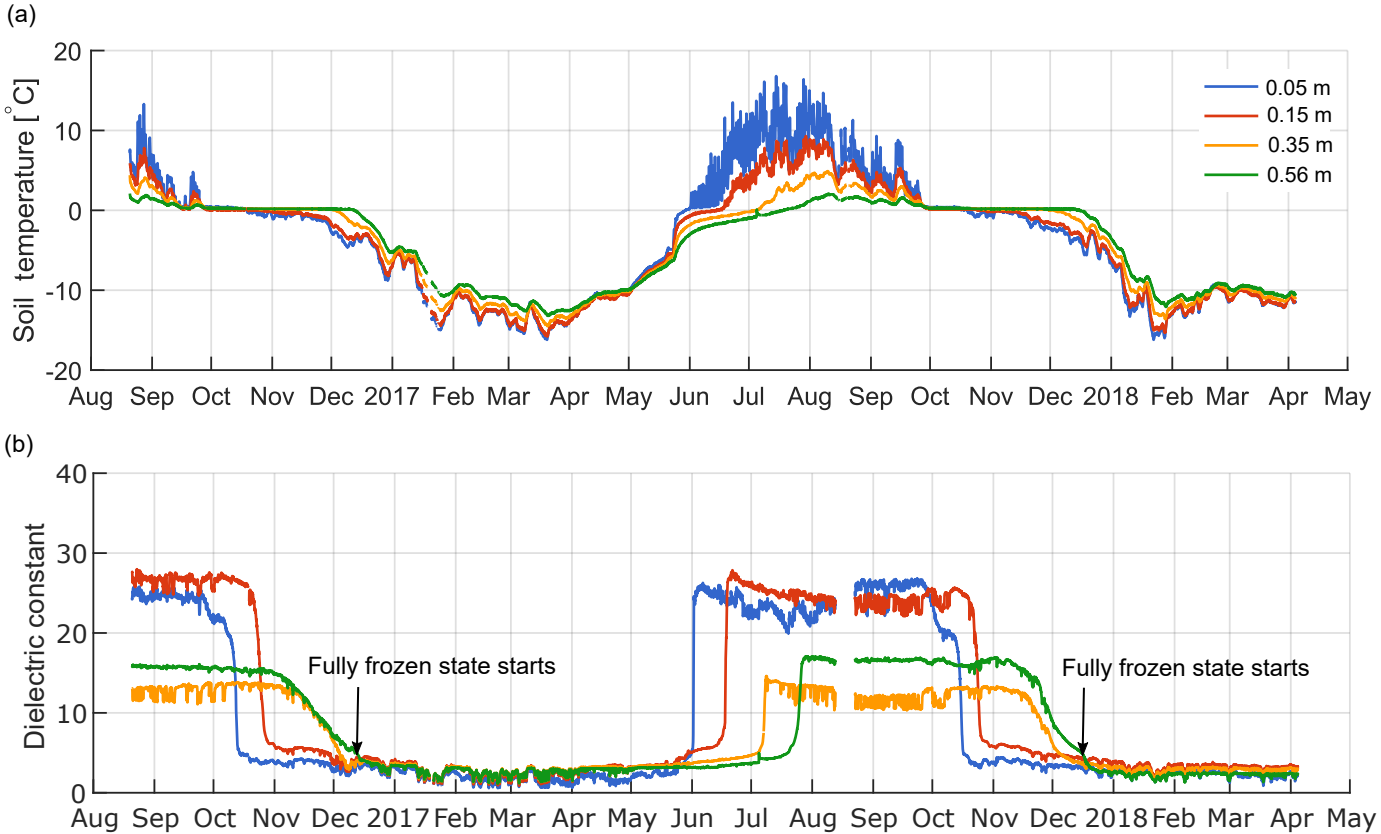
(a)
Soil temperature [°C]
20
10
0
-10
-20
0.05 m
0.15 m
0.35 m
0.56 m
Aug Sep Oct Nov Dec 2017 Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2018 Feb Mar Apr May
(b)
Dielectric constant
40
30
20
10
0
Fully frozen state starts
Fully frozen state starts
Aug Sep Oct Nov Dec 2017 Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2018 Feb Mar Apr May