



# PowerBalance surface-mounted – sustainable performance

## PowerBalance, surface mounted

When it comes to lighting an office space with LED luminaires, people are usually willing to invest in sustainability provided the investment pays back. At the same time, the system should comply with office lighting norms to ensure a comfortable working environment. PowerBalance is Philips' most energy-efficient office-norm-compliant LED luminaire. It more than halves energy costs compared to a T5 solution, and the light source has a longer lifetime. This results in significantly lower operational costs, ensuring a payback that meets the needs of the specification market. PowerBalance surface-mounted luminaires are easy to install on ceilings thanks to their intuitive mounting system. PowerBalance is also available in a recessed version.

### Benefits

- Extremely efficient office-norm-compliant LED luminaire
- Good-quality lighting solution for direct replacement of T5 luminaires in most indoor applications
- Significantly reduces operational costs, resulting in an attractive payback time

### Features

- Easy and intuitive mounting system
- Advanced LED technology
- Available in different shapes and sizes
- Office norm-compliant

## PowerBalance, surface mounted

### Application

- Offices
- Other indoor applications

### Specifications

Type	SM461V
Light source	Philips LED module PP
Power	Square version (W57L57), 4000 K
	LED40S: 28.5 W
	LED34S: 24 W
	LED28S: 20.5 W
	Rectangular version (W17L169), 4000 K
	LED40S: 30 W
	LED34S: 26 W
	LED28S: 21 W
Beam angle	90°
Luminous flux	2800, 3400 or 4000 lm (depending on configuration)
Correlated Color	3000 or 4000 K
Temperature	
Color Rendering Index	> 80
Lumen maintenance at median useful life*	L90
50000 h	
Control gear failure rate at median useful life	5%
50000 h	
Performance Ambient Temperature Tq	+25 °C

Operating temperature range	+10 to +40 °C
Driver	Built-in
Mains voltage	220-240 V / 50 Hz
Dimming	DALI Dimmable (PSD)
	DALI Dimmable Touch and Dim (PSD-T)
Controls system input	DALI
Options	Emergency lighting (integrated): 1 hour (EL1) or 3 hours (EL3)
	Controls: Actilume (ACL)
Material	Housing: coated steel and plastic
	Rim: powder coated steel
	Optics: plastic
Color	White
Optic	Wide beam
Connection	Push-in connector with pull relief (PIP)
Maintenance	Optical module sealed for life; no internal cleaning required
Installation	Square version: individual; locking the luminaire into pre-mounted ceiling plate (delivered with the luminaire)
	Rectangular version: individual or in line; clicking the luminaire into pre-screwed ceiling brackets
	Through-wiring possible
Accessories	Dedicated suspension sets for square and rectangular versions

### Versions



PowerBalance Surface-mounted  
SM461V luminaire, rectangular  
version



PowerBalance Surface-mounted  
SM461V luminaire, square version

# PowerBalance, surface mounted

## Versions



PowerBalance Surface-mounted SM461V luminaire with ActiLume, square version



PowerBalance Surface-mounted SM461V luminaire with ActiLume, rectangular version

## Product details



Closing mechanism



Electrical connector



PowerBalance luminaire, ceiling-mounted



PowerBalance luminaire, suspended mounting



Triangular suspension set for rectangular PowerBalance luminaire

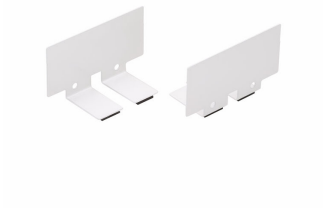


In-line mounting using connection pieces

## PowerBalance, surface mounted

### Product details

Connection pieces for in-line mounting



Closing mechanism



Electrical connector



PowerBalance is easy to install thanks to the large opening in the top of the luminaire



Luminaire in mounting position on ceiling; suspension sets available for square and rectangular luminaires



PowerBalance, square shape, suspended



Suspension set for square shape has four wires that are connected to the four corners of the luminaire



## PowerBalance, surface mounted

### Application Conditions

Ambient temperature range	+10 to +40 °C
Maximum dim level	1%

### Approval and Application

Mech. impact protection code	IK02
Ingress protection code	IP40

### Controls and Dimming

Dimmable	Yes
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### General Information

Beam angle of light source	– °
Cap-Base	–
CE mark	CE mark
Driver included	Yes
Emergency lighting	–
ENEC mark	ENEC plus mark
Flammability mark	For mounting on normally flammable surfaces
Glow-wire test	Temperature 850 °C, duration 5 s
Light source replaceable	No
Number of gear units	1 unit
Number of light sources	1 pc
Optic type	–
Product Family Code	SM461V
UL mark	–

### Initial Performance (IEC Compliant)

Init. Color Rendering Index	≥80
Luminous flux tolerance	+/-10%

### Mechanical and Housing

Color	White
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### Application Conditions

Order Code	Full Product Name	Suitable for random switching
910504091103	SM461V LED34S/840 PSD W17L169	No
910504091203	SM461V LED40S/840 PSD W17L169	No
910504092203	SM461V LED28S/840 PSD W17L169	No
910504091303	SM461V LED40S/840 PSD W57L57	No
910504091403	SM461V LED34S/840 PSD W57L57	No
910504091503	SM461V LED28S/840 PSD W57L57	No
910504093303	SM461V LED28S/830 PSD W57L57	No
910504093503	SM461V LED40S/830 PSD W57L57	No
910504091603	SM461V LED28S/840 PSD W57L57 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504091803	SM461V LED34S/840 PSD W57L57 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504092003	SM461V LED40S/840 PSD W57L57 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504109103	SM461V LED34S/840 POE W57L57 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504092303	SM461V LED28S/840 PSD W17L169 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504092503	SM461V LED34S/840 PSD W17L169 ACL	Yes (relates to presence/ movement detection and daylight harvesting)
910504092703	SM461V LED40S/840 PSD W17L169 ACL	Yes (relates to presence/ movement detection and daylight harvesting)

## Operating and Electrical

Order Code	Full Product Name	Input Voltage	Order Code	Full Product Name	Input Voltage
910504091103	SM461V LED34S/840 PSD W17L169	220-240 V	910504091603	SM461V LED28S/840 PSD W57L57 ACL	220-240 V
910504091203	SM461V LED40S/840 PSD W17L169	220-240 V	910504091803	SM461V LED34S/840 PSD W57L57 ACL	220-240 V
910504092203	SM461V LED28S/840 PSD W17L169	220-240 V	910504092003	SM461V LED40S/840 PSD W57L57 ACL	220-240 V
910504091303	SM461V LED40S/840 PSD W57L57	220-240 V	910504109103	SM461V LED34S/840 POE W57L57 ACL	51 to 54 V
910504091403	SM461V LED34S/840 PSD W57L57	220-240 V	910504092303	SM461V LED28S/840 PSD W17L169 ACL	220-240 V
910504091503	SM461V LED28S/840 PSD W57L57	220-240 V	910504092503	SM461V LED34S/840 PSD W17L169 ACL	220-240 V
910504093303	SM461V LED28S/830 PSD W57L57	220-240 V	910504092703	SM461V LED40S/840 PSD W17L169 ACL	220-240 V
910504093503	SM461V LED40S/830 PSD W57L57	220-240 V			

## General Information

## PowerBalance, surface mounted

Order Code	Full Product Name	Protection class IEC	Lamp family code	Embedded control	Standard RAL color
910504091103	SM461V LED34S/840 PSD W17L169	Safety class I	LED34S	-	-
910504091203	SM461V LED40S/840 PSD W17L169	Safety class I	LED40S	-	-
910504092203	SM461V LED28S/840 PSD W17L169	Safety class I	LED28S	-	-
910504091303	SM461V LED40S/840 PSD W57L57	Safety class I	LED40S	-	-
910504091403	SM461V LED34S/840 PSD W57L57	Safety class I	LED34S	-	-
910504091503	SM461V LED28S/840 PSD W57L57	Safety class I	LED28S	-	-
910504093303	SM461V LED28S/830 PSD W57L57	Safety class I	LED28S	-	Traffic white
910504093503	SM461V LED40S/830 PSD W57L57	Safety class I	LED40S	-	-
910504091603	SM461V LED28S/840	Safety class I	LED28S	ActiLume	-

Order Code	Full Product Name	Protection class IEC	Lamp family code	Embedded control	Standard RAL color
	PSD W57L57 ACL				
910504091803	SM461V LED34S/840 PSD W57L57 ACL	Safety class I	LED34S	ActiLume	-
910504092003	SM461V LED40S/840 PSD W57L57 ACL	Safety class I	LED40S	ActiLume	-
910504109103	SM461V LED34S/840 POE W57L57 ACL	Safety class III	LED34S	ActiLume	-
910504092303	SM461V LED28S/840 PSD W17L169 ACL	Safety class I	LED28S	ActiLume	-
910504092503	SM461V LED34S/840 PSD W17L169 ACL	Safety class I	LED34S	ActiLume	-
910504092703	SM461V LED40S/840 PSD W17L169 ACL	Safety class I	LED40S	ActiLume	-

### Initial Performance (IEC Compliant) (1/2)

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Color Temperature	Initial LED luminaire efficacy	Initial luminous flux
910504091103	SM461V LED34S/840 PSD W17L169	(0.38, 0.38) SDCM <3	4000 K	131 lm/W	3400 lm
910504091203	SM461V LED40S/840 PSD W17L169	(0.38, 0.38) SDCM <3	4000 K	133 lm/W	4000 lm
910504092203	SM461V LED28S/840 PSD W17L169	(0.38, 0.38) SDCM <3	4000 K	133 lm/W	2800 lm
910504091303	SM461V LED40S/840 PSD W57L57	(0.38, 0.38) SDCM <3	4000 K	140 lm/W	4000 lm
910504091403	SM461V LED34S/840 PSD W57L57	(0.38, 0.38) SDCM <3	4000 K	142 lm/W	3400 lm

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Color Temperature	Initial LED luminaire efficacy	Initial luminous flux
910504091503	SM461V LED28S/840 PSD W57L57	(0.38, 0.38) SDCM <3	4000 K	137 lm/W	2800 lm
910504093303	SM461V LED28S/830 PSD W57L57	(0.43, 0.40) SDCM <3	3000 K	130 lm/W	2800 lm
910504093503	SM461V LED40S/830 PSD W57L57	(0.43, 0.40) SDCM <3	3000 K	133 lm/W	4000 lm
910504091603	SM461V LED28S/840 PSD W57L57 ACL	(0.38, 0.38) SDCM <3	4000 K	130 lm/W	2800 lm
910504091803	SM461V LED34S/840 PSD W57L57 ACL	(0.38, 0.38) SDCM <3	4000 K	136 lm/W	3400 lm

## PowerBalance, surface mounted

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Color Temperature	Initial LED luminaire efficacy	Initial luminous flux
910504092003	SM461V LED40S/840 PSD W57L57 ACL	(0.38, 0.38)	4000 K	136 lm/W	4000 lm
910504109103	SM461V LED34S/840 POE W57L57 ACL	(0.38, 0.38)	4000 K	139 lm/W	3400 lm
910504092303	SM461V LED28S/840 SDCM <3	(0.38, 0.38)	4000 K	127 lm/W	2800 lm

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Color Temperature	Initial LED luminaire efficacy	Initial luminous flux
910504092503	SM461V LED34S/840 PSD W17L169 ACL	(0.38, 0.38)	4000 K	126 lm/W	3400 lm
910504092703	SM461V LED40S/840 PSD W17L169 ACL	(0.38, 0.38)	4000 K	129 lm/W	4000 lm

### Initial Performance (IEC Compliant) (2/2)

Order Code	Full Product Name	Initial input power
910504091103	SM461V LED34S/840 PSD W17L169	26 W
910504091203	SM461V LED40S/840 PSD W17L169	30 W
910504092203	SM461V LED28S/840 PSD W17L169	21 W
910504091303	SM461V LED40S/840 PSD W57L57	28.5 W
910504091403	SM461V LED34S/840 PSD W57L57	24 W
910504091503	SM461V LED28S/840 PSD W57L57	20.5 W
910504093303	SM461V LED28S/830 PSD W57L57	21.5 W
910504093503	SM461V LED40S/830 PSD W57L57	30 W

Order Code	Full Product Name	Initial input power
910504091603	SM461V LED28S/840 PSD W57L57 ACL	21.5 W
910504091803	SM461V LED34S/840 PSD W57L57 ACL	25 W
910504092003	SM461V LED40S/840 PSD W57L57 ACL	29.5 W
910504109103	SM461V LED34S/840 POE W57L57 ACL	24.5 W
910504092303	SM461V LED28S/840 PSD W17L169 ACL	22 W
910504092503	SM461V LED34S/840 PSD W17L169 ACL	27 W
910504092703	SM461V LED40S/840 PSD W17L169 ACL	31 W

### Mechanical and Housing

Order Code	Full Product Name	Geometry
910504091103	SM461V LED34S/840 PSD W17L169	Width 0.17 m, length 1.69 m
910504091203	SM461V LED40S/840 PSD W17L169	Width 0.17 m, length 1.69 m
910504092203	SM461V LED28S/840 PSD W17L169	Width 0.17 m, length 1.69 m
910504091303	SM461V LED40S/840 PSD W57L57	Width 0.57 m, length 0.57 m
910504091403	SM461V LED34S/840 PSD W57L57	Width 0.57 m, length 0.57 m
910504091503	SM461V LED28S/840 PSD W57L57	Width 0.57 m, length 0.57 m
910504093303	SM461V LED28S/830 PSD W57L57	Width 0.57 m, length 0.57 m
910504093503	SM461V LED40S/830 PSD W57L57	Width 0.57 m, length 0.57 m

Order Code	Full Product Name	Geometry
910504091603	SM461V LED28S/840 PSD W57L57 ACL	Width 0.57 m, length 0.57 m
910504091803	SM461V LED34S/840 PSD W57L57 ACL	Width 0.57 m, length 0.57 m
910504092003	SM461V LED40S/840 PSD W57L57 ACL	Width 0.57 m, length 0.57 m
910504109103	SM461V LED34S/840 POE W57L57 ACL	Width 0.57 m, length 0.57 m
910504092303	SM461V LED28S/840 PSD W17L169 ACL	Width 0.17 m, length 1.69 m
910504092503	SM461V LED34S/840 PSD W17L169 ACL	Width 0.17 m, length 1.69 m
910504092703	SM461V LED40S/840 PSD W17L169 ACL	Width 0.17 m, length 1.69 m

