

**POLAR**<sup>®</sup>



**POLAR**  
**V650**

**V650**

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# POLAR V650

V650

V650

[www.polar.com/en/support/v650](http://www.polar.com/en/support/v650)



**V650**

**USB**

USB

FlowSync

V650

Polar Flow

**BLUETOOTH® SMART**

\*

V650

\*

V650

V650

## POLAR FLOWSYNC

Flowsync

[flow.polar.com/start](http://flow.polar.com/start)

USB

Polar FlowSync

V650

Flow

## POLAR FLOW

[polar.com/flow](http://polar.com/flow)

### V650

Polar Flow

V650

Flow

V650

Polar Flow

## POLAR FLOW

1. [flow.polar.com/start](http://flow.polar.com/start) Polar FlowSync V650  
Flow

2.

3.

FlowSync

Polar

4.

V650

5.

USB

V650

USB

USB

6.

Flow

Polar

(

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Smart Coaching

7.

FlowSync

V650

V650

FlowSync



Polar Flow

Dansk( )

Deutsch( )

English( )

Español( )

Français( )

Italiano( )

Nederlands( )

Norsk

( ) Polski( )

Português( )

Русский( )

Suomi( )

Svenska( )

USB V650 USB USB  
V650 V650

1. ) Español( ) Français( ) Norsk( ) Português ( ) Dansk( ) Deutsch( ) English( ) Italiano( ) Nederlands( ) Suomi ( ) Svenska( )



2. (kg/cm) (lb/ft)
3. **GPS** V650 **GPS** (UTC)
4. UTC  
12 /24 (1)  
12 **AM** **PM**



- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



V650





V650

USB

USB

V650

- 1.
- 2.
- 3.
- 4.

USB

USB

)

USB

USB

(

"output 5Vdc"

5V )

500mA

USB

(

"LPS" "Limited Power

Supply"

)

"UL listed"

(

"CE"



9

Polar

9

Polar

10

V650



- 1.
- 2.
- 3.
- 4.

Strava LiveSegments®

Flow

"

"



V650

Strava

- 5.
- 6.



V650

(1)

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- o
- o
- o
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V650

(2)



/



## V650

V650

V650

Bluetooth Smart ®

V650



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GPS

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• Pin

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• V650



( )

V650

V650

V650

V650



1. > > >

2.

( 450 x 450 )



V650

FlowSync

V650

Flow

/

GPS

V650

GPS

UTC

(UTC)

(GPS)



12

12 / 24 ( )  
AM PM

Dansk Deutsch English Español Français Italiano Nederlands Norsk Português  
Suomi, Svenska

**PIN**

V650 PIN

**PIN**

PIN



V650

PIN



*PIN*

V650

V650

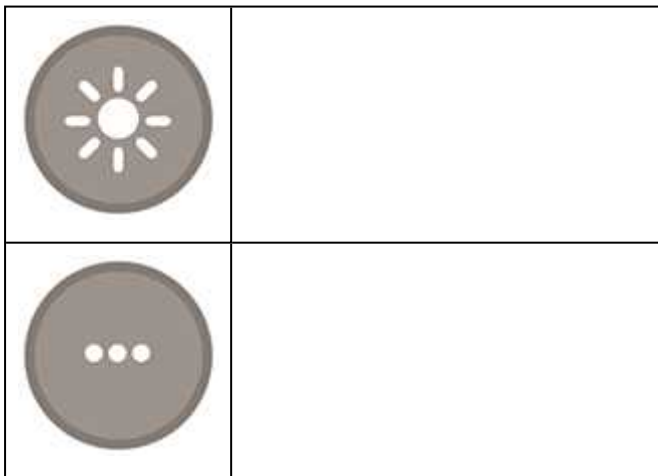
1. V650 USB Polar FlowSync Polar FlowSync  
Polar Flow
- 2.
3. Polar Flow ([flow.polar.com/V650](http://flow.polar.com/V650))

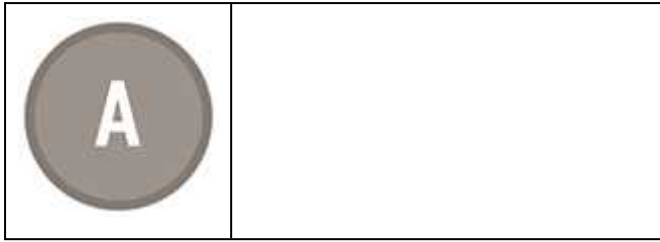
V650

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V650

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15

/ 15  
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(V650

**V650**

V650 ID

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**(GPS)**



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( )



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

1 2 3 4 5 6

( )



1-5

%( ) bpm( )

km/h min/km

GPS

GPS /

/



- (W) / (W/kg) FTP
- FTP (W) FTP 60 600
- 3 10 30
- 1-99
- 

>

1 2 3 4

( )

( )



1

4

2

(ETRTO)



ETRTO	( )	( )
25-559	26 x 1.0	1884
23-571	650 x 23C	1909
35-559	26 x 1.50	1947
37-622	700 x 35C	1958
47-559	26 x 1.95	2022
20-622	700 x 20C	2051
52-559	26 x 2.0	2054

ETRTO	( )	( )
23-622	700 x 23C	2070
25-622	700 x 25C	2080
28-622	700 x 28	2101
32-622	700 x 32C	2126
42-622	700 x 40C	2189
47-622	700 x 47C	2220
55-622	29 x 2.2	2282
55-584	27.5 x 2.2	2124



Polar

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- **VO2max**



( )

( 220- )

HR<sub>max</sub>  
HR<sub>max</sub>

HR<sub>max</sub>

HR<sub>max</sub>

(HR<sub>rest</sub>)

30 bpm

HR<sub>rest</sub>

HR<sub>rest</sub> HR<sub>rest</sub>  
60-80 bpm

**VO2 MAX**

**VO2max:** (VO2<sub>max</sub>)

VO2<sub>max</sub>

(VO2)

VO2<sub>max</sub>( )

VO<sub>2max</sub> ) ( VO<sub>2max</sub> Polar

VO<sub>2max</sub> (ml/min = ml ■ min-1)  
(ml/kg/min = ml ■ kg-1 ■ min-1)

, (VO<sub>2</sub>) (HR)  
VO<sub>2max</sub> HR<sub>max</sub> %HR<sub>max</sub> =  
(%VO<sub>2max</sub> + 28.12)/1.28

VO<sub>2max</sub>

V650 USB FlowSync V650 USB  
V650 FlowSync

V650

V650

- Flow
- FlowSync
- Flow V650

[flow.polar.com/start](http://flow.polar.com/start) Polar Flow Polar FlowSync

1. USB V650
2. FlowSync
- 3.
4. V650

V650 Flow

Polar	Bluetooth® Smart .....	23
	V650 .....	23
Polar	Bluetooth® Smart .....	23
	V650 .....	23
Polar	Bluetooth® Smart .....	24
	V650 .....	24

## POLAR

## BLUETOOTH® SMART

Polar  
V650

( )

### V650

1. \_\_\_\_\_ > > >
2. V650
- 3.

## POLAR

## BLUETOOTH® SMART

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### V650

1. > > V650

2.



30

3. V650

V650

4.

5.

1

2

3

4

6.



V650

V650

**POLAR**

**BLUETOOTH® SMART**



**V650**

1. > > V650

2.



30



3. V650

V650

4.

5.

**1**

**2**

**3**

**4**



V650

V650

Polar

1. /

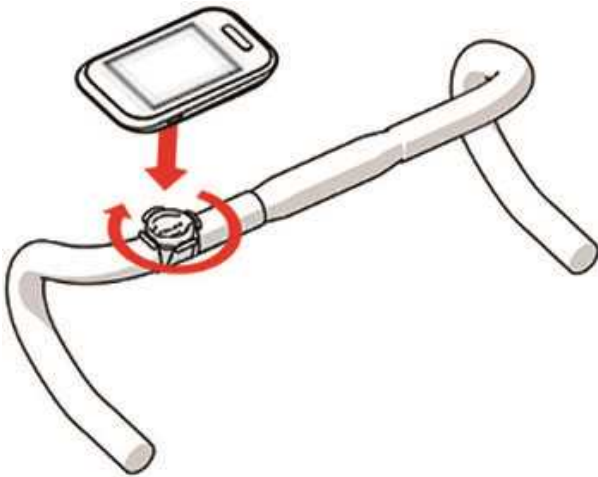
2. POLAR

3. O /



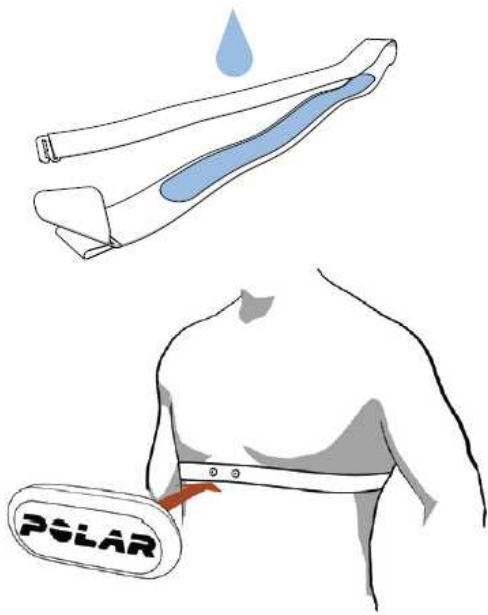
4. V650

V650



- 1.
- 2.
- 3.
- 4.

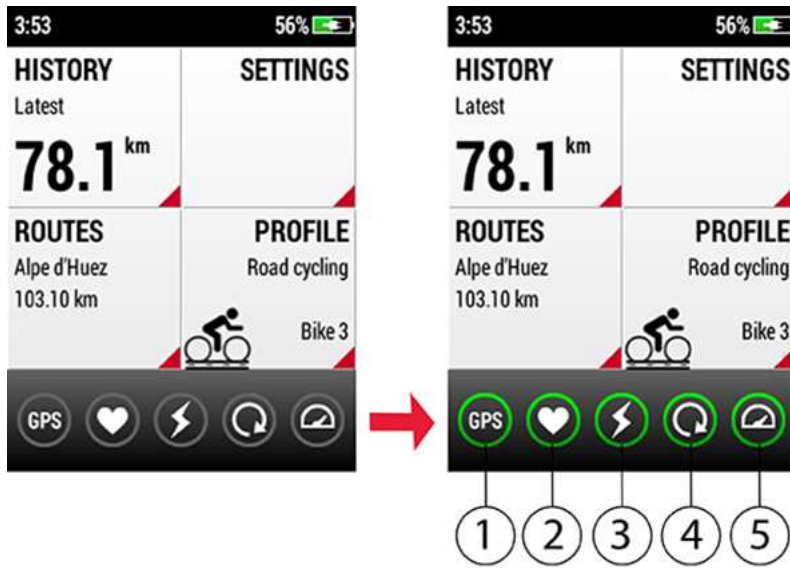
Polar



			<b>1</b>	<b>2</b>	<b>3</b>
<b>4</b>					
		(GPS) V650		GPS	
	V650		30	60	
GPS		V650		GPS	

V650  
GPS

V650



1. (GPS)
- 2.
- 3.
- 4.
- 5.



V650

( )

V650

Flow

V650



V650



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V650



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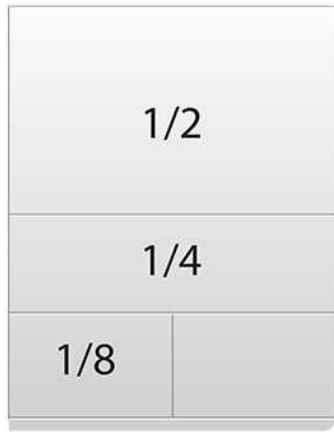
( )

V650










)

(








$1/2, 1/4, 1/8$	
$1/2, 1/4, 1/8$	
$1/2, 1/4, 1/8$	

$1/2, 1/4, 1/8$	
$1/2$  , $1/4$ 	
	/

1/2,1/4,1/8	
1/1  , 1/2 	
1/2,1/4,1/8	
1/2,1/4,1/8	/
1/2,1/4  , 1/8	%
1/1 	<p>V650</p> <p>1/8</p> <p>•</p> <p>•</p> <p>•</p> <p>•</p> <p>•</p> <p>•</p>
1/1 	<p>Flow</p> <p>•</p>

	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>
--	---



1/2,1/4,1/8	
1/2,1/4,1/8	(BPM) (%)
1/1  , 1/2 	
1/2  , 1/4 	
1/2,1/4,1/8	
1/2,1/4,1/8	



1/2,1/4,1/8	
1/2,1/4,1/8	

1/2,1/4,1/8	
1/2,1/4,1/8	

/	( km/h mph)
1/2,1/4,1/8	
/	( km/h mph)
1/2,1/4,1/8	
/	( km/h mph)
1/2,1/4,1/8	
/	( km/h mph)
1/2,1/4,1/8	

1/2,1/4,1/8	
/ 1/2  , 1/4 	( km/h    mph)
<b>VAM</b> 1/2,1/4,1/8	/

1/2,1/4,1/8	
1/2,1/4,1/8	
1/2,1/4,1/8	














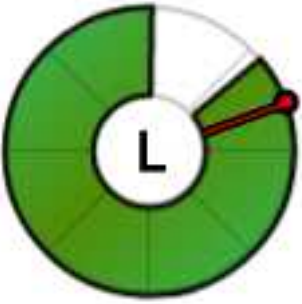


%(

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**W(    ) W/kg(    /    ) FTP**

1/2,1/4,1/8	
1/2,1/4,1/8	

1/2,1/4,1/8	
1/2,1/4,1/8	
1/2,1/4,1/8	
1/1  , 1/2 	
1/2  , 1/4 	
1/2,1/4,1/8	
1/2,1/4,1/8	
/ 1/2  , 1/4  , 1/8	(%)
/	(%)

<p>1/2 , 1/4 , 1/8</p>	
<p>/</p> <p>1/2 , 1/4 , 1/8</p>	
 <p>1/2 </p>	<p>•</p> <p>•</p>
<p>1/1 </p>	<p>•</p> <p>•</p> <p>•</p> <p>(%)</p> <p>Kéo Power Essential Bluetooth® Smart( )</p> <p>•</p> <p>•</p> <p>/3 10 30 1-99( )</p> <p>•</p> <p>•</p> <p>•</p>
<p>1/2, 1/4, 1/8</p>	<p>( )</p>

1/2,1/4,1/8	( )
<b>NP</b> <b>NP</b>	NORMALIZED POWER (NP)
<b>IF</b> <b>IF</b>	INTENSITY FACTOR (IF) <span style="float: right;">IF</span>
<b>TSS</b> <b>TSS</b>	TRAINING STRESS SCORE (TSS)

/



/

V650

GPS

- " "
- V650
- 
- V650



V650



GPS

GPS





V650

<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li></ul> <p style="text-align: center;">/</p> <p style="text-align: right;">%</p>
<ul style="list-style-type: none"><li>•</li></ul> <p style="text-align: center;">10</p> <hr style="width: 10%; margin: auto;"/> <ul style="list-style-type: none"><li>•</li></ul> <p style="text-align: right;">+</p>
<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
<ul style="list-style-type: none"><li>•</li><li>• <b>W/KG(</b> )</li><li>• (%)</li></ul>
<ul style="list-style-type: none"><li>•</li></ul>
<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li></ul>

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V650

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USB

FlowSync

Polar Flow

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# GPS

V650

GPS

V650

GPS

Flow

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V650

V650

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GPS

VAM(

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V650

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6



1.2  
V650

“OpenStreetMap”

>

( ) /

6)

( 1 2 3 4 5



> >

( 450 x 450 )

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V650

**FlowSync**

**V650**

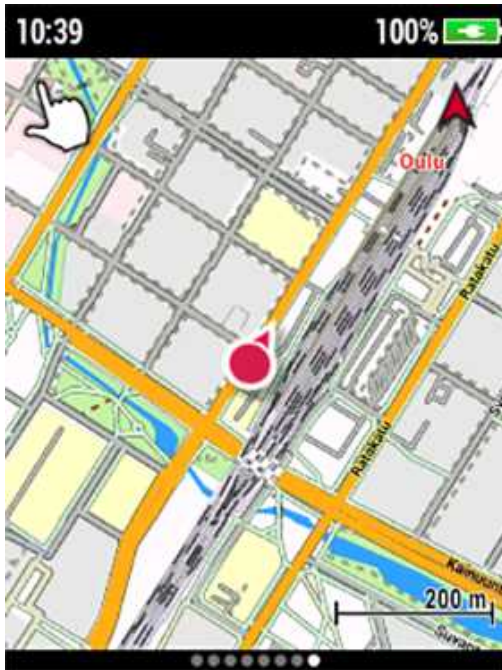
**Flow**

/



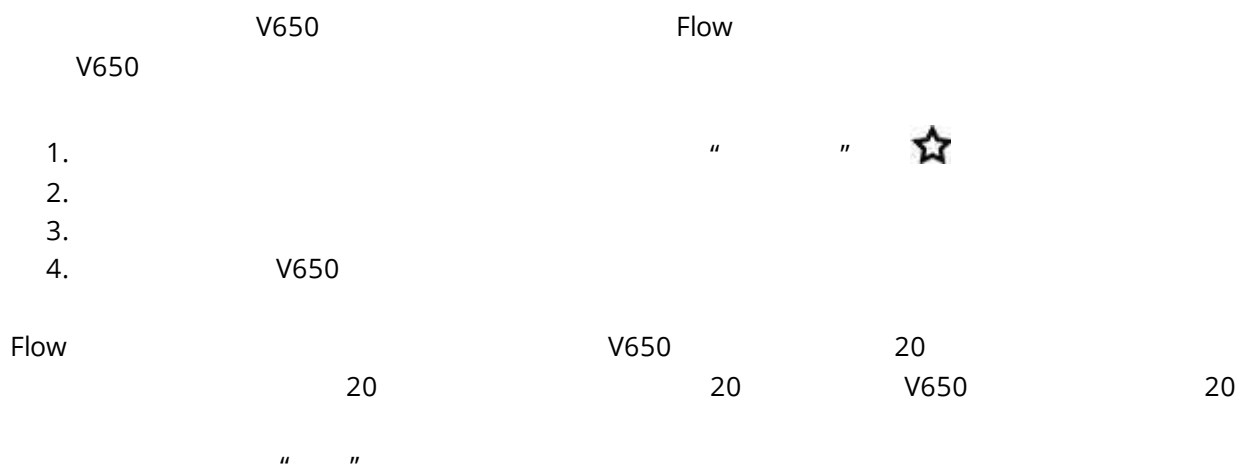
( )





Flow

**V650**



- 
- 
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## STRAVA LIVE SEGMENTS®

Strava Live Segments

[Strava.com](https://www.strava.com)

Strava

Strava

/

(KOM/QOM)

<b>Strava Premium</b>		Polar V650	<b>Strava Live Segments®</b>
V650	60	Strava Premium	
Strava Premium		V650	Flow
Strava Premium			

### STRAVA LIVE SEGMENTS

### STRAVA.COM

### POLAR FLOW

1. Polar Flow

Polar Flow

Strava Polar Flow

Polar Flow

> > **Strava** >

Polar Flow

> > **Strava**( )

2. Strava.com

Polar Flow

Star	Category	Name	Location
★	1	Muro di Sormano Climb	Sormano, Lombardy, Italy
★	3	Muro Di Sormano	



Strava.com  
V650

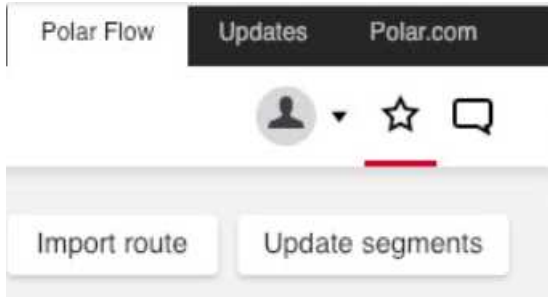
Strava Live  
**V650**

V650  
Strava Live Segments

3  
Polar Flow

- 3. Polar Flow  
Polar Flow

Strava Live Segments



**STRAVA LIVE SEGMENTS**

**POLAR FLOW**

**V650**

FlowSync	USB	Polar Flow	V650
Polar Flow		Strava.com	Strava Live Segments
20 "	"	V650	
V650	20 "	Flow	"
"	20	V650	V650
		"	20 "

**POLAR V650**

**STRAVA LIVE SEGMENTS®**

- 1. Strava Live Segments V650
- 2. Strava Live Segments
- 3. (PR) KOM/QOM
- 4. Strava Live Segments



### STRAVA LIVE SEGMENTS

1. GPS ( ) V650  
Strava segments® ( )



2. Strava V650



3.

(PR)

V650





4. Strava Live Segment

V650

Strava segment



KOM/QOM

( )

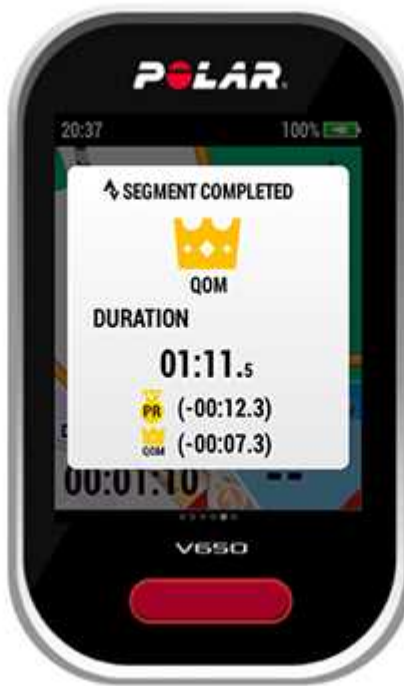
/ PR /

5.

V650

PR

KOM/QOM



V650

[Strava.com](https://www.strava.com)

Strava Segments

[Strava](https://www.strava.com)

Strava Live Segments    Strava, Inc.

V650 1.5.4

V650

NORMALIZED POWER® (NP®)    INTENSITY FACTOR® (IF®)    TRAINING STRESS SCORE® (TSS®)

• **NORMALIZED POWER (NP)**

• **INTENSITY FACTOR (IF)**

IF

• **TRAINING STRESS SCORE (TSS)**

TRAINING STRESS SCORE

Polar

V650

>

## SMART COACHING


### Smart Coaching

V650 Smart Coaching

- Polar
- 
- V650

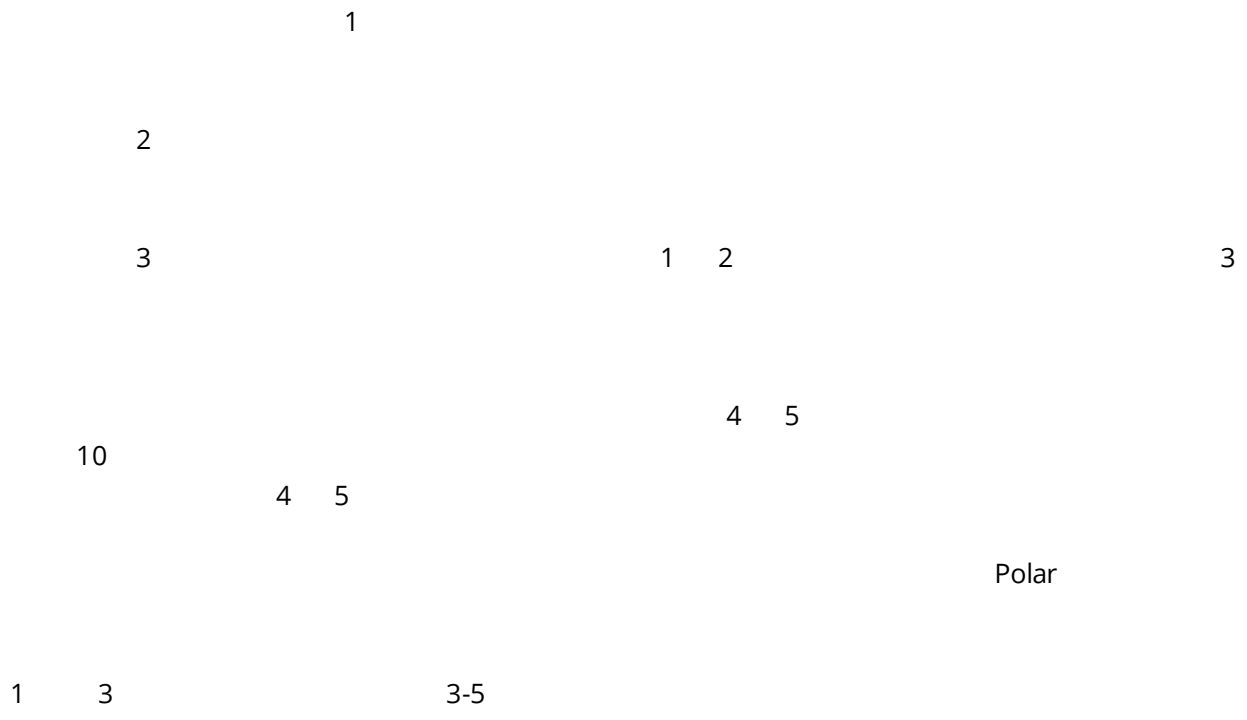
### POLAR

Polar

	%* bpm		
	90-100% 171-190 bpm	5	
	80-90% 152-172 bpm	2-10	

	%* bpm		
			
	70-80% 133-152 bpm	10-40	
	60-70% 114-133 bpm	40-80	
	50-60% 104-114 bpm	20-40	

HRmax = ( 220 - ) 30 220-30=190 bpm



- 
- 
- 
- 
- 
- 

(HR<sub>max</sub>)

(HR<sub>rest</sub>)

(VO<sub>2max</sub>)



V650      VO<sub>2max</sub>    HR<sub>max</sub> (    )

10

Maximum training+( )	
Maximum training( )	
Maximum & Tempo training( )	
Tempo & Maximum training( )	
Tempo training+( )	
Tempo training( )	
Tempo & Steady state training( )	
Steady state & Tempo training( )	
Steady state training+( )	
Steady state training( )	
Steady state & Basic training, long( ( ))	
Steady state & Basic training( )	
Basic & Steady state training, long( ( ))	
Basic & Steady state training( )	
Basic training, long( ( ))	
Basic training( )	
Recovery training( )	

Polar Flow

“ ”

Polar Flow

( )

# POLAR FLOW

Polar Flow

Flow



**Polar**

Flow

[flow.polar.com/start](https://flow.polar.com/start)

Polar

**Flow**

polarpersonaltrainer.com

**FlowSync**

**V650**

**Flow**

“ ”

“ ”

“ ”

“ ”



*Flow*

[www.polar.com/en/support/flow](https://www.polar.com/en/support/flow)



# POLAR FLOW

Polar Flow

Flow

V650

Flow

Polar V650

iOS

Android

Polar Flow

3.0

USB

V650  
V650

1.4.5

Polar FlowSync

Flow

Flow

- 
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- 
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- 
- 

/

%



Flow

Flow

V650

[flow.polar.com/start](http://flow.polar.com/start)

V650

V650

V650

Flow

App Store

Google Play

Polar Flow

[www.polar.com/en/support/Flow\\_app](http://www.polar.com/en/support/Flow_app)

Flow

V650

V650

Flow

FlowSync USB V650 Polar Flow  
Bluetooth Smart® V650 Flow  
Polar FlowSync [flow.polar.com/start](http://flow.polar.com/start) Polar Flow  
Polar FlowSync App Store Google Play  
Flow

V650

## FLOWSYNC FLOW

Flow FlowSync  
[flow.polar.com/start](http://flow.polar.com/start)

1. USB USB
2. FlowSync
3. FlowSync
- 4.

V650 Polar FlowSync Polar Flow  
(Mac OS X) FlowSync FlowSync (Windows)

V650 Flow V650 FlowSync  
V650

 FlowSync [www.polar.com/en/support/FlowSync](http://www.polar.com/en/support/FlowSync)

## FLOW

- Polar Flow
- Flow V650 FlowSync
- 

iOs

- 1. Polar Flow
- 2. V650
- 3. **iOS**      **Android**      **iOS**
- 4. V650

**Android**

- 1. Polar Flow
- 2. Android      Flow      Polar      Flow
- 3. V650      >      V650      V650
- 4. **iOS**      **Android**      **Android**
- 5.
- 6. V650      V650      PIN      **XXXXXX**      V650
- 7. V650



Flow

V650

Flow

> **V650**      iOS      / Android

Polar Flow

[www.polar.com/en/support/Flow\\_app](http://www.polar.com/en/support/Flow_app)

# V650

Polar V650

## POLAR V650

) (

USB /



GPS

( )

USB

USB



**BLUETOOTH® SMART**  
**BLUETOOTH® SMART**

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V650

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V650

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Polar

Polar Electro

Polar

Polar

[www.polar.com/support](http://www.polar.com/support)



Polar

Polar

[polarpersonaltrainer.com](http://polarpersonaltrainer.com) Polar

Polar V650

300

Polar

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## H6

1.

2.

( )

3.

(CR 2025)

(-)

4.



## H10

- 1.
- 2.
3. (CR2025) (+)
- 4.



WLAN

( LED )

- 1.
- 2.
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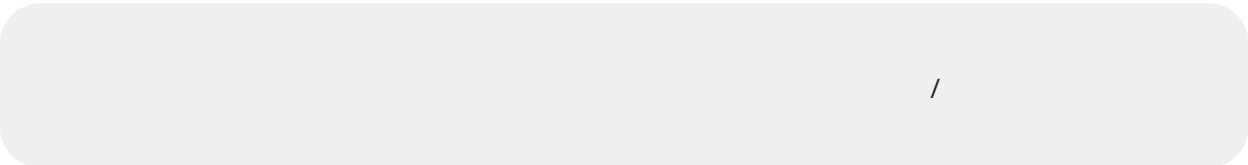


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( H10 H9)

2

**POLAR V650**

	1900 mAh
	10
	-20 °C +50 °C / -4 °F 122 °F
V650	- - (ABS) (PC) Asahi Dragontrail ( ) (PA)
	(POM)
	25 °C / 77 °F ± 0.5 /

GPS	±2%    ±2    /
	±20   /65
/	5
	9000   /29528
	1 Hz
	± 1%   1 bpm
	15-240 bpm
	0-399   /    248   /
	IPX7
	GPS                                  V650                                  V650

**V650**

	V650
	99    59    59
	999
	999
	65535

	300
	CR2025
	O    20.0 x 0.90
	-10 °C   +50 °C/14 °F   122°F
	ABS
	38%                                  29%                                  20%                                  13%
	30

Bluetooth® Smart

## POLAR FLOWSYNC

FlowSync

USB

Microsoft Windows Mac

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## POLAR FLOW

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Polar ISO 22810 IEC60529 Polar  
Polar Polar

			( )	( )	
IPX7	-	-	-	-	IEC60529
IPX8			-	-	IEC60529

20/30/50			-	-	ISO22810
100 ( )				-	ISO22810

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- Polar Electro Oy Polar  
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	2014/53/EU, 2011/65/EU 2015/863/EU <a href="http://www.polar.com/zh-hans/regulatory_information">www.polar.com/zh-hans/regulatory_information</a>
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V650

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**V650**

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