

Traits ¹	Effects ²						Covariate ³
	Robot	Parity	Date	INTcl	DIMcl	ToD	CA
MY_rr, _rl, _fr, _fl	***	n.s.	***	***	***	***	**
EC_rr, _rl, _fr, _fl	***	n.s.	***	***	***	***	*
AMF	***	n.s.	***	***	***	***	n.s.
MY_total	***	n.s.	***		***	***	***
EC	***	***	***	***	***	***	***
INT	***	*	***		***	***	**
DUR	***	**	***	***	***	***	**
VIS3	***	***	***		***		***
VIS4	***	n.s.	***		***		***
KO	***	**	*	*	***	***	***

* $P < 0.05$ significant. ** $P < 0.01$: very significant. *** $P < 0.001$: highly significant. n.s.: not significant.

¹ MY_fl, _fr, _rl, and _rr: milk yield at a quarter basis: front left, front right, rear left, and rear right. EC_fl, _fr, _rl, and _rr: electrical conductivity at a quarter basis: front left, front right, rear left, and rear right. AMF: average milk flow. MY_total: total milk yield per day. EC: electrical conductivity from all four quarters. INT: interval between two consecutive milkings. DUR: milking time during a visit in the milking robot. VIS3: at least three visits to the milking robot per day. VIS4: at least four visits to the milking robot per day. KO: knock off of the milking device from at least one udder quarter. ² Robot: the AMS the cow used. Consecutively numbered across herds. Date: day the cow entered the AMS. INTcl: interval in classes; < 8 h = 1, 8–10 h = 2, and > 10 h = 3. DIMcl: days in milk (DIM) in classes; < 14 = 1, 14–77 = 2, 77–140 = 3, 140–231 = 4, and > 231 = 5. ToD: time of day when the cow visited the AMS in classes; 22:00–04:00 LT = 1, 04:00–10:00 LT = 2, 10:00–16:00 LT = 3, and 16:00–22:00 LT = 4. ³ CA: calving age in month is (calving date–birth date)/30.4375.