PHILIPS

ArenaVision LED gen3 Floodlight

BVP427/BVP417


BVP427 HGB


BVP417 HGB

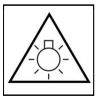

BVP427 BV


BVP417 BV





1


RG1

Type	LIFE L80*	led color	Flux (lm) +/- 7% Ta=25ºC	W +/-10%	outdoor	indoor	outdoor	kg HGB	kg BV
BVP427	50000h	957	180000	1578	20° C	-	-40° C	33	26,5
BVP427	50000h	957	180000	1578	25° C	-	-40° C	33	26,5
BVP427	50000h	957	173000	1497	30° C	-	-40° C	33	26,5
BVP427	50000h	957	165000	1415	35° C	-	-40° C	33	26,5
BVP427	50000h	957	158000	1332	40° C		-40° C	33	26,5
BVP427	50000h	957	150000	1250	45° C		-40° C	33	26,5
BVP427	50000h	957	150000	1250	-	35° C	-40° C	33	26,5
BVP427	50000h	957	130000	1043	-	45° C	-40° C	33	26,5
BVP427	50000h	857	195000	1578	20° C	-	-40° C	33	26,5
BVP427	50000h	857	195000	1578	25° C	-	-40° C	33	26,5
BVP427	50000h	857	187000	1497	30° C	-	-40° C	33	26,5
BVP427	50000h	857	180000	1415	35° C	-	-40° C	33	26,5
BVP427	50000h	857	171000	1332	40° C		-40° C	33	26,5
BVP427	50000h	857	163000	1250	45° C		-40° C	33	26,5
BVP427	50000h	857	163000	1250	-	35° C	-40° C	33	26,5
BVP427	50000h	857	142000	1043	-	45° C	-40° C	33	26,5
BVP427	50000h	757	221000	1578	20° C	-	-40° C	33	26,5
BVP427	50000h	757	221000	1578	25° C	-	-40° C	33	26,5
BVP427	50000h	757	212000	1497	30° C	-	-40° C	33	26,5
BVP427	50000h	757	204000	1415	35° C	-	-40° C	33	26,5
BVP427	50000h	757	195000	1332	40° C		-40° C	33	26,5
BVP427	50000h	757	186000	1250	45° C		-40° C	33	26,5
BVP427	50000h	757	186000	1250	-	35° C	-40° C	33	26,5
BVP427	50000h	757	162000	1043	-	45° C	-40° C	33	26,5

*Lumen maintenance at median useful life 50Khrs is L80

Printed in Spain
Data subject to change without notice
Keep for future reference: www.philips.com/lighting

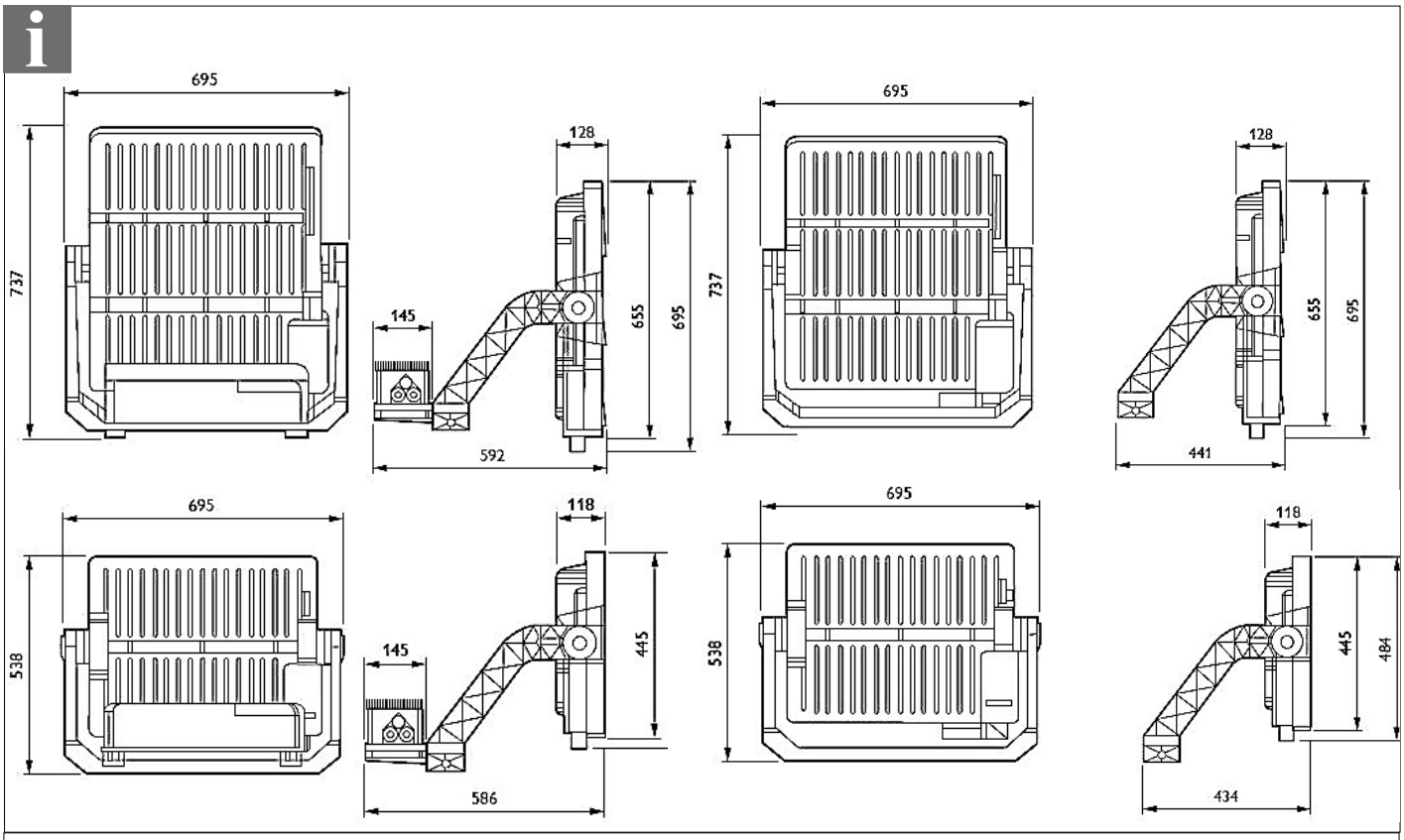
Type	LIFE L80*	led color	Flux (lm) +/- 7% Ta=25ºC	W +/-10%	outdoor	indoor	outdoor	kg HGB	kg BV
BVP417	50000h	957	120000	1052	20° C	-	-40° C	29	22
BVP417	50000h	957	120000	1052	25° C	-	-40° C	29	22
BVP417	50000h	957	115000	998	30° C	-	-40° C	29	22
BVP417	50000h	957	110000	943	35° C	-	-40° C	29	22
BVP417	50000h	957	105000	888	40° C		-40° C	29	22
BVP417	50000h	957	100000	833	45° C		-40° C	29	22
BVP417	50000h	957	100000	833	-	35° C	-40° C	29	22
BVP417	50000h	957	87000	695	-	45° C	-40° C	29	22
BVP417	50000h	857	130000	1052	20° C	-	-40° C	29	22
BVP417	50000h	857	130000	1052	25° C	-	-40° C	29	22
BVP417	50000h	857	125000	998	30° C	-	-40° C	29	22
BVP417	50000h	857	120000	943	35° C	-	-40° C	29	22
BVP417	50000h	857	114000	888	40° C		-40° C	29	22
BVP417	50000h	857	109000	833	45° C		-40° C	29	22
BVP417	50000h	857	109000	833	-	35° C	-40° C	29	22
BVP417	50000h	857	95000	695	-	45° C	-40° C	29	22
BVP417	50000h	757	147000	1052	20° C	-	-40° C	29	22
BVP417	50000h	757	147000	1052	25° C	-	-40° C	29	22
BVP417	50000h	757	142000	998	30° C	-	-40° C	29	22
BVP417	50000h	757	136000	943	35° C	-	-40° C	29	22
BVP417	50000h	757	130000	888	40° C		-40° C	29	22
BVP417	50000h	757	124000	833	45° C		-40° C	29	22
BVP417	50000h	757	124000	833	-	35° C	-40° C	29	22
BVP417	50000h	757	108000	695	-	45° C	-40° C	29	22

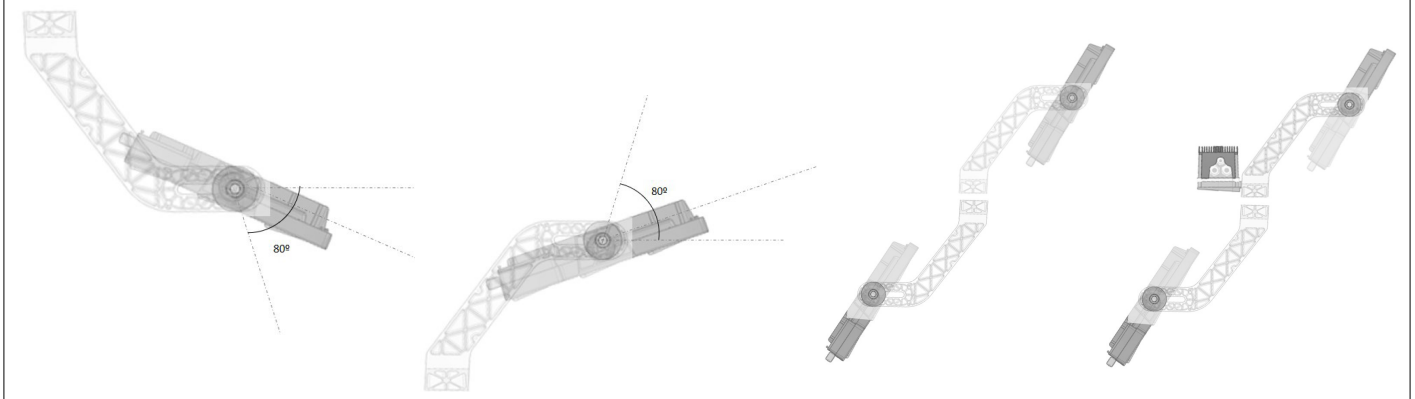
*Lumen maintenance at median useful life 50Khrs is L80

SCx

Configuration	0º	15º	30º	40º	50º	65º	90º
BVP417 HGB	0,18	0,22	0,25	0,27	0,27	0,29	0,33
BVP417 HGB+ EXTERNAL LOUVER	0,23	0,25	0,27	0,26	0,25	0,25	0,32
BVP417 BV	0,10	0,17	0,21	0,24	0,26	0,30	0,34
BVP417 BV+EXTERNAL LOUVER	0,13	0,18	0,22	0,25	0,25	0,26	0,32
BVP427 BV	0,12	0,20	0,29	0,33	0,33	0,41	0,48
BVP427 BV+EXTERNAL LOUVER	0,14	0,24	0,29	0,31	0,34	0,38	0,44
BVP427 HGB	0,20	0,27	0,30	0,32	0,33	0,41	0,47
BVP427 HGB+EXTERNAL LOUVER	0,23	0,30	0,32	0,32	0,34	0,39	0,44

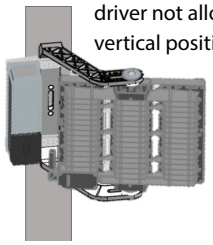
Any modification on the luminaire will cancel the warranty

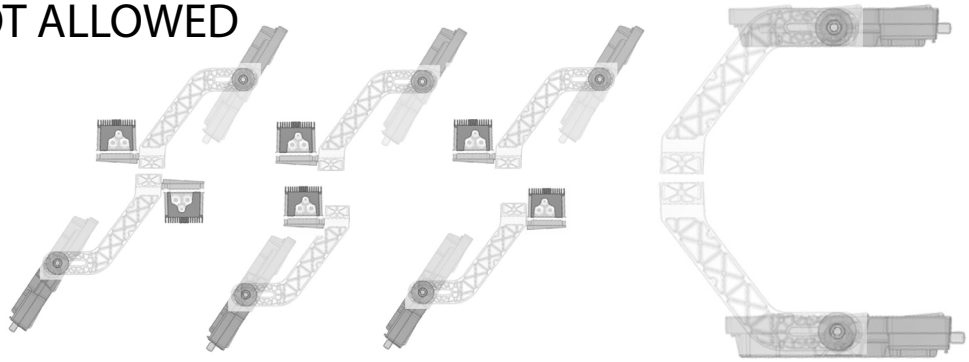




POSITIONS NOT ALLOWED

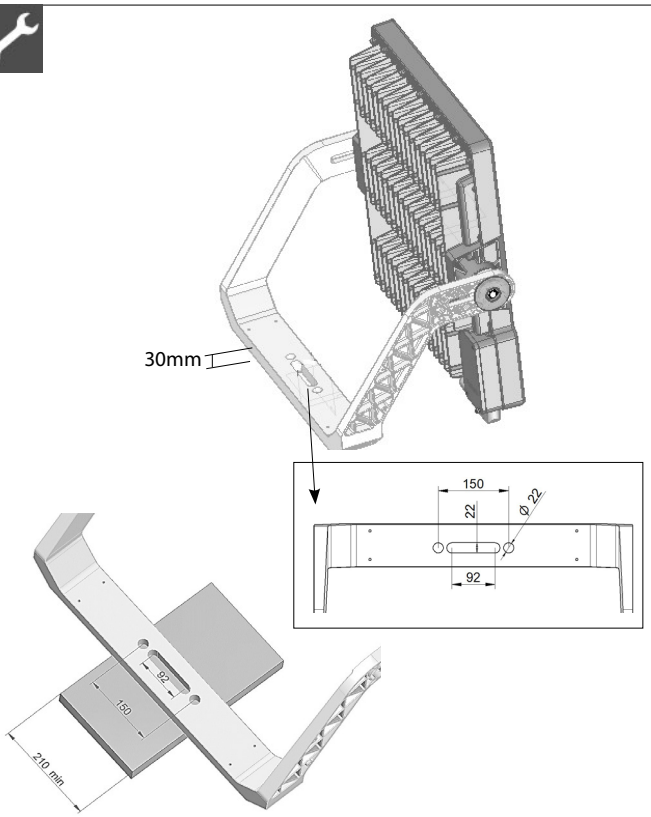
Luminaire with or without driver not allowed in vertical position





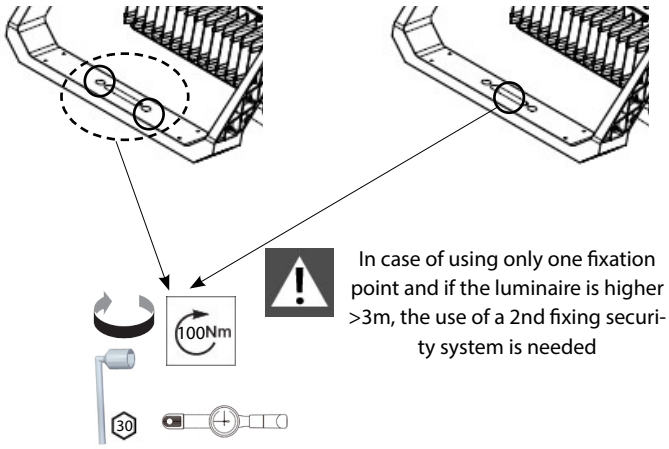
In luminaire version for swimming pool applications (SWP):
Fixture mounting system (including fasteners) needs to be compliant with EN 13451-1 or MIS 1203
Mounting system and product shall be a subject of periodical inspection at least every year.
Any rusted element needs to be replaced.

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.



2XM20 SCREW

1XM20 SCREW

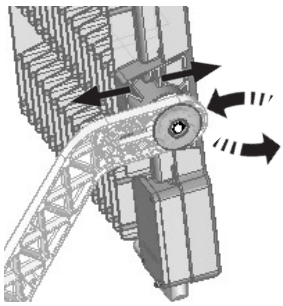


In case of using only one fixation point and if the luminaire is higher >3m, the use of a 2nd fixing security system is needed

FLAT WASHER AND GROWER WASHER NEEDED ACCORDING TO DIN9021

The fasteners have to resist environment corrosion.
Stainless steel screws not recommended and protective coating might be applied.

1



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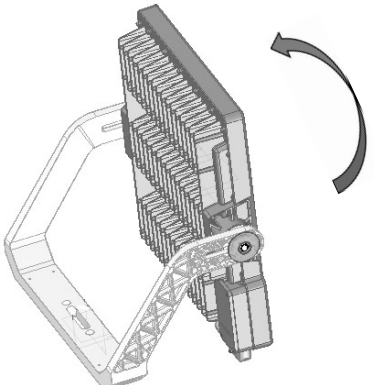

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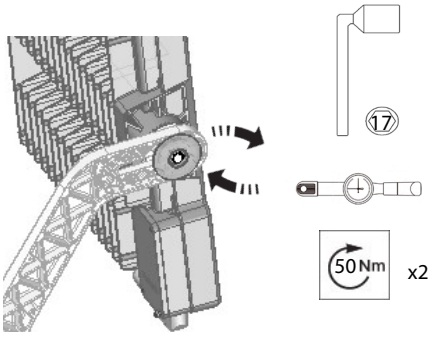

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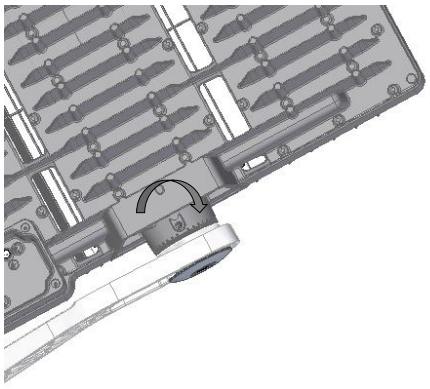
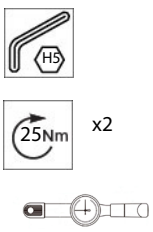
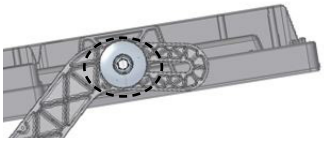
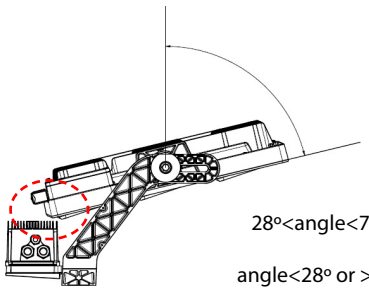




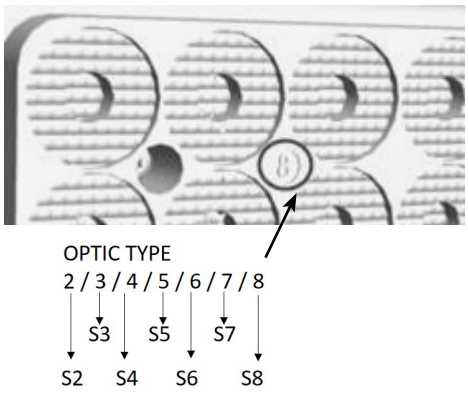
If luminaire placed as shown, rotation angle limited:

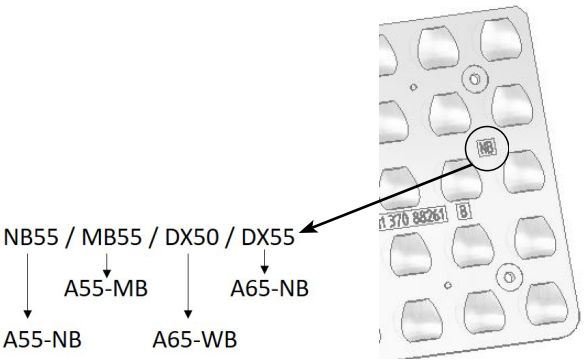




28°<angle<76° ✗

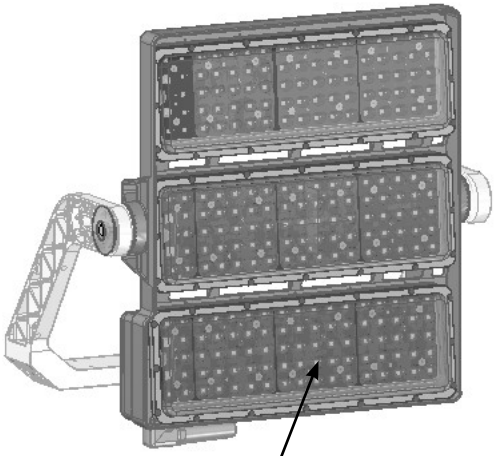
angle<28° or >76° ✓





CLEANING

1. Remove physical elements that can block and modify the aircooling (heatsink fins)
2. Cleaning Frequency (depending on installation place and environment)



Cleaning Interval (months)	Pollution Category		
	High	Medium	Low
12	0,91	0,92	0,93
18	0,90	0,91	0,92
24	0,88	0,89	0,91
30	0,85	0,88	0,9
36	0,83	0,87	0,9

CLEANING TECHNIQUES

1. Always test the sample with the cleaner and according to the chosen technique before
2. Do not leave cleaners on plastic parts for a long period
3. Do not apply cleaners in direct sunlight or at elevated temperatures

RECOMMENDED
Mild Soap
Lukewarm Water
Soft/Grid free Cloth
Sponge
Water Cleaning

FORBIDDEN
Abrasive Cleaners
Highly Alkaline Cleaners
Aromatic Solvents
Halogenated Solvents
Brushes
Steel Wood
Squeegess, razorblades

The list is not exhaustive

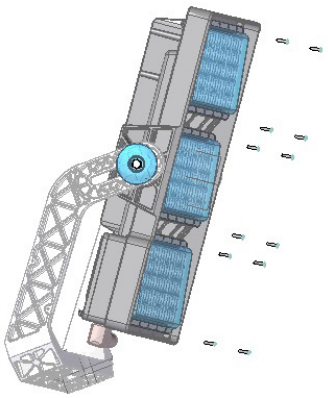
ACCESORIES

LOUVRE (External louvre (1 per module, 2 or 3 pieces per luminaire)

12NC: 912300024402 ZVP417 EXTERNAL LOUVER

1

12x screws to be removed



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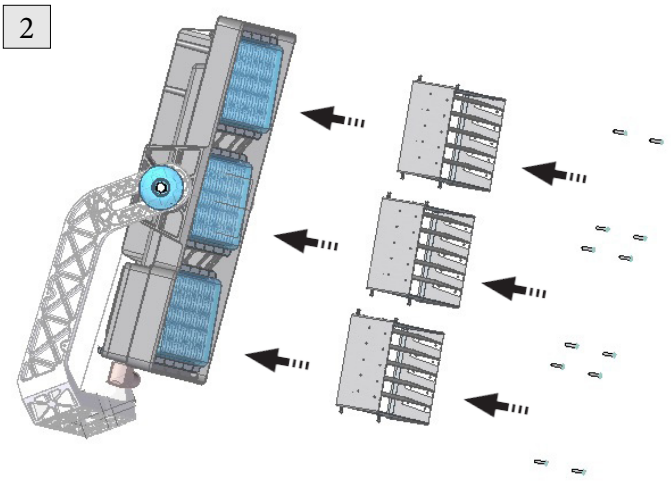
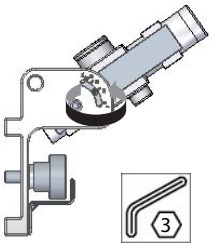


12x screws

PRECISION AIMING DEVICE

12NC: 912300024403 ZVP417 AIMING DEVICE GEN3

1



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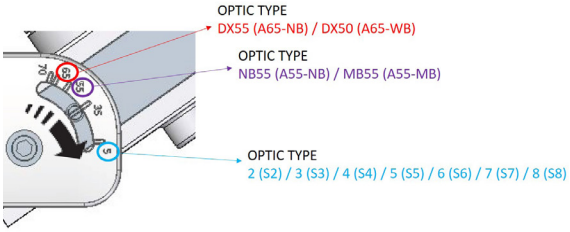

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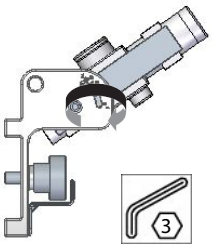
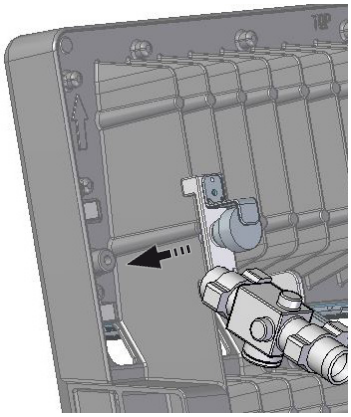


TURN TO CORRECT POSITION

BVP427

4a



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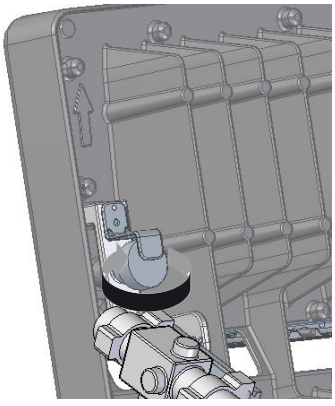

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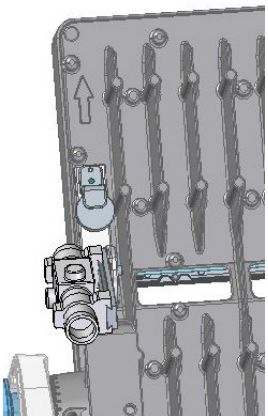
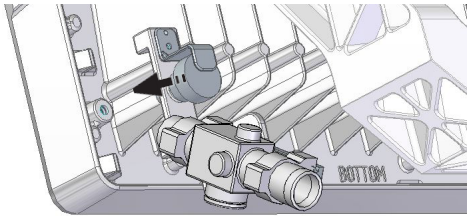


BVP417

4b



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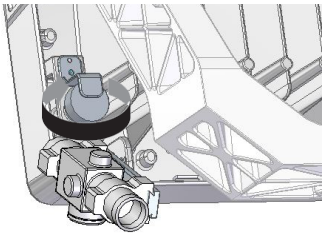

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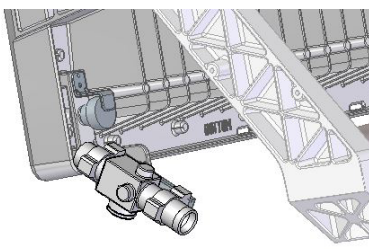
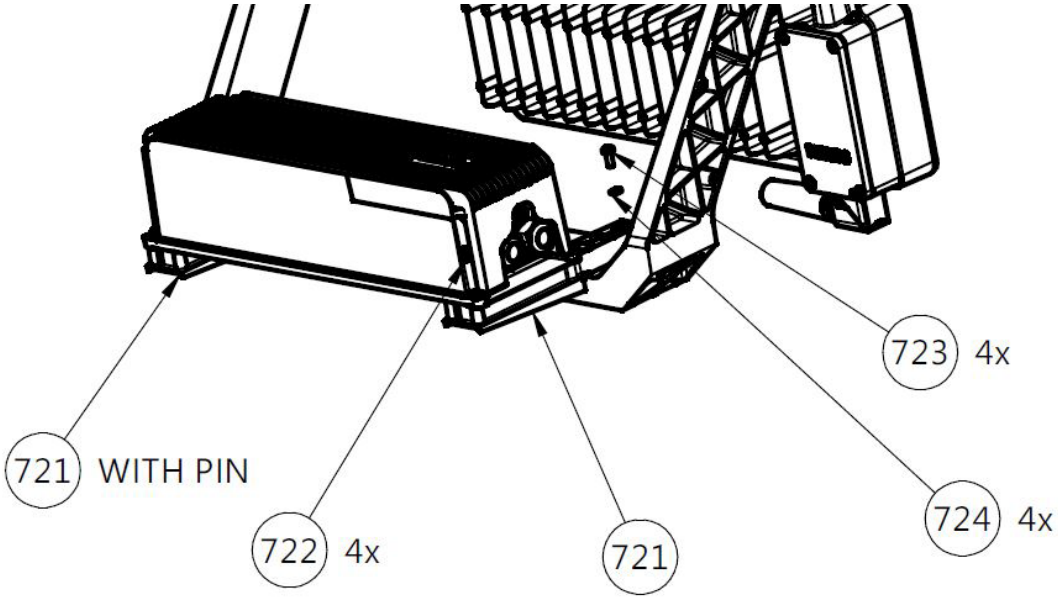


CHANGE FROM BV TO HGB

12NC

912300024353	A AVOV G2/3 RAW DRV SUPPORT AND CABLE
912300024354	A AVOV G2/3 LGR DRV SUPPORT AND CABLE
912300024355	A AVOV G2/3 DGR DRV SUPPORT AND CABLE



COMPONENT		TORQUE	TOOL
721	DRIVER BRACKET	-	
722	SCREW M5	3.5 Nm	T25
723	SCREW M6	5 Nm	T30

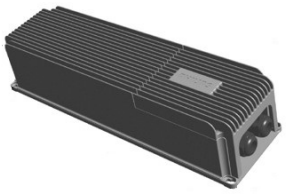
CONNECTIONS IN NEXT SLIDES

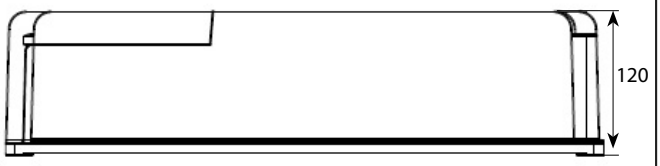
PHILIPS

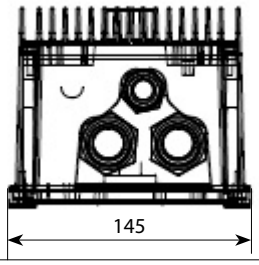
ArenaVision LED gen3 Driver box

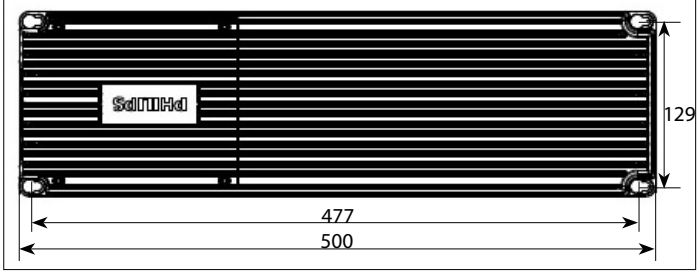
EVP400 DMX

EVP400









6,3

Driver box Features

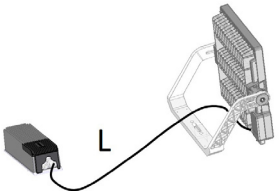
Iin (Mains 220V-240V)	8A
Iin (Mains 380V-400V)	4.6A
Inrush (220V-240V)	20 A during 160 µs
Inrush (380V-400V)	30 A during 160 µs
Power Factor	> 0.95 at full power
Surge Protection*	10kV Com. Mode 6kV Dif. Mode
Maximum Heat Disipation**	75W

* A surge protection device should be integrated in the installation before the luminaire

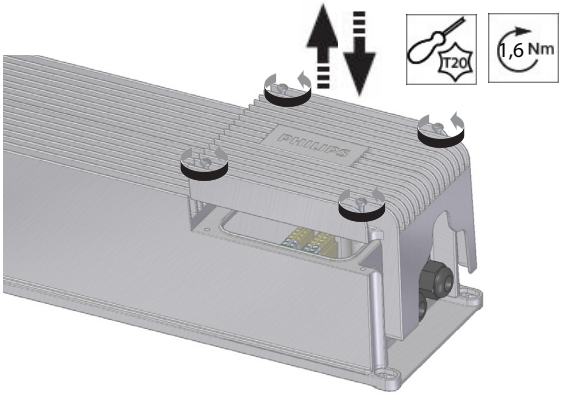
** According to the maximum heat disipation, a thermal study should be done for a cabinet installation

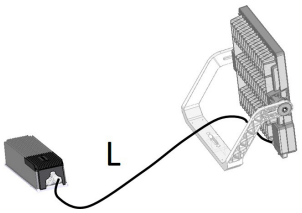
Distances between driver and luminaire

L<50	page 9
50<L<200	page 12



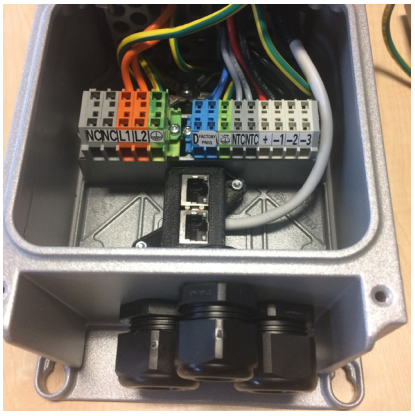
ELECTRICAL CONNECTION L< 50m

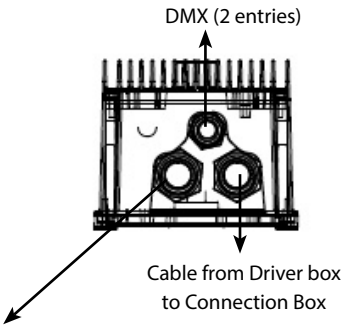


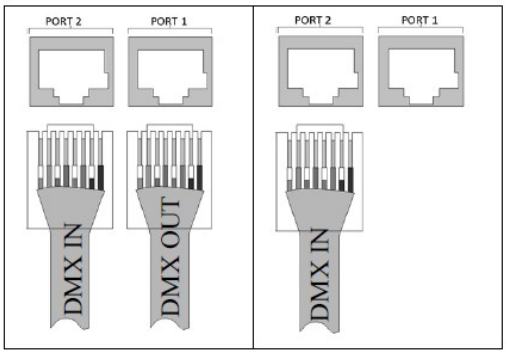


PIN #	COLOR	FUNCTION
1	WHITE/ORANGE	DATA 1+
2	ORANGE	DATA 1-
3	WHITE/GREEN	DATA 2+ (Optional)
6	GREEN	DATA 2- (Optional)
4	BLUE	Not assigned
5	WHITE/BLUE	Not assigned
7	WHITE/BROWN	Signal Common for data 1 (0 V)
8	BROWN	Signal Common for Data 2 (0 V)
9	DRAIN	

Pin numbering and color in accordance with ANSI/TIA/EIA-568 scheme T568B

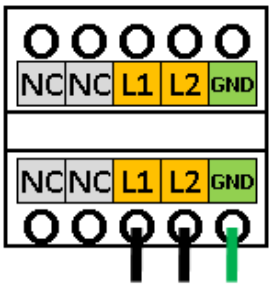






TERMINATOR RJ45 (not supplied by Philips)
For safety reasons the terminator must have isolated housing

MAINS

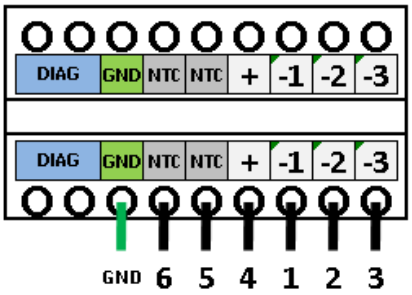


220-240V	380-400V
NC=No connect L1=L L2=N GND=Ground	NC=No connect L1 L2 GND=Ground
From monophasic to multiphasic (bi/tri) no need to change anything in the driver	

DMX

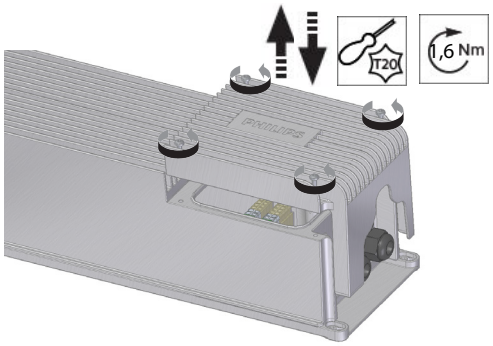
1) Remove plugs only when needed
2) Slip the DMX cable without RJ45 plug through the cable gland
3) Crimp the RJ45 modular plug on the DMX cable inside the driver

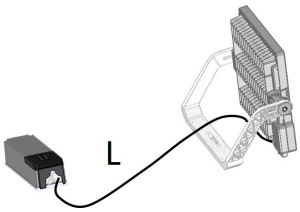
CONNECTION BOX

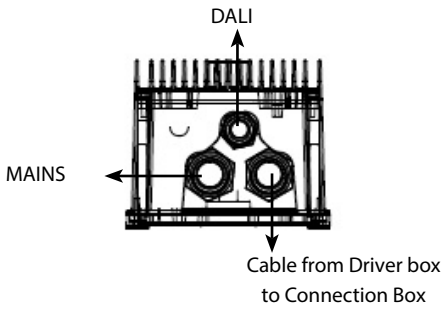


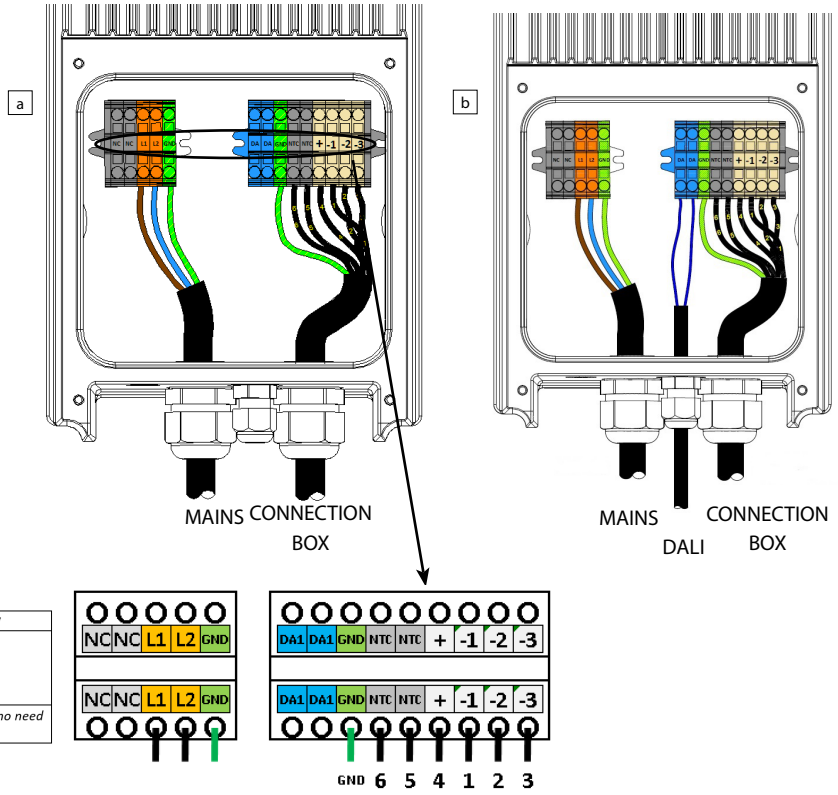
		Ø min (mm)	Ø max (mm)	TORQUE	MAX VOLTAGE SUPPORTED	RECOMMENDED CABLE TYPE	CONNECTOR SECTION MAX
DMX Cable	M20	2 x Ø6mm +/-1mm	NA	4.5 Nm	1000 V	2x ETHERNET shielded cable CAT5	
MAINS Cable	M25	Ø13	Ø18	5 Nm	1000 V	H07RN-F 450V/750V	4 mm2
Connection Box	M25	Ø13	Ø18	4.5 Nm	1000 V	H07RN-F 450V/750 or A11VV U-600/1000V	2.5 mm2

ELECTRICAL CONNECTION L< 50m (only on special requests)







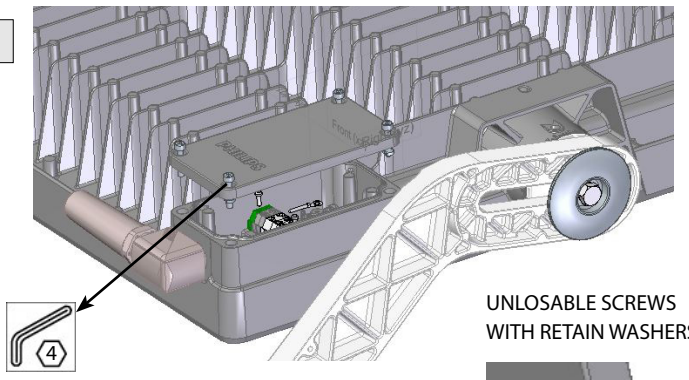


220-240V	380-400V
NC=No connect	NC=No connect
L1=L	L1
L2=N	L2
GND=Ground	GND=Ground
From monophasic to multiphasic (bi/tri) no need to change anything in the driver	

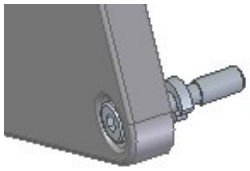
		Ø min (mm)	Ø max (mm)	TORQUE	MAX VOLTAGE SUPPORTED	RECOMMENDED CABLE TYPE	CONNECTOR SECTION MAX
DALI Cable	M20	Ø6	Ø12	3 Nm	1000 V	H05VV-F (3182-Y) 2 core x 1.5mm or H05VV-F (3182-Y) 2 core x 2.5mm	2.5 mm2
MAINS Cable	M25	Ø13	Ø18	5 Nm	1000 V	H07RN-F 450V/750V	4 mm2
Connection Box	M25	Ø13	Ø18	4.5 Nm	1000 V	H07RN-F 450V/750 or A11VV U-600/1000V	2.5 mm2

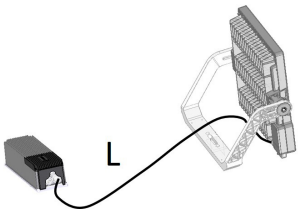
WIRING CONNECTION BOX L< 50m

1



UNLOSABLE SCREWS
WITH RETAIN WASHERS



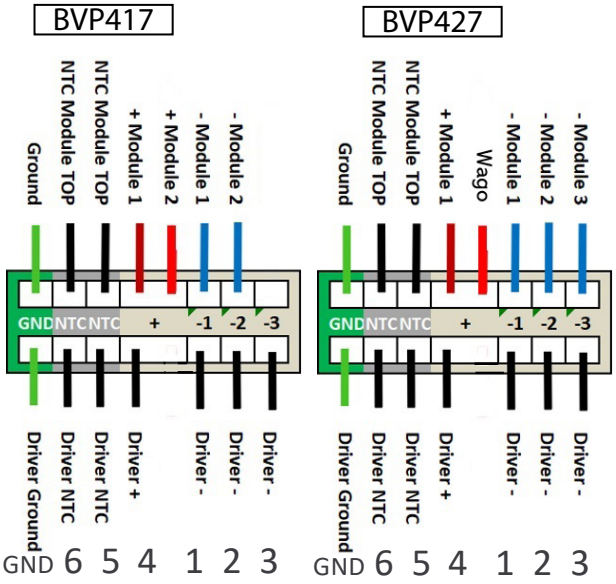


CABLE NOT SUPPLIED BY
PHILIPS IN VERSION BV

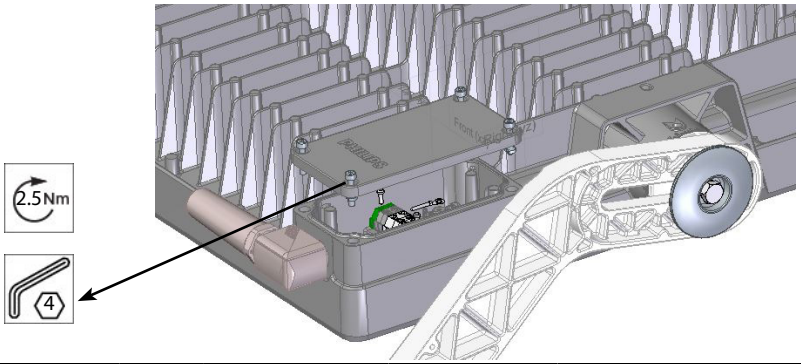
2

1. Pull the gland outwards
2. Insert the cable
3. Press back to original 90deg position with a click
4. Apply torque

3

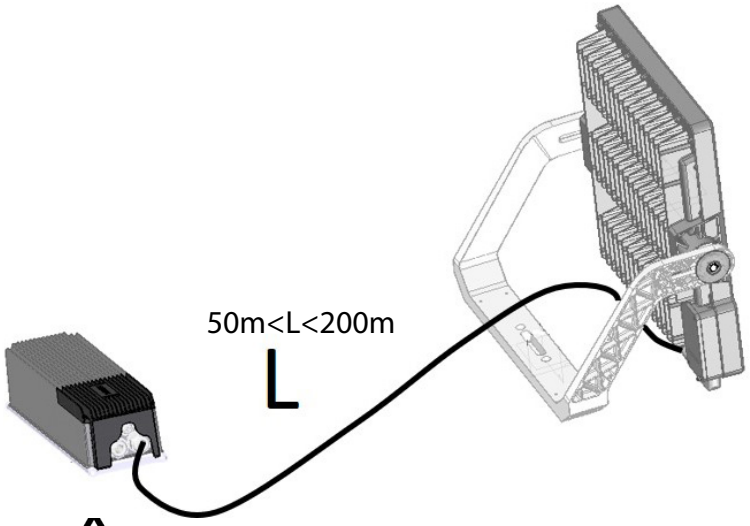


4



		CABLE DIAMETER RANGE	MAX VOLTAGE SUPPORTED	RECOMMENDED CABLE TYPE
L<25m	7G1.5	Ø13-Ø18	1000 V	H07RN-F 450V/750 or A11VV U-600/1000V
L<50m	7G2.5	Ø13-Ø18	1000 V	H07RN-F 450V/750 or A11VV U-600/1000V
50m<L<200m	8G2.5	Ø13-Ø18	1000 V	H07RN-F 450V/750 or A11VV U-600/1000V

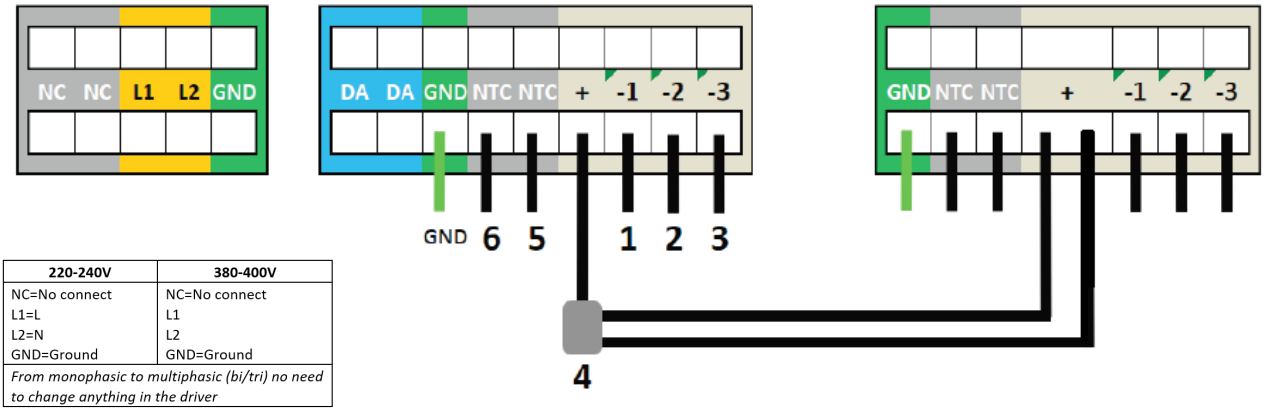
ELECTRICAL CONNECTION 50m < L< 200m



CABLE NOT SUPPLIED BY PHILIPS IN VERSION BV
8G2,5 mm2 cable

DRIVER

LUMINAIRE



220-240V	380-400V
NC=No connect L1=L L2=N GND=Ground	NC=No connect L1 L2 GND=Ground
From monophasic to multiphasic (bi/tri) no need to change anything in the driver	

50m < L < 200m

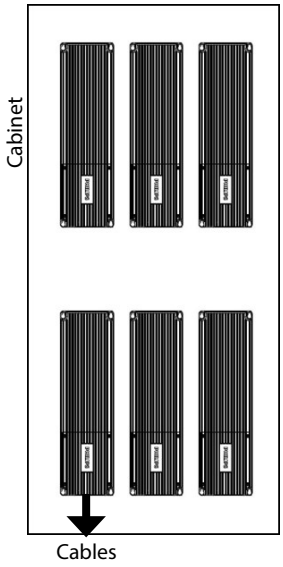
Cable 8 x 2,5mm²

3-POLE TERMINAL BLOCK NOT SUPPLIED BY PHILIPS

Installation of drivers boxes on cabinet

ORIENTATION

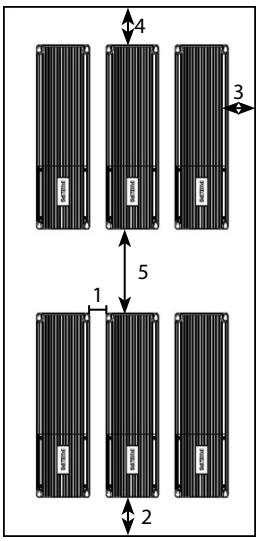
Each driver box in the cabinet has to be in vertical position



DISTANCES

The distances between driver boxes or wall have to be higher than:

Item	Distance
1*	Min 50mm
2**	Min 80mm
3**	Min 50mm
4**	Min 150mm
5*	Min 200mm



* not mandatory if there is an active cooling inside the cabinet. The cooling study must be done
** Recommended distances, but the temperatures inside the cabinet and Tc driver must be checked

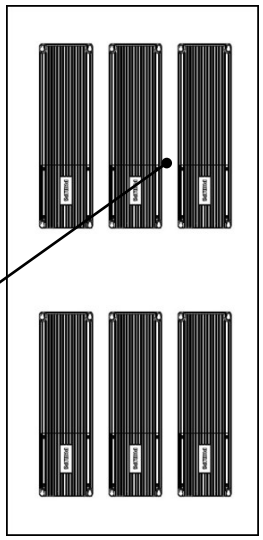
TEMPERATURES

MAXIMUM Relative Humidity:
95% -> Storage & Transport
90% -> Operating (no condensation allowed)

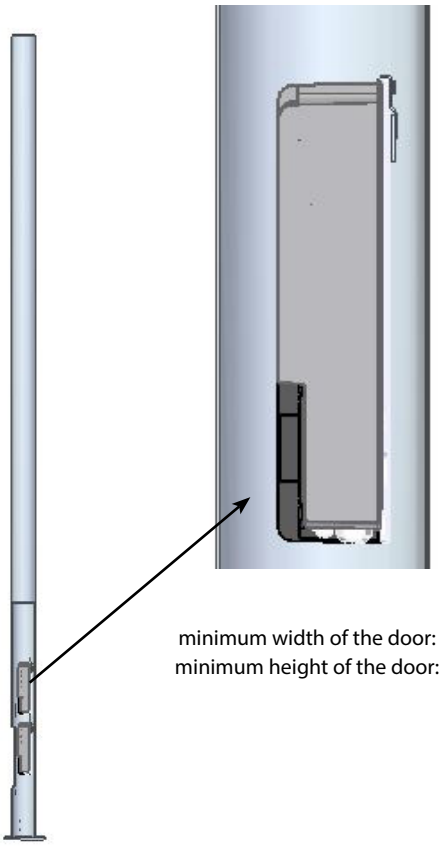
A thermal study must be done in order to respect Tc of the drivers below Tc max
Tc of the driver must be checked

A temperature sensor must be installed inside the cabinet between two driver boxes.
The temperature measured by the sensor has to be lower than 45°C.
We recommend a cabinet protected against solar action.

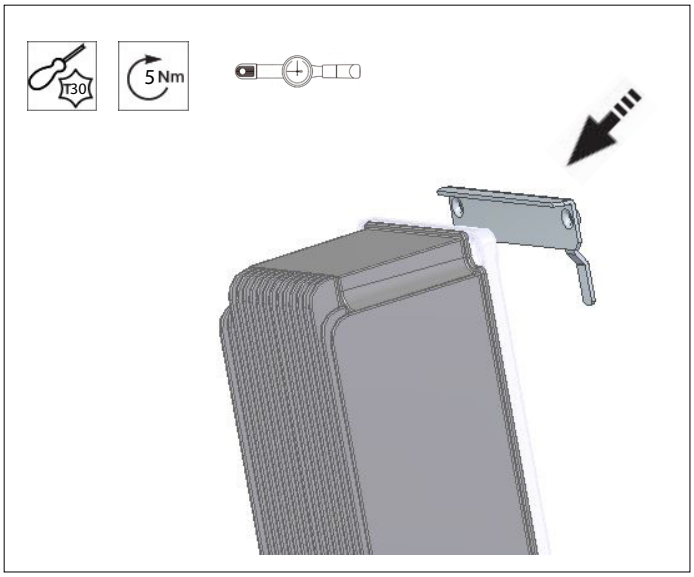
An active cooling can be added in the cabinet to guarantee a maximum temperature of 45°C all along the year



Installation of driver boxes in the mast



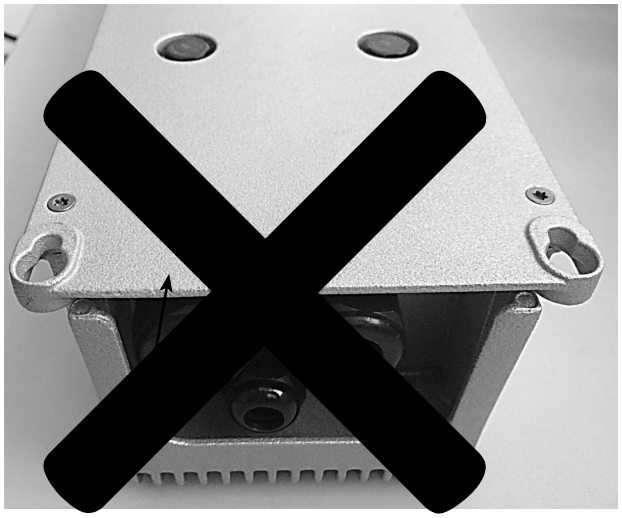
minimum width of the door: 125mm
minimum height of the door: 600mm



Depending of the driver fixation in the mast, please select the most suitable hook.

Installation of driver boxes on the bracket or in horizontal position

Breathers cannot be exposed directly to water



Maximum number of luminaires to be connected to standard circuit breakers (fuse)

BVP417	Mains voltage	Max Nr luminaires connected
MCB 16A A type	220V-240V	2
MCB 16A B type	220V-240V	2
MCB 32A A type	220V-240V	5
MCB 32A B type	220V-240V	5
MCB 16A A type	380V-400V	5
MCB 16A B type	380V-400V	5

BVP427	Mains voltage	Max Nr luminaires connected
MCB 16A A type	220V-240V	1
MCB 16A B type	220V-240V	1
MCB 32A A type	220V-240V	3
MCB 32A B type	220V-240V	3
MCB 16A A type	380V-400V	3
MCB 16A B type	380V-400V	3