

Cardiovascular System Analysis

VO₂MAX (30S AVG)

58.0 Superior

mL/kg/min · Superior · ≥95th pct · Treadmill · M50-59

ABSOLUTE VO₂ (PEAK)

3810 Good

mL/min · regularly active

The total oxygen your body uses at peak, before dividing by body weight. It reflects the raw size of your aerobic engine and is useful for tracking absolute change over time.

PEAK VO₂ PULSE

Advanced Report Metric

Oxygen delivered to the body per heartbeat. A rising trend to peak reflects a strong, efficient heart; an early plateau can point to a cardiac limitation.

PEAK HR

148 bpm

Highest heart rate actually measured during this test

PREDICTED HRMAX REACHED

Advanced Report Metric

WARM-UP AVG HR

Advanced Report Metric

HR RECOVERY (1 MIN) - BPM

46 bpm Very Good

148→102 bpm in first minute of recovery

HR RECOVERY (1 MIN) - % DROP

Advanced Report Metric

Threshold & Economy Metrics

VT1 PACE

06:00 /km

Aerobic threshold · 109 bpm

VT2 PACE

04:00 /km

Anaerobic threshold · 141 bpm

VO₂MAX PACE

03:45 /km

Max aerobic speed · 148 bpm

VT1 FRACTIONAL UTILISATION

62.5%

of VO₂max at aerobic threshold

VT2 FRACTIONAL UTILISATION

86.6%

of VO₂max at anaerobic threshold

RUNNING ECONOMY (AT VT1)

217.6

mL/kg/km · Lower = more efficient

Advanced Endurance Metrics

VE/VCO₂ SLOPE

Advanced Report Metric

How much air you have to breathe to clear each litre of CO₂ your body makes. A lower slope means more efficient breathing; a higher slope means you are moving a lot of air for the work done.

VE/VCO₂ NADIR

Advanced Report Metric

The single most efficient point in the test - the fewest litres of air breathed per litre of CO₂ cleared. A lower nadir is better and confirms your breathing is well matched to your metabolism.

OUES

Advanced Report Metric

How effectively you take up oxygen for the air you breathe. Higher is better. It stays reliable even if the test stops early, so it is a good all-round fitness marker (it does scale with body size).

VO₂ RECOVERY T_{1/2}

Advanced Report Metric

How long it takes your oxygen use to fall to half its peak once you stop. A shorter half-time points to a fitter aerobic system and better recovery capacity.

O₂-PULSE TRAJECTORY

Advanced Report Metric

O₂ pulse (oxygen delivered per heartbeat) should keep climbing to peak effort. A steady rise is normal; an early plateau can hint at a stroke-volume (cardiac) limitation - see the O₂ Pulse Trajectory chart below.

Respiratory System Analysis

PEAK VE

Advanced Report Metric

PEAKVT / PFEV₁ (GLI) ▲ ENTER PFEV₁

Advanced Report Metric

The biggest breath you took during the test compared with your predicted lung size (pFEV₁). Reaching 75-85% shows you are using your breathing capacity well; falling short can flag a respiratory limitation.

VO₂/BF · BREATHING EFFICIENCY

Advanced Report Metric

VT DROP AT HIGH INTENSITY

Advanced Report Metric

Checks whether your breaths get shallower as the test gets hard. A big drop (over 10%) suggests the breathing muscles are tiring or the breathing pattern is breaking down, which can limit performance.

VT INCREASE DURING RECOVERY

Advanced Report Metric

Looks for a jump in breath size once the effort stops. A large rise (over 15%) suggests you could not breathe deeply enough at peak effort, which points to a respiratory limitation.

BF BY ZONE (AVG BREATHS/MIN VS NORM)

Advanced Report Metric

Metabolic System Analysis

 Resting file loaded

RMR - MEASURED VS PREDICTED

1277 kcal/day **-20.4%** · **Slow metabolism**

Predicted 1603 kcal/day · Modified Harris-Benedict (2023) · slow $\leq -10\%$ · normal $\pm 10\%$ · fast $> +10\%$

RESTING FUEL MIX (FAT VS CHO)

72.4% fat **Good**

CHO 27.6% · fat grade: <50 VP · 50-60 P · 60-70 F · 70-75 G · >75 E

PEAK FAT OXIDATION (ACTIVE)

Advanced Report Metric

FAT→CARB CROSSOVER (2 FOUND - USE SLIDER)

Advanced Report Metric

VCO₂ DROP IN RECOVERY (1 MIN)

Advanced Report Metric

How fast CO₂ output falls in the first minute after you stop. A bigger drop means your body clears the CO₂ from hard effort quickly, which is a sign of good metabolic recovery.

PEAK FAT

Advanced Report Metric

PEAK FAT/MIN

Advanced Report Metric

PEAK RQ (ACTIVE TEST)

1.17

Highest respiratory exchange ratio (VCO₂/VO₂) during the active test · at 00:16:00

Nutrition Targets - Macros & TDEE

RMR (FLOOR)

1,277 kcal

METABOLIC RATE

SLOW

MODERATELY ACTIVE · MAINTAIN

1,979 kcal

RMR measured (resting file) × lifestyle multiplier = maintenance · Reduce -300 kcal · Gain +250 kcal · Protein 2 g/kg × 65.7 kg · Fats 25% of kcal (mono 50% / poly 30% / sat 20%) · Carbs = remaining kcal ·

Activity Levels - Which TDEE Multiplier Fits?

1. Sedentary

×1.2

Little to no exercise, mostly sitting/lying through the day.

- Desk job / 8+ hrs sitting
- <5,000 steps a day
- 0-1 workout per week

Choose if: You exercise less than once a week and spend most of the day sitting.

2. Lightly Active

×1.375

Light exercise 1-3 days per week, or daily light activity.

- 5,000-7,500 steps a day
- 1-3 workouts (20-45 min)
- Walking, yoga, light cycling

Choose if: You do light exercise 1-3 times a week or are lightly active through the day.

3. Moderately Active

×1.55

Moderate exercise 3-5 days per week, or an active lifestyle.

- 7,500-10,000 steps a day
- 3-5 workouts (45-60 min)
- Weights, cardio, sports

Choose if: You exercise 3-5 times a week at moderate intensity, or have an active lifestyle.

4. Very Active

×1.725

Hard exercise 6-7 days per week, or a highly active lifestyle.

- 10,000+ steps a day
- 6-7 workouts (60+ min)
- High-intensity training

Choose if: You exercise intensely 6-7 days a week, or have a very physically demanding lifestyle.

5. Super Active

×1.9

Very hard exercise, a physical job, or training multiple times daily.

- Extremely high daily activity
- 2+ hrs training daily
- Physical labour + training

Choose if: You have extremely high activity - both intense exercise and physical work/training.

💡 Which level if my activity varies day-to-day?

Choose the multiplier that reflects your **average weekly activity**, not your peak days or most frequent single-day pattern. Your body responds to overall energy balance across the week - picking based on your hardest training days will overestimate needs on rest days, and picking based on rest days will underestimate training needs. If you're between two levels, start with the lower one, track weight/performance for 2-3 weeks, then adjust up if needed.

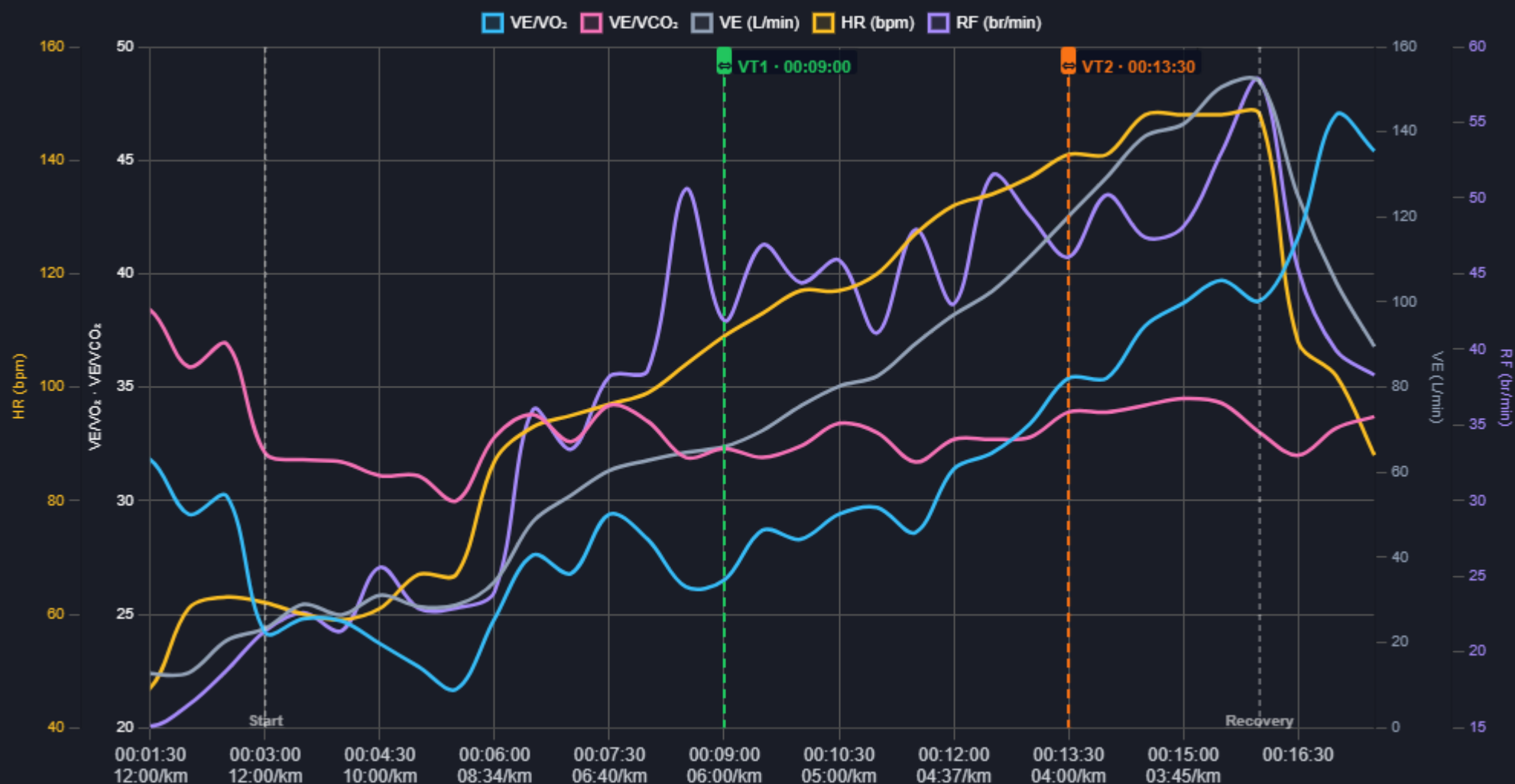
Lifestyle & Goals

LIFESTYLE	×	MAINTAIN	REDUCE	GAIN
Sedentary	1.2	1,532	1,277 †	1,782
Lightly Active	1.375	1,756	1,456	2,006
Moderately Active	1.55	1,979	1,679	2,229
Very Active	1.725	2,203	1,903	2,453
Super Active	1.9	2,426	2,126	2,676

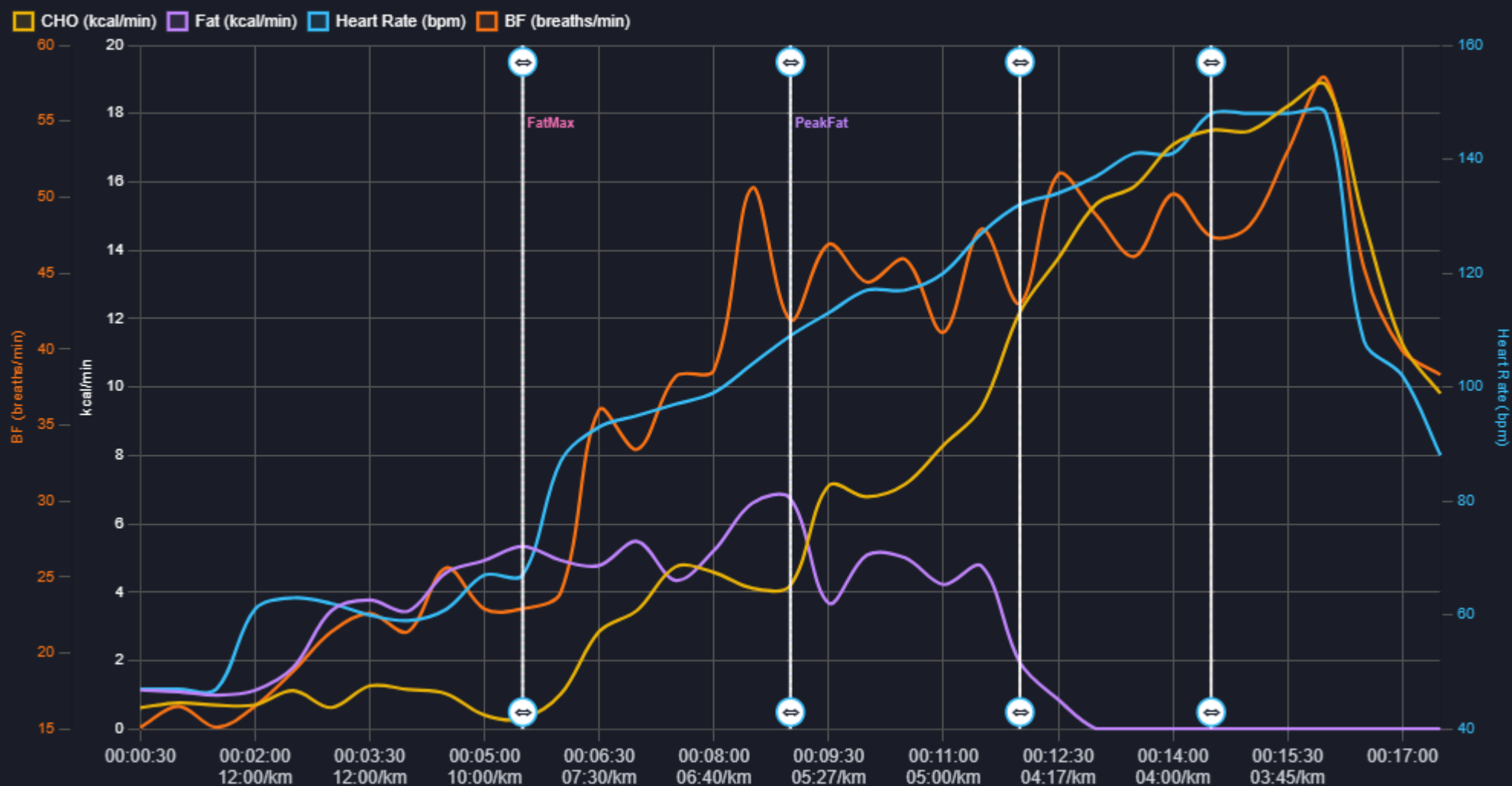
Macro Breakdown

MACRO	GRAMS	KCAL
Protein	131.4	525.6
Fats	55	494.8
· Mono	27.5	247.4
· Poly	16.5	148.5
· Sat (max)	11	99
Carbs	239.7	958.9

Respiratory - Ventilatory Thresholds - VT1 & VT2



Respiratory - Zone Builder



Z1 00:01:30-00:05:30

BF **21** (18-22) **Normal** · HR **≤67**

Fat 3.3 · CHO 0.8 kcal/min

Z2 00:06:00-00:09:00

BF **38** (20-26) **Hyper** · HR **68-109**

Fat 5.4 · CHO 3.6 kcal/min

Z3 00:09:30-00:12:00

BF **45** (26-32) **Hyper** · HR **110-132**

Fat 4.1 · CHO 8.5 kcal/min

Z4 00:12:30-00:14:30

BF **49** (32-40) **Hyper** · HR **133-148**

Fat 0.2 · CHO 15.9 kcal/min

Z5 00:15:00-00:16:00

BF **53** (40-50) **Hyper** · HR **≥149**

Fat 0.0 · CHO 18.2 kcal/min

Training Zones - HR, Speed & Pace

	Zone 1	Zone 2		Zone 3		Zone 4		Zone 5	
Boundary	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top (end)
Heart Rate (bpm)	67	68	109	110	132	133	148	149	148
Speed - mph	4.35	4.35	6.21	6.84	8.08	8.70	9.94	9.94	9.94
Pace / mile	13:48	13:48	09:39	08:47	07:26	06:54	06:02	06:02	06:02
Speed - km/h	7.0	7.0	10.0	11.0	13.0	14.0	16.0	16.0	16.0
Pace / km	08:34	08:34	06:00	05:27	04:37	04:17	03:45	03:45	03:45
Running Economy (mL/kg/km)	163.6	171.5	217.6	192.2	210.2	200.9	205.2	204.1	217.5

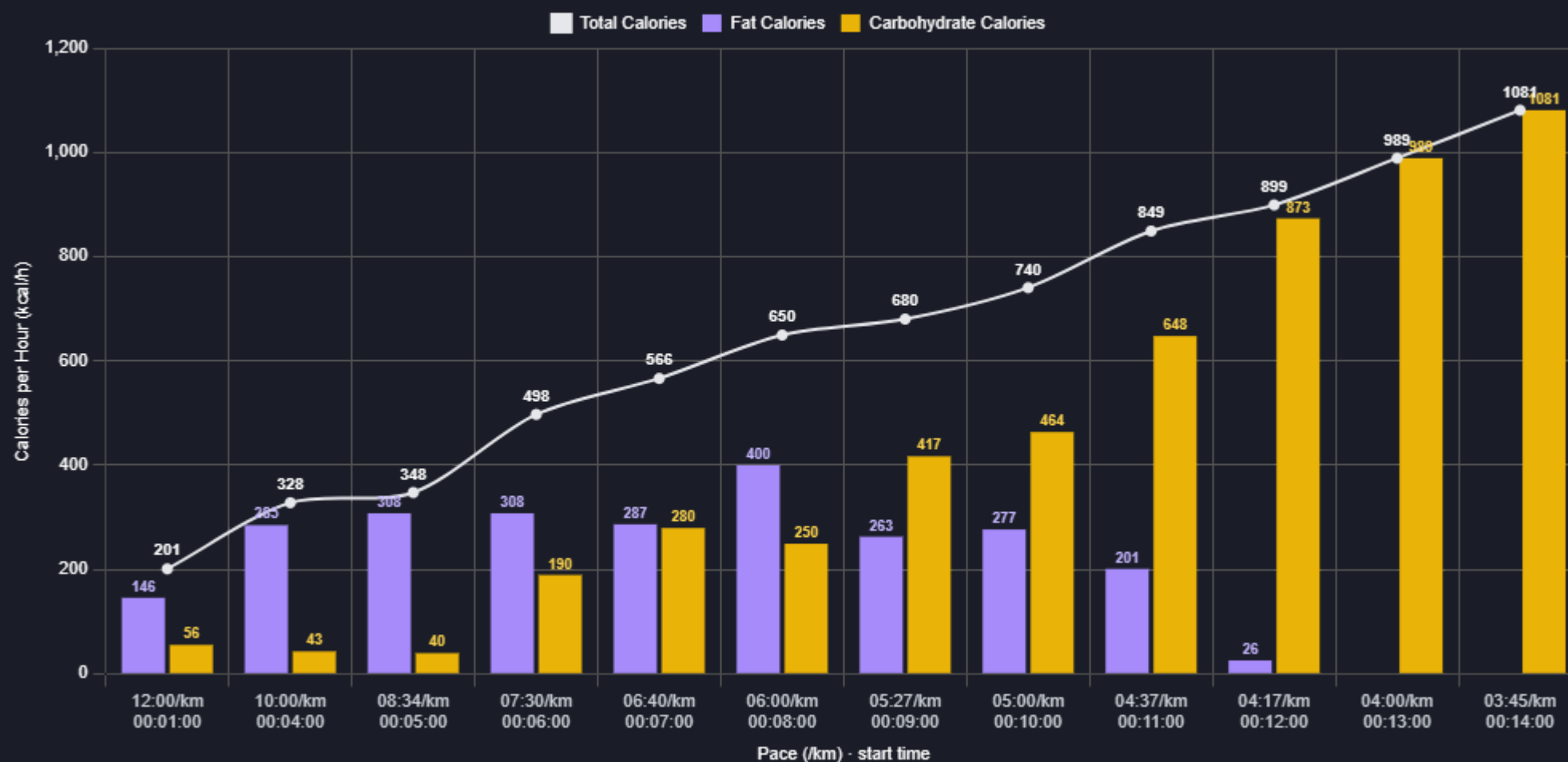
What Each Training Zone Does

ZONE	INTENSITY	PRIMARY BENEFITS & ADAPTATIONS	DURATION
Zone 1 Recovery	Very light <VT1	Delivery > utilisation - floods the working muscles with oxygen and keeps breathing elevated to clear CO ₂ and metabolic waste, normalising acid/base balance (S). Individualised recovery (S). This is ALWAYS the rest phase of every interval - recovery is Zone 1.	No limit The rest phase of intervals · warm-up/cool-down
Zone 2 Aerobic Base	Light-Moderate VT1 region	Delivery = utilisation. Peak fat-oxidation zone. Prolonged continuous training here raises mitochondrial density & function, capillarisation and tissue adaptation (S) and builds endurance (F). The foundation for all endurance training - fixes poor fat/carb ratios.	Continuous >30 min run · >60 min cycle
Zone 3 Tempo	Moderate-Hard Between VT1-VT2	Utilisation > delivery. Tempo intervals. Improves lactate-shuttle capacity, protein stimulation and cardiopulmonary development (S); builds speed-endurance (F). Long intervals with few repeats and short rests. Primary zone for cardiovascular limitations.	Long intervals 5-10 min run · 10-20 min cycle · few reps
Zone 4 Threshold	Hard VT2 region	Utilisation >> delivery. Medium intervals. Improves metabolic buffering and cardiopulmonary development (S); builds coordination, speed and strength (F). Higher repeats with longer rests. Primary zone for cardiovascular and high-intensity limitations.	Medium intervals 30-90 s run · 90-180 s cycle · higher reps
Zone 5 VO ₂ max / Anaerobic	Maximum >VT2, near max HR	Utilisation >>> delivery. Short intervals. Drives mitochondrial density & function and capillarisation (incl. type-II fibres) (S); builds coordination and power (F). Pairs with Zone 2 for metabolic flexibility. Primary zone for high-intensity and metabolic limitations. High fatigue - use sparingly.	Short intervals 10-30 s run · 30-90 s cycle · higher reps

Test Breakdown

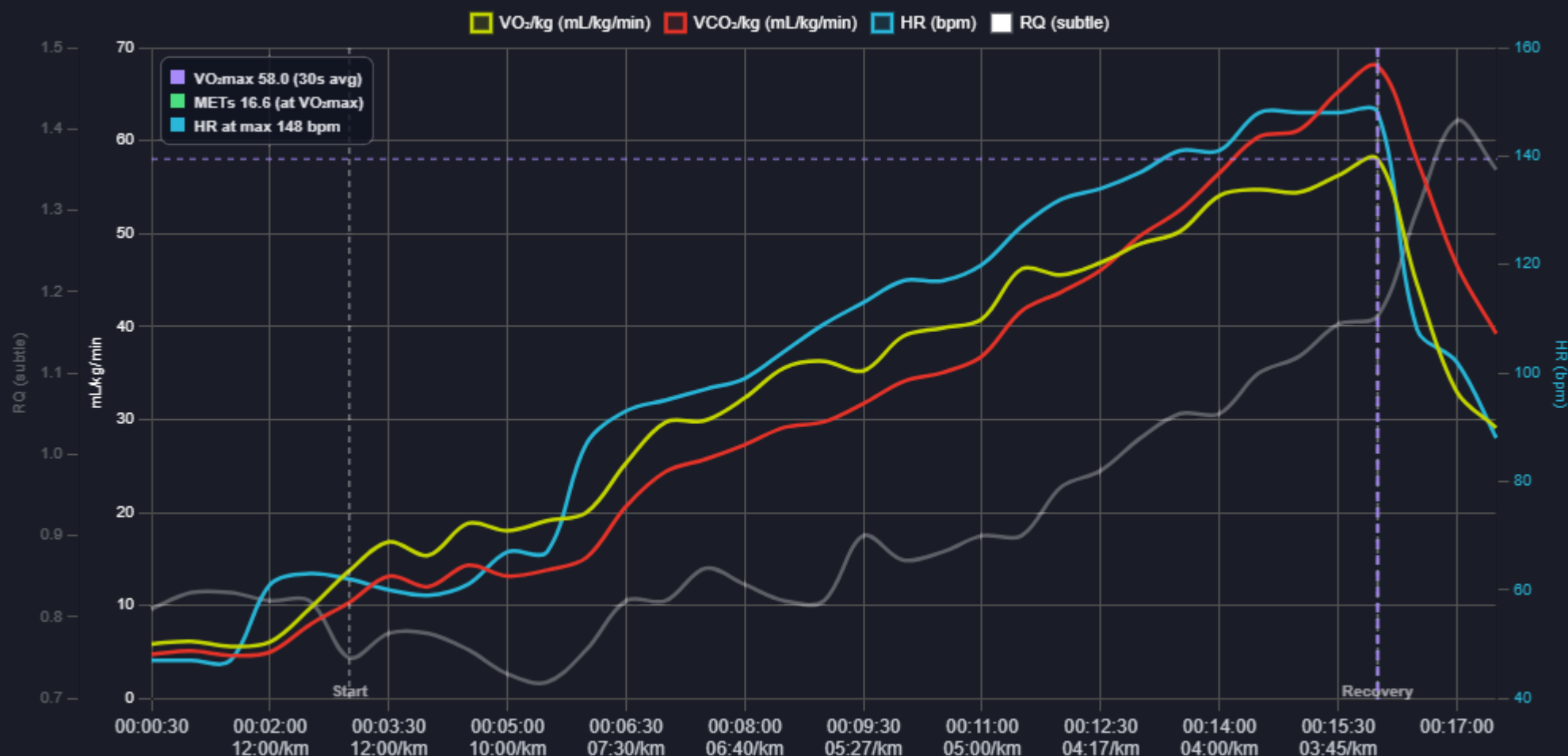
						VT1						VT2	
Time at speed	03:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	02:00
Start time	00:01:00	00:04:00	00:05:00	00:06:00	00:07:00	00:08:00	00:09:00	00:10:00	00:11:00	00:12:00	00:13:00	00:14:00	00:14:00
End time	00:04:00	00:05:00	00:06:00	00:07:00	00:08:00	00:09:00	00:10:00	00:11:00	00:12:00	00:13:00	00:14:00	00:16:00	00:16:00
Incline (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Speed (km/h)	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	16.0
Pace (/km)	12:00	10:00	08:34	07:30	06:40	06:00	05:27	05:00	04:37	04:17	04:00	03:45	03:45
Running Economy (mL/kg/km)	134.5	184.3	167.6	206.4	207.4	215.5	202.3	201.7	211.7	205.2	208.6	209.4	209.4
Heart Rate (bpm)	59	64	77	94	98	107	115	119	130	136	141	148	148
Marathon time	8:26:20	7:01:57	6:01:40	5:16:28	4:41:18	4:13:10	3:50:09	3:30:59	3:14:45	3:00:50	2:48:47	2:38:14	2:38:14
RQ	0.80	0.74	0.74	0.82	0.85	0.82	0.89	0.89	0.93	1.00	1.05	1.14	1.14
METS	3.2	5.3	5.6	7.9	8.9	10.3	10.6	11.5	13.1	13.7	14.9	16.0	16.0
Calories (kcal/h)	201	328	348	498	566	650	680	740	849	899	989	1081	1081
Fat %	72.4%	86.9%	88.6%	61.9%	50.6%	61.6%	38.7%	37.4%	23.7%	2.9%	0.0%	0.0%	0.0%
Carbs %	27.6%	13.1%	11.4%	38.1%	49.4%	38.4%	61.3%	62.6%	76.3%	97.1%	100.0%	100.0%	100.0%
Fat (kcal/h)	146	285	308	308	287	400	263	277	201	26	0	0	0
Carb (kcal/h)	56	43	40	190	280	250	417	464	648	873	989	1081	1081
Fat (g/h)	16.2	31.7	34.2	34.2	31.9	44.5	29.2	30.8	22.4	2.9	0.0	0.0	0.0
Carbs (g/h)	13.9	10.8	9.9	47.4	69.9	62.4	104.3	115.9	161.9	218.3	247.2	270.2	270.2
VO ₂ (mL/min)	736	1211	1284	1808	2044	2360	2436	2650	3014	3146	3426	3669	3669
VCO ₂ (mL/min)	580	903	951	1480	1741	1935	2161	2361	2805	3148	3581	4184	4184

Metabolic - Effective Fat Burn - Calorie Rate per Hour by Speed (Fat vs Carb)



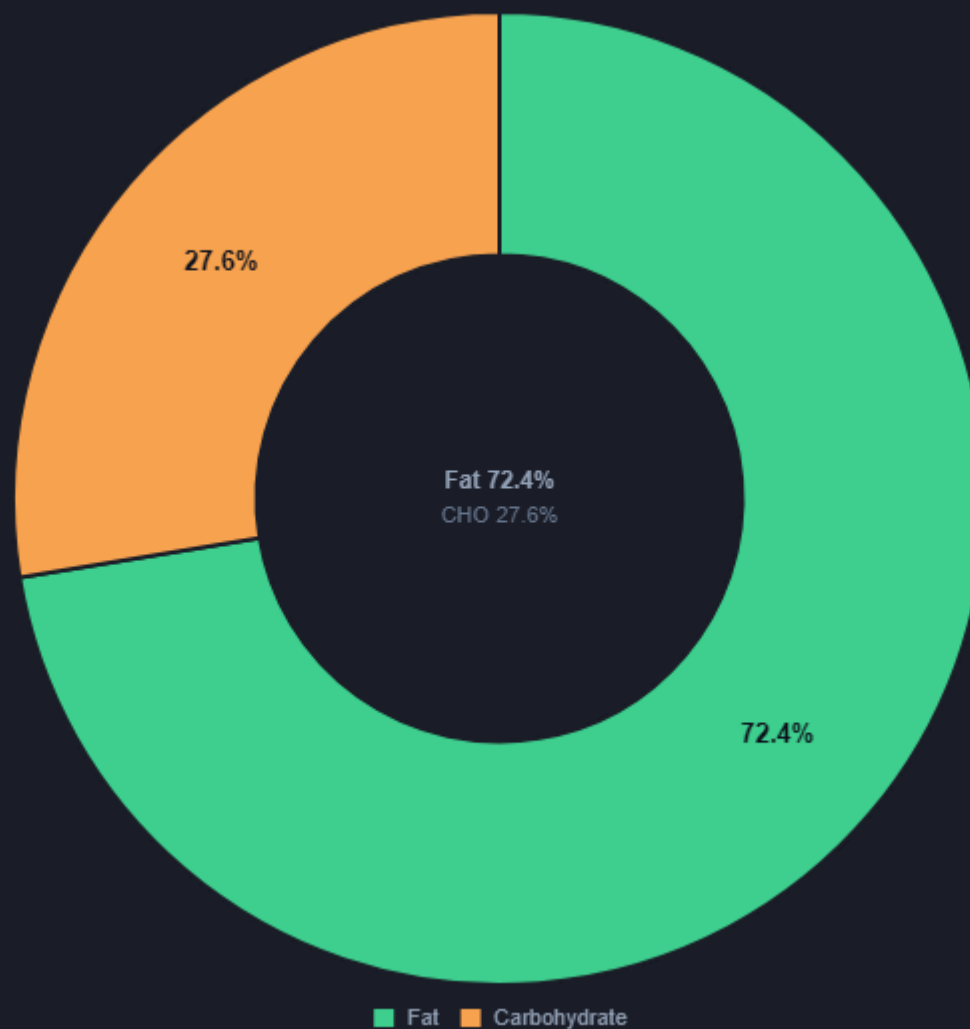
Shows the average calorie burn rate (kcal/hour) at each pace, if you sustained that speed · purple = fat, gold = carbohydrate, white line = total (fat ≈ 9 kcal/g, carb ≈ 4 kcal/g).

Cardio - VO₂max / Peak Achievement

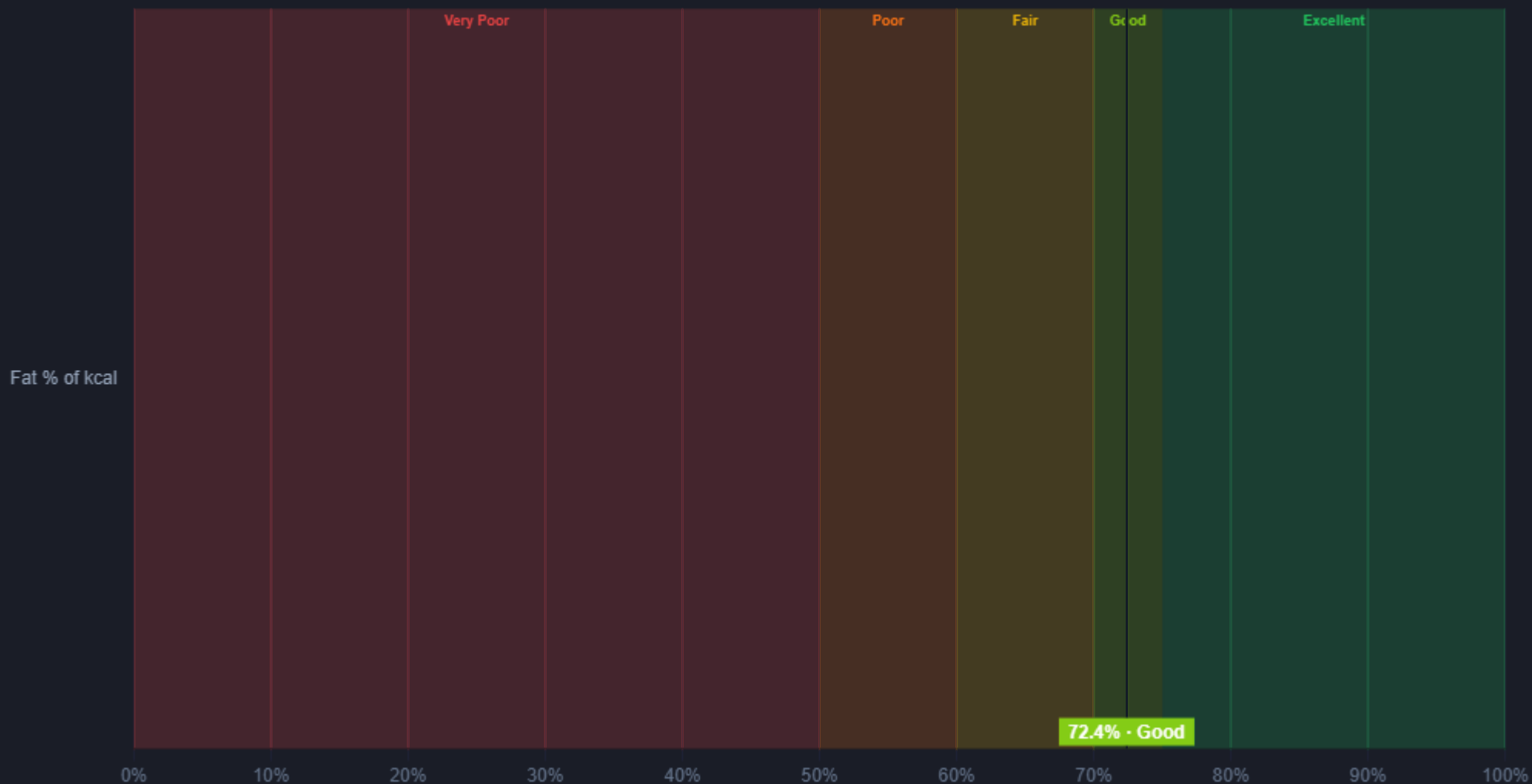


VO₂max is your aerobic ceiling - the maximum oxygen your body can use. Higher values mean better endurance potential. Track RQ (> 1.10 = maximal effort) to confirm true max was reached.

Resting Fuel Mix - Fat vs CHO (% of energy)



Resting Fat % vs Grading Bands



Crossover selector: #1 @04:00 · #2 @06:00 ✓