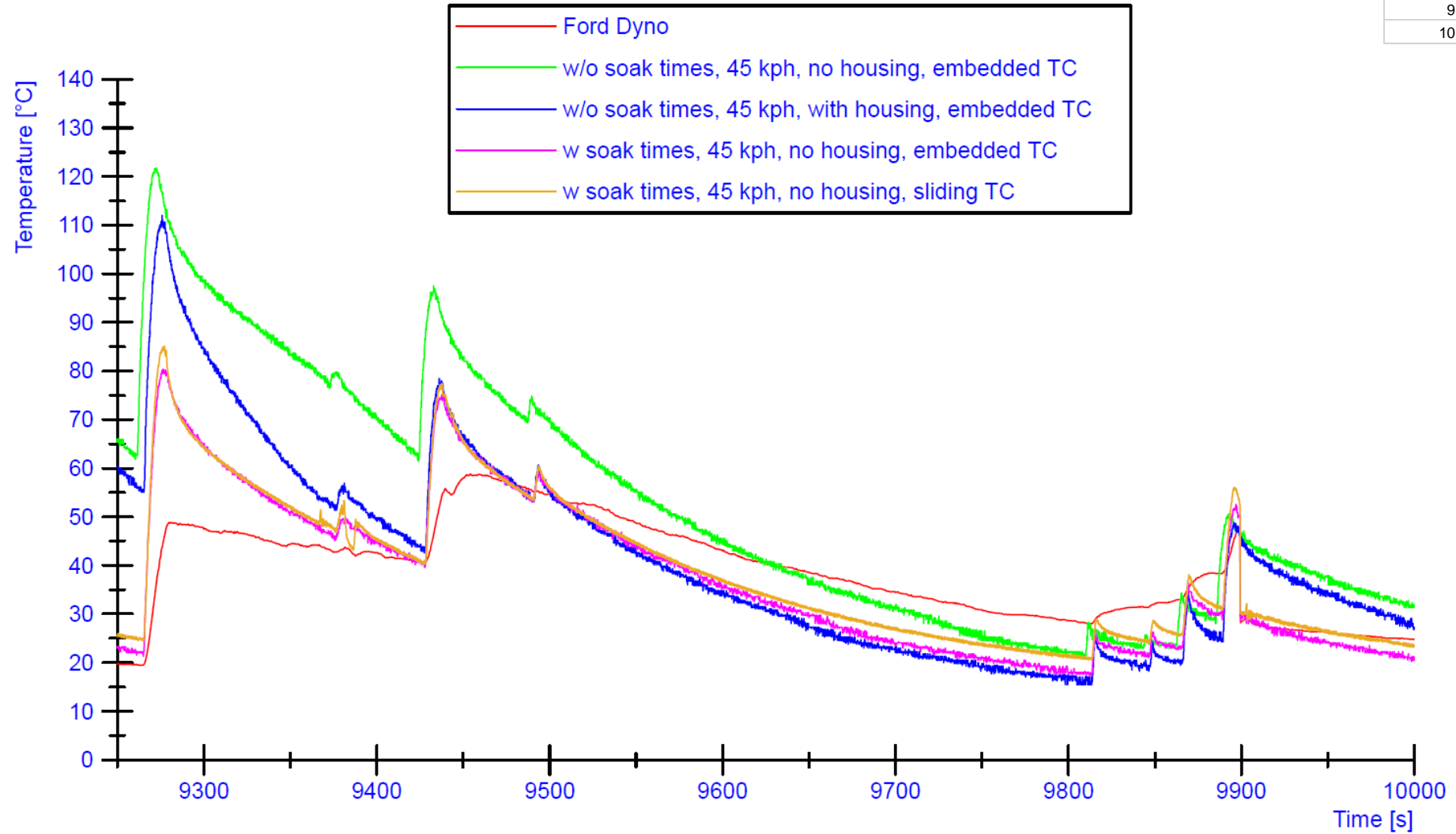
TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



T\_woST ≈ 45°C

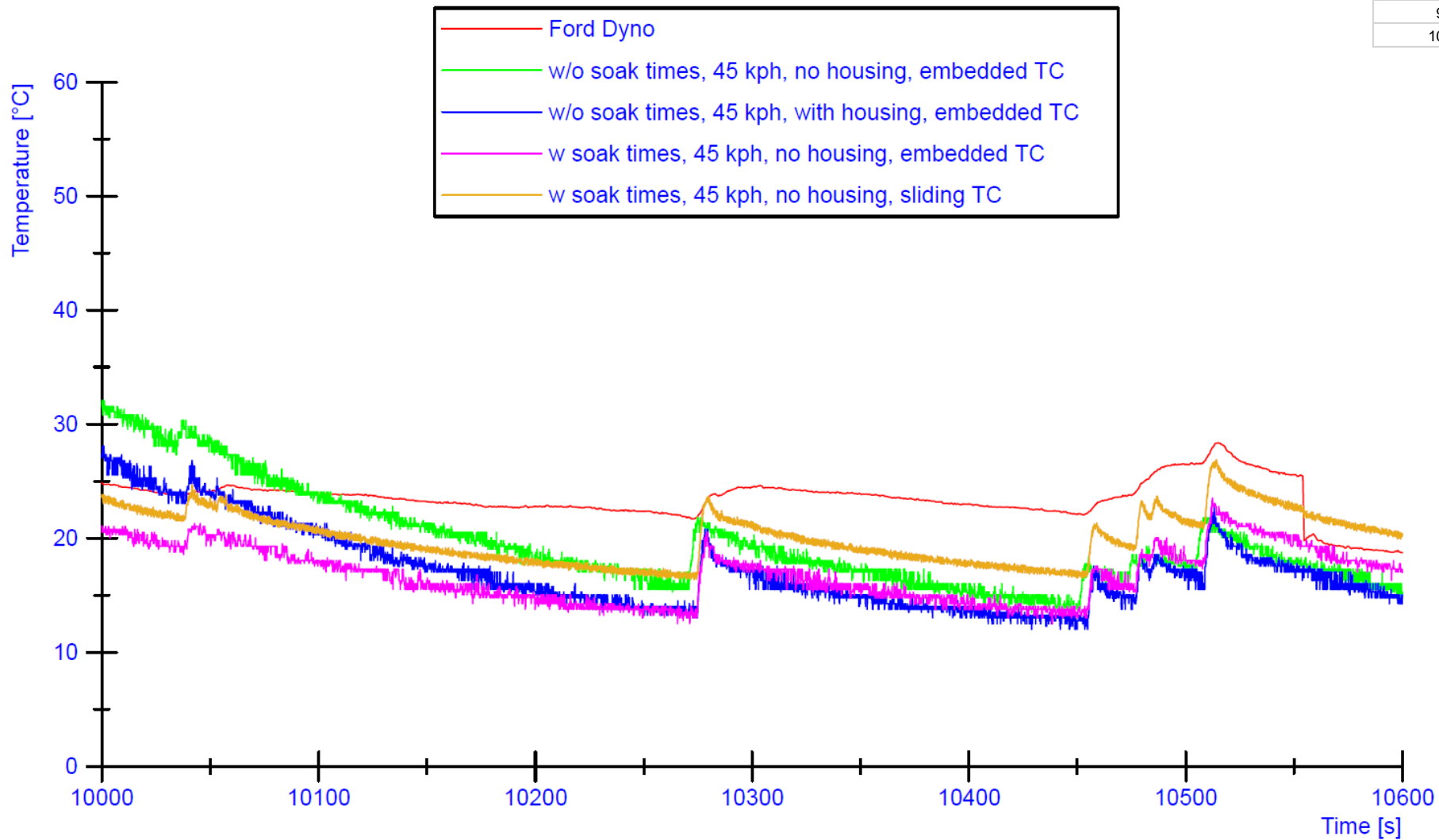
# Trip 8

TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



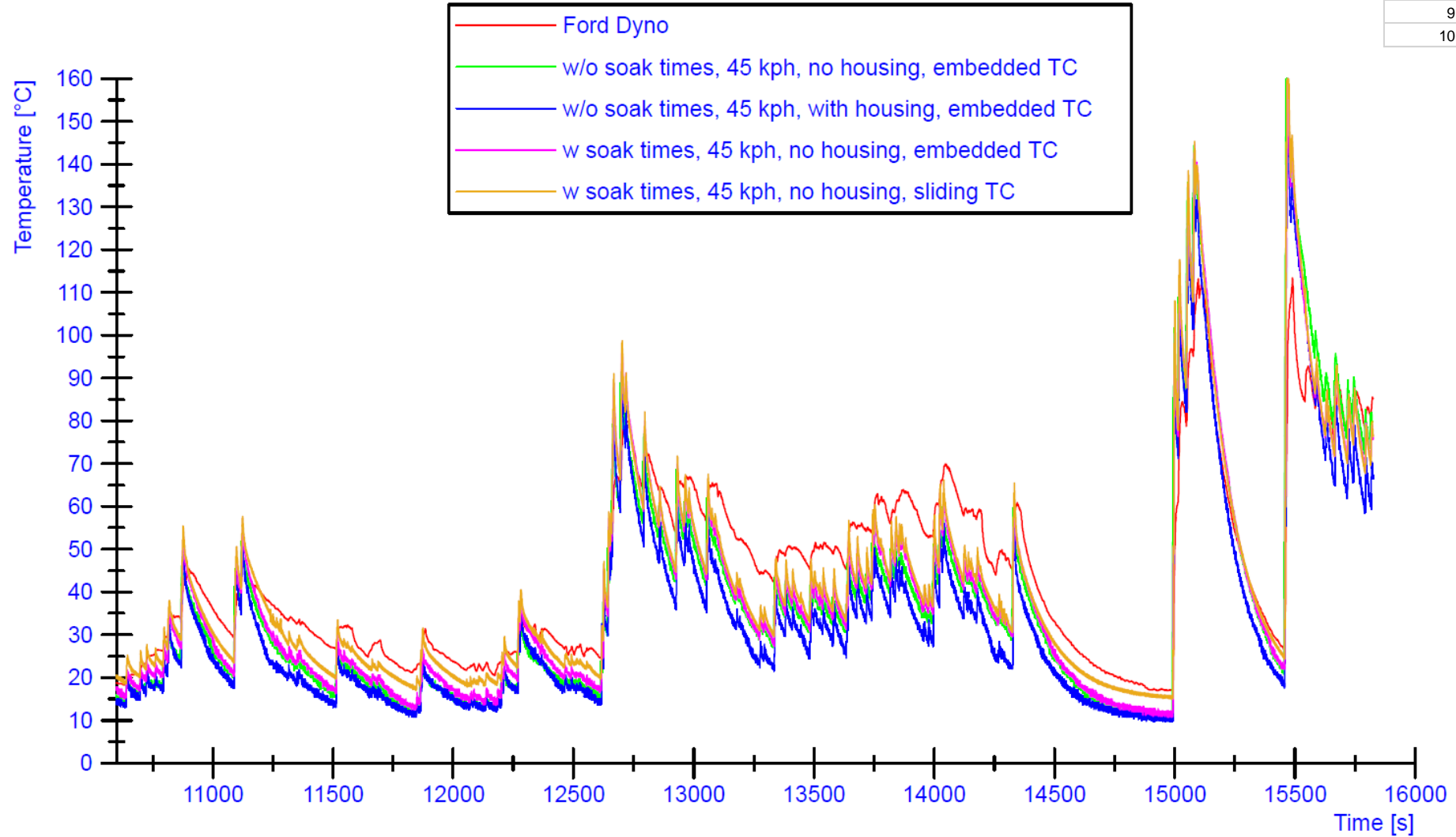
# Trip 9

TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



# Trip 10

TripNr.	From [s]	To [s]	SoakTime [min]
1	0	1070	36
2	1071	2835	180
3	2836	3947	24
4	3948	5484	60
5	5485	8175	360
6	8176	8483	12
7	8484	9188	600
8	9189	9899	48
9	9900	10554	900
10	10555	15826	



## General Conclusions

- › Reference (FORD measurement results):
  - › „IBT“ is lower than 30°C
  - › Cooling rate is lower
  - › Peak temperatures are lower
- › With housing (emission testing setup) cooling is slightly better (lower T-level, almost no effect on T\_max)
- › Only Trip 7 reveals an impact of soak time (**90°C vs. 30°C**)
- › Sliding TC reveals only a small impact (slightly lower cooling rate, almost no effect on T\_max)