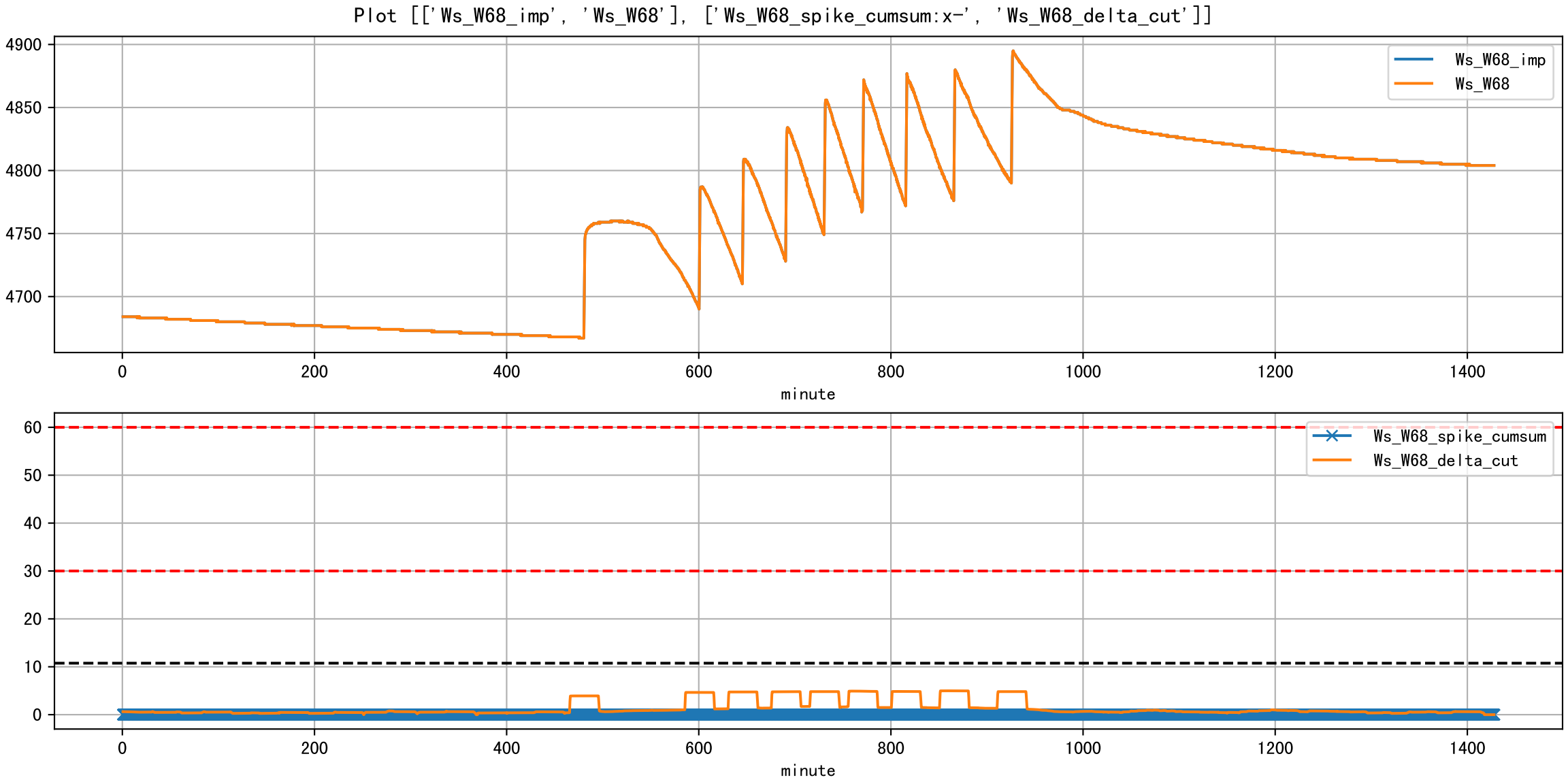
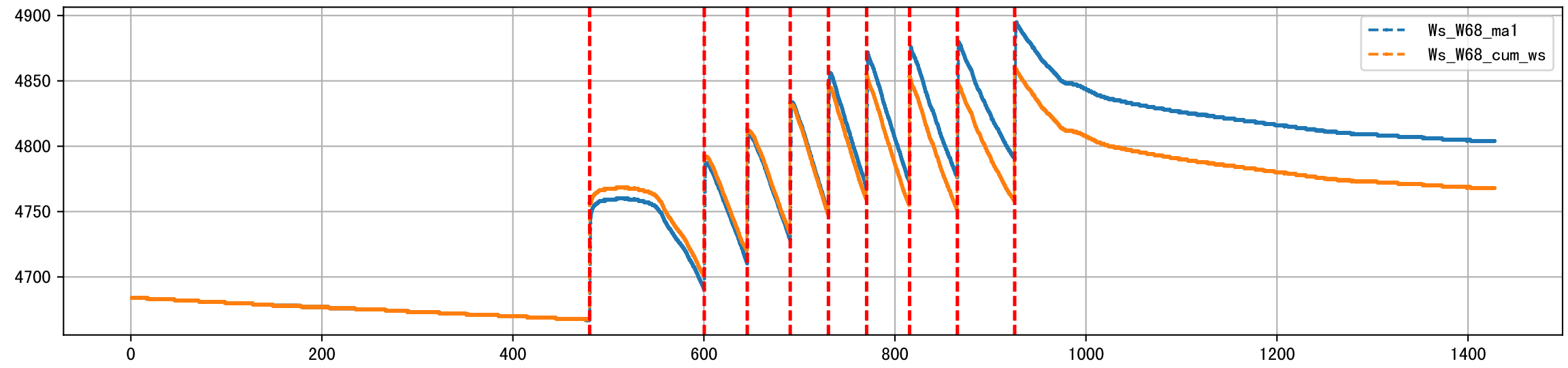
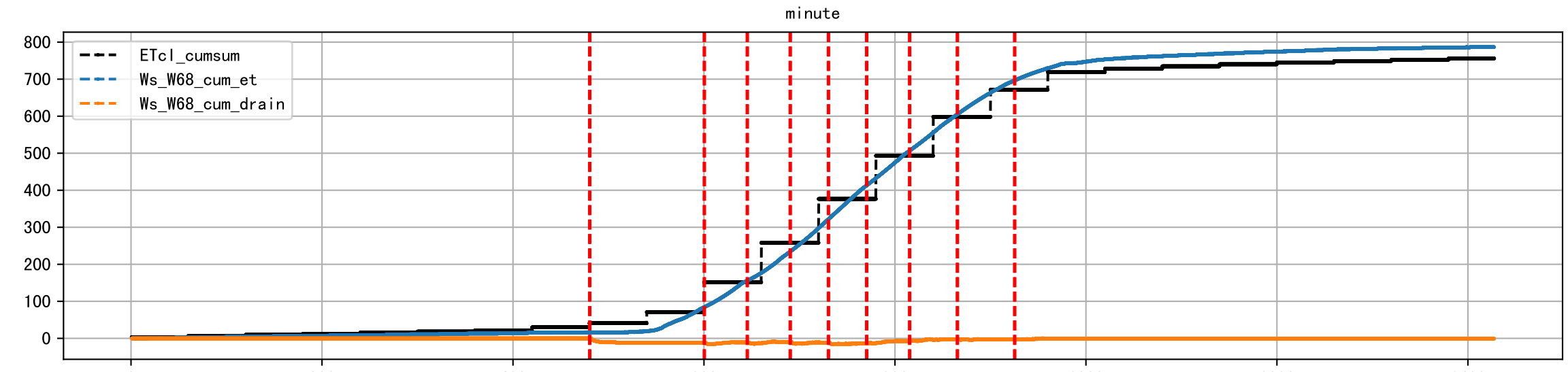

Plot [['Ws_W68_imp', 'Ws_W68'], ['Ws_W68_spike_cumsum:x-', 'Ws_W68_delta_cut']]
Ws_W68_imp
Ws_W68
4900
4850
4800
4750
4700
0
200
400
600
800
1000
1200
1400
minute
Ws_W68_spike_cumsum
Ws_W68_delta_cut
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
minute

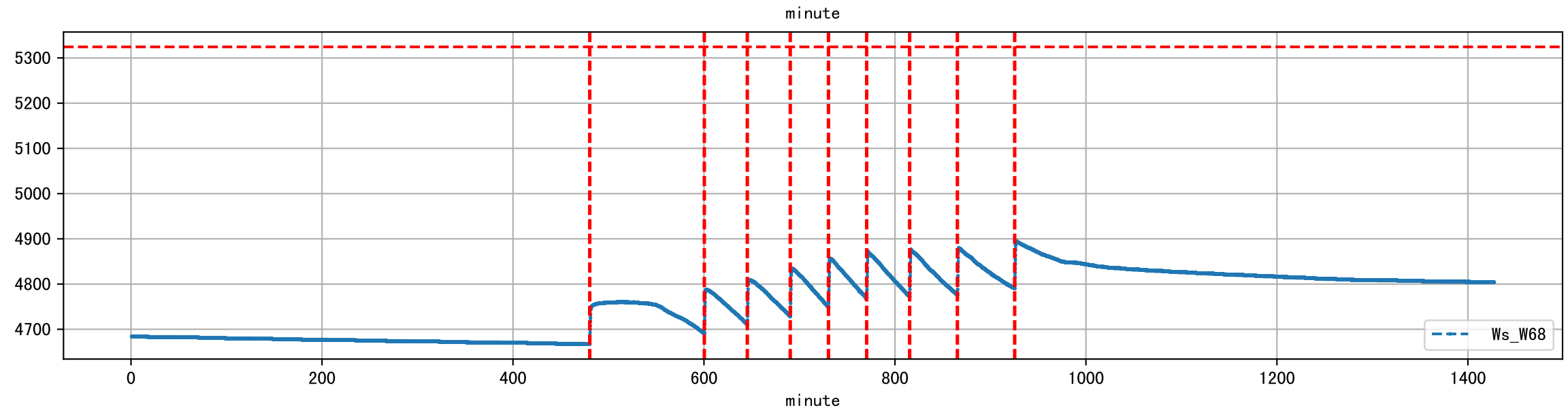
Day 121 Ws_W68 Sensor Analysis



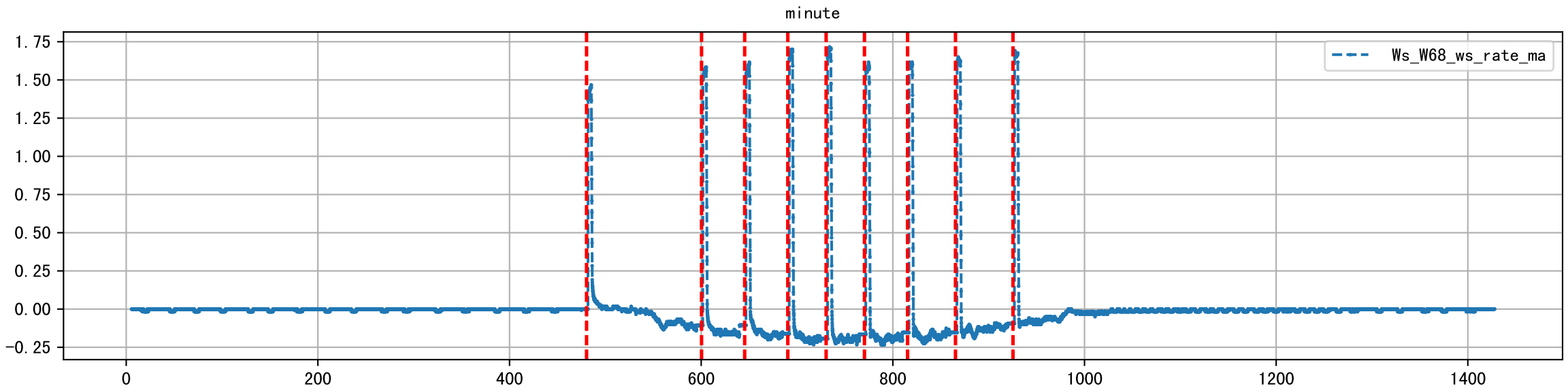
minute



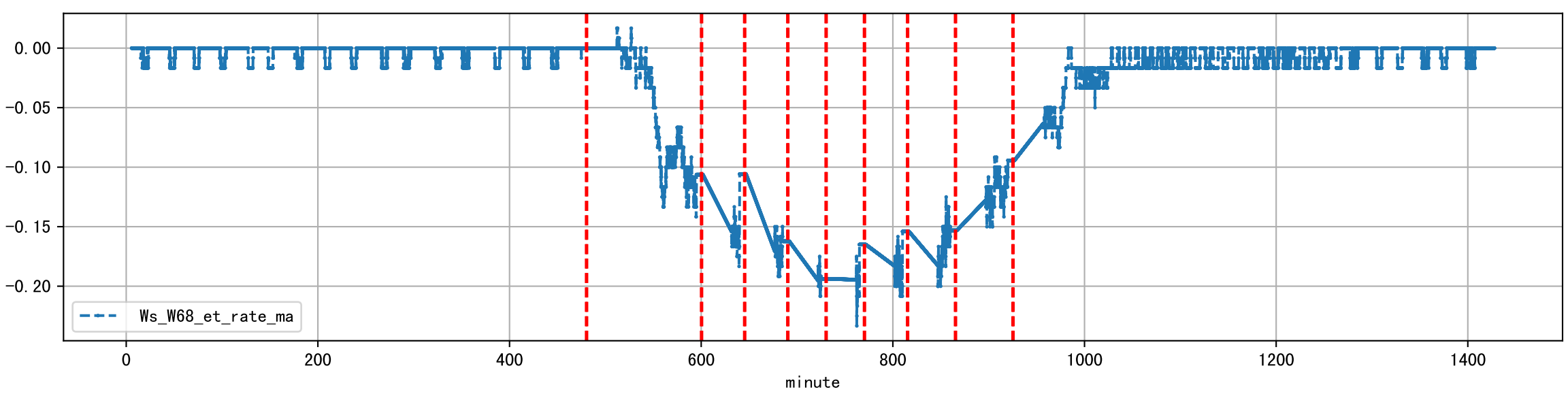
minute



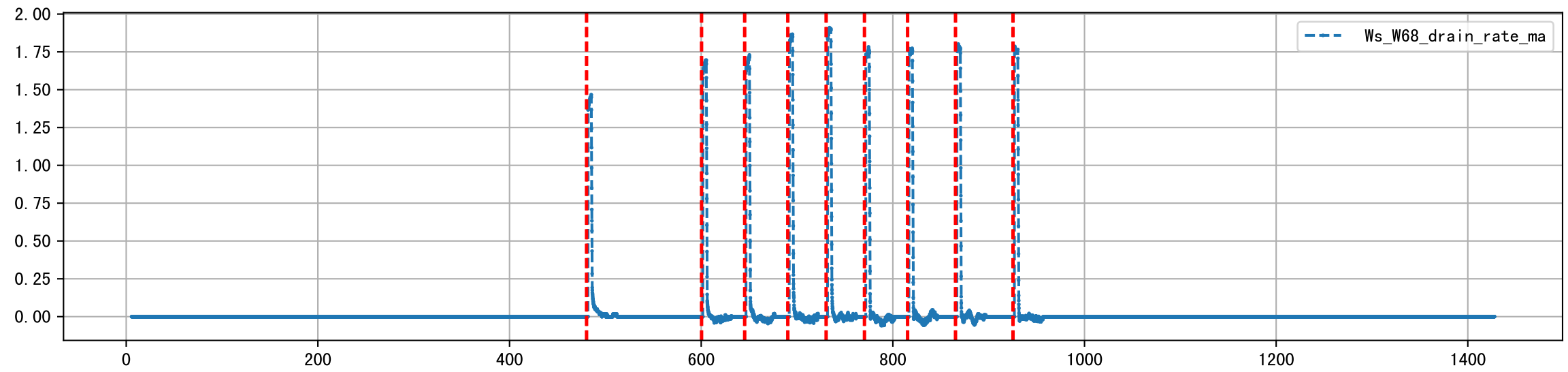
minute



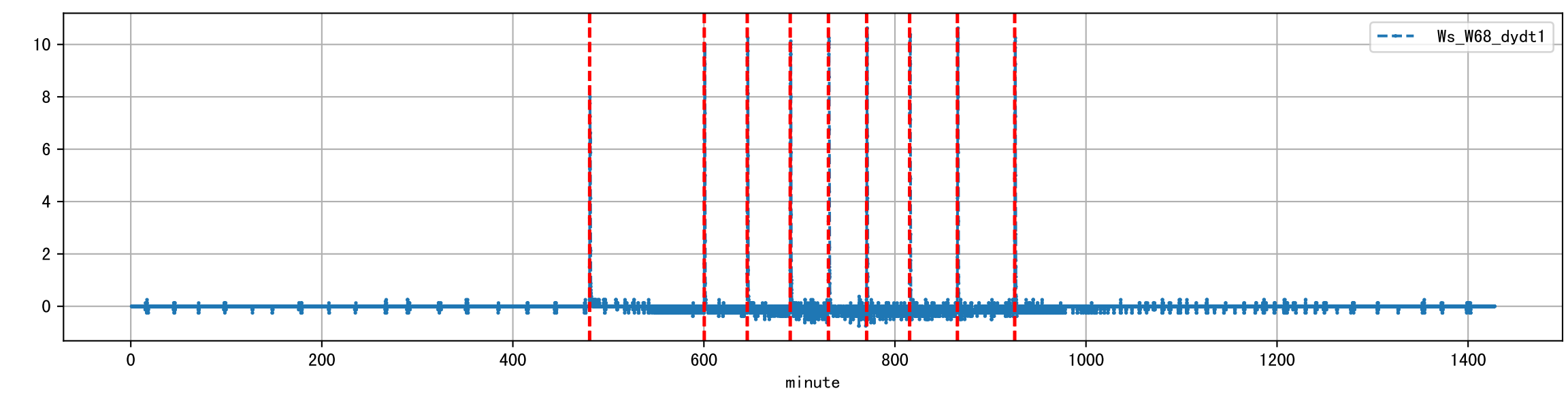
minute



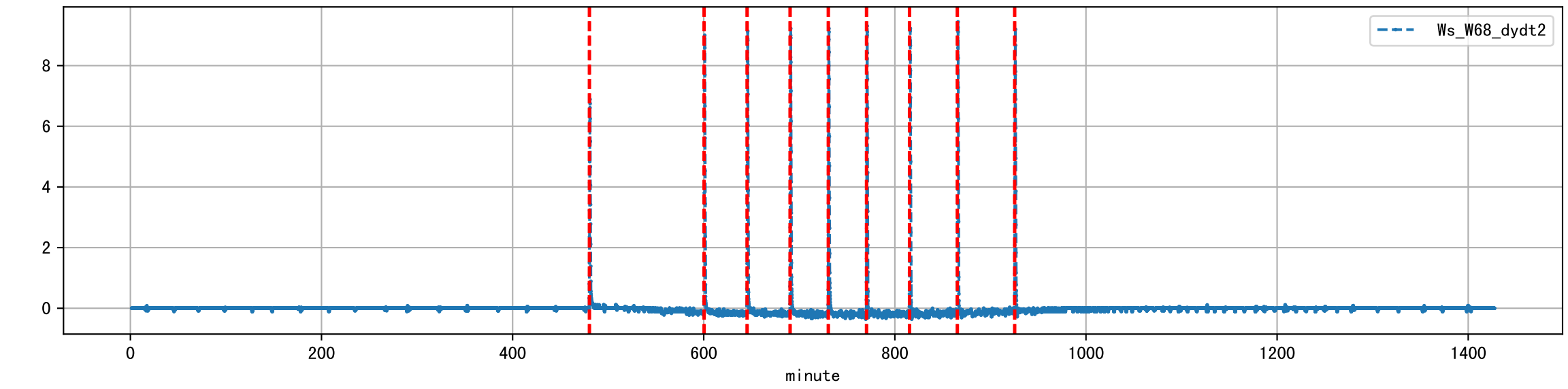
minute



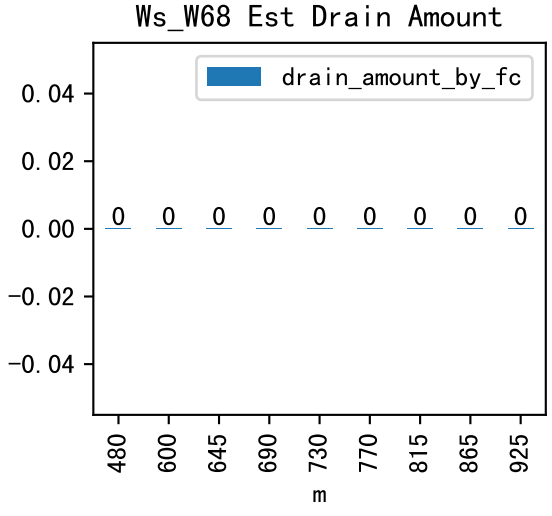
minute

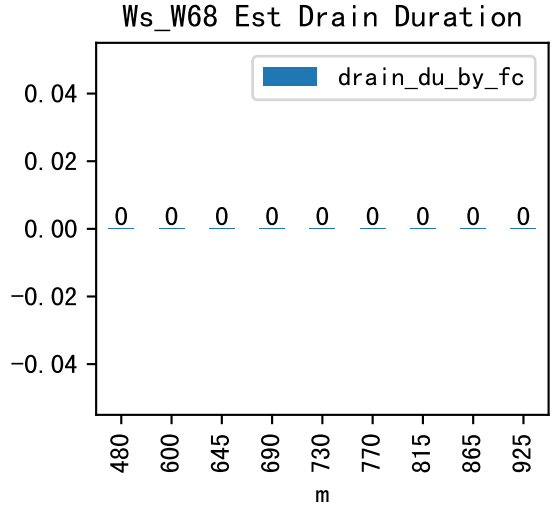


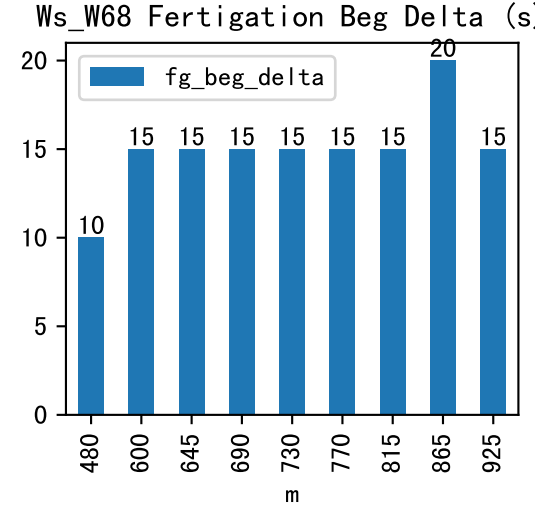
minute

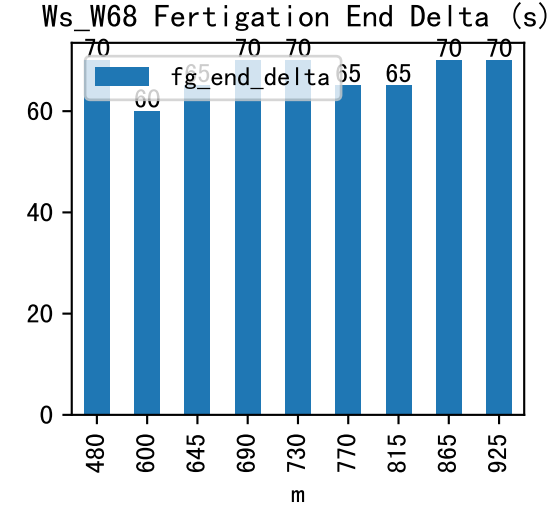


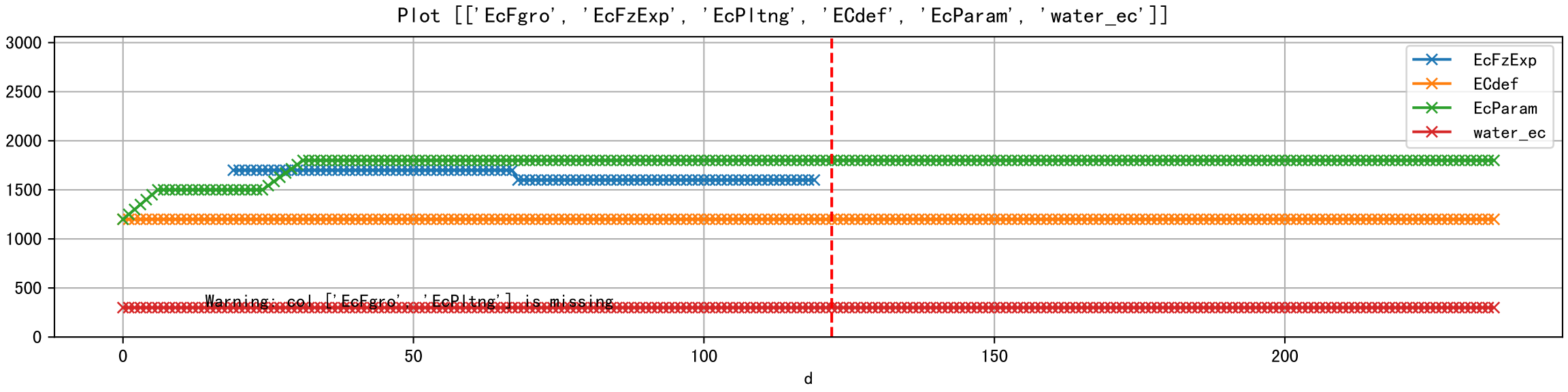
minute

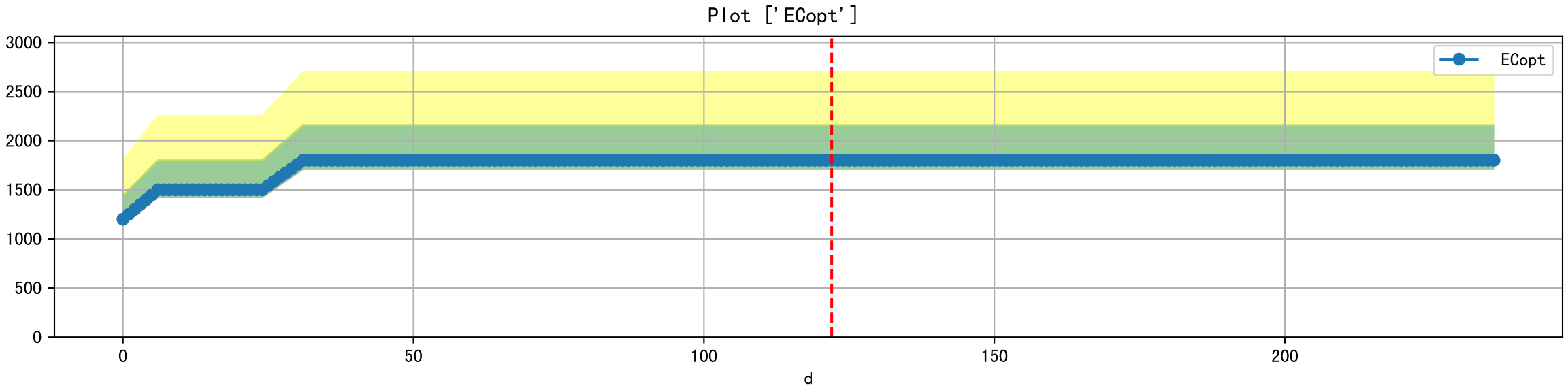

Ws_W68 Est Drain Amount
drain_amount_by_fc
0.04
0.02
0.00
−0.02
−0.04
0 0 0 0 0 0 0 0 0
480 600 645 690 730 770 815 865 925
m

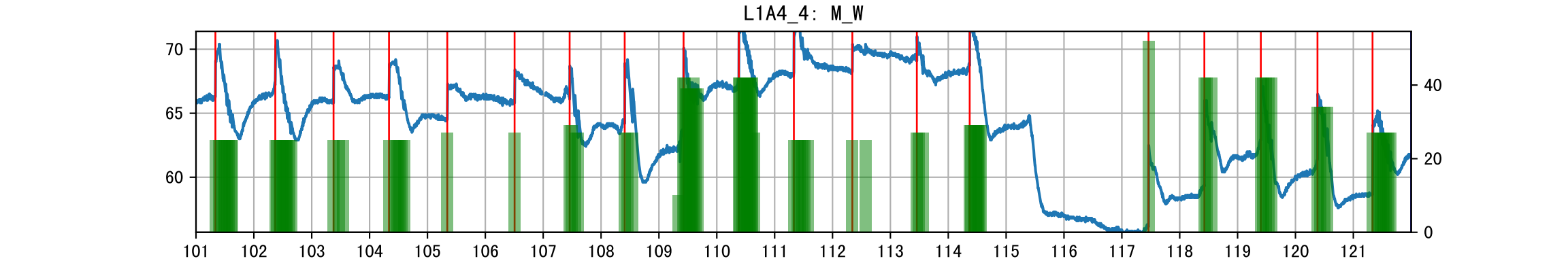

Ws_W68 Est Drain Duration
drain_du_by_fc
0.04
0.02
0.00
−0.02
−0.04
0 0 0 0 0 0 0 0 0
480 600 645 690 730 770 815 865 925
m


Ws_W68 Fertigation Beg Delta (s)
fg_beg_delta
20
15
10
5
0
10 15 15 15 15 15 15 20 15
480 600 645 690 730 770 815 865 925
m

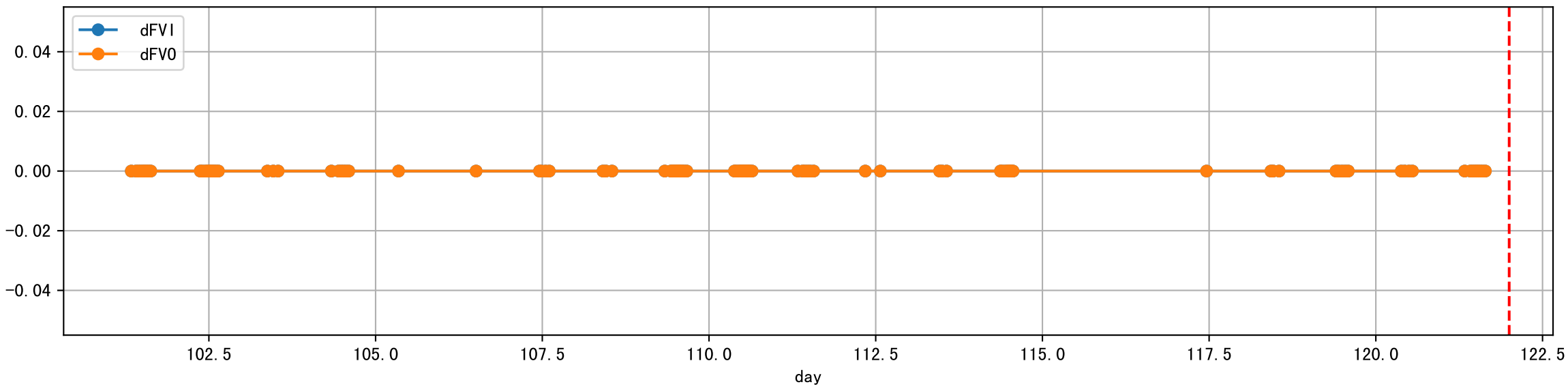

Ws_W68 Fertigation End Delta (s)
fg_end_delta
70
60
40
20
0
70 60 65 70 70 65 65 70 70
480 600 645 690 730 770 815 865 925
m

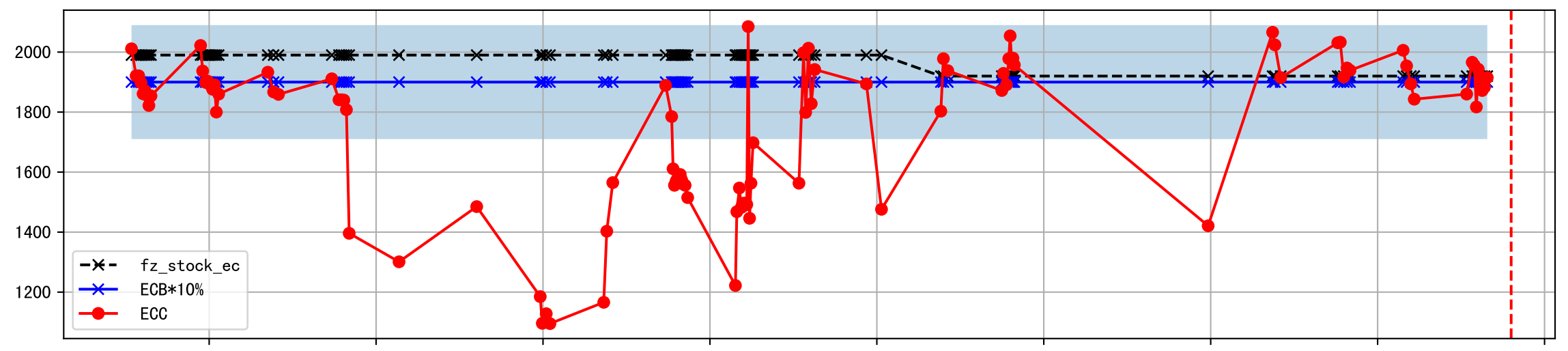

Plot [['EcFgro', 'EcFzExp', 'EcPltng', 'ECdef', 'EcParam', 'water_ec']]
EcFzExp
ECdef
EcParam
water_ec
Warning: col ['EcFgro', 'EcPltng'] is missing
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
d

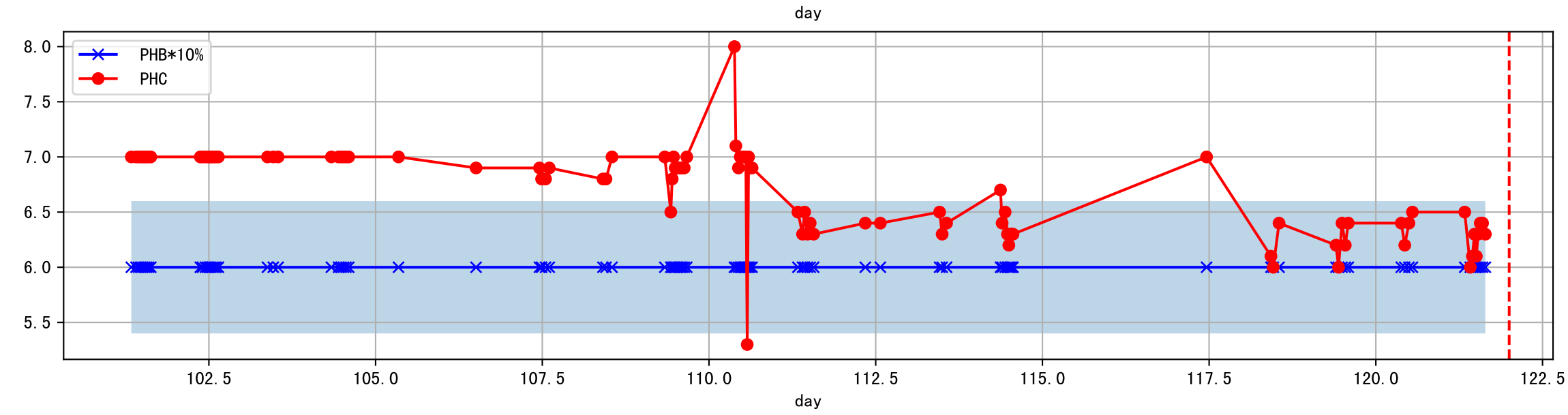

Plot ['ECopt']
ECopt
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
d

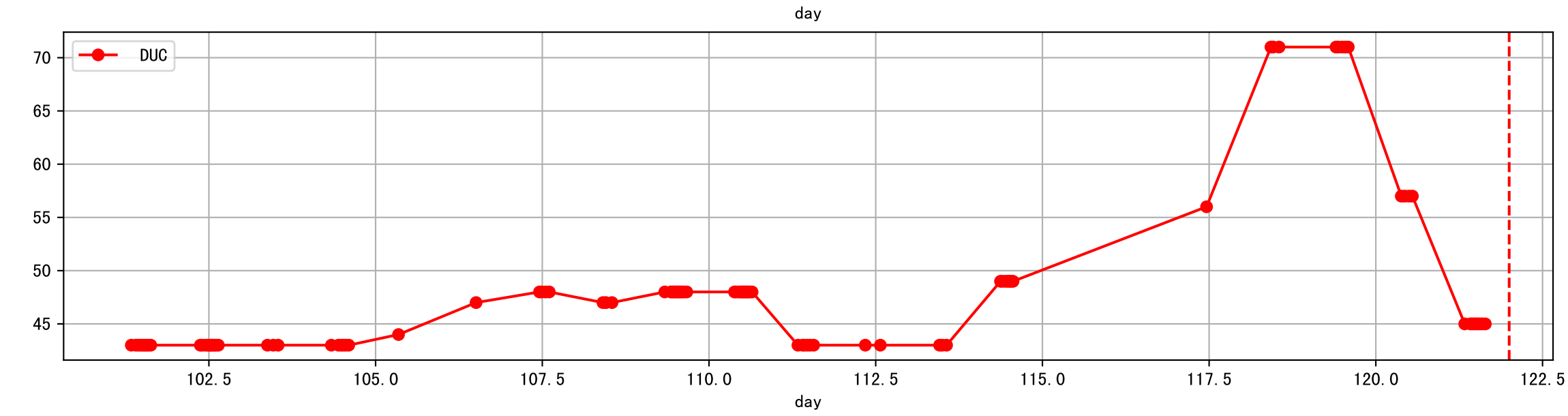

L1A4_4: M_W
70
65
60
40
20
0
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121

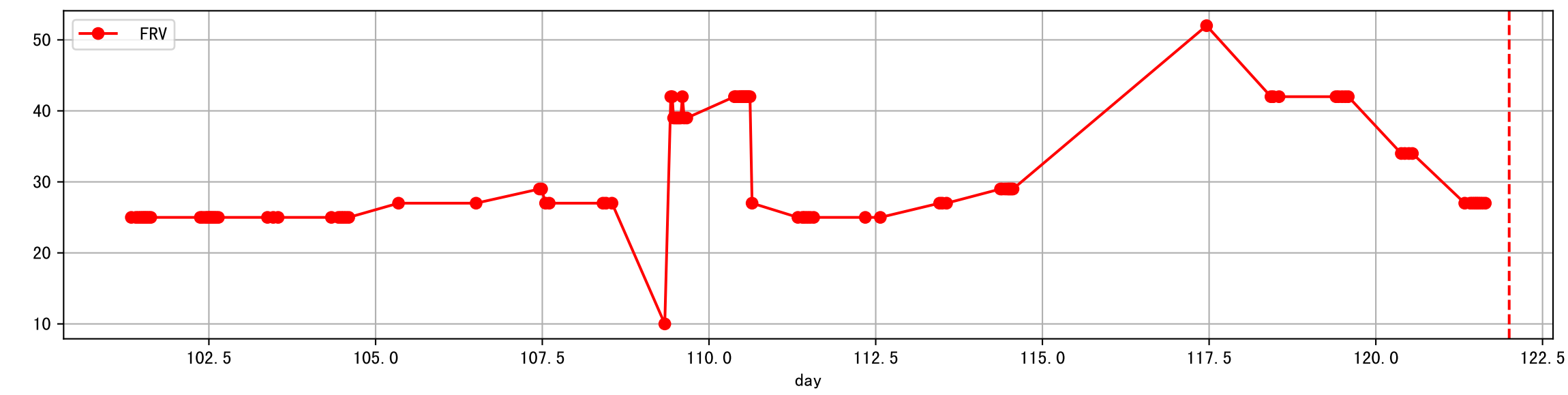
Plot Sensor and FgRec Data

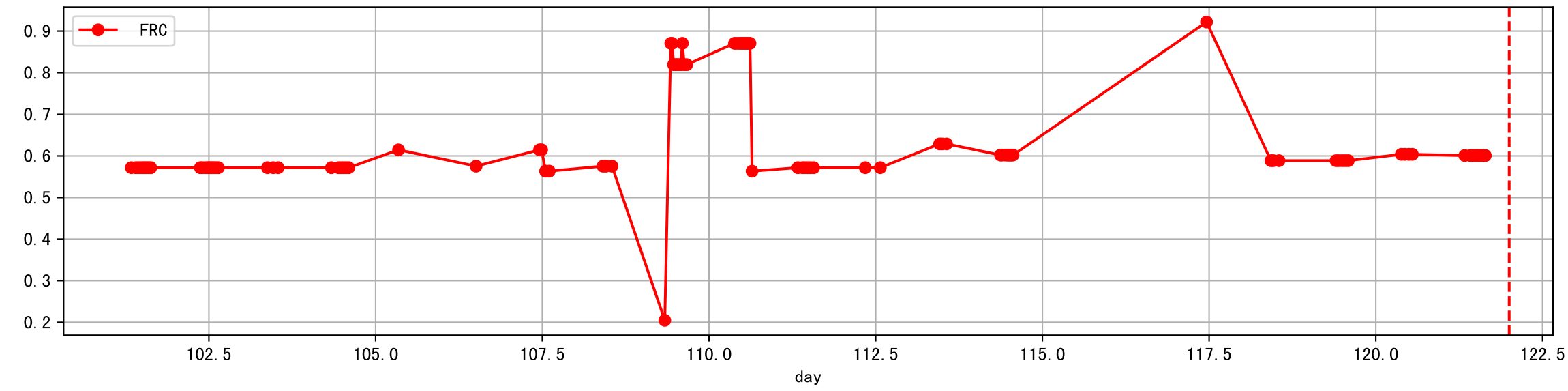


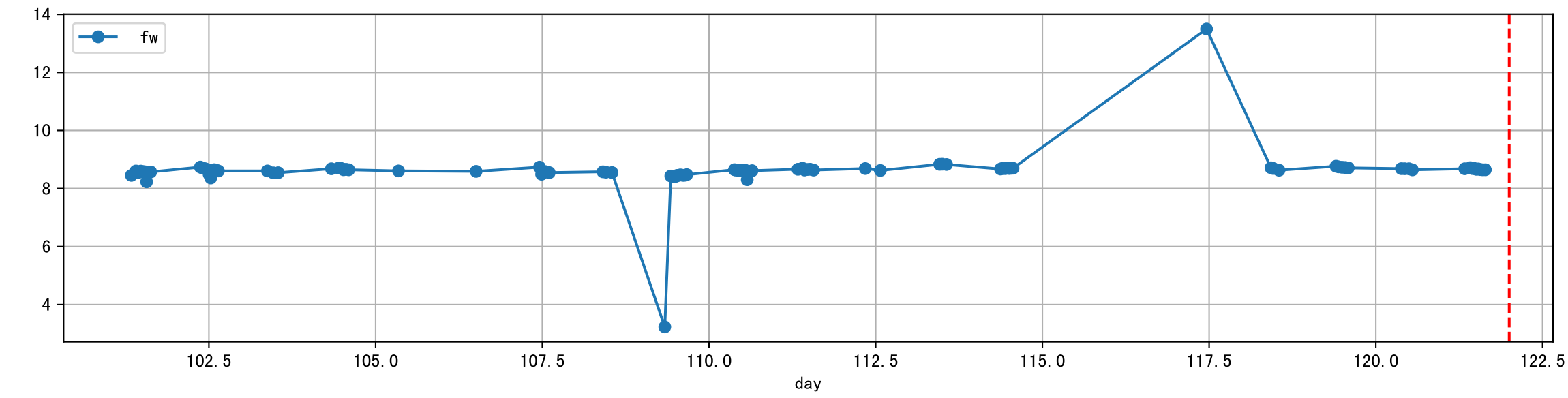


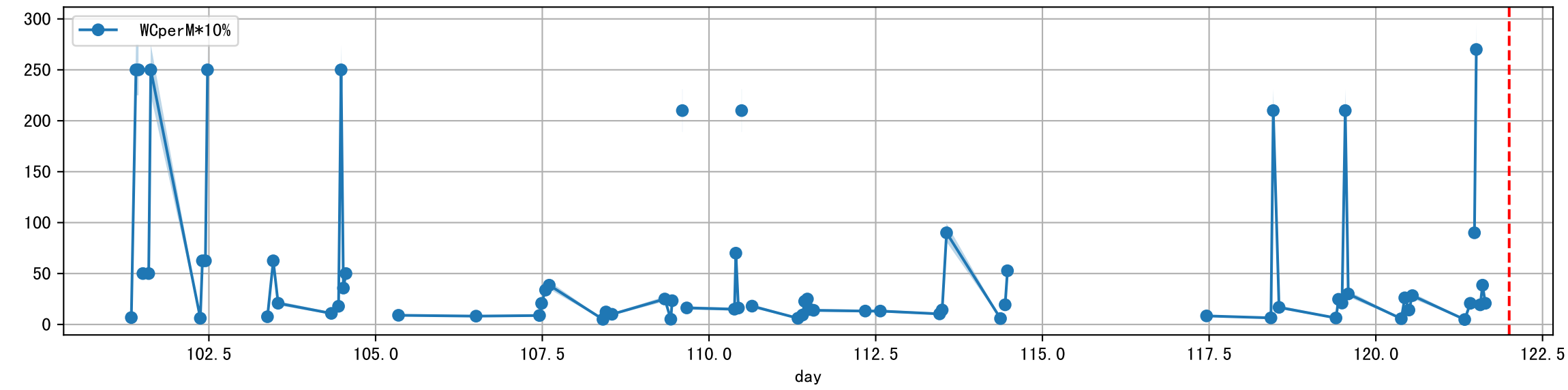


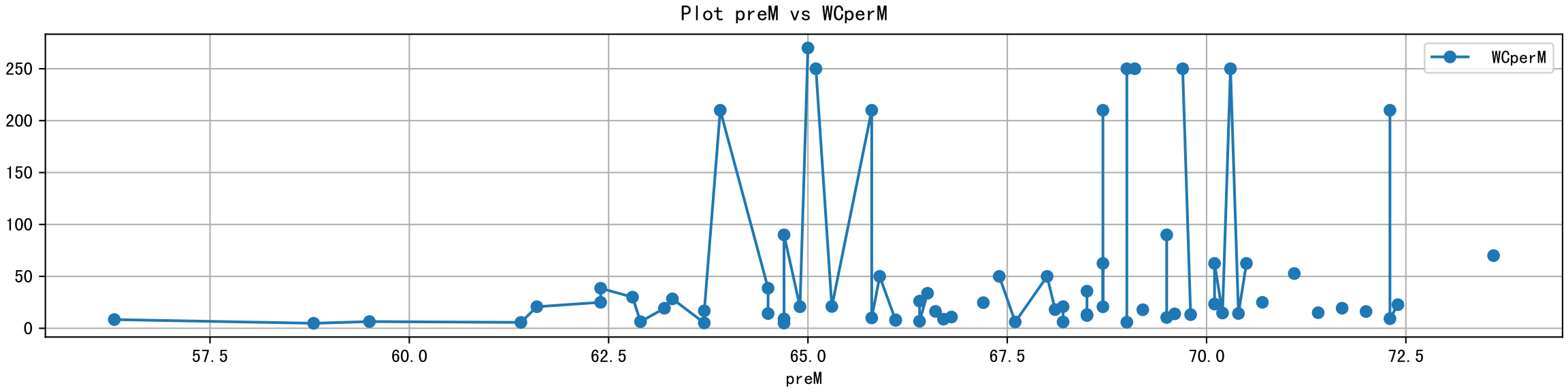


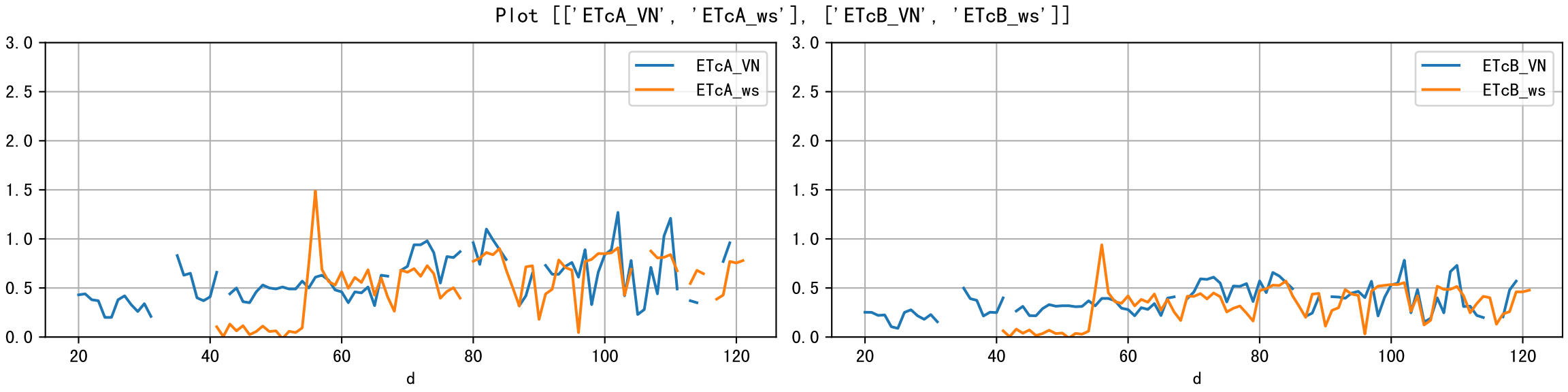


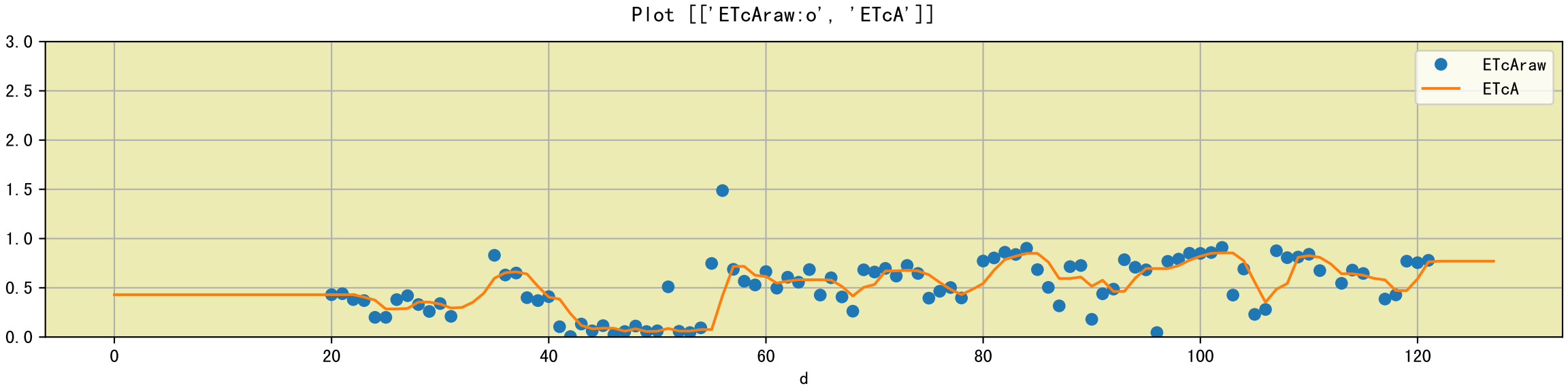


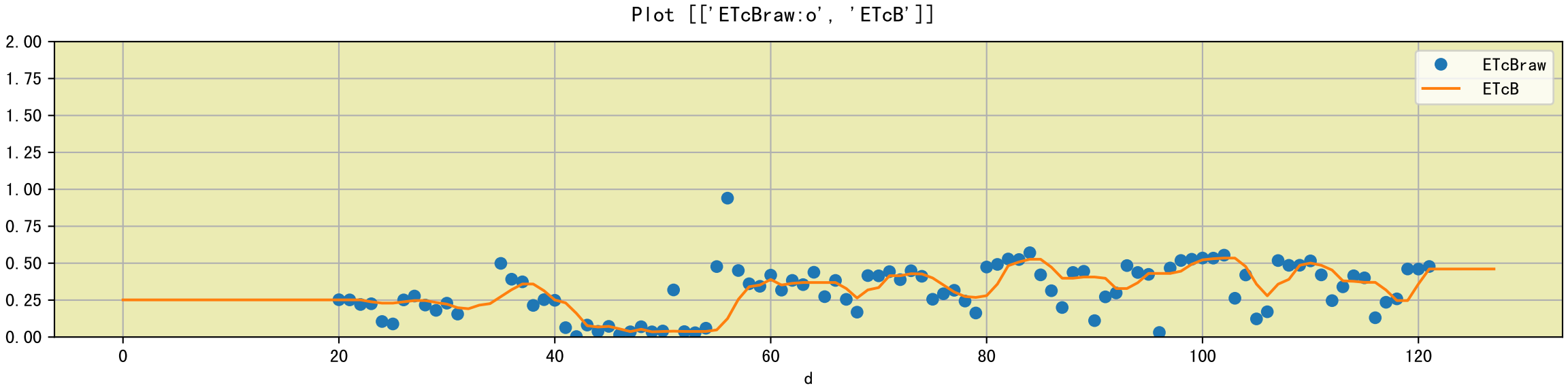




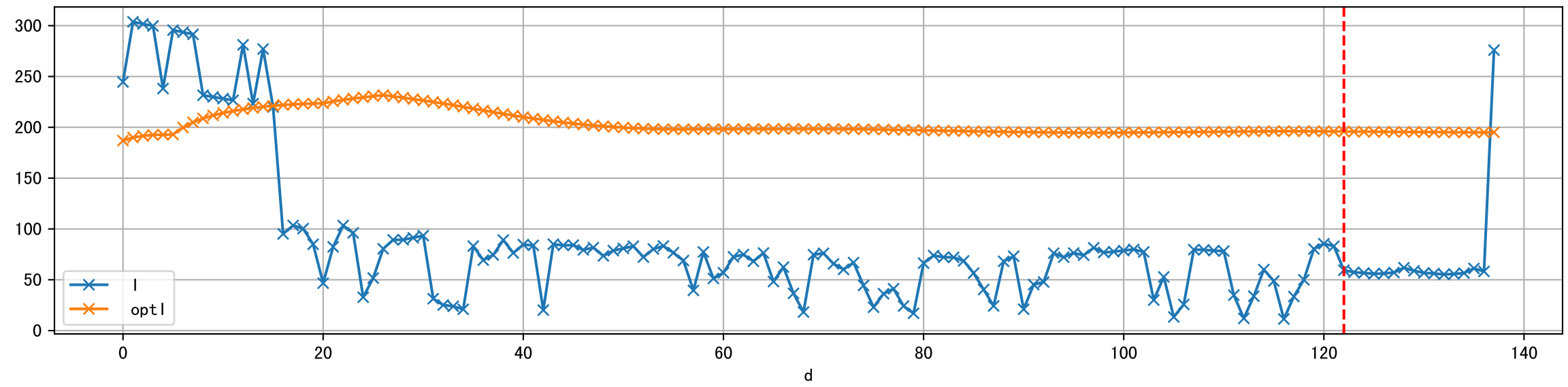

Plot preM vs WCperM
WCperM
250
200
150
100
50
0
57.5
60.0
62.5
65.0
67.5
70.0
72.5
preM

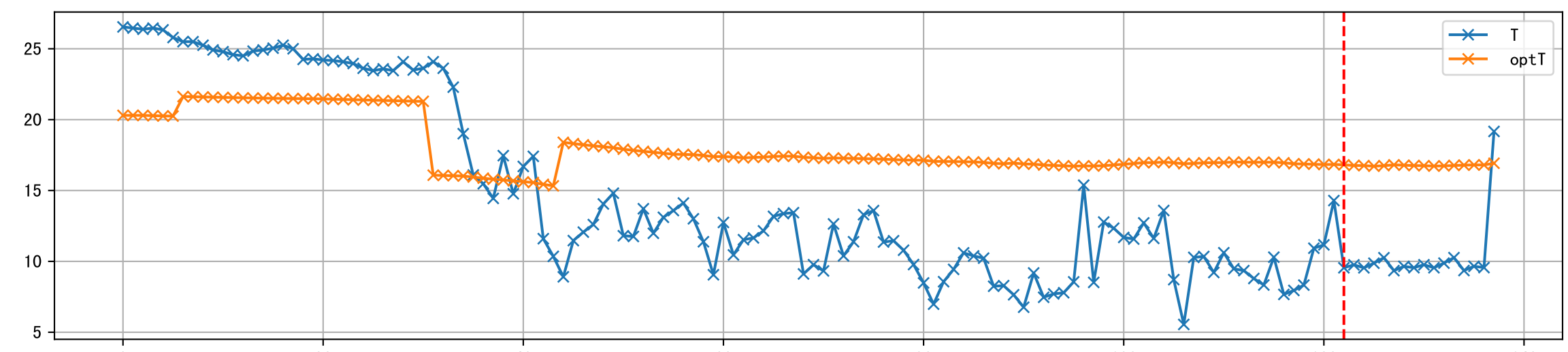

Plot [['ETcA_VN', 'ETcA_ws'], ['ETcB_VN', 'ETcB_ws']]
ETcA_VN
ETcA_ws
ETcB_VN
ETcB_ws
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20
40
60
80
100
120
d

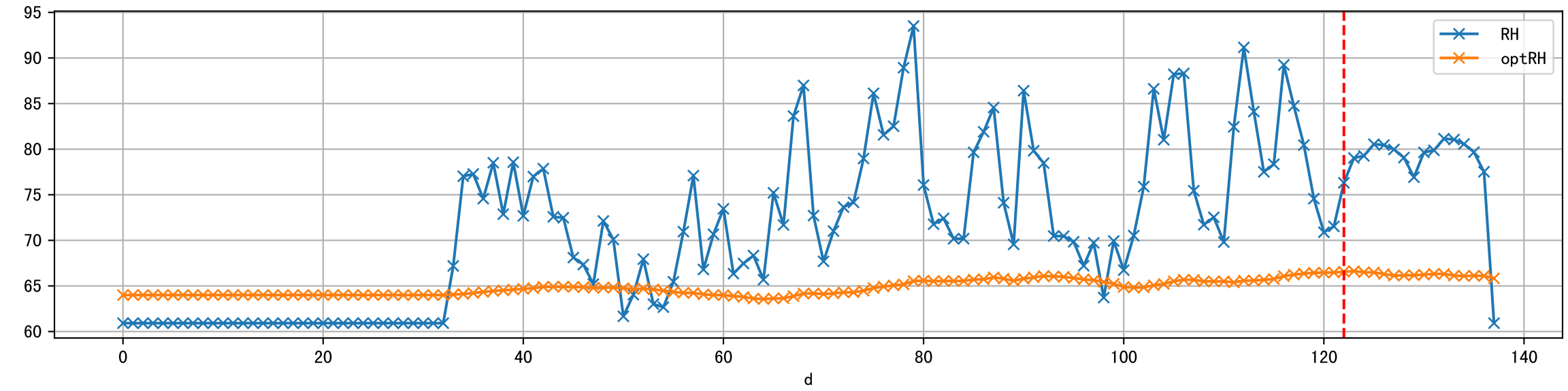

Plot [['ETcAraw:o', 'ETcA']]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
d
ETcAraw
ETcA

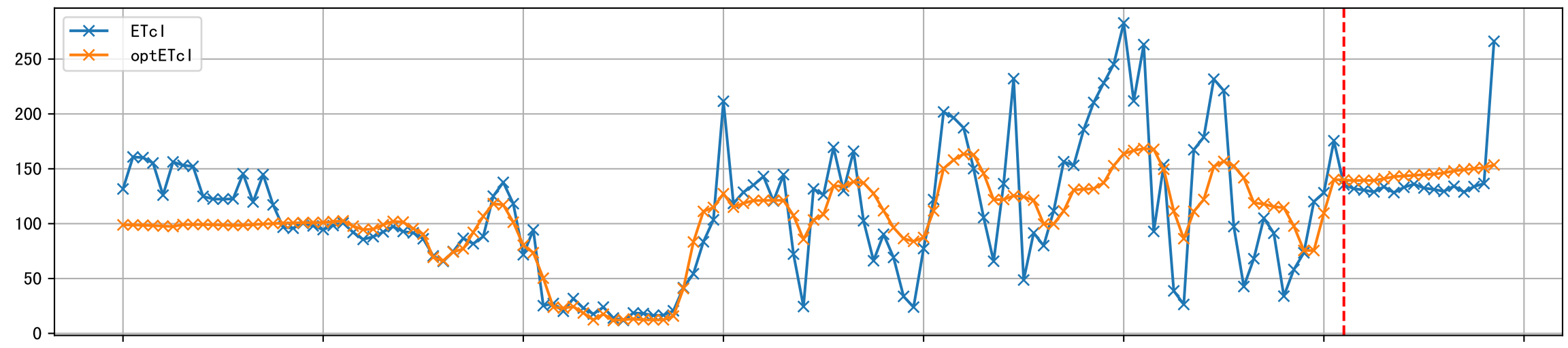

Plot [['ETcBraw:o', 'ETcB']]
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
0
20
40
60
80
100
120
d
ETcBraw
ETcB

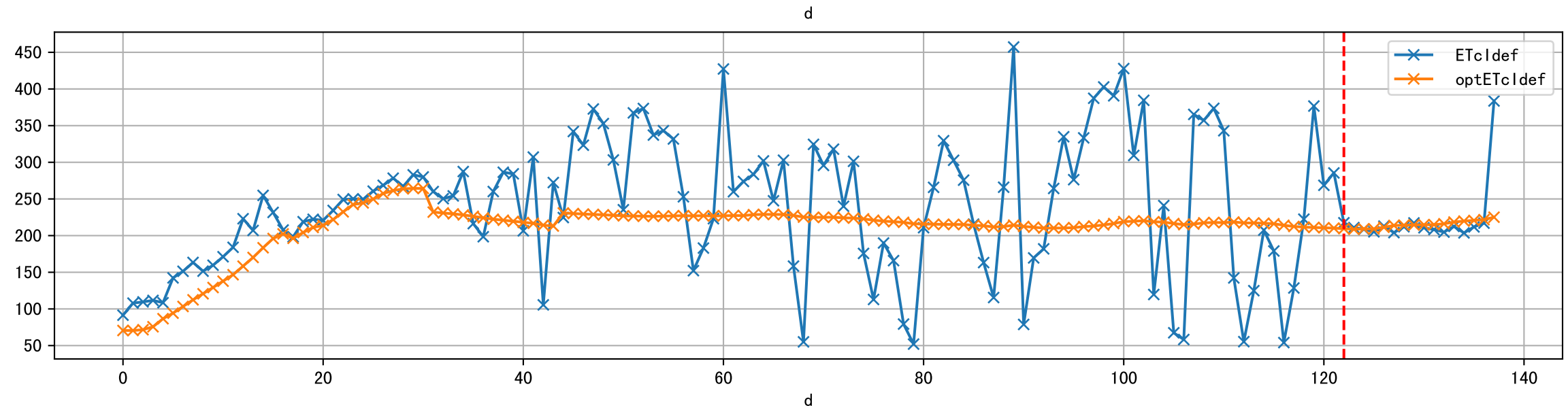
I'], ['T', 'optT'], ['RH', 'optRH'], ['ETcl', 'optETcl'], ['ETcldef', 'optETcldef'], ['ETol', 'optETol'], 'LAI', ['optEtRate', 'optEtRateDef', '

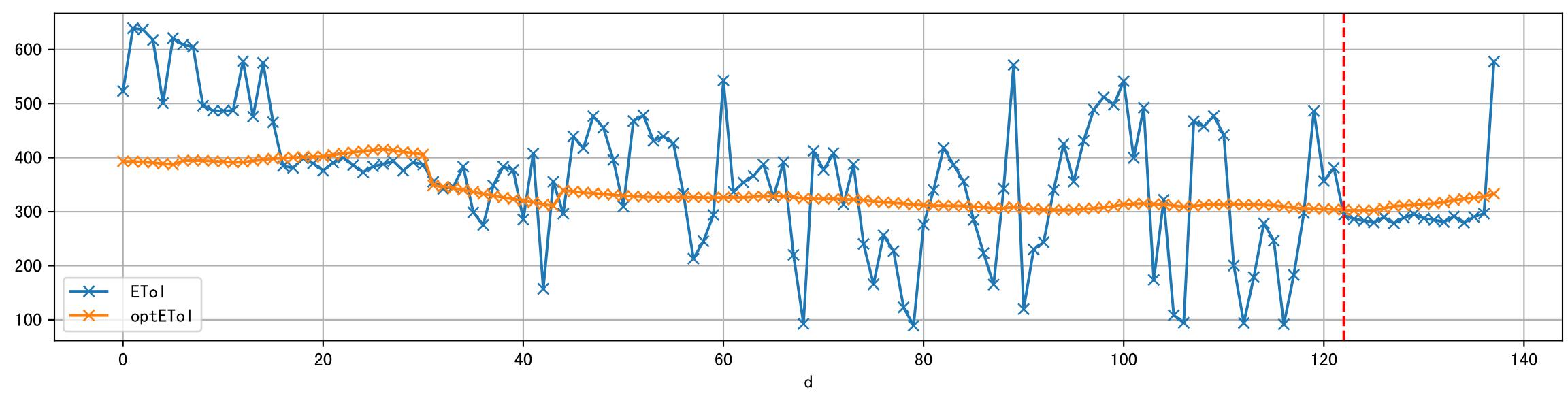


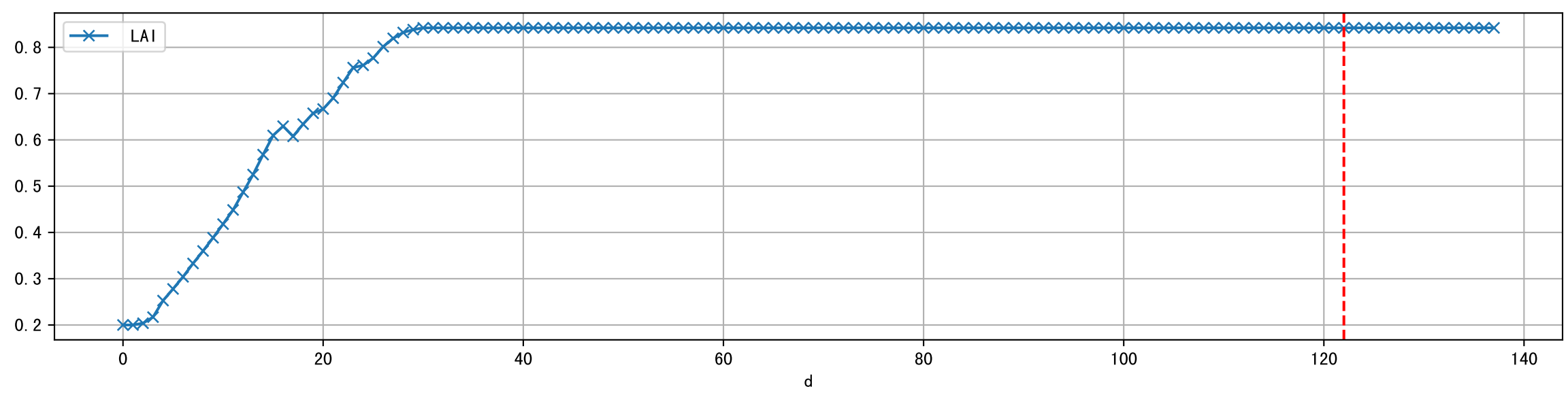


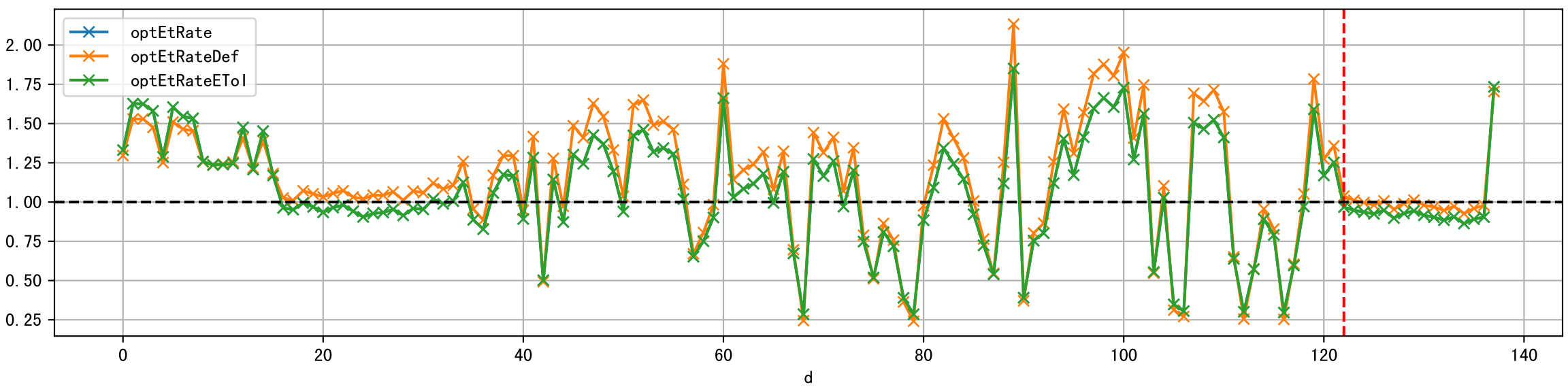


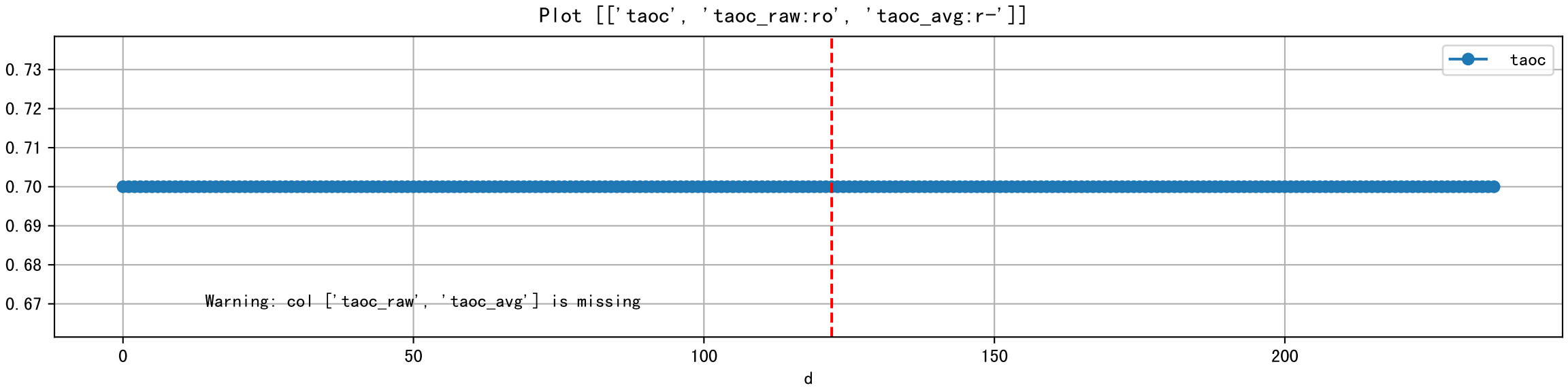


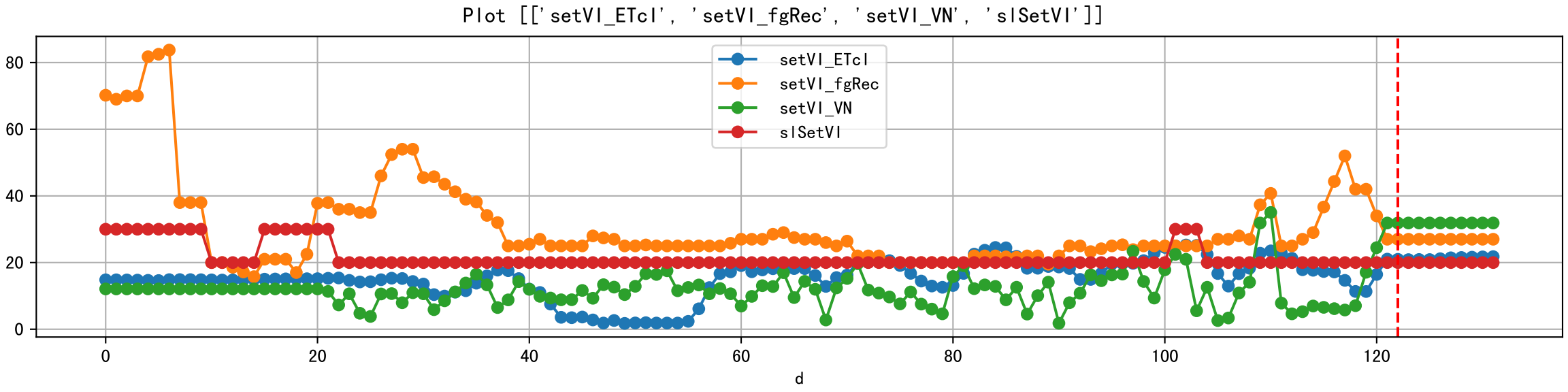


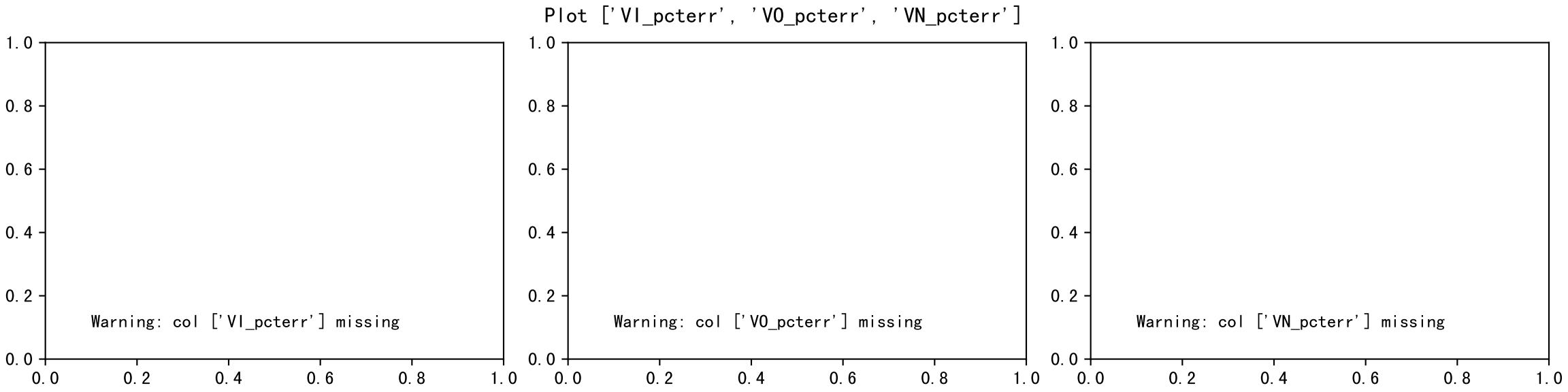


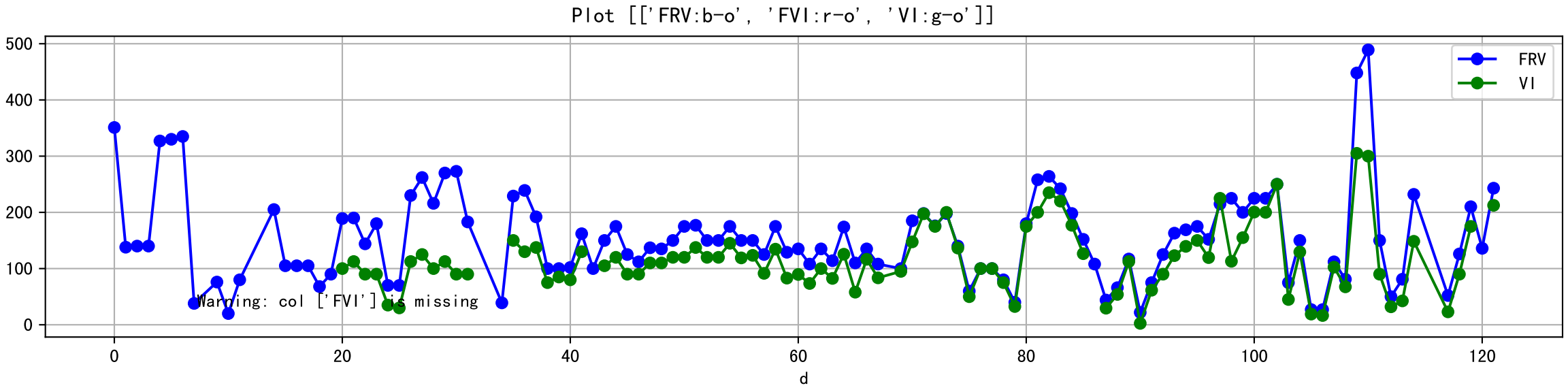


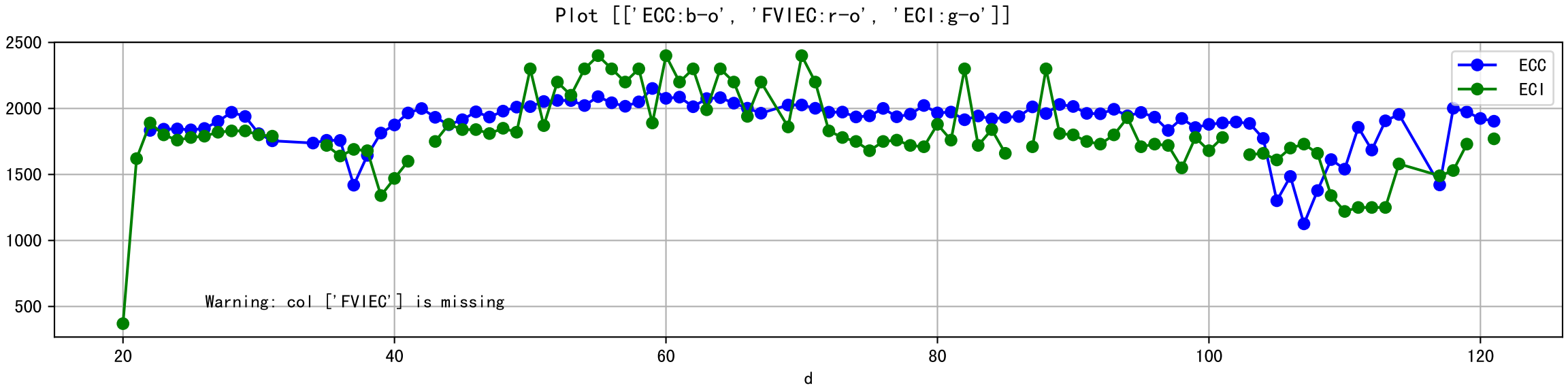


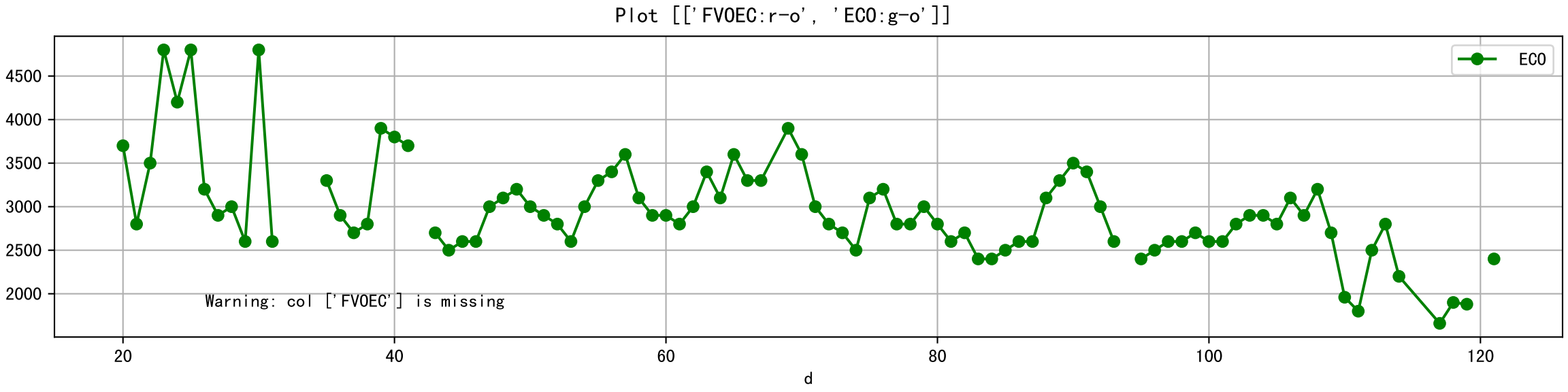

Plot [['taoc', 'taoc_raw:ro', 'taoc_avg:r-']]
taoc
0.73
0.72
0.71
0.70
0.69
0.68
0.67
Warning: col ['taoc_raw', 'taoc_avg'] is missing
0
50
100
150
200
d

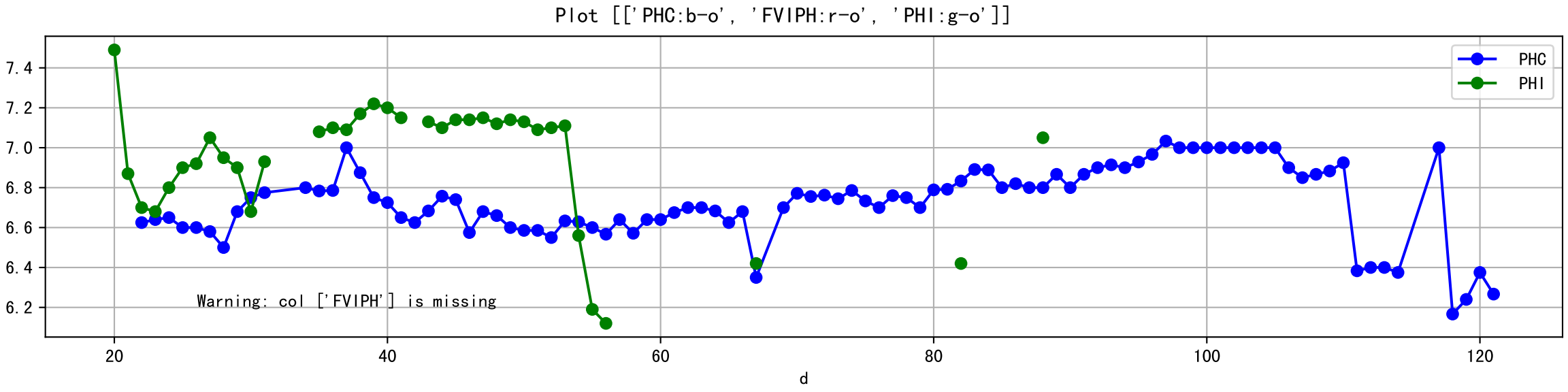

Plot [['setVI_ETcl', 'setVI_fgRec', 'setVI_VN', 'slSetVI']]
setVI_ETcl
setVI_fgRec
setVI_VN
slSetVI
0
20
40
60
80
100
120
d

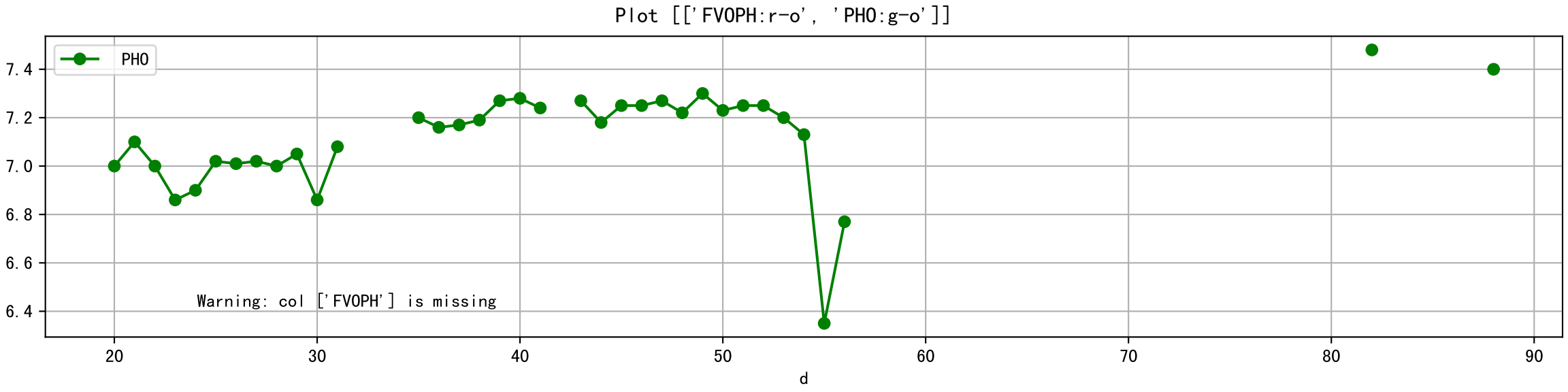

Plot ['VI_pcterr', 'VO_pcterr', 'VN_pcterr']
Warning: col ['VI_pcterr'] missing
Warning: col ['VO_pcterr'] missing
Warning: col ['VN_pcterr'] missing
0.0
0.2
0.4
0.6
0.8
1.0

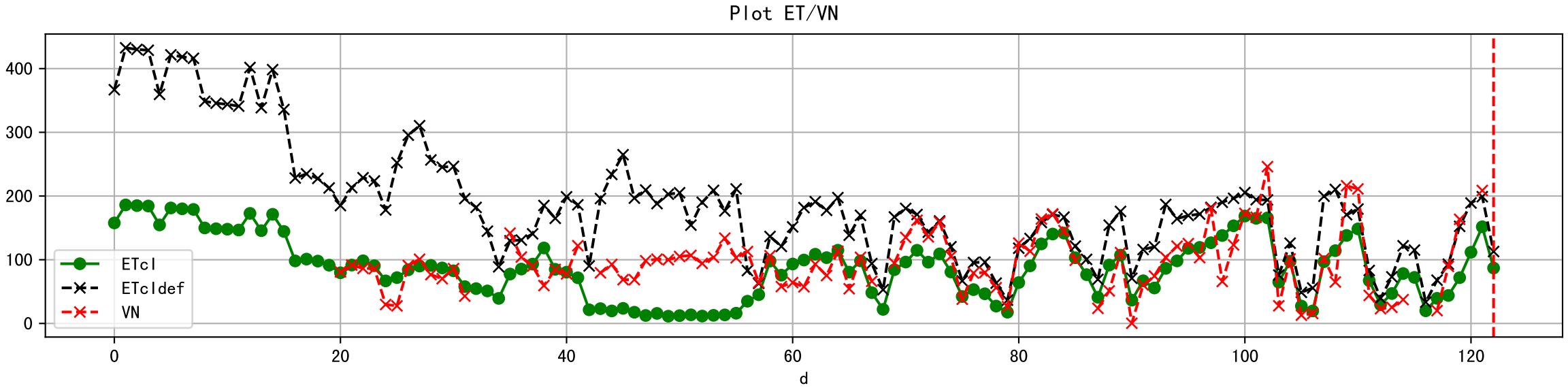

Plot [['FRV:b-o', 'FVI:r-o', 'VI:g-o']]
FRV
VI
Warning: col ['FVI'] is missing
500
400
300
200
100
0
0
20
40
60
80
100
120
d


Plot [['ECC:b-o', 'FVIEC:r-o', 'ECI:g-o']]
2500
2000
1500
1000
500
20
40
60
80
100
120
d
ECC
ECI
Warning: col ['FVIEC'] is missing

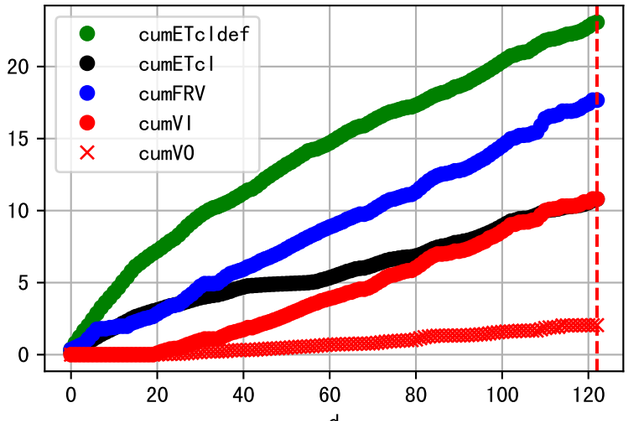

Plot [['FVOEC:r-o', 'ECO:g-o']]
ECO
Warning: col ['FVOEC'] is missing
4500
4000
3500
3000
2500
2000
20
40
60
80
100
120
d

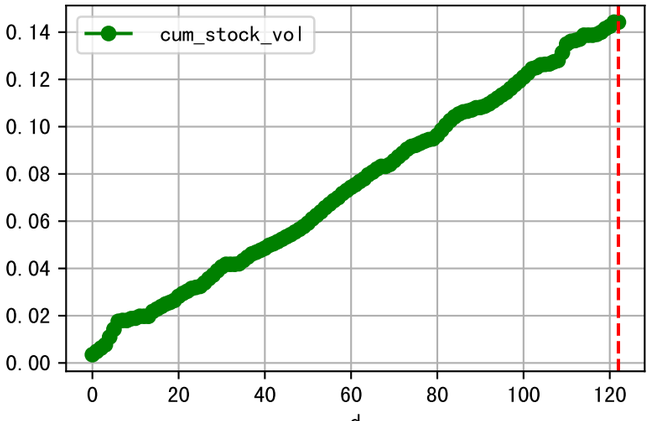

Plot [['PHC:b-o', 'FVIPH:r-o', 'PHI:g-o']]
PHC
PHI
Warning: col ['FVIPH'] is missing
7.4
7.2
7.0
6.8
6.6
6.4
6.2
20
40
60
80
100
120
d

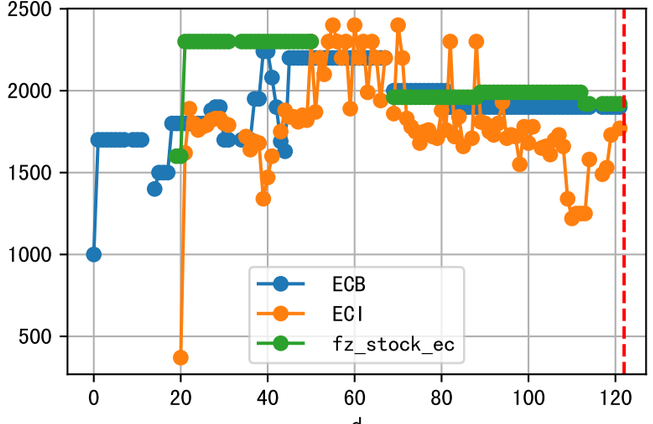

Plot [['FVOPH:r-o', 'PHO:g-o']]
PHO
Warning: col ['FVOPH'] is missing
7.4
7.2
7.0
6.8
6.6
6.4
20
30
40
50
60
70
80
90
d

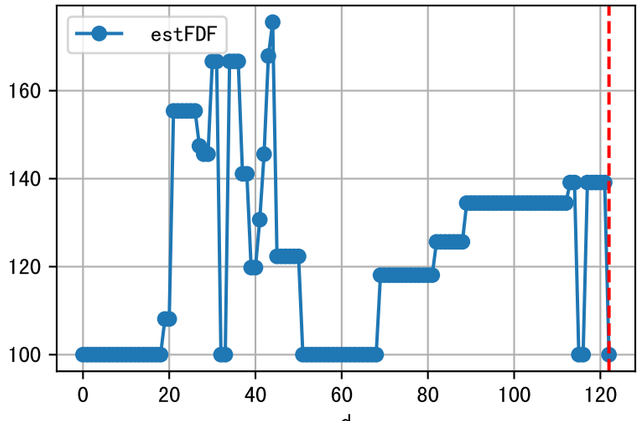

Plot ET/VN
ETcl
ETcldef
VN
0
100
200
300
400
0
20
40
60
80
100
120
d

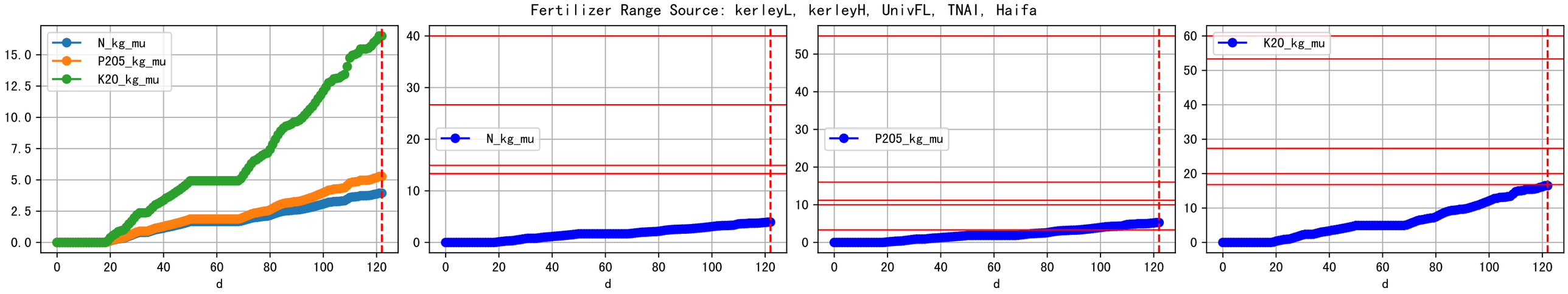
Plot Fv and fertilizer usage

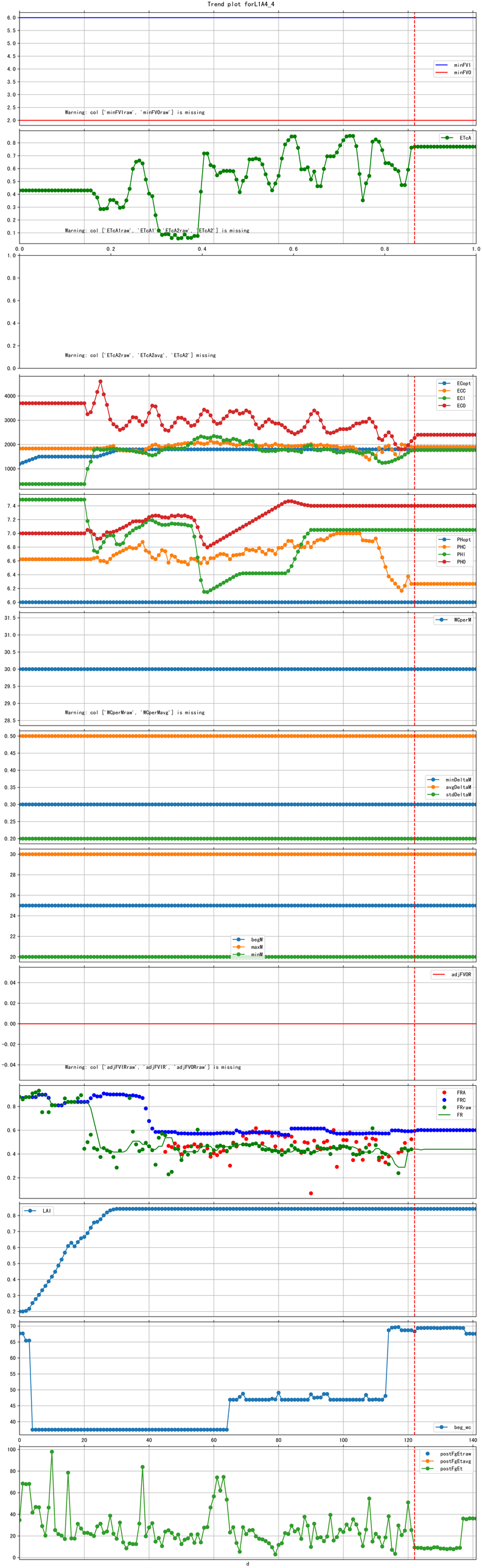


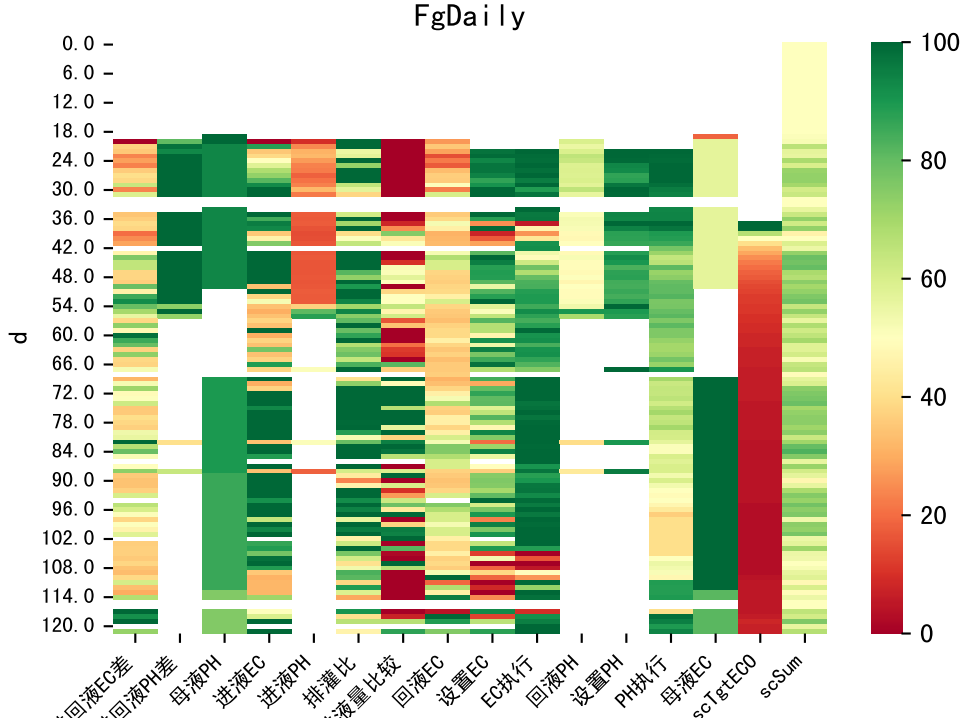




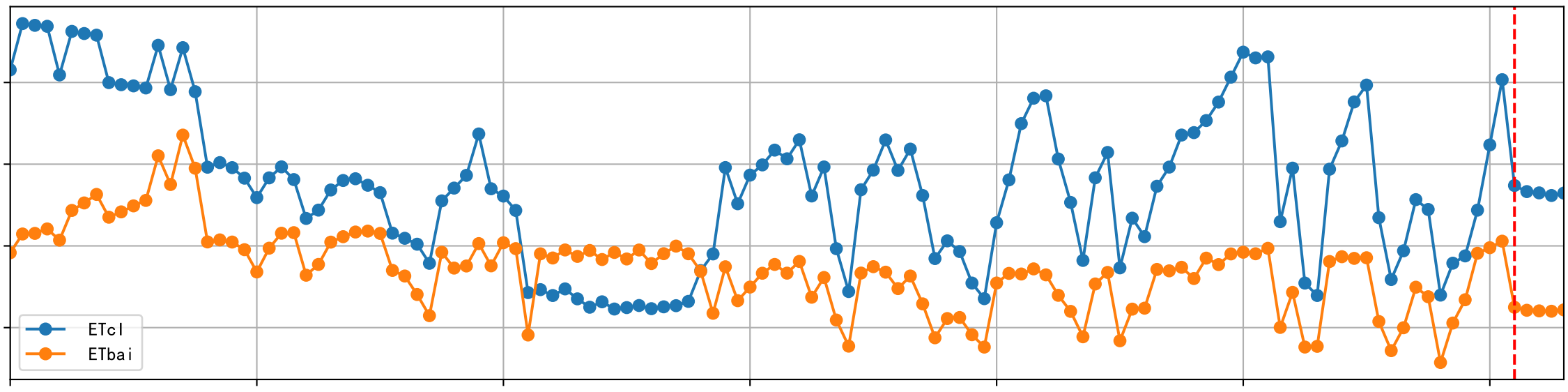


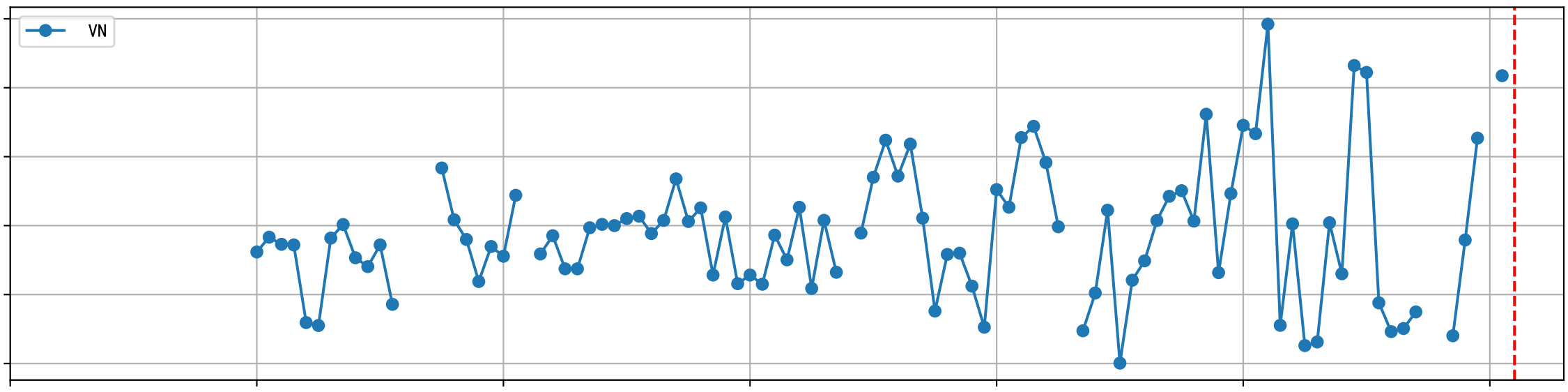

Fertilizer Range Source: kerleyL, kerleyH, UnivFL, TNAI, Haifa
N_kg_mu
P205_kg_mu
K20_kg_mu
d

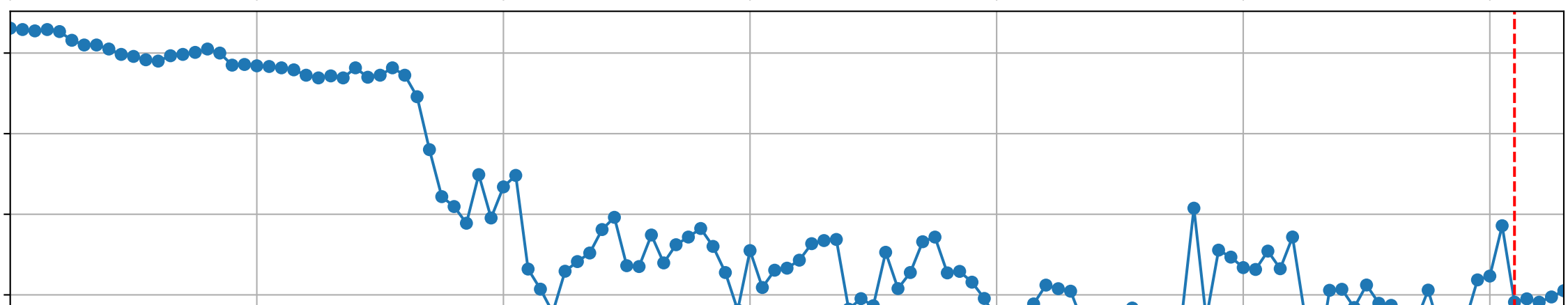

Trend plot forL1A4_4
minFVI
minFVO
Warning: col ['minFVIraw', 'minFVOraw'] is missing
ETcA
Warning: col ['ETcA1raw', 'ETcA1avg', 'ETcA2raw', 'ETcA2'] is missing
Warning: col ['ETcA2raw', 'ETcA2avg', 'ETcA2'] is missing
ECopt
ECC
ECI
ECO
PHopt
PHC
PHI
PHO
WCperM
Warning: col ['WCperMraw', 'WCperMavg'] is missing
minDeltaM
avgDeltaM
stdDeltaM
begM
maxM
minM
adjFVOR
Warning: col ['adjFVIRraw', 'adjFVIR', 'adjFVORraw'] is missing
FRA
FRC
FRraw
FR
LAI
beg_wc
postFgEtraw
postFgEtavg
postFgEt
d

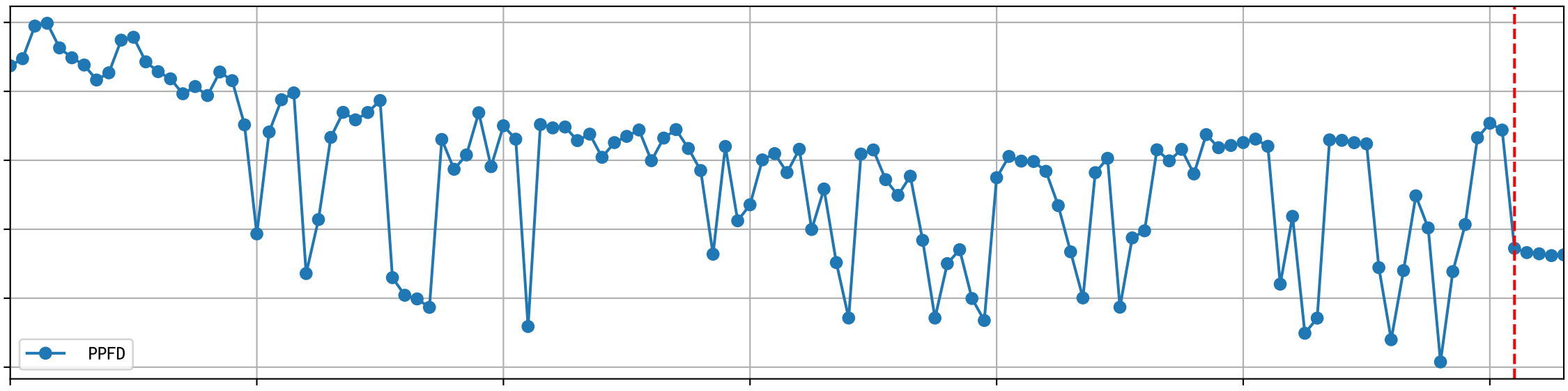

FgDaily
d
0.0
6.0
12.0
18.0
24.0
30.0
36.0
42.0
48.0
54.0
60.0
66.0
72.0
78.0
84.0
90.0
96.0
102.0
108.0
114.0
120.0
100
80
60
40
20
0
回液EC差
回液PH差
母液PH
进液EC
进液PH
排灌比
液量比较
回液EC
设置EC
EC执行
回液PH
设置PH
PH执行
母液EC
scTgtEC0
scSum

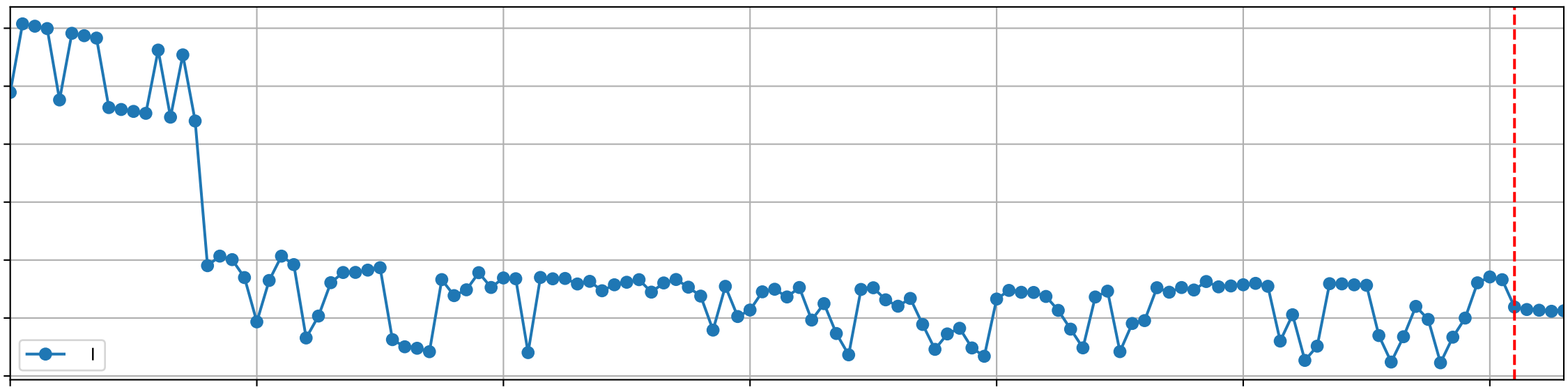
L1A4_4

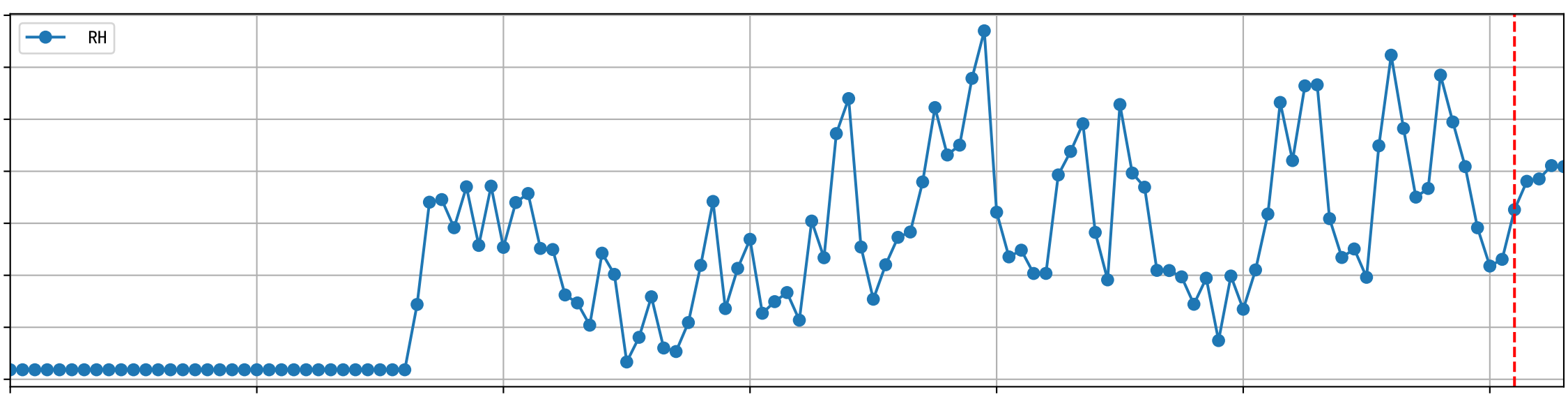


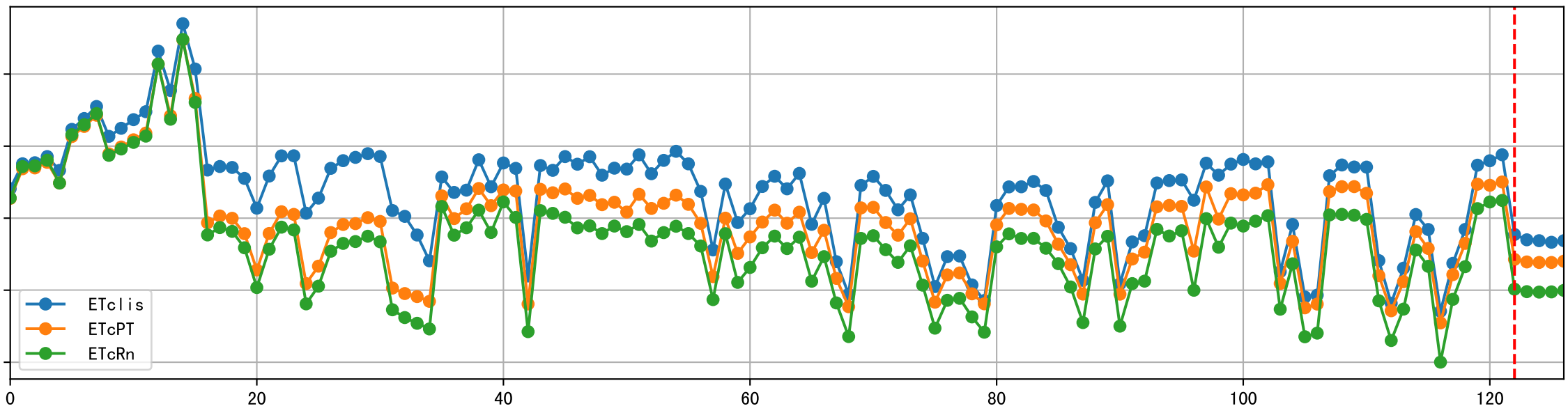


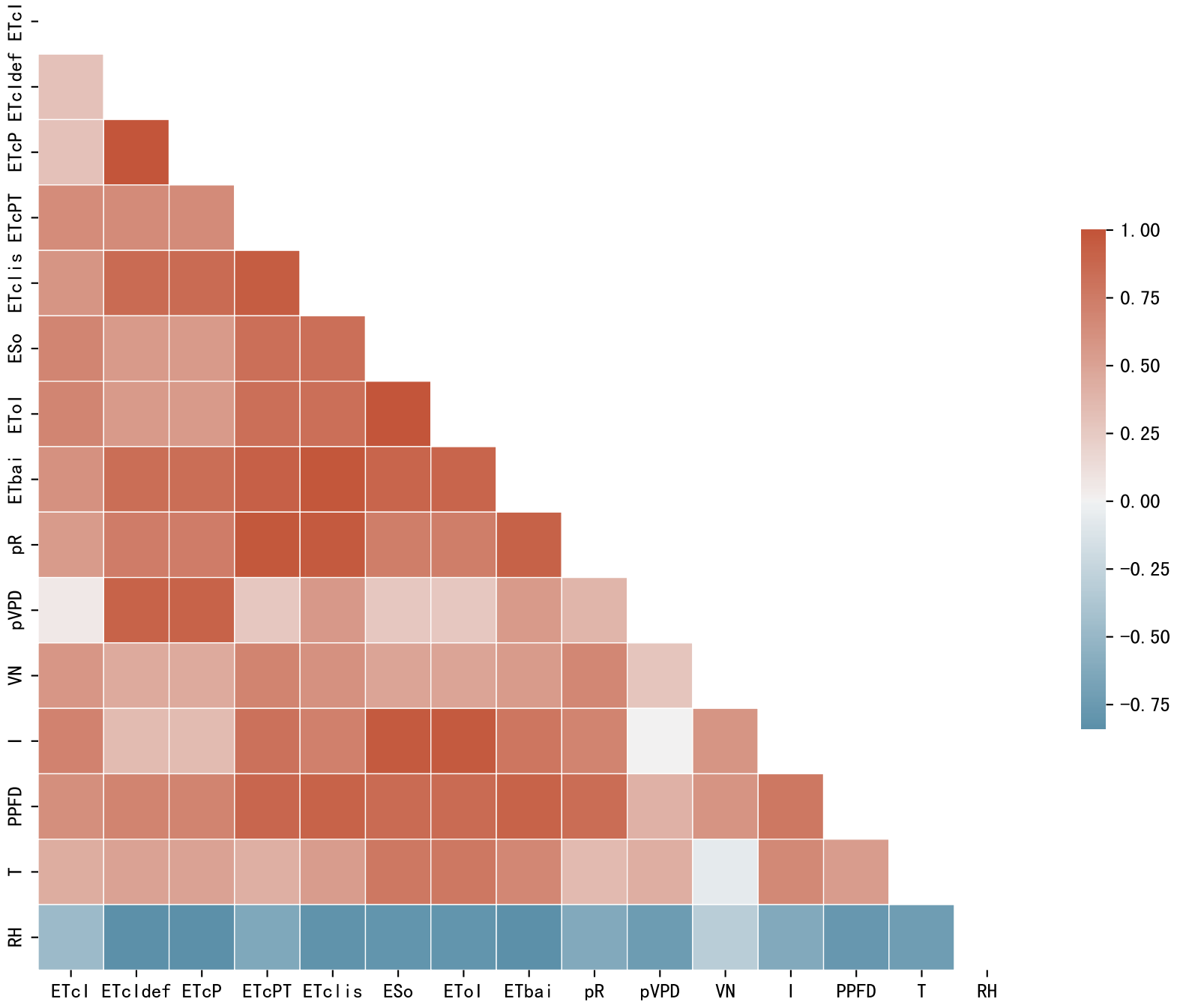


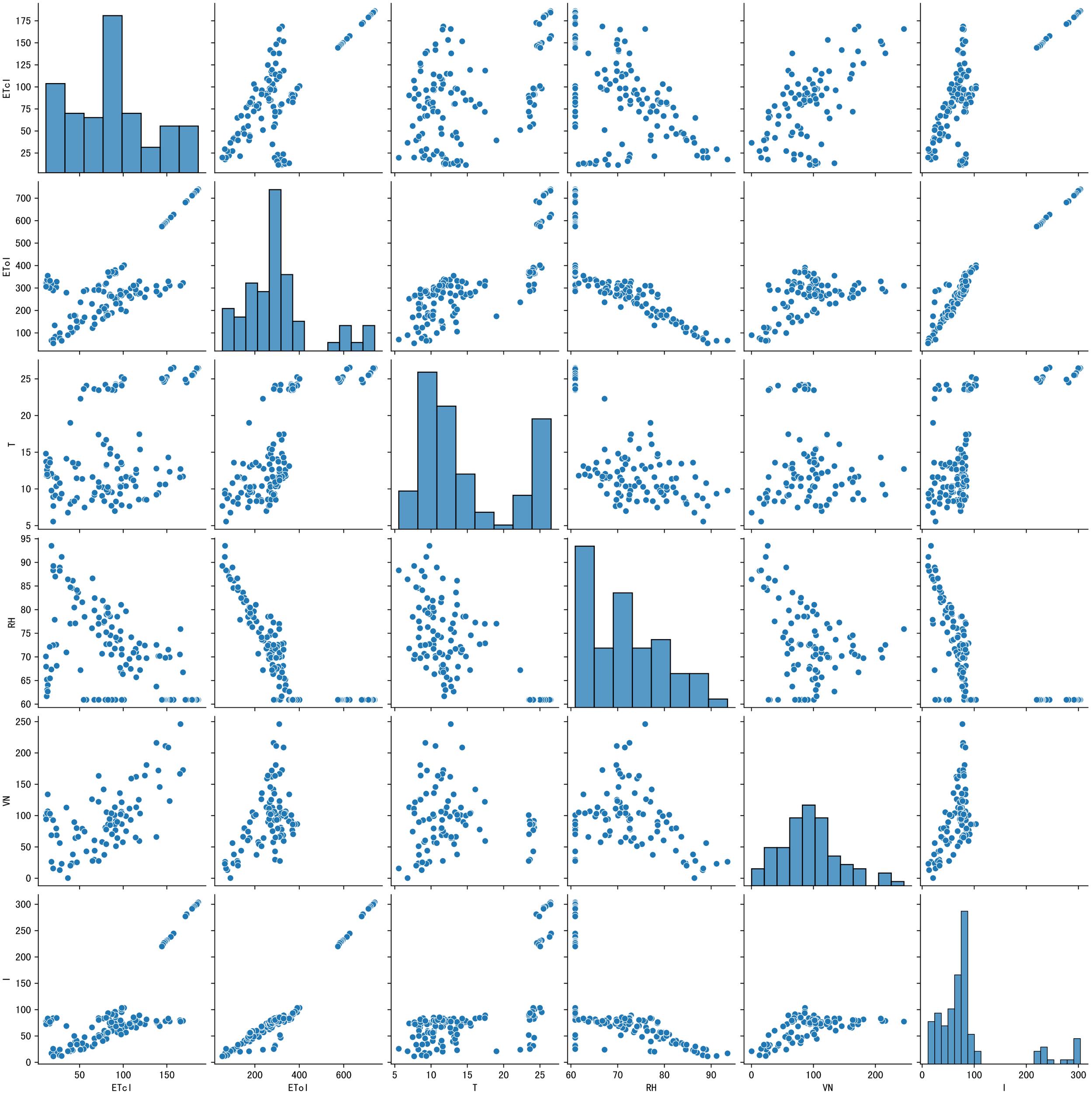


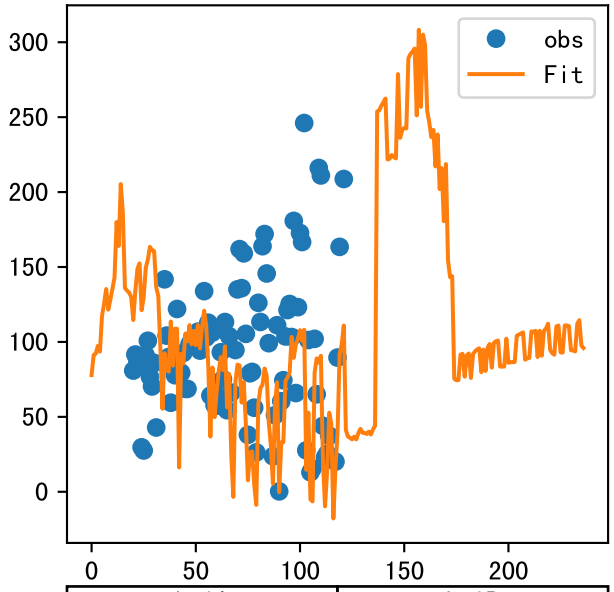


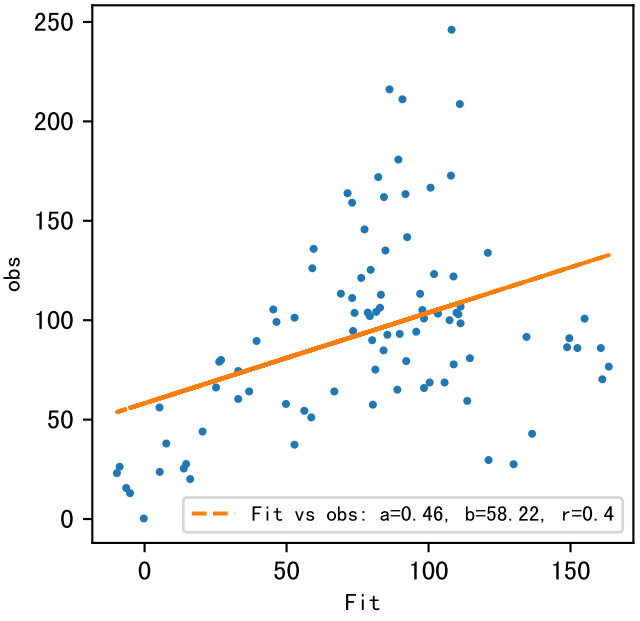




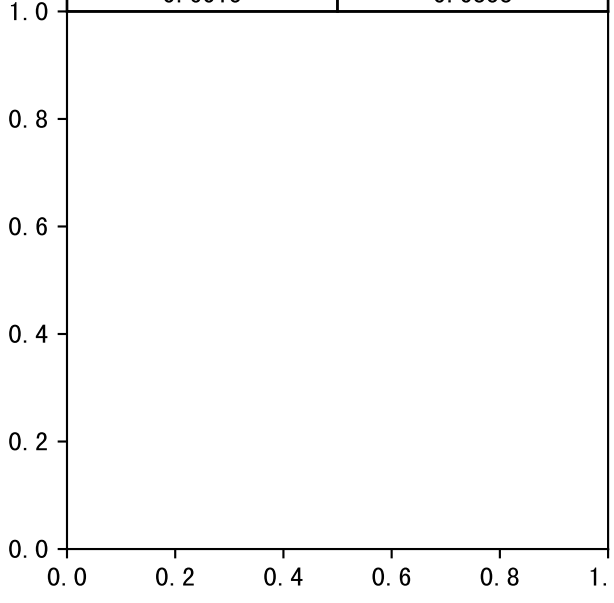

ETcl
ETcldef
ETcP
ETcPT
ETclis
ESo
ETol
ETbai
pR
pVPD
VN
I
PPFD
T
RH
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75

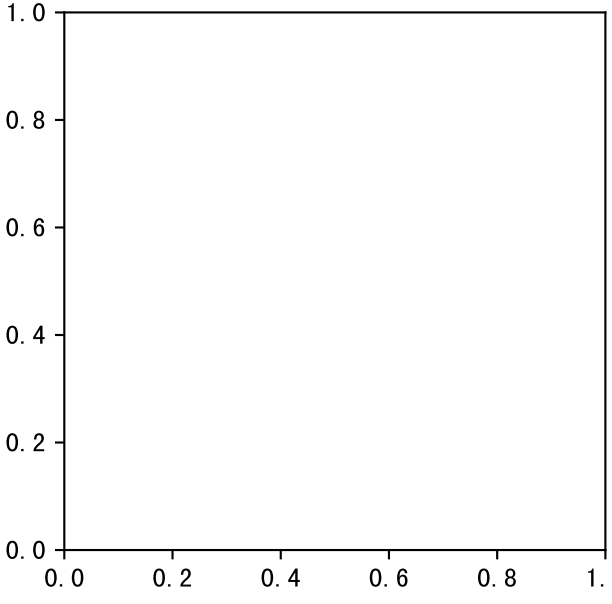

ETcI
ETo I
T
RH
VN
I
ETcI
ETo I
T
RH
VN
I

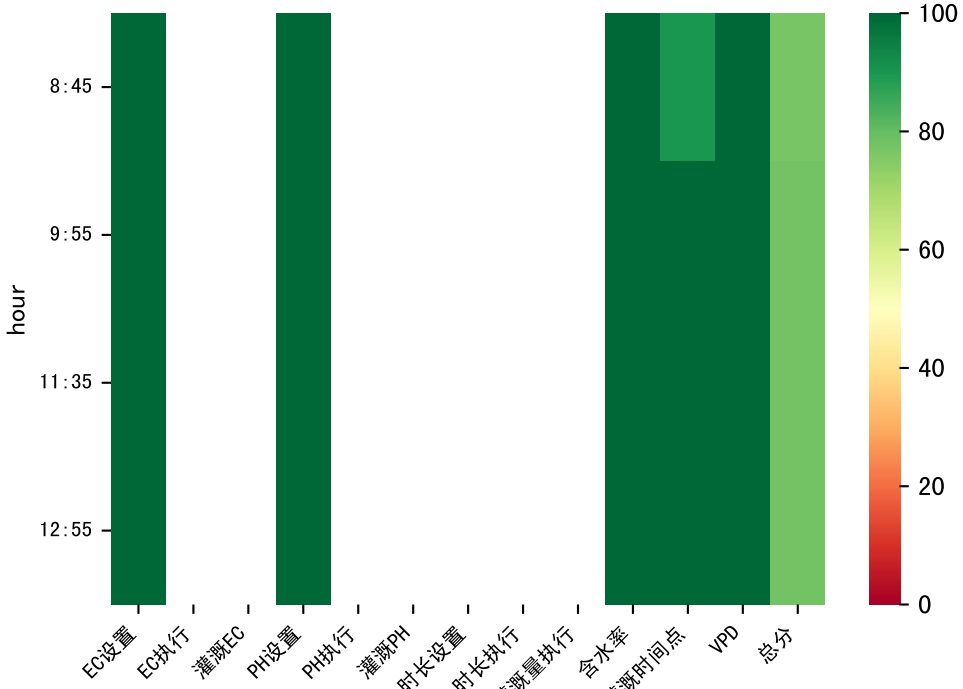




baiA	baiB
0.6015	0.0353

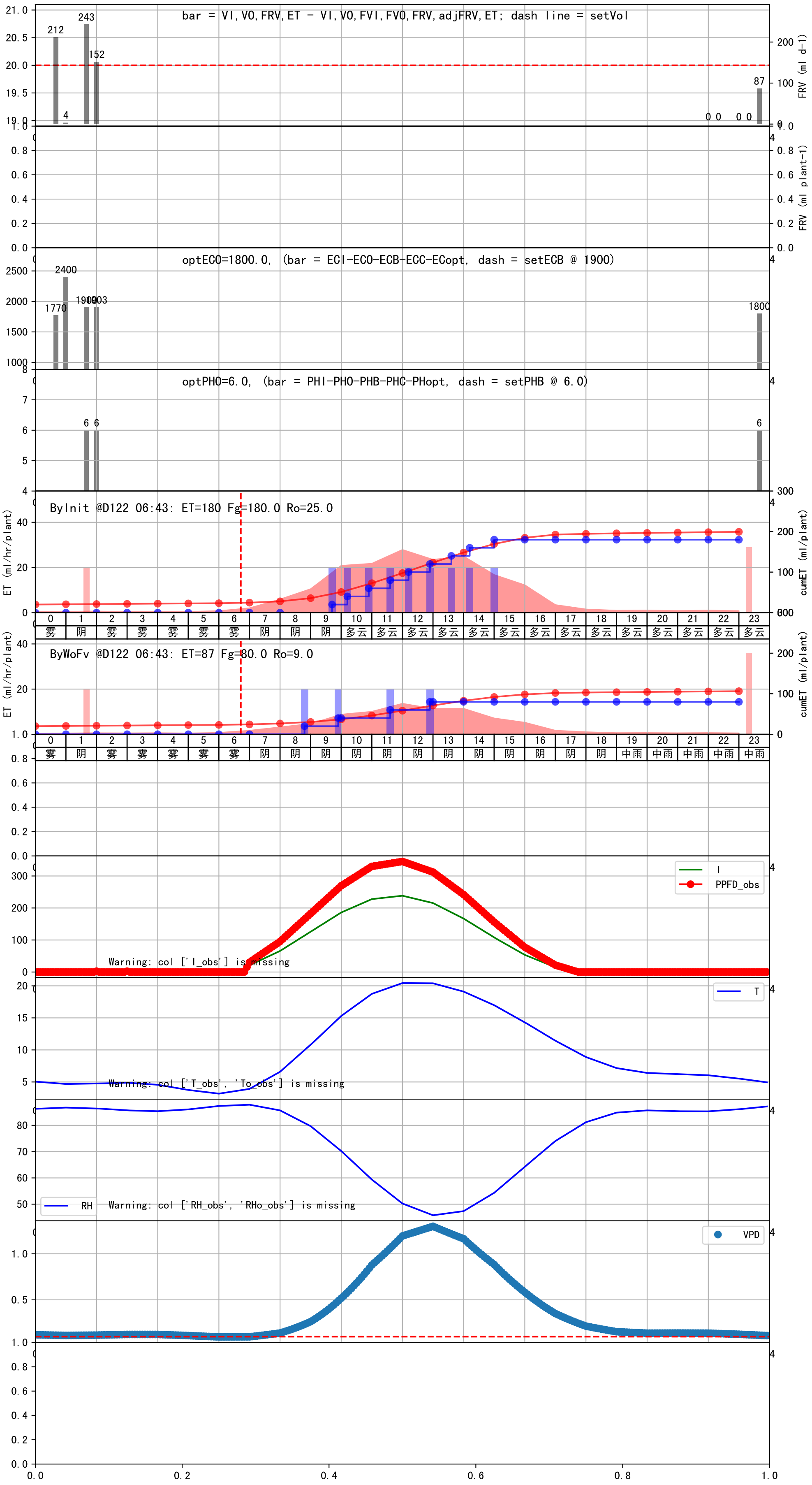


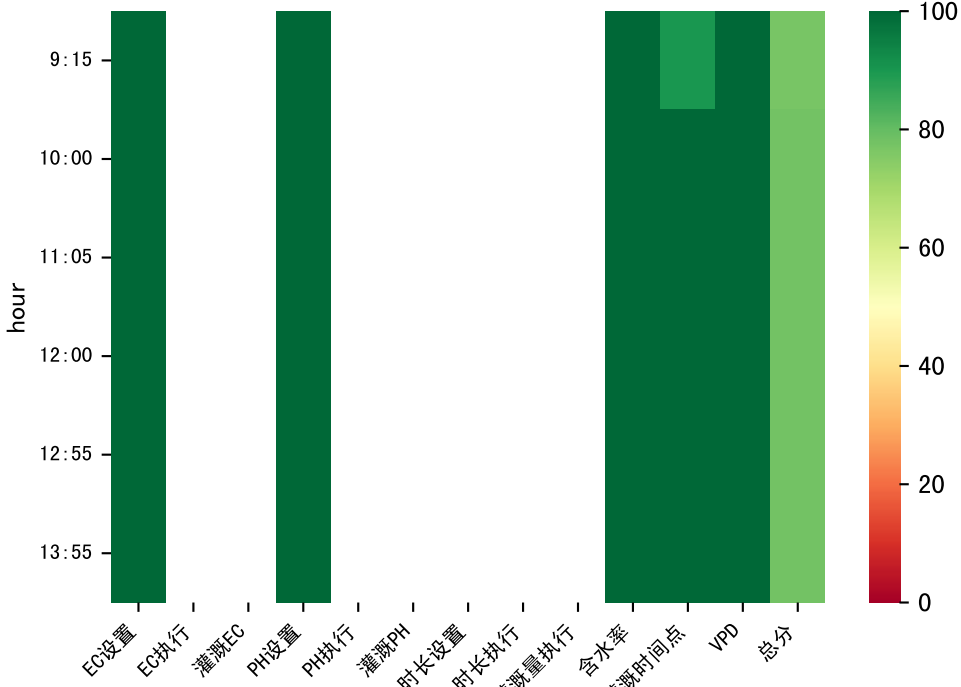



hour
8:45
9:55
11:35
12:55
EC设置
EC执行
灌溉EC
PH设置
PH执行
灌溉PH
时长设置
时长执行
灌溉量执行
含水率
灌溉时间点
VPD
总分
100
80
60
40
20
0

时间	灌溉时长(秒)	灌溉量(毫升/株)	灌溉总量(方/次)	天气	注释
08:45	45	20.0	0.081	阴	预期@08:45 自主（未用传感器）
09:55	45	20.0	0.081	阴	预期@09:55 自主（未用传感器）
11:35	45	20.0	0.081	阴	预期@11:35 自主（未用传感器）
12:55	45	20.0	0.081	阴	预期@12:55 自主（未用传感器）
总计	180.0 (4次)	80.0			建议进液EC：1900， PH：6.0

L1A4_4, Day=122 (2026-02-05)

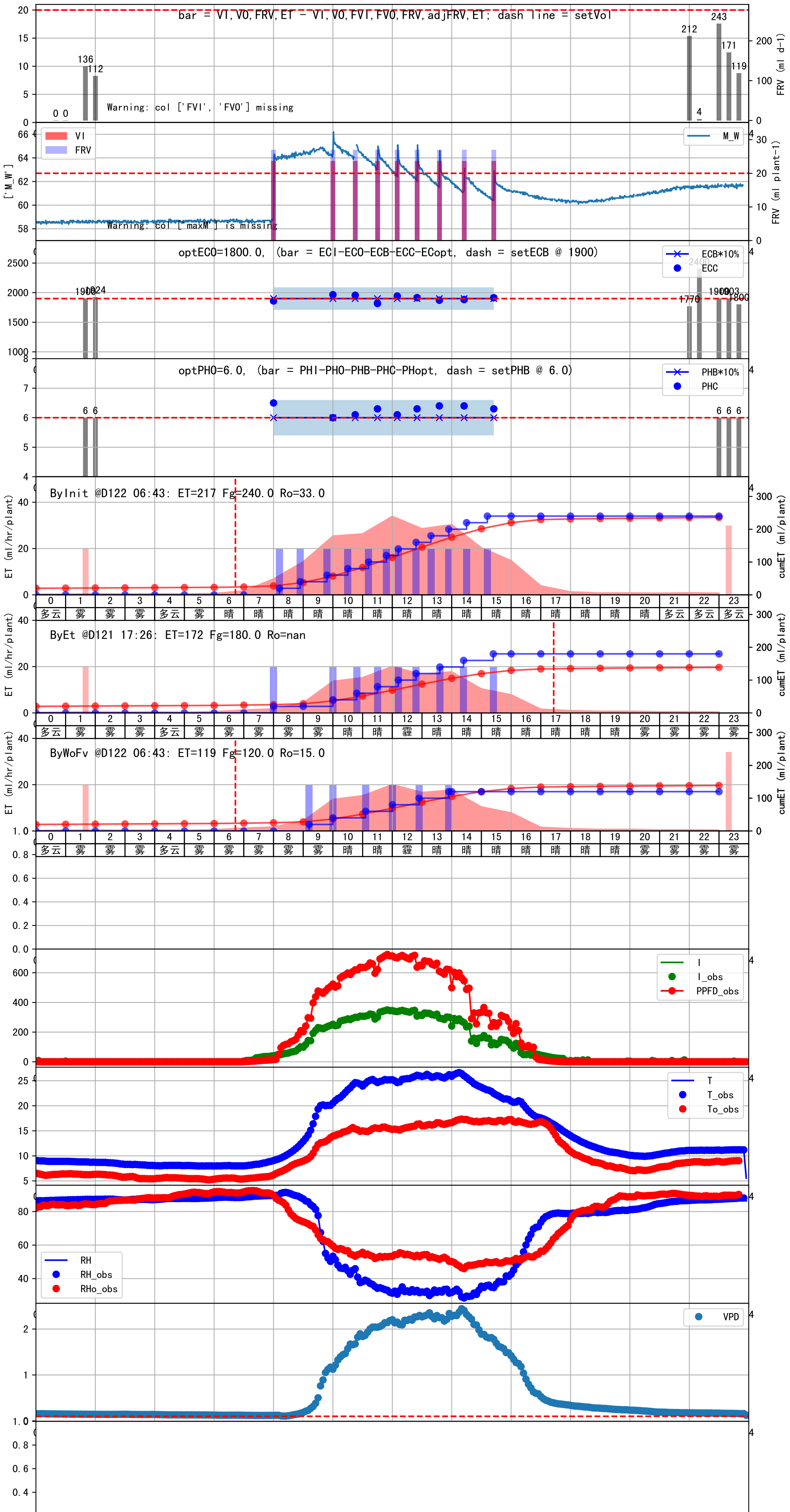


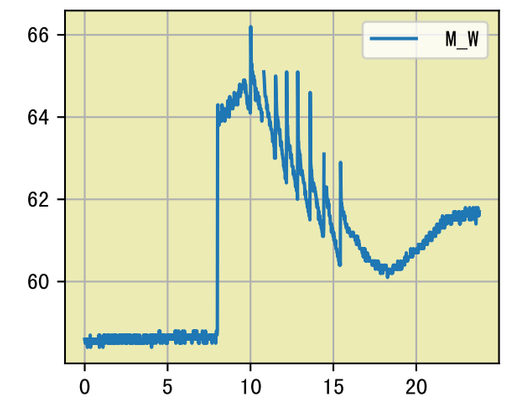

hour
9:15
10:00
11:05
12:00
12:55
13:55
EC设置
EC执行
灌溉EC
PH设置
PH执行
灌溉PH
时长设置
时长执行
灌溉量执行
含水率
灌溉时间点
VPD
总分
100
80
60
40
20
0

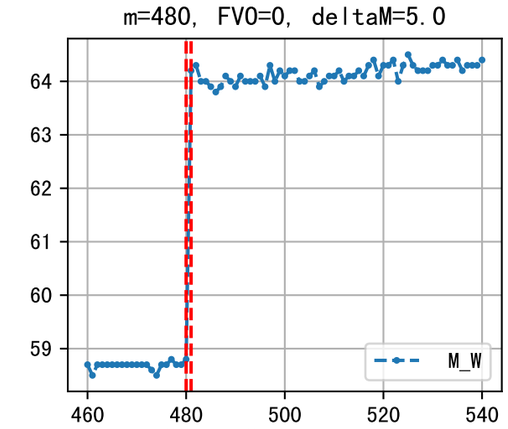
时间	灌溉时长(秒)	灌溉量(毫升/株)	灌溉总量(方/次)	天气	注释
09:15	45	20.0	0.081	雾	假设@09:15 自动（未用传感器）
10:00	45	20.0	0.081	晴	假设@10:00 自动（未用传感器）
11:05	45	20.0	0.081	晴	假设@11:05 自动（未用传感器）
12:00	45	20.0	0.081	霾	假设@12:00 自动（未用传感器）
12:55	45	20.0	0.081	霾	假设@12:55 自动（未用传感器）
13:55	45	20.0	0.081	晴	假设@13:55 自动（未用传感器）
总计	270.0 (6次)	120.0			建议进液EC：1900， PH：6.0

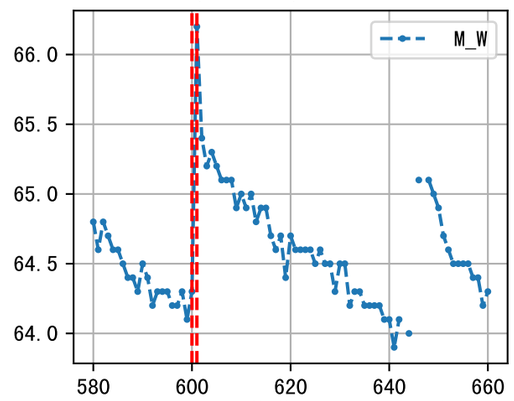
施肥机灌溉量与预期值不符 (27.0 : 19.0)，可能水表需要校准
默认实际灌溉19.0 ml.

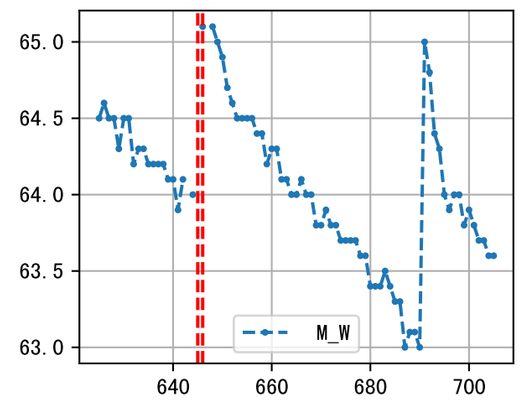
L1A4_4, Day=121.0 (2026-02-04)

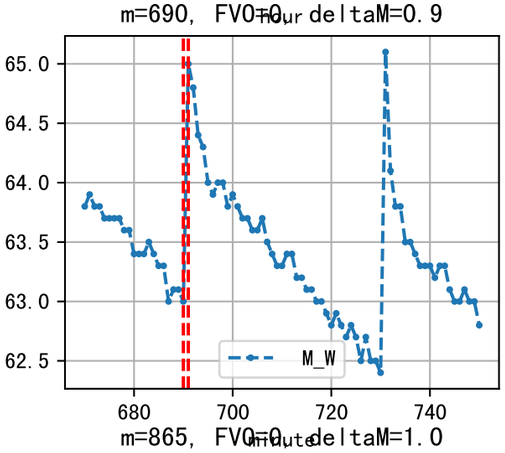


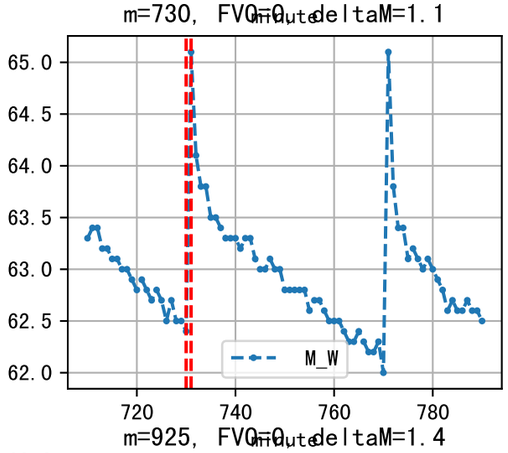

M_W

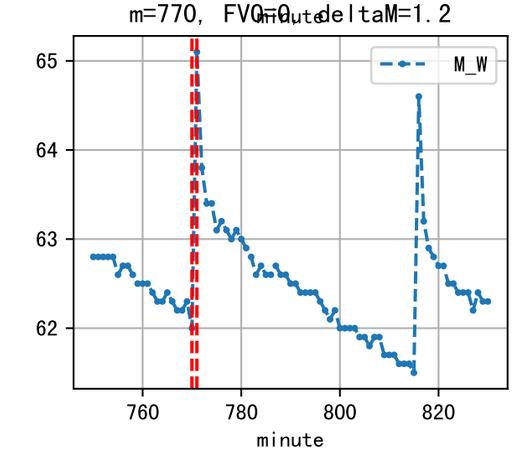

m=480, FV0=0, deltaM=5.0
M_W

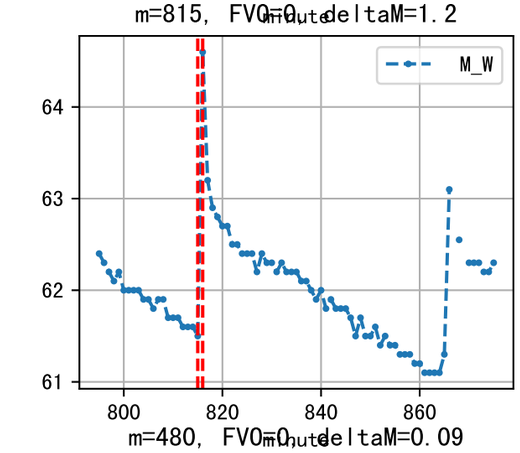

m=600, FV0=0, deltaM=0.8
M_W

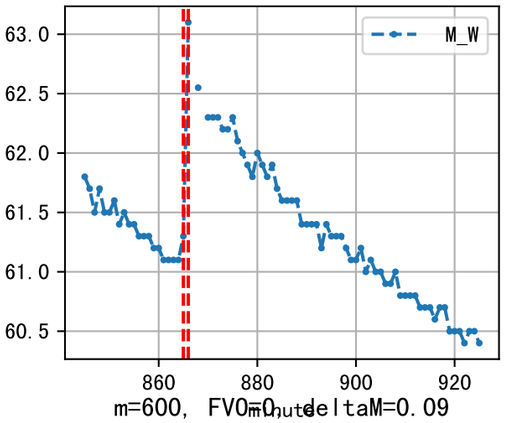

m=645, FV0=0, deltaM=nan
M_W

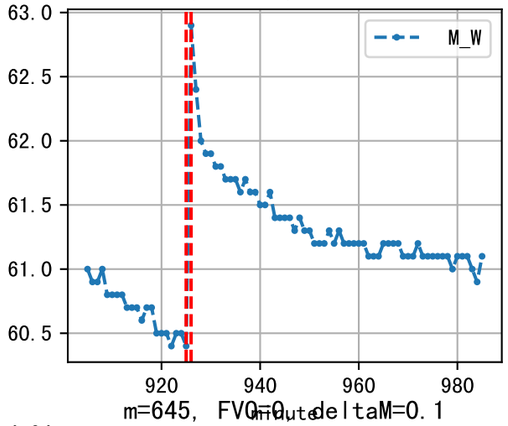

m=690, FV0=0, deltaM=0.9
hour
M_W

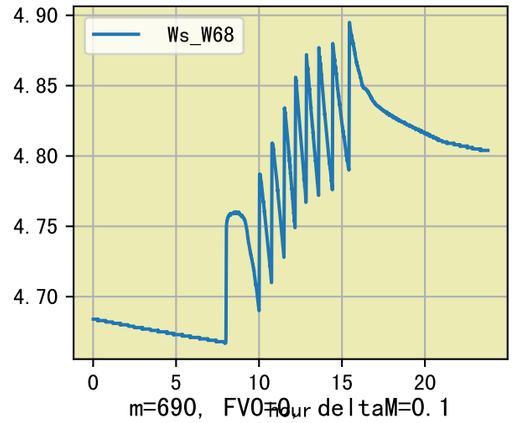

m=730, FV0=0, deltaM=1.1
minute
M_W

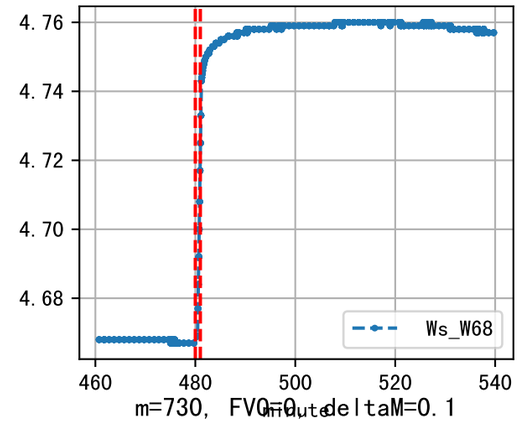

m=770, FV0=0, deltaM=1.2
minute
M_W

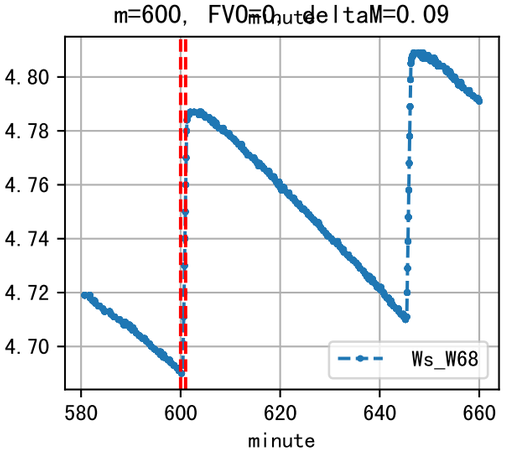

m=815, FV0=0, deltaM=1.2
minute
M_W

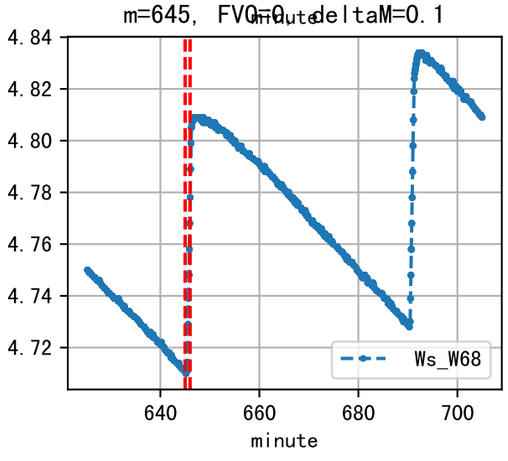

m=865, FV0=0, deltaM=1.0
minute
M_W

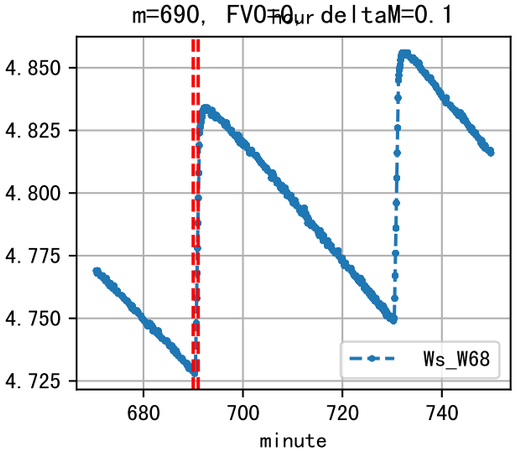

m=925, FV0=0, deltaM=1.4
minute
M_W

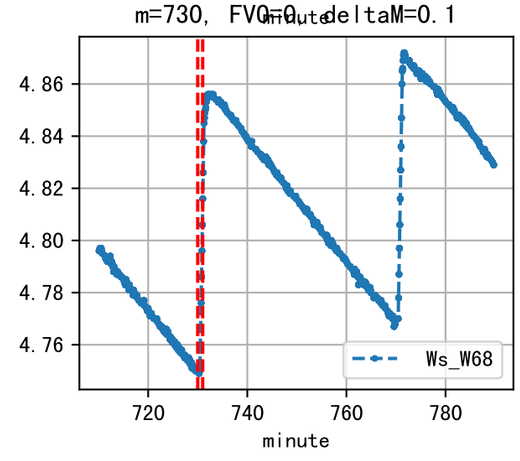

minute
Ws_W68

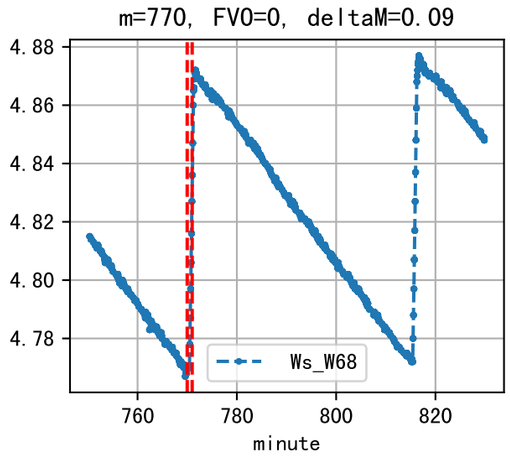

m=480, FV0=0, deltaM=0.09
minute
Ws_W68

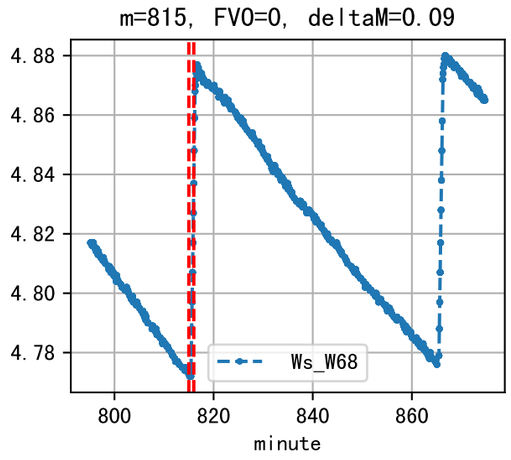

m=600, FV0=0, deltaM=0.09
minute
Ws_W68
minute

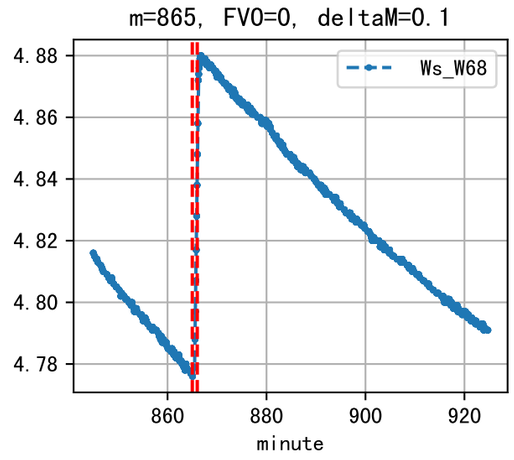

m=645, FV0=0, deltaM=0.1
minute
Ws_W68
minute

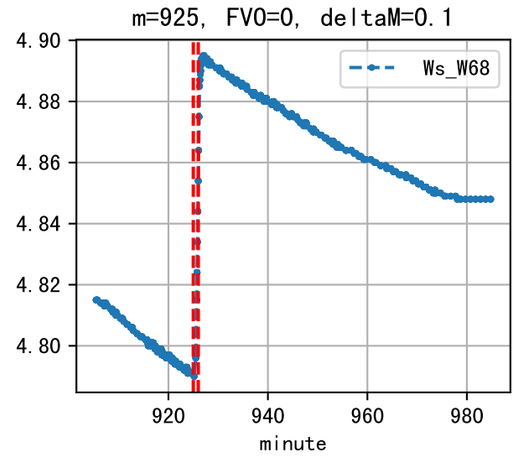

m=690, FV0=0, deltaM=0.1
hour
Ws_W68
minute

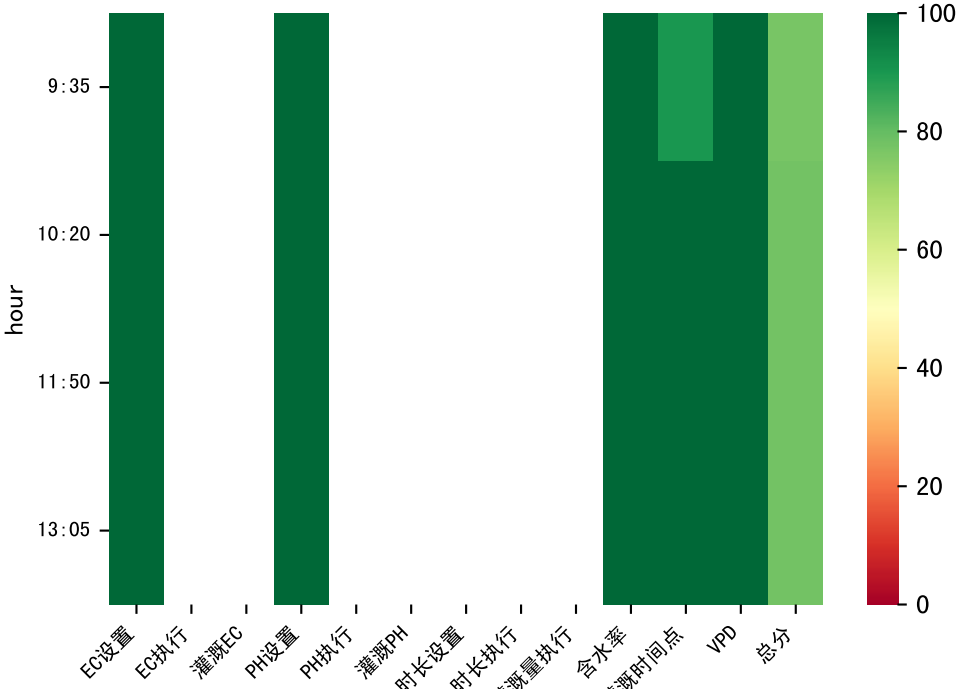

m=730, FV0=0, deltaM=0.1
minute
Ws_W68
minute


m=770, FV0=0, deltaM=0.09
4.88
4.86
4.84
4.82
4.80
4.78
760
780
800
820
minute
Ws_W68


m=815, FV0=0, deltaM=0.09
4.88
4.86
4.84
4.82
4.80
4.78
800
820
840
860
minute
Ws_W68


m=865, FV0=0, deltaM=0.1
4.88
4.86
4.84
4.82
4.80
4.78
860
880
900
920
minute
Ws_W68

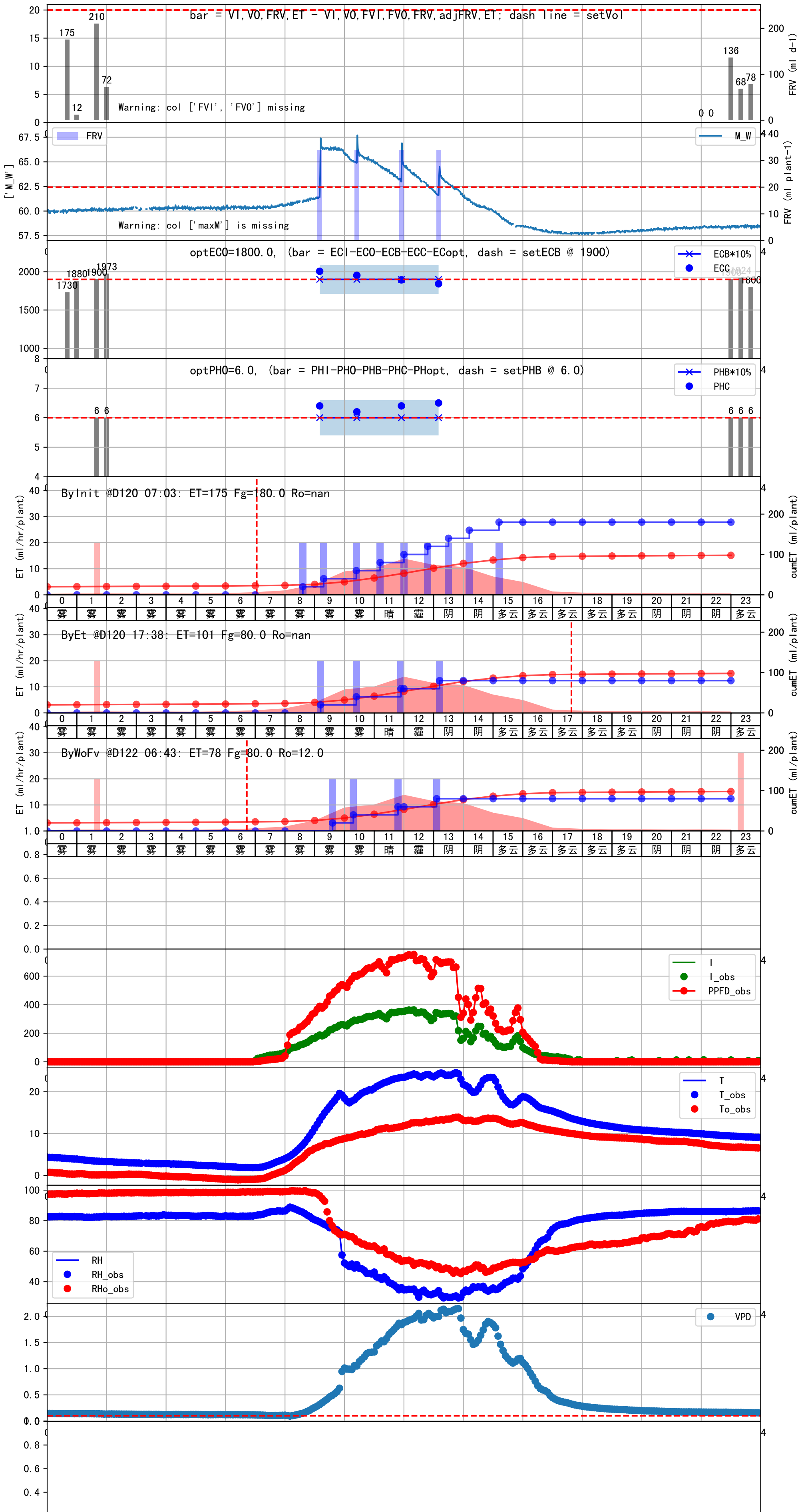

m=925, FV0=0, deltaM=0.1
4.90
4.88
4.86
4.84
4.82
4.80
920
940
960
980
minute
Ws_W68

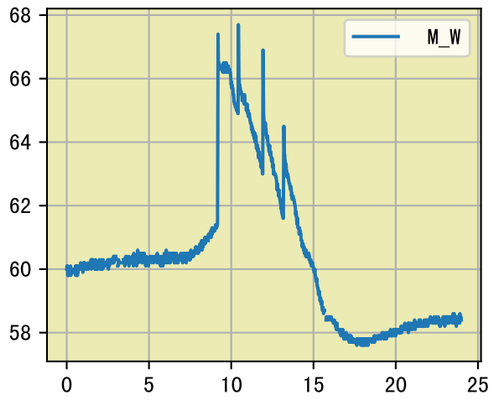

hour
9:35
10:20
11:50
13:05
EC设置
EC执行
灌溉EC
PH设置
PH执行
灌溉PH
时长设置
时长执行
灌溉量执行
含水率
灌溉时间点
VPD
总分
100
80
60
40
20
0

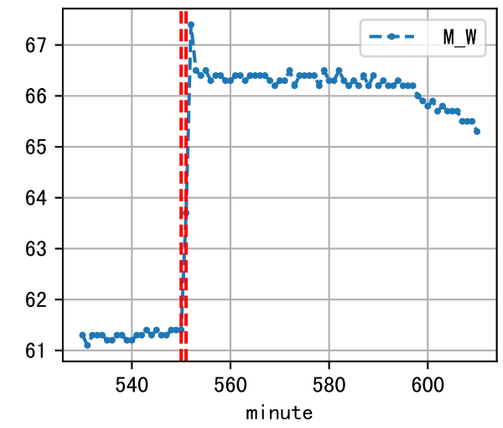
时间	灌溉时长(秒)	灌溉量(毫升/株)	灌溉总量(方/次)	天气	注释
09:35	57	20.0	0.081	雾	假设@09:35 自动（未用传感器）
10:20	57	20.0	0.081	雾	假设@10:20 自动（未用传感器）
11:50	57	20.0	0.081	晴	假设@11:50 自动（未用传感器）
13:05	57	20.0	0.081	阴	假设@13:05 自动（未用传感器）
总计	228.0 (4次)	80.0			建议进液EC：1900， PH：6.0

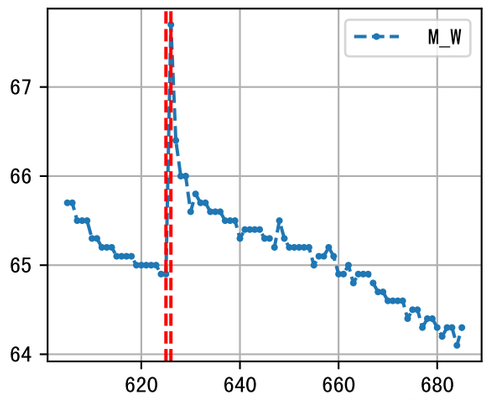
施肥机灌溉量与预期值不符 (34.0 : 17.0)，可能水表需要校准
上次灌溉时长未按模型建议(57 vs 69.0))
默认实际灌溉17.0 ml.

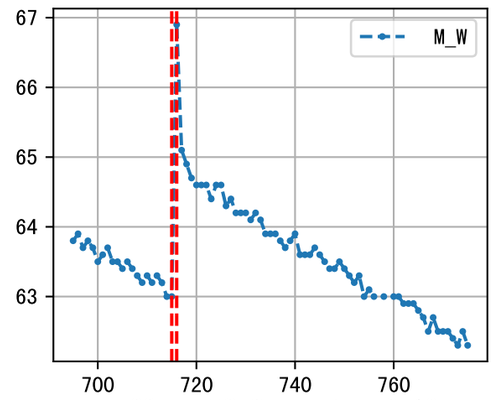
L1A4_4, Day=120.0 (2026-02-03)

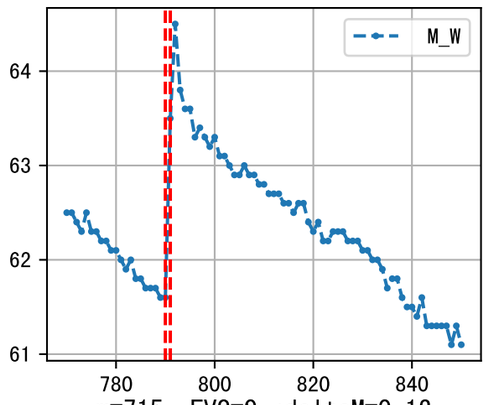


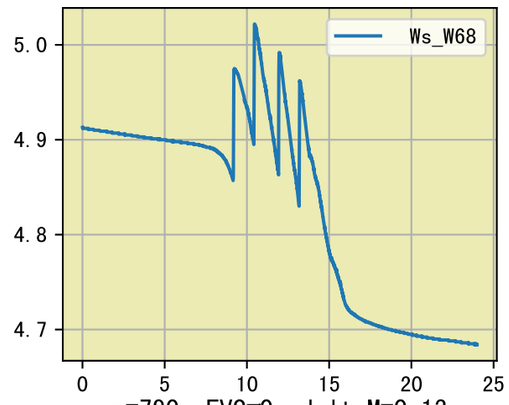

M_W
hour

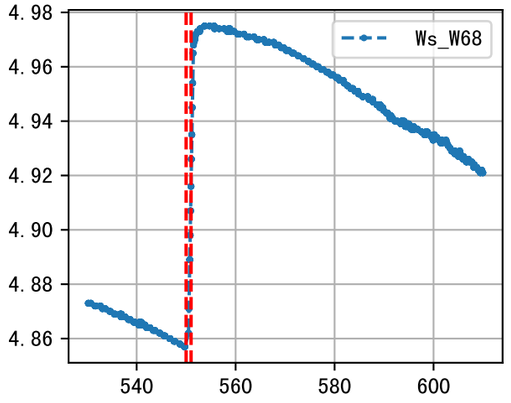

m=550, FV0=0, deltaM=4.9
M_W
minute

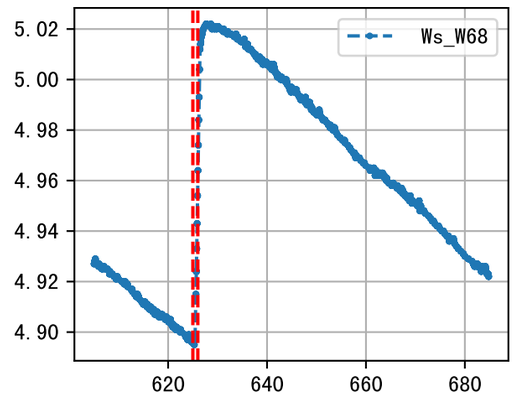

m=625, FV0=0, deltaM=0.9
M_W

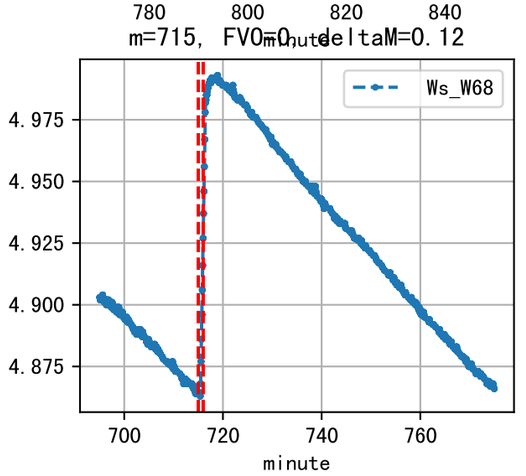

m=715, FV0=0, deltaM=1.6
M_W

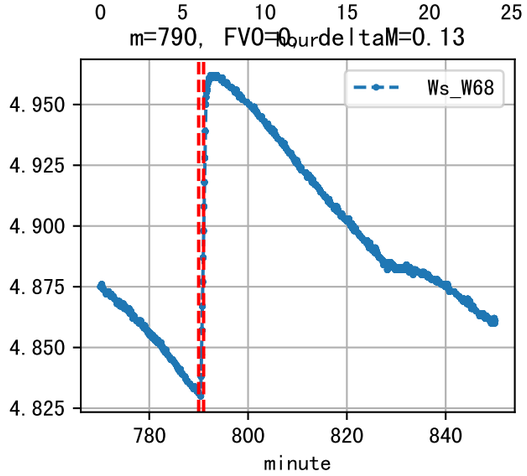

m=790, FV0=0, deltaM=1.7
M_W
minute

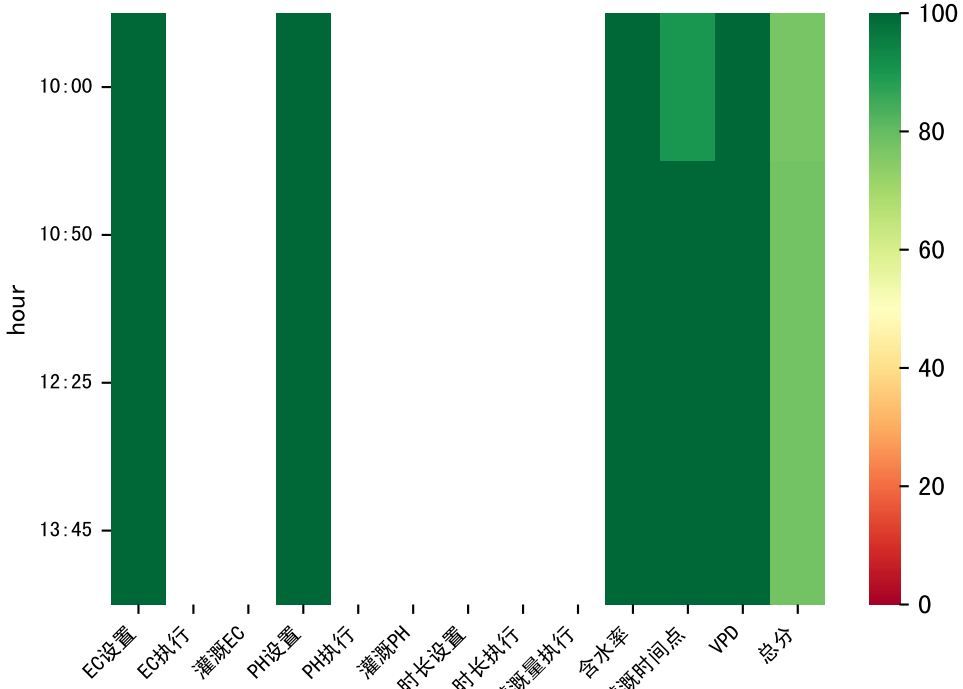

Ws_W68
hour


m=550, FV0=0, deltaM=0.11
Ws_W68
minute


m=625, FV0=0, deltaM=0.12
Ws_W68
minute


m=715, FV0=0, deltaM=0.12
Ws_W68
minute

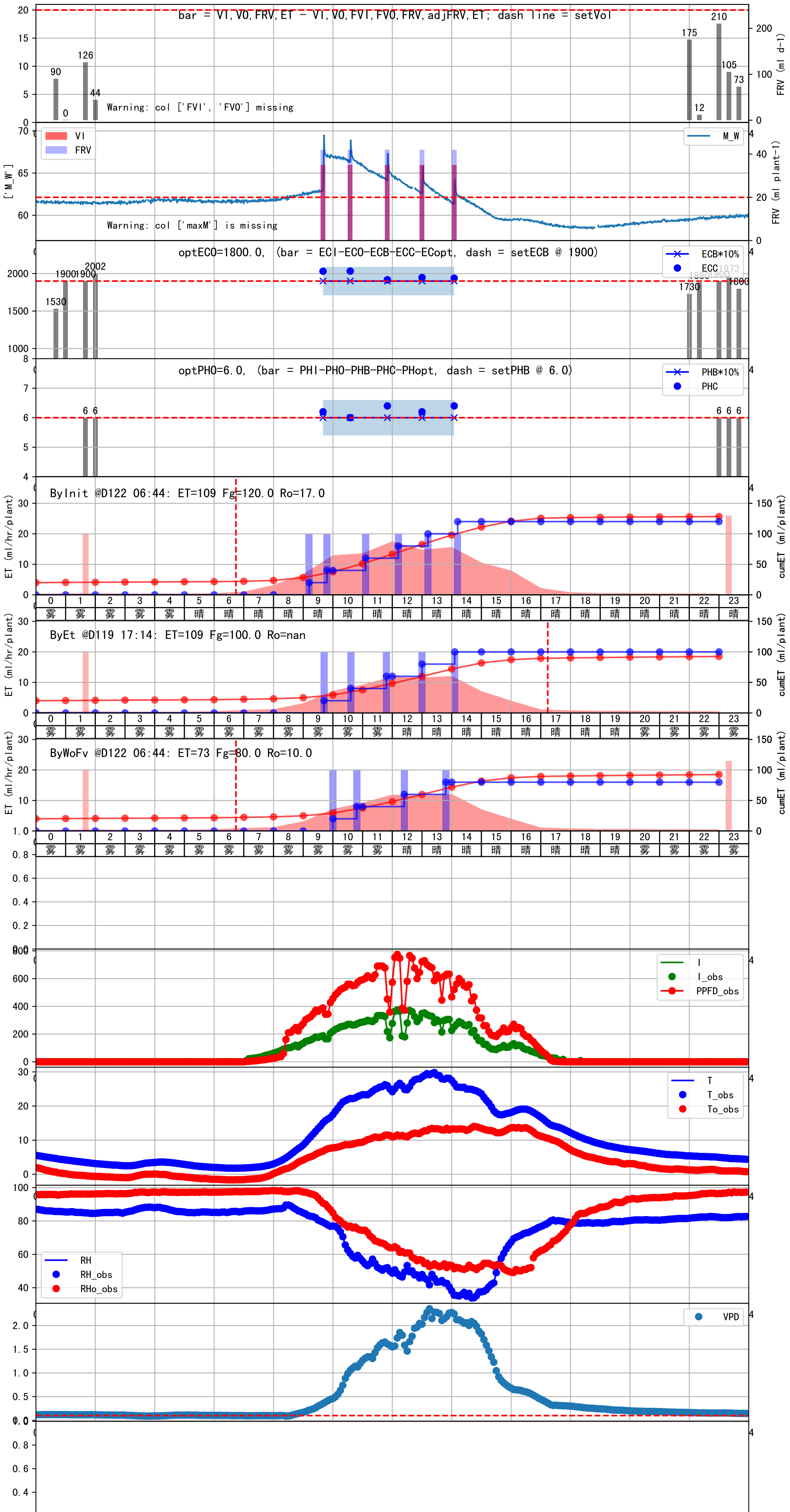

m=790, FV0=0, deltaM=0.13
Ws_W68
minute

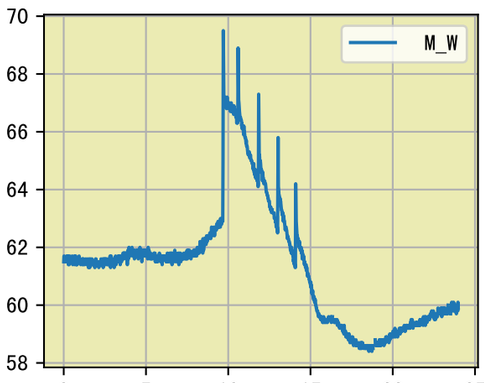

hour
10:00
10:50
12:25
13:45
EC设置
EC执行
灌溉EC
PH设置
PH执行
灌溉PH
时长设置
时长执行
灌溉量执行
含水率
灌溉时间点
VPD
总分
100
80
60
40
20
0

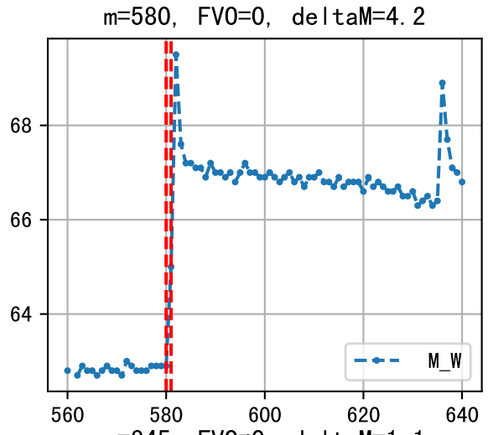
时间	灌溉时长(秒)	灌溉量(毫升/株)	灌溉总量(方/次)	天气	注释
10:00	71	20.0	0.081	雾	假设@10:00 自动（未用传感器）
10:50	71	20.0	0.081	雾	假设@10:50 自动（未用传感器）
12:25	71	20.0	0.081	晴	假设@12:25 自动（未用传感器）
13:45	71	20.0	0.081	晴	假设@13:45 自动（未用传感器）
总计	284.0 (4次)	80.0			建议进液EC：1900， PH：6.0

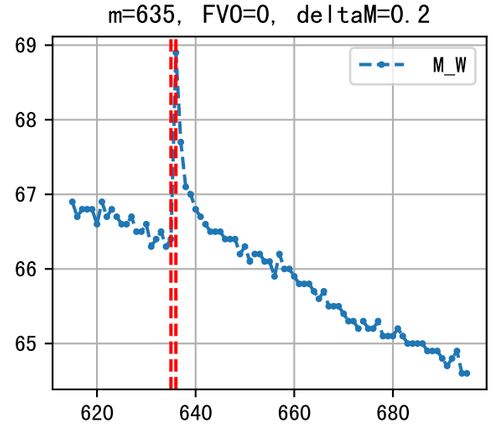
施肥机灌溉量与预期值不符 (42.0 : 21.0)，可能水表需要校准
默认实际灌溉21.0 ml.

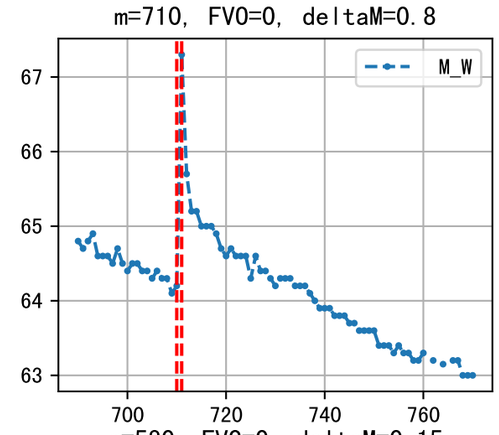
L1A4_4, Day=119.0 (2026-02-02)

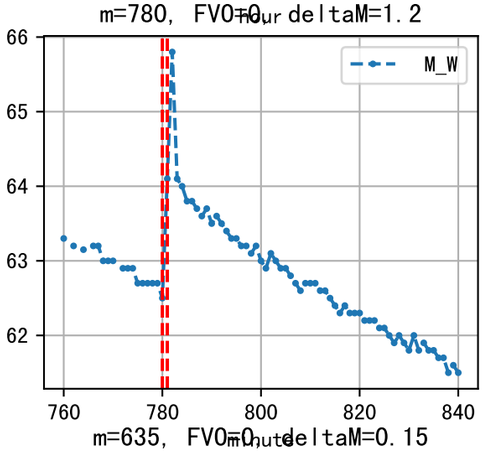


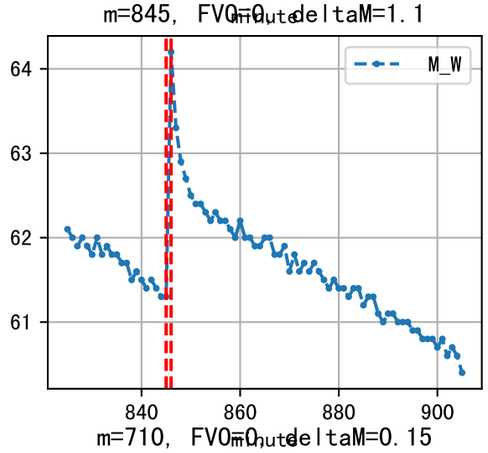

M_W

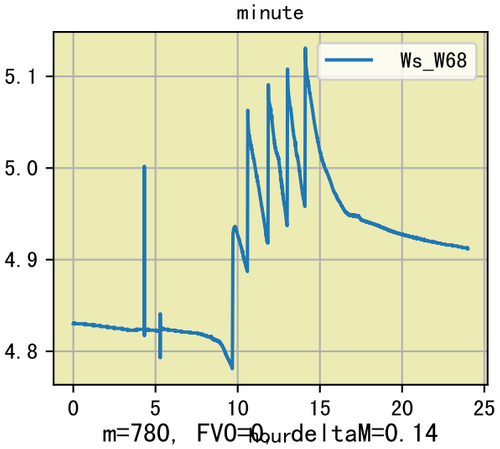

m=580, FV0=0, deltaM=4.2
M_W

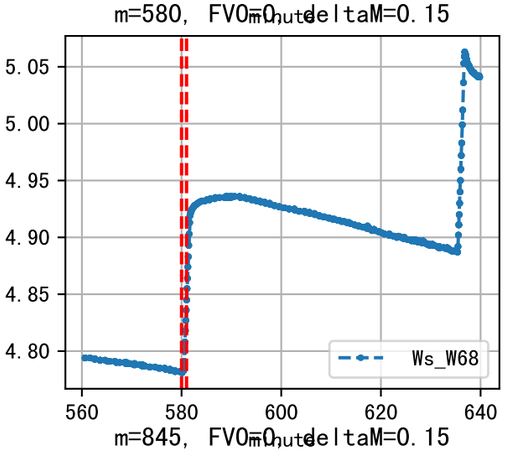

M_W

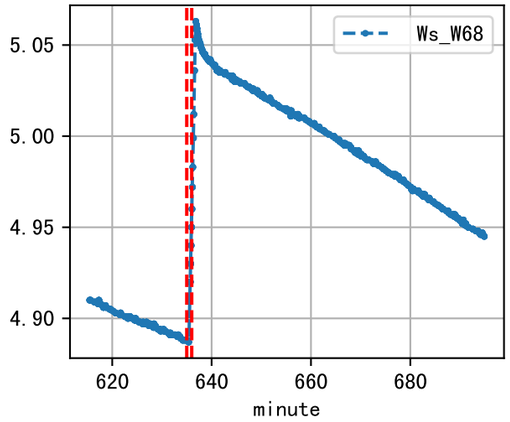

m=710, FV0=0, deltaM=0.8
M_W

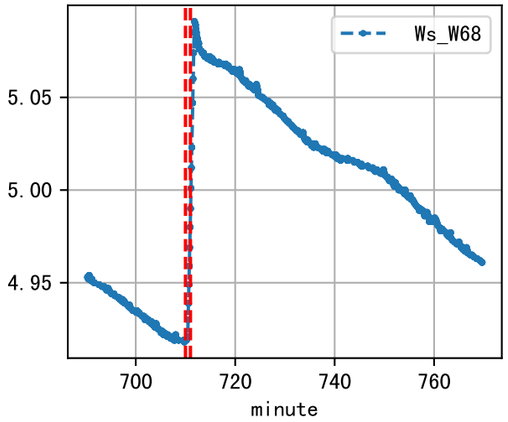

m=780, FV0=0, deltaM=1.2
M_W

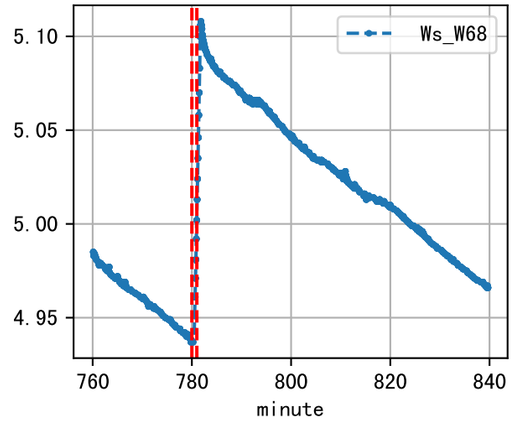

m=845, FV0=0, deltaM=1.1
M_W

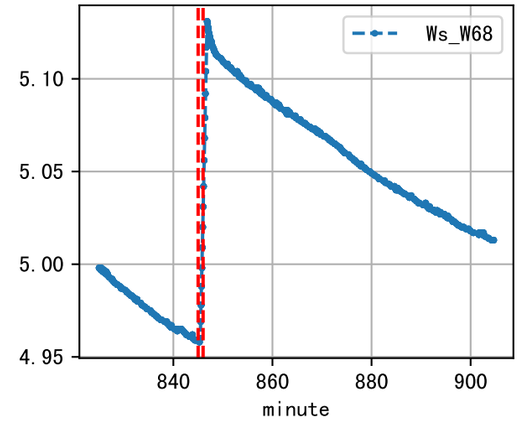

Ws_W68

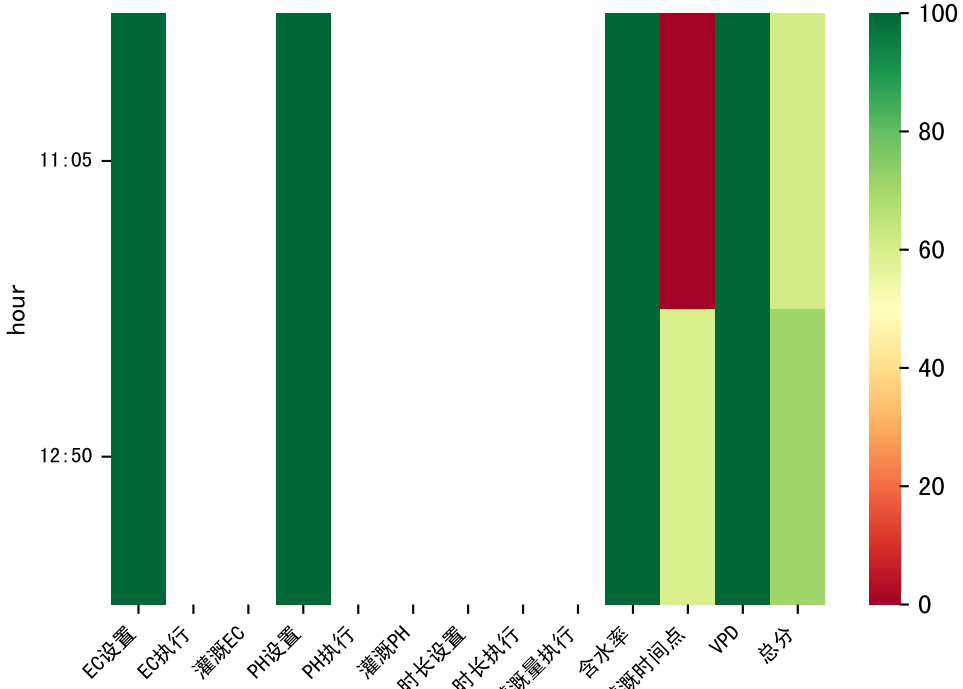

m=580, FV0=0, deltaM=0.15
Ws_W68


m=635, FV0=0, deltaM=0.15
Ws_W68
minute


m=710, FV0=0, deltaM=0.15
Ws_W68
minute


m=780, FV0=0, deltaM=0.14
Ws_W68
minute

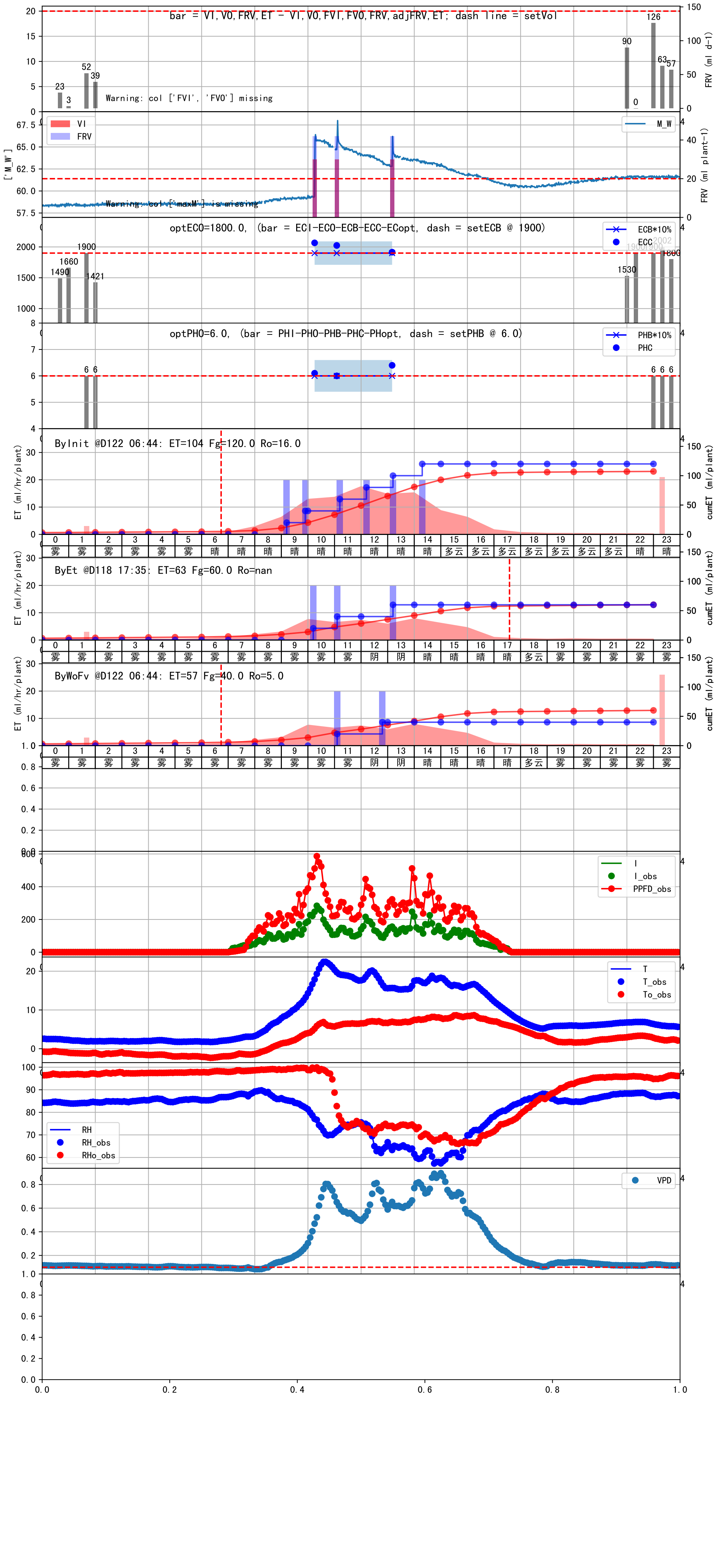

m=845, FV0=0, deltaM=0.15
Ws_W68
minute

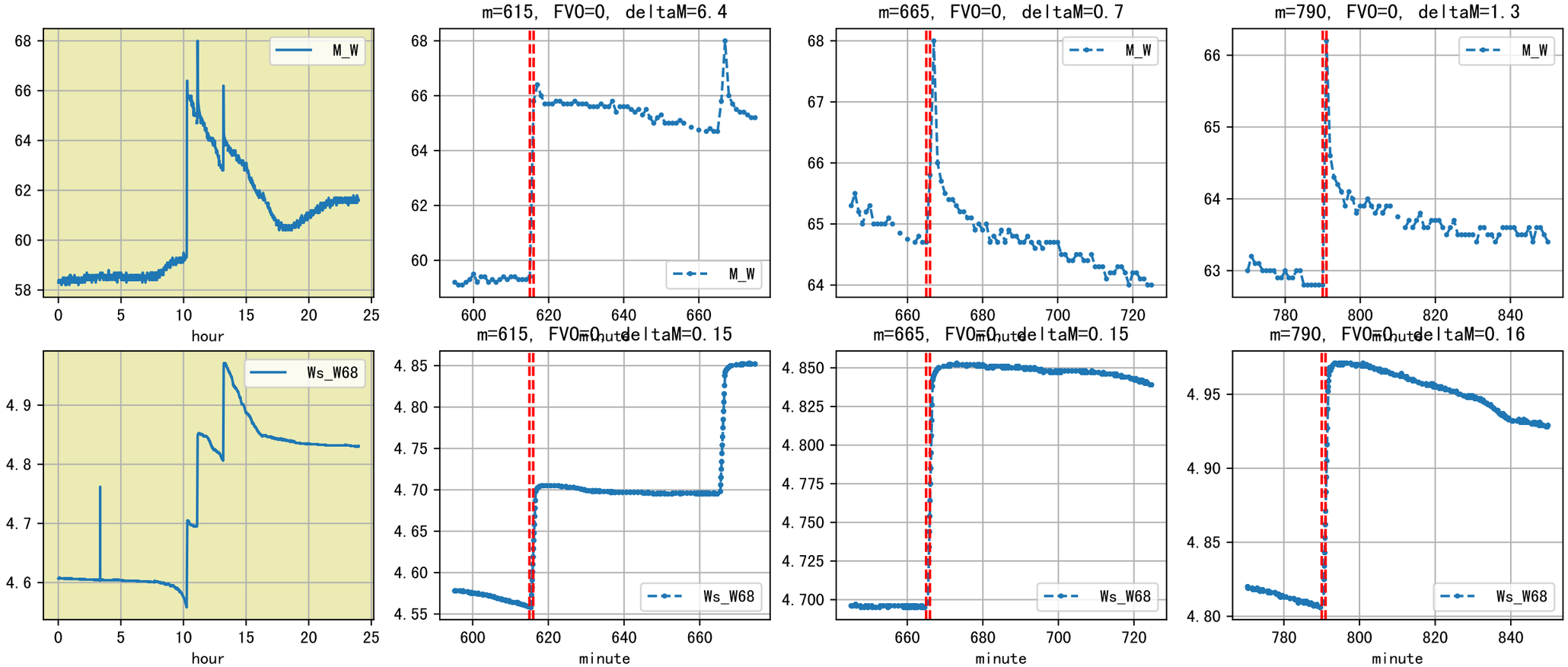

hour
11:05
12:50
EC设置
EC执行
灌溉EC
PH设置
PH执行
灌溉PH
时长设置
时长执行
灌溉量执行
含水率
灌溉时间点
VPD
总分
100
80
60
40
20
0

时间	灌溉时长(秒)	灌溉量(毫升/株)	灌溉总量(方/次)	天气	注释
11:05	71	20.0	0.081	雾	假设@11:05 自动（未用传感器）
12:50	71	20.0	0.081	阴	假设@12:50 自动（未用传感器）
总计	142.0 (2次)	40.0			建议进液EC：1900， PH：6.0

施肥机灌溉量与预期值不符 (42.0 : 21.0)，可能水表需要校准
默认实际灌溉21.0 ml.

L1A4_4, Day=118.0 (2026-02-01)




m=615, FVO=0, deltaM=6.4
m=665, FVO=0, deltaM=0.7
m=790, FVO=0, deltaM=1.3
M_W
hour
m=615, FVO=0, deltaM=0.15
m=665, FVO=0, deltaM=0.15
m=790, FVO=0, deltaM=0.16
Ws_W68
minute