PHILIPS

VitaUp Gen 1

Datasheet

VitaUp Gen 1

9290 039 70106

Philips VitaUp modules offer an easy-to-integrate & cost-effective solution that emits low-intensity, narrow-band UVB. UVB is responsible for producing Vitamin D in the skin. Sufficient Vitamin D levels are key to support strong bones and teeth, support immune function, and even mood and cognitive function. Philips VitaUp is designed to support well-being of individuals by providing low dose of UVB in an indoor setting.

Features

- DALI and MasterConnect compatible through isolated port
- Selected diagnostics for operation time and fault detection
- Integrated proximity sensor
- Inbuilt 8-hour timer
- 24V CV input
- Zhaga LEX-M form factor, compatible with SNS accessories
- Thermal protection for optimal lifetime
- Lifetime > 25 khrs

Benefits

- Supports Vitamin D generation in a natural form
- Long-term low-intensity UVB radiation
- Proximity sensor designed to ensure that outdoor UVB levels are not exceeded
- Enabling daily UVB dosage throughout the darker months of the year
- In-built timer simplifies following the circadian rhythm
- Easy to install

Applications

- Indoor

Logistical data

Specification item	Value
Product name	VitaUp Gen 1
EOC	872016929751700
Logistic code 12NC	9290 039 70106
EAN1 (GTIN)	8720169297517
EAN3 (box)	8720169297524
Pieces per box	50

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	18...26.4	Vdc	Performance range
Rated input voltage	24	Vdc	
Rated input current	0.0333	A	@ rated input voltage
Max. input current	0.044	A	@ rated output power @ minimum performance input voltage
Input voltage DC range	10.8...26.4	Vdc	Operational range
Rated input power	0.85	W	@ rated input voltage
Standby Power	<0.25	W	

Electrical data controls input

Specification item	Value	Unit	Condition
Control	DALI, SR		DALI Parts: 101, 102, 207, 224 limited sections of 253: 205, 206, 207
Input	SELV		acc. IEC61347-1

Optical characteristics

| Parameter	Typ	Unit
Radiant power	13	mW
Peak wavelength	307.5	nm
Radiation Angle	120	degrees

Measurement precision ± 20% for the radiant power data and ±1.5nm for the peak wavelength data

Parameter	Value	Typ	Max	Condition
Photobiological Safety*	RG0	At 50cm	At 75cm	According to IEC62471-6

* Typical distance for this device is defined at 50cm according to IEC62471-6

Beam shape

The VitaUp module has a batwing optical distribution, ideal for irradiating wide areas uniformly.

Polar intensity diagram

(mW/sr/W) 0° L.O.R.= 1.01
— 0-180°   — 90-270°
— 45-225° Imax
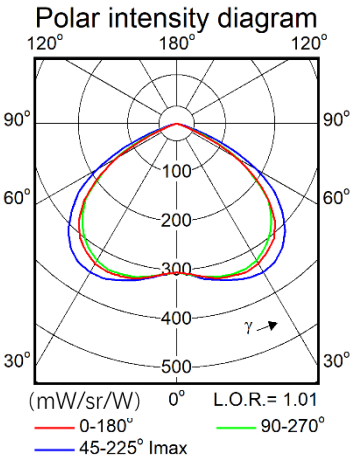
Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.25…0.75/18…24	mm2 /AWG	Solid wire
	0.3…0.5/20…22	mm2 /AWG	Stranded wire
Input wire strip length	7.5…8.5	mm	
Control wire cross-section	0.25…0.75/18…24	mm2 /AWG	Solid wire
	0.3…0.5/20…22	mm2 /AWG	Stranded wire
Control wire strip length	7.5…8.5	mm	

Wire Diagram
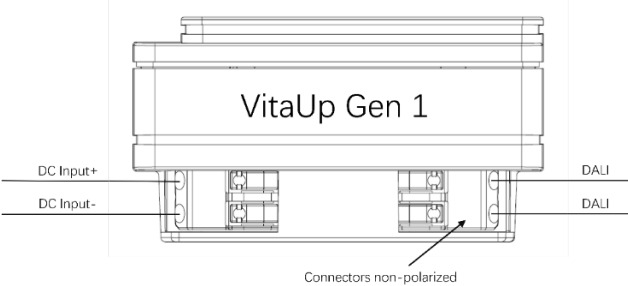
Isolation

Insulation per IEC61347-1	Input	DA-interface	Housing (front)	Housing (side)
Input	–	Double	No	No
DA-interface	Double	–	Double	No *
Housing (front)	No	Double	–	–
Housing (side)	No	No *	–	–

* For discrete installations the DALI connector must be covered, e.g. by a housing like CMP. For more information, please refer to the design-in guide

Dimensions and weight

Specification item	Value
Overall Dimensions	49.6mm x 18.8mm x 27.1 mm (LxWxH)
Housing (Luminaire Hole)	44 mm x 17 mm (LxW)
Net Weight per Piece	16 g
Volume required Inside Luminaire	50 mm x 19 mm x 24 mm (LxWxH)
Color	White
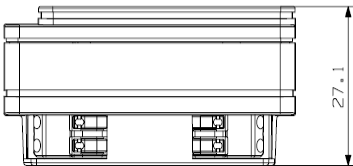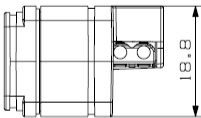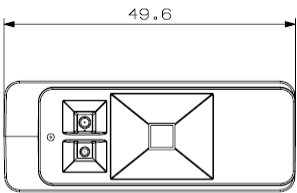
Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-10...+45	ºC	
Tcase-nominal	40	ºC	Nominal case temperature at 25ºC ambient
Tcase-max	55	ºC	Maximum temperature measured at Tcase-point
Tcase-life	55	ºC	Measured at Tcase-point
Relative humidity	10...90	%	Non-condensing

Lifetime

Specification item	Value	Unit	Condition
Radiant power maintenance (R70B50)	>25,000	hours	
Electronics lifetime	>25,000	hours	Measured temperature at Tcase-point is Tcase-max. Maximum failures = 10%

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+85	ºC	
Relative humidity	5...95	%	Non-condensing

Features

Specification item	Value		Condition
Hot wiring	Yes		VitaUp may be hot-wired with SELV supply
Suitable for fixtures with protection class	I & II		According to IEC60598
Overtemperature protection	Yes		

Surge immunity

Specification item	Value	Unit	Condition
DALI port surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
DALI port surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info

Certificates and Standards
CE
UKCA
DALI 2
IEC/EN 62471-6

Environmental
RoHS/REACH

Specification item	Value
Ingress Protection classification (IP)	20
Dimming	No, not dimmable and not compatible with Touch Dim or PWM installations

This product has integrated light source, and if the light fails the whole unit must be replaced

Safety, Warnings & Instructions

Install & use the product as specified in the Design-in Guide.

Exposure to excessive levels of UV-B radiation can pose a significant risk to both humans and animals, potentially resulting in skin damage and corneal injury. It is imperative that individuals take necessary precautions to avoid such exposure. Additionally, when installing the module, it is essential to ensure that the devices are installed according to this Design-in guide and utilized correctly. The VitaUp modules come equipped with warning text and signs on their packaging to inform the installer that UVB is emitted by the module. It is crucial to follow these warnings and instructions to mitigate the risks associated with the use of these modules.

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