



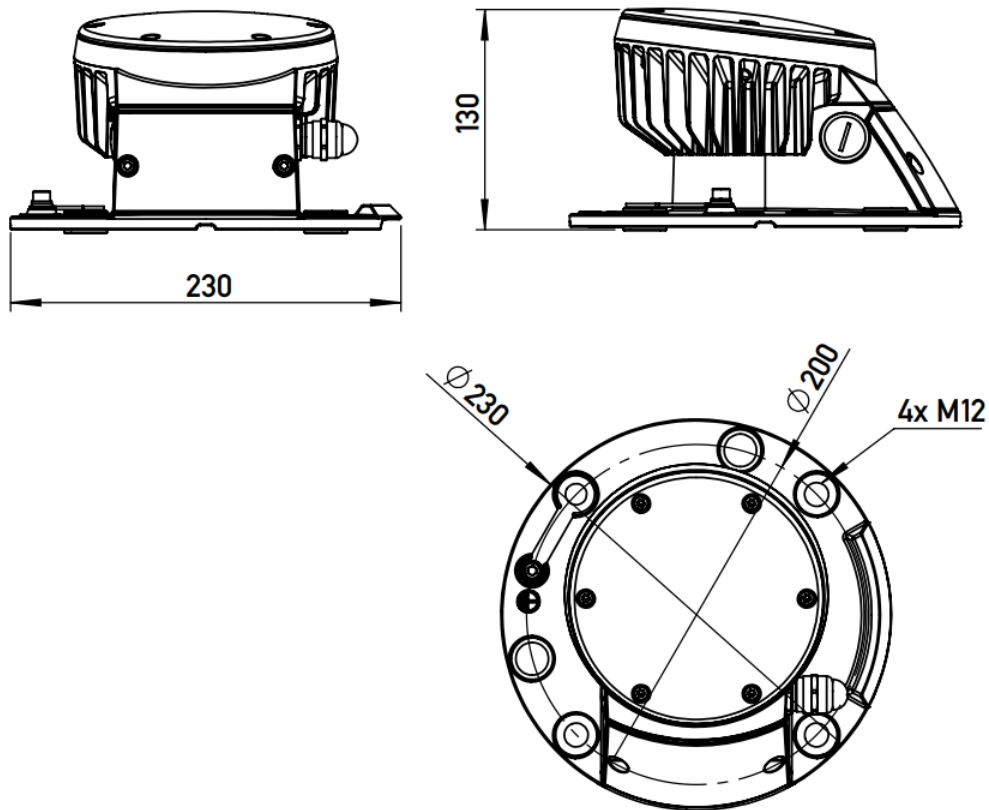
DATASHEET ORIGINALNAi ALS-500-SA

- Maintenance-free LED technology
- Anodised, powder-coated aluminium housing
- Power consumption 40 W at maximum operating luminous intensity (70 000 cd)
- Beam angle 8° (FWHM)*
- Non-NAi version for connection to non-NAi bus systems

The ALS 500-SA fulfils the WSV's requirements of the technical standard TF 11 "Tower illumination of wind turbines for arrival and departure corridors for helicopters in offshore wind farms".

The floodlight illuminates the tower so that a flight path is provided to the helicopter landing platform.

Dimensions & Weight



Diameter	230 mm
Height	130 mm
Diameter optics	155 mm
Weight	2.72 kg

Material

Housing (Device foot, head, cover for socket)	Anodised, powder-coated aluminium (AlSi12)
Lens	PMMA
Cover LED insert	Makrolon® AL2647
Cable gland	Nickel-plated brass
Earthing connection	Stainless steel 1.4571
Cover indicator LED	PMMA
Insulation sleeve	PA
Seals	TPE, injection-molded
Pressure compensation valve for socket and housing	PTFE membrane

Optical System

Light colour	4750 K
Maximum luminous intensity (along the optical axis)	70 000 cd
Beam angle	8° FWHM
Uniformity [E_{min} : E_{max}]	≥ 1 : 10

Components



- 1. Device head
- 2. Second cable gland M20 or blanking plug
- 3. Housing cover for socket with spring terminal block
- 4. Cable gland M20
- 5. Device foot with integrated socket and third cable gland M20 or blanking plug on the bottom side
- 6. Earthing connection

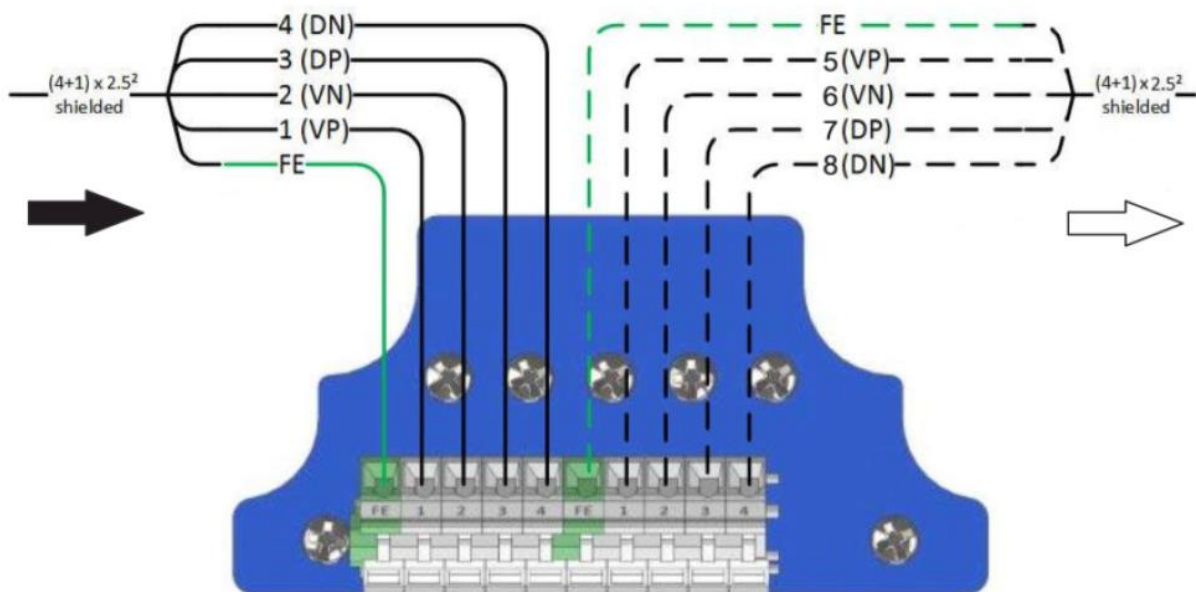


Note: All housing components including the cable glands satisfy the IP67 degree of protection requirements according to IEC 60529. During connection and assembly, ensure that no moisture or dirt penetrates into the open socket.

	Size	For cable diameter	Key width
EMC Cable Gland	M20 x 1.5	7.5 – 14.0 mm	24 mm

Electrical Connection

Electrical connection	Spring terminal block, max. 2.5 mm ²
Operating voltage V_{IN}	DC 19 to DC 30 V
Power consumption ($V_{IN} = 24$ V DC – max. intensity)	40 W



1	VPI	Power supply input (Positive)
2	VN	Power supply input (Negative)
3	DP	N.C.
4	DN	Control
5	VPO	Power supply output (Positive – to next device)
6	VN'	Power supply output (Negative – to next device)
7	DP'	N.C.
8	DN'	Control

Environmental Conditions

Regulations	IEC 60945, device type 'exposed'
Ambient temperature (operation)	-40 °C to 55 °C
Ambient temperature (storage / transport)	-40 °C to 70 °C
Humidity (operation / storage / transport)	Max. 95 % acc. To IEC 60945
Atmospheric pressure (operation / storage / transport)	80 kPa to 108 kPa
Degree of protection (acc. to IEC 60529)	IP67

Electrical Safety and Health

Protection class	Class III
Overvoltage protection	Class III
Pollution degree	3

Reliability

MTBF (Electronics and LEDs) (acc. To SN 29500-1)	480 000 h
Minimum LED lifetime	100 000 h

Mechanical Requirements

Vibration testing sinusoidal vibrations	acc. to IEC 60945
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EMC Compliance

EMC requirements		Applied standard
Emission	Radiation emission	EN 60945:2002
Interference immunity	Electrostatic discharge (ESD) Electromagnetic fields Fast transients (burst) Conducted disturbances	EN 60945:2002
	High energy transients (surge)	EN 61000-6-2:2005

Ordering Information

Item Number	Product ID	Details
30231100	ALS-500-SA	Non-NAi version for connection to non-NAi bus systems