Parameters in the Numerical Test

Table A. 1   Parameters of the general flexible load

Parameters	Interpretation	Value
Δt (h)	Length of time interval	1
T (h)	Length of period	2
K	The number of samples	200
$N_{fixedload}$	The number of fixed loads	1
$N_{adjload}$	The number of adjustable loads	1
N_{battry}	The number of battery	4
P_{fix} (kW)	Power of fixed load	[120 150]
$\underline{P}_{ni}$ (kW)	Lower limit of power of adjustable loads	10
$\overline{P}_{ni}$ (kW)	Upper limit power of adjustable loads	70
$\underline{P}_{vb}$ (kW)	Lower limits of power of battery	[-95; -75; -60; -20]
$\overline{P}_{vb}$ (kW)	Upper limits of power of battery	[40; 140; 120; 40]
$\underline{E}_{vb}$ (kW $\cdot$ h)	Lower limits of energy of virtual battery	[40; 80; 120; 240]
$\overline{E}_{vb}$ (kW $\cdot$ h)	Upper limits of energy virtual battery	[180; 250; 300; 450]
$E_{vb,0}$ (kW $\cdot$ h)	Initial energy level of battery	[40; 80; 120; 240]
σ	Storage coefficients of battery	[0.95; 0.90; 0.85; 0.88]
λ (¥/kWh)	Random price signals	[-1, 1]

Table A. 2   Parameters of the physical model Ω_{phy}

Test #	Parameters	Interpretation	Value
1	$N_{fixedload}$	The number of fixed loads	1
	$N_{adjload}$	The number of adjustable loads	1
	N_{vb}	The number of virtual battery	1
	σ	Storage coefficients of virtual battery	1
2	$N_{fixedload}$	The number of fixed loads	1
	$N_{adjload}$	The number of adjustable loads	1
	N_{vb}	The number of virtual battery	2
	σ	Storage coefficients of virtual battery	[1; 0.95]