

PROJECT CONTEXT

Product / category	Fleet quantity	Analysis period (years)	Discount rate %	Currency	Country / market
Washing Machine (France market) — TCO comparison	1	20	0	EUR (€)	 Global / EU avg

Acquisition costs

Purchase price, shipping, installation, lifespan, and end-of-life costs per unit

Field	Beko BM3WFU37211B (Budget / Entry — 7 kg, A)	Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A)	Miele WSG888 WCS (Premium — 9 kg, A)
Option name	Beko BM3WFU37211B (Budget / Entry — 7 kg, A)	Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A)	Miele WSG888 WCS (Premium — 9 kg, A)
Unit price	335	480	1499
Shipping & delivery	20	20	20
Installation & commissioning	40	40	40
Expected lifespan (years)	5	10	20
Residual / resale value	20	20	150
End-of-life disposal cost	15	15	15

Operations & utilities

Cycle-based energy and water consumption — costs calculated automatically from your country rates

Field	Option A	Option B	Option C
CYCLE PARAMETERS			
Energy class (EU label)	—	—	—
kWh per cycle	0.44	0.46	0.40
Liters per cycle	45	47	50
Cycles per day	0.55	0.55	0.55
Operating days per year	300	300	300
Avg cycle duration (hours)	3.45	3.8	3.82
Annual summary	Cycles / year1,560 Op. hours / year1,560 hrs Failures / year1.3/yr ⚡ Energy / yr €1,048/yr 💧 Water / yr €374/yr	Cycles / year1,560 Op. hours / year1,560 hrs Failures / year0.4/yr ⚡ Energy / yr €824/yr 💧 Water / yr €312/yr	Cycles / year1,560 Op. hours / year1,560 hrs Failures / year0.2/yr ⚡ Energy / yr €674/yr 💧 Water / yr €262/yr
OTHER OPERATING COSTS			
Consumables / year	25	25	25

Reliability & maintenance

Failure frequency, repair costs, downtime, and repairability — these directly affect unplanned cost

Field	Option A	Option B	Option C
PLANNED MAINTENANCE			
Scheduled maintenance / year	20	20	25
Warranty period (years)	2	2	2
Repairability index (1–10)	6	9	9
Service type	Any technician	Any technician	Any technician
UNPLANNED FAILURES			
MTBF — mean time between failures	35000	50000	90000
MTTR — mean time to repair	2	2	2
Technician cost / hour	90	90	110
Spare parts cost / repair event	80	110	160
Downtime cost / hour	0	0	0
Parts availability (1–5)	3	4	4

Spare parts profile

Parts regime and local availability — these multiply the base repair cost from Step 4

Field	Option A		Option B		Option C	
Parts regime	Mixed (OEM + generic)		Mixed (OEM + generic)		OEM-locked (original only)	
Local market availability	Available locally		Available locally		Available locally	
Cost multiplier breakdown	Regime multiplier	×1.4 (Mixed)	Regime multiplier	×1.4 (Mixed)	Regime multiplier	×2.5 (OEM-locked)
	Local availability	×1.0 (Local stock)	Local availability	×1.0 (Local stock)	Local availability	×1.0 (Local stock)
	Combined	×1.40 total	Combined	×1.40 total	Combined	×2.50 total
	Effective cost / repair	€112 / event	Effective cost / repair	€154 / event	Effective cost / repair	€400 / event

ANALYSIS RESULTS

Fleet of 1 units · 20-year analysis

Beko BM3WFU37211B
(Budget / Entry — 7 kg, A)
— fleet TCO

€3,497

Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A) — fleet TCO ✓

€3,030

Miele WSG888 WCS
(Premium — 9 kg, A) — fleet TCO

€3,458

Max savings vs Beko BM3WFU37211B (Budget / Entry — 7 kg, A)

€467

Best per-unit TCO

€3,030

Best availability

100.0%

COST BREAKDOWN — FLEET TOTAL

Beko BM3WFU37211B (Budget / Entry — 7 kg, A)

Capital ×4 cycles	€1,580
Energy	€348
Water	€594
Consumables	€500
Scheduled maintenance	€400
Unscheduled repairs	€95
Disposal	€60
Residual value (–)	–€80
Total fleet TCO	€3,497

Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A)

Capital ×2 cycles	€1,080
Energy	€364
Water	€620
Consumables	€500
Scheduled maintenance	€400
Unscheduled repairs	€84
Disposal	€30
Residual value (–)	–€48
Total fleet TCO	€3,030

Miele WSG888 WCS (Premium — 9 kg, A)

Capital ×1 cycles	€1,559
Energy	€317
Water	€660
Consumables	€500

Scheduled maintenance	€500
Unscheduled repairs	€87
Disposal	€15
Residual value (-)	-€180
Total fleet TCO	€3,458

CATEGORY COMPARISON

Capital + install

A		€1,580
B		€1,080
C		€1,559

Energy

A		€348
B		€364
C		€317

Water

A		€594
B		€620
C		€660

Consumables

A		€500
B		€500
C		€500

Scheduled maintenance

A		€400
B		€400
C		€500

Repairs (labor + parts)

A		€95
B		€84
C		€87

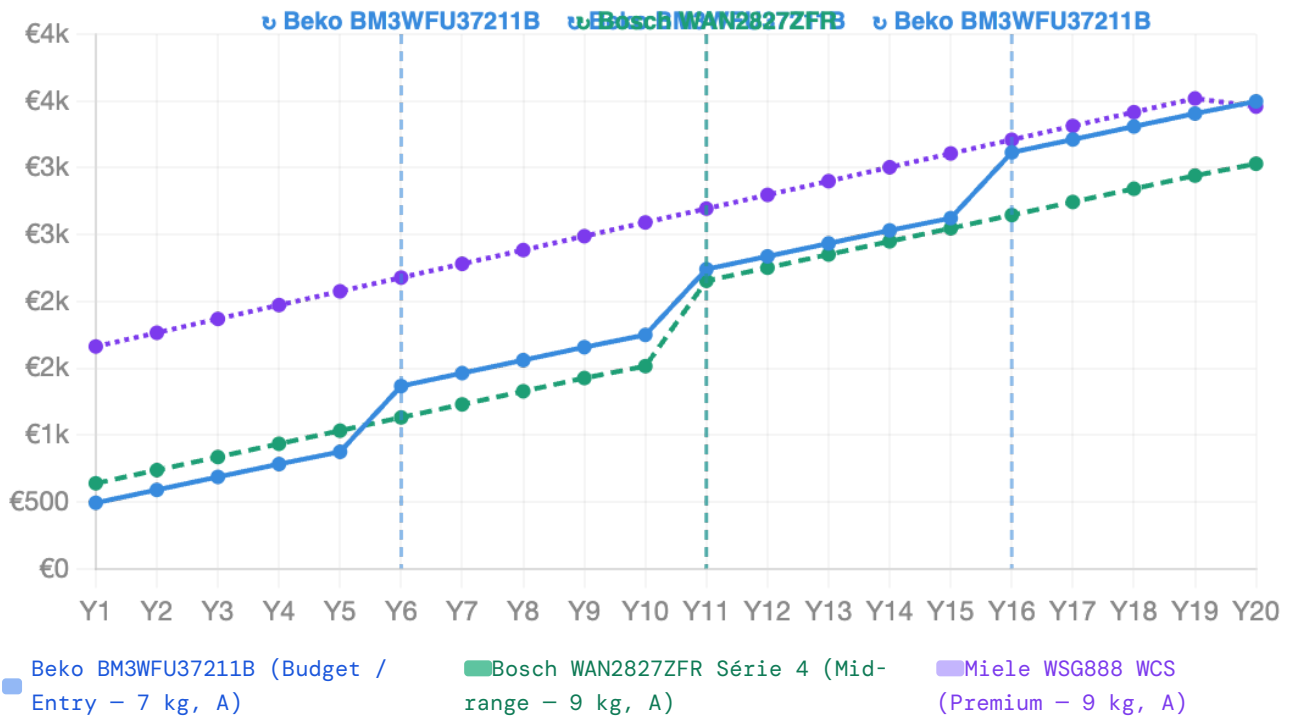
RELIABILITY (PER UNIT · PER YEAR)

Failures / year A 0.0 B 0.0 C 0.0	Availability % A 100.0% B 100.0% C 100.0%	Repairability index A 6/10 B 9/10 C 9/10	Effective lifespan A 6.0 yrs B 15.0 yrs C 30.0 yrs
Service type A Any technician B Any technician C Any technician	Parts cost multiplier A ×1.4 B ×1.4 C ×2.5	Repair cost / yr / unit A €5 B €4 C €4	Downtime cost / yr / unit A €0 B €0 C €0

CUMULATIVE FLEET COST OVER TIME

■ Beko BM3WFU37211B (Budget / Entry — 7 kg, A)
■ Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A)

■ Miele WSG888 WCS (Premium — 9 kg, A) · C beats A at Yr 20



Sensitivity analysis SCENARIOS

How does fleet TCO change when utility prices shift?

Bosch WAN2827ZFR Série 4 (Mid-range — 9 kg, A) has the lowest fleet TCO at €3,030 — saving €467 (13%) vs Beko BM3WFU37211B (Budget / Entry — 7 kg, A) over 20 years across 1 units. Miele WSG888 WCS (Premium — 9 kg, A) sits in the middle at €3,458. The higher-tier option reaches a crossover point as replacement and operating costs compound. Best availability: 100.0% (Miele WSG888 WCS (Premium — 9 kg, A)).