PLAYER REPORT · J5

ATHLETE	DATE	TEST	MINUTES
J5 — midfielder	not given	Match	93 min

01 KEY POINTS AND DECISIONS

11.70 km	126 m/min	1,025 m	221	29.5 km/h
DISTANCE	INTENSITY	> 19.8 KM/H	HIGH-INTENSITY ACTIONS	PEAK SPEED
93 min	rank 2/10	106 m > 25.2 km/h	2.37/min	93% MSS

READING

11.70 km in 93 min, or 126 m/min (rank 2/10 among reference outfield players).

1,025 m above 19.8 km/h, including 106 m above 25.2 km/h; 221 merged high-intensity actions (2.37/min).

The densest minute contains **9 actions** in minute 33; median recovery is 12 s.

Distance per minute changes by -17% between halves (team -13%); actions move from 40 to 22/15 min.

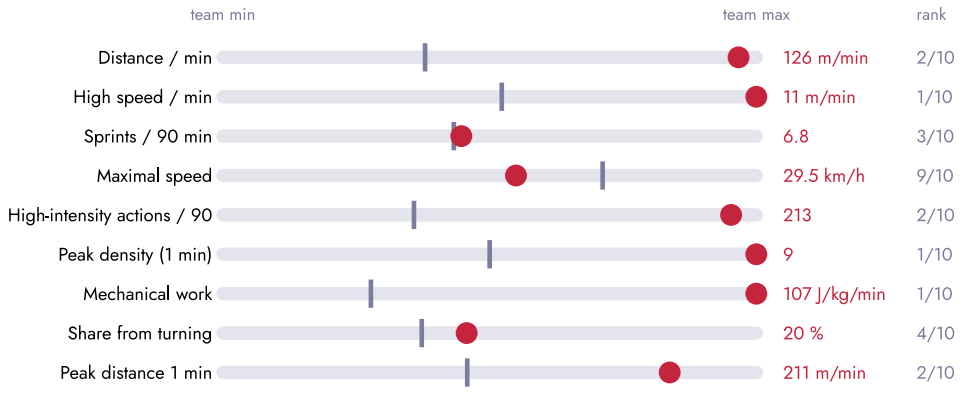
Peak speed reaches 29.5 km/h (93% of his MSS).

Main message for the week: Prioritise recovery on D+1 and D+2. Check the late-match drop against the score and tactical instructions. Plan dense small-sided games, not volume alone. Schedule 1–2 runs >95% MSS in training, ideally on MD-2.

1.1 Decisions for the week

Recovery	Prioritise recovery on D+1 and D+2. Mechanical work was 107 J/kg/min (rank 1/10 in the team) and 213 high-intensity actions per 90 min, above the team mean + 1 standard deviation.	Within-team comparison
End of match	Check the late-match drop against the score and tactical instructions. Distance per minute changed by -17% in the second half (team -13%); 22 actions in the final 15 minutes versus 40 in the first.	Within-team comparison
Density	Plan dense small-sided games, not volume alone. His densest minute: 9 actions (team 90th percentile: 9).	Within-team comparison
Speed	Schedule 1–2 runs >95% MSS in training, ideally on MD-2. Match peak: 29.5 km/h, or 93% of his MSS; no run exceeded 95%.	Buchheit et al. 2023

1.2 His profile against the team

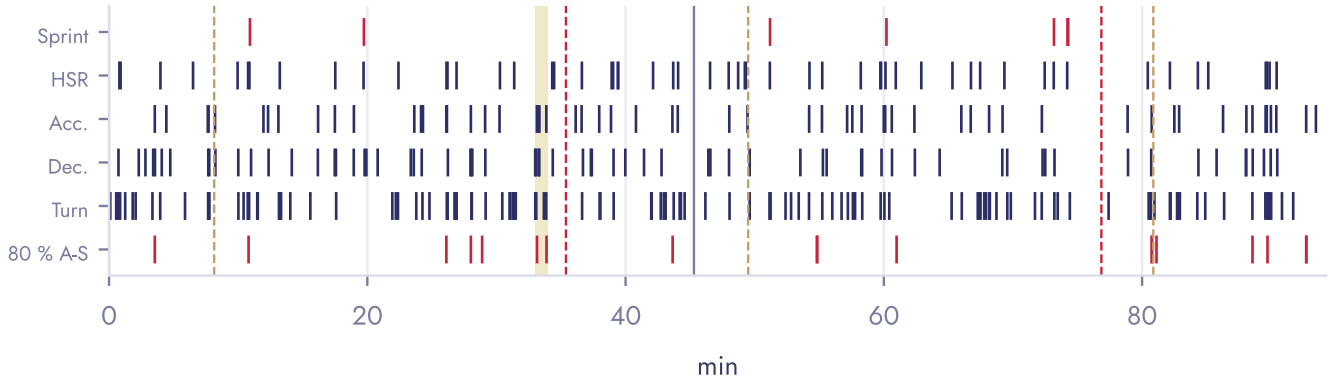


Red dot: J5; grey tick: median; bar: range of outfield players with ≥45 min. Rank: 1 = highest value.

02 ▸ HIS BURSTS

2.1 Inventory

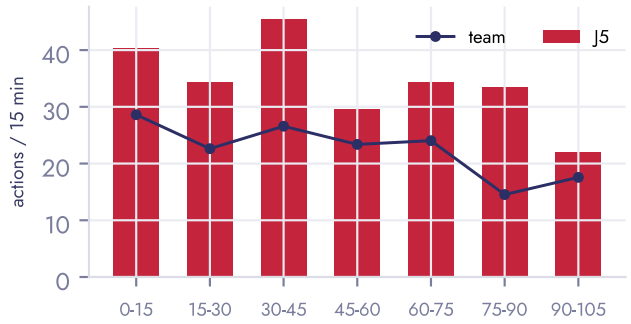
KIND	N	/90	TEAM MED.	RANK	MEAN DURATION (S)	MEDIAN RECOVERY
Sprints > 25.2 km/h	7	6.8	6.5	3/10	1.8	8 min 53
Efforts > 19.8 km/h	55	53.1	29.1	2/10	2.7	87 s
Accelerations ≥ 2.5 m/s²	59	57.0	31.9	1/10	0.7	66 s
Accelerations ≥ 3.5 m/s²	12	11.6	1.9	2/10	0.6	5 min 18
Decelerations ≥ 2.5 m/s²	69	66.6	36.9	2/10	0.9	59 s
Decelerations ≥ 3.5 m/s²	13	12.6	5.8	2/10	0.7	5 min 06
Turns ≥ 2.5 m/s²	127	122.6	89.7	3/10	1.0	27 s
Individualised bursts (≥ 80% of A-S profile)	18	17.4	16.4	5/10	0.7	2 min 59
Mechanical-power bursts	98	94.6	83.0	2/10	0.8	35 s



One tick per effort; gold band: densest minute; grey line: half-time; dashed lines: goals.

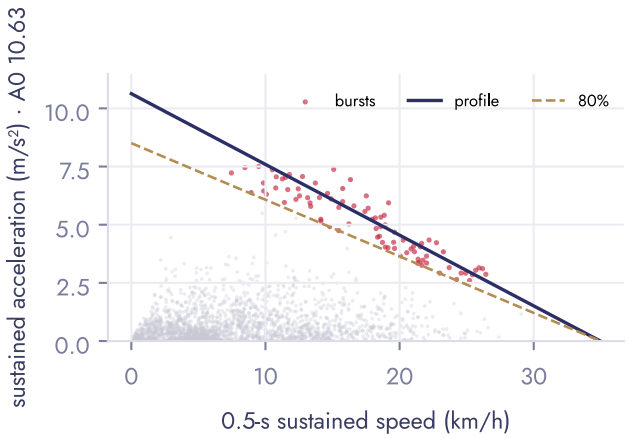
2.2 Density and clustering

Merged actions	221 (2.4 per min)
Densest minute	9 actions, in minute 33
Densest 3 min	16 actions, starting in minute 32
Median recovery	12 s
Recovery distribution	59 % < 20 s · 88 % < 60 s
Repeated HSR sequences	13 sequences, longest: 4 efforts
Repeated-sprint bouts	0
In possession	38 %
Out of possession	49 %
Ball dead	13 %



Actions by block, scaled to 15 min played; line: team median.

2.3 Acceleration–speed profile

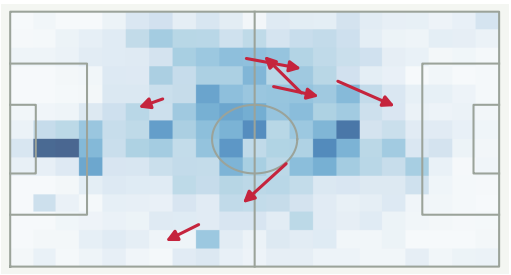


A0 10.63 m/s² · S0 35.0 km/h · r² 0.90. Provisional one-match profile; Morin et al. (2021) pooled several sessions.

Mechanical bursts use 80% of his own on-pitch 99th-percentile power.

03 MAXIMAL SPEED AND SPRINTS

CAPACITIES MAS : 16.9 km/h MSS : 31.7 km/h *assumed values for the example, not measured*



Occupation (blue) and sprints (arrows), team attacking to the right.

MIN	DURATION	KM/H	% MSS	M	CONTEXT
11′	2.0 s	26.0	82 %	14	In possession
20′	2.3 s	26.3	83 %	16	In possession
52′	2.0 s	29.5	93 %	15	Out of possession
61′	1.1 s	25.7	81 %	8	Out of possession
74′	1.7 s	27.1	86 %	12	In possession
75′	2.2 s	27.5	87 %	17	Out of possession
75′	1.5 s	26.4	83 %	11	Out of possession

3.1 Exposure relative to MSS

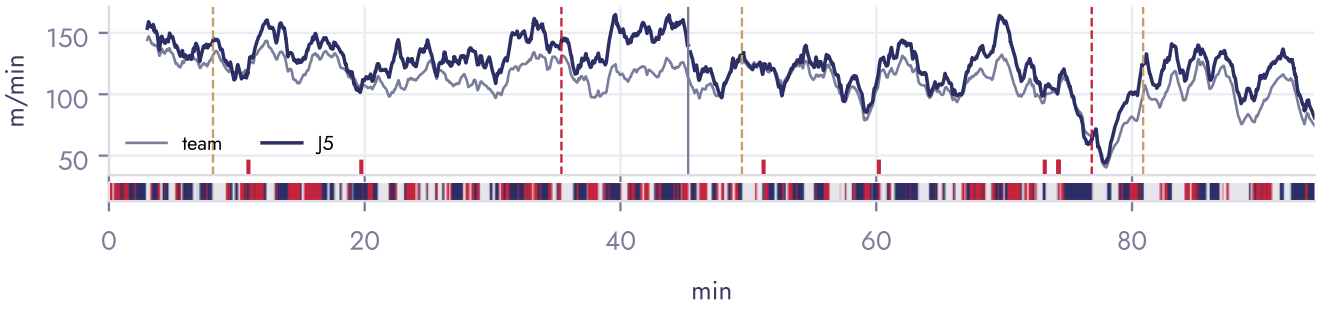
THRESHOLD	MATCH	WEEKLY REFERENCE
> 80 %	7	6–8
> 85 %	2	3
> 90 %	1	1–2
> 95 %	0	1–2

Longest continuous run >90% MSS: 4 m.

Published reference: 6–8 runs >80%, including 3 >85% and 1–2 >90–95% (Buchheit et al. 2021).

Match hamstring injuries were not observed after training exposure >95% MSS at MD-2 in Buchheit et al. (2023): association, not causation; this week's decision is in section 1.

04 HIS MATCH OVER TIME



Distance per minute (3-min rolling mean): player (blue), team (grey); red ticks: sprints; dashes: goals (gold for, red against). Bottom strip: in possession (blue), out of possession (red), ball dead (grey).

4.1 By context

	MIN	M/MIN	TEAM	HSR/MIN	W/KG
In possession	34	135	115	13.3	1.98
Out of possession	28	160	141	19.3	2.63
Ball dead	29	80	74	0.6	0.68

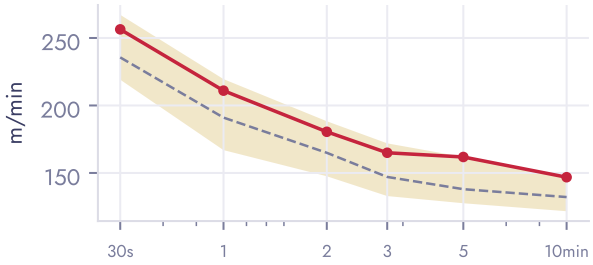
4.2 Between halves

	1ST	2ND	CHANGE
Distance / min (m/min)	138	114	-17 %
High speed / min (m/min)	11.5	10.6	-8 %
Actions / 45 min	119	95	-20 %
Peak speed (km/h)	26.3	29.5	12 %
Power (W/kg)	2.01	1.56	-22 %

4.3 By 15-min block

MIN	M/MIN	HSR/MIN	ACTIONS	/15	W/KG
0–15	140	13.2	40	40.2	2.11
15–30	127	7.9	34	34.2	1.78
30–45	147	13.5	45	45.4	2.18
45–60	117	11.2	29	29.5	1.62
60–75	122	15.0	34	34.3	1.71
75–90	108	7.3	33	33.4	1.43
90–105	94	3.3	6	21.9	1.19

05 PEAK PERIODS AND EXPOSURE TIME



Peak distance curve: player in red, team median and range in grey/gold.

5.1 80–90% references

BLOCK	PEAK	80 %	90 %
1 min	211	169	190
3 min	165	132	148
5 min	162	129	146

Descriptive reference, not a KPI: plan football first, then audit with metrics.

5.2 Most intense periods

VARIABLE	WINDOW	J5	AT	TEAM MED.
Distance (m/min)	30 s	256	30:55	236
Distance (m/min)	1 min	211	10:42	191
Distance (m/min)	3 min	165	36:36	147
Distance (m/min)	5 min	162	38:48	138
High speed (m/min)	30 s	136	10:30	107
High speed (m/min)	1 min	77	60:01	57
High speed (m/min)	3 min	38	58:01	27
High speed (m/min)	5 min	26	57:56	19

VARIABLE	WINDOW	J5	AT	TEAM MED.
Acc. + dec. (n/min)	30 s	40.0	60:32	42.0
Acc. + dec. (n/min)	1 min	27.0	23:39	23.5
Acc. + dec. (n/min)	3 min	18.3	23:16	13.0
Acc. + dec. (n/min)	5 min	15.2	23:11	10.6
Power (W/kg)	30 s	6.34	32:56	5.17
Power (W/kg)	1 min	4.83	32:56	3.50
Power (W/kg)	3 min	2.92	30:53	2.34
Power (W/kg)	5 min	2.56	30:14	1.98

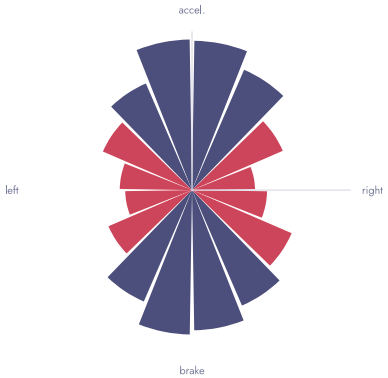
5.3 Intensity exposure time (IET)

VARIABLE	1-MIN PEAK	≥ 60 % (MIN)	≥ 70 % (MIN)	≥ 80 % (MIN)
Distance (m/min)	211 m/min	45.5	24.0	7.6
High speed (m/min)	77 m/min	3.1	1.9	1.6
Acc. + dec. (n/min)	27.0 n/min	31.6	26.2	21.3
Power (W/kg)	4.83 W/kg	7.6	2.0	0.7
Estimated Maximal S1min	**453 m/min**	**0.0**	**0.0**	**0.0**

His 1-min peak (211 m/min) is 47% of the maximal speed he could sustain for 1 min in a straight line (Estimated Maximal S1min, Buchheit et al. 2026): football constrains linear running, which is why mechanical power matters.

On-pitch minutes where the 1-min rolling mean exceeds the threshold. This package's mechanical power is not ADI power: no comparison with Estimated Maximal MP1min.

06 HIS MECHANICAL LOAD



Work by acceleration orientation.

MANOEUVRE	N	WORK	OF WHICH LEFT
Accelerations	194	14 %	—
Decelerations	180	13 %	—
Turns	418	45 %	47 %
Curved accelerations	167	13 %	51 %
Curved braking	158	14 %	53 %

Left/right balance: -2 % (positive = more to the left).

This report cannot see internal load: heart rate, RPE, wellness and medical status. GPS remains an external-load proxy (Buchheit et al. 2026).

07 METHOD AND REFERENCES

Speed efforts held ≥1 s: HSR > 19.8 km/h, sprint > 25.2 km/h. Accelerations, decelerations and turns held ≥0.5 s, thresholds 2.5 and 3.5 m/s² (Harper et al. 2019).

High-intensity actions: union of sprints, accelerations, decelerations and turns that overlap or are ≤0.5 s apart. HSR sequences: ≥2 efforts ≤60 s apart (Buchheit et al. 2010); repeated bouts: ≥3 sprints, mean recovery <21 s (Spencer et al. 2004).

Acceleration-speed profile: 0.5-s sustained envelope; burst at ≥80% of available acceleration. Power: burst at ≥80% of the individual 99th percentile (13.39 W/kg). One-match profile is provisional (Morin et al. 2021).

Peaks: rolling means (Varley et al. 2012). IET: on-pitch time above 60/70/80% of the match 1-min peak (Buchheit et al. 2026). Open mechanical work (Gray et al. 2018; Cavagna et al. 1976) is not ADI: do not compare it with Estimated Maximal MP1min.

Decision rules are deterministic leads, not diagnoses; substitute top-ups follow the review by Buchheit et al. (2024).

Data: Metrica Sports sample data, game 2, Home team.

1. Gray A.J., Shorter K., Cummins C., Murphy A. & Waldron M. (2018). Modelling movement energetics using Global Positioning System devices in contact team sports: limitations and solutions. Sports Med 48, 1357–1368.
2. Cavagna G.A., Thys H. & Zamboni A. (1976). The sources of external work in level walking and running. J Physiol 262, 639–657.
3. Buchheit M., Lopez Sagarra A., Boskovic A., Komino P., Norman D. & Hader K. (2026). GPS 3.0: from distance into zones toward better proxies of internal neuromuscular load in elite football. Sport Perf Sci Rep 280.
4. Buchheit M., Mendez-Villanueva A., Simpson B.M. & Bourdon P.C. (2010). Repeated-sprint sequences during youth soccer matches. Int J Sports Med 31, 709–716.
5. Spencer M. et al. (2004). Time-motion analysis of elite field hockey, with special reference to repeated-sprint activity. J Sports Sci 22, 843–850.
6. Harper D.J., Carling C. & Kiely J. (2019). High-intensity acceleration and deceleration demands in elite team sports competitive match play. Sports Med 49, 1923–1947.
7. Varley M.C., Elias G.P. & Aughey R.J. (2012). Current match-analysis techniques' underestimation of intense periods of high-velocity running. Int J Sports Physiol Perform 7, 183–185.
8. Buchheit M., Simpson B.M., Hader K. & Lacome M. (2021). Occurrences of near-to-maximal speed-running bouts in elite soccer: insights for training prescription and injury mitigation. Sci Med Football 5(2), 105–110.
9. Buchheit M., Settembre M., Hader K. & McHugh D. (2023). Exposures to near-to-maximal speed running bouts during different turnarounds in elite football: association with match hamstring injuries. Biol Sport 40(4), 1057–1067.
10. Buchheit M., Douchet T., Settembre M., McHugh D., Hader K. & Verheijen R. (2024). The 11 evidence-informed and inferred principles of microcycle periodization in elite football. Sport Perf Sci Rep 218.
11. Morin J.-B., Le Mat Y., Osgnach C., Barnabò A., Pilati A., Samozino P. & di Prampero P.E. (2021). Individual acceleration-speed profile in-situ: a proof of concept in professional football players. J Biomech 123, 110524.

Report generated by peakdemands 0.1.0. GPS describes external load: it cannot see heart rate, RPE, wellness or medical status.