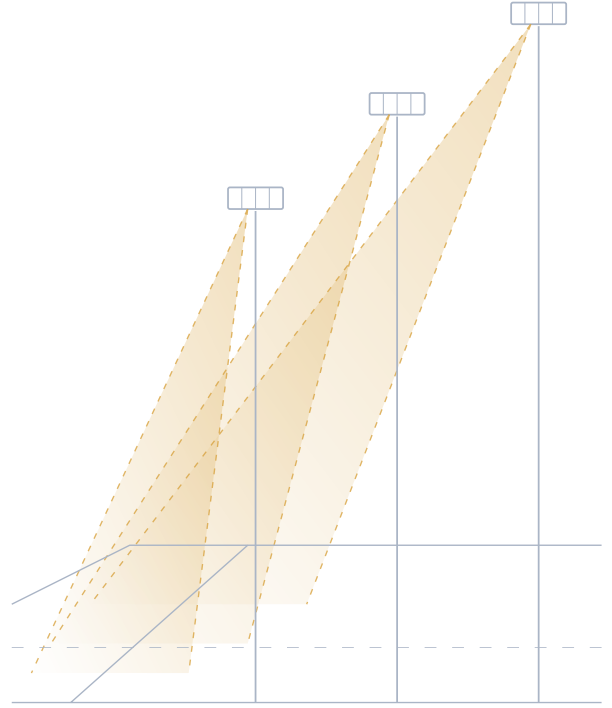


ALKAN® LIGHTING · ENGINEERING · MONTENEGRO

Lighting & Engineering Catalogue 2026

ALKAN® LED luminaires, DIALux calculations and technical support, electrical, automation and HVAC engineering, from one accountable team in Montenegro.



PRODUCT & SERVICE GROUPS



ROAD & STREET



FLOODLIGHT & SPORTS



INDUSTRIAL



PORT & OUTDOOR



GREENHOUSE



ELECTRICAL



AUTOMATION & KNX



HVAC



Official ALKAN® distributor
Montenegro



CE marked, ENEC certified
ALKAN® luminaire ranges



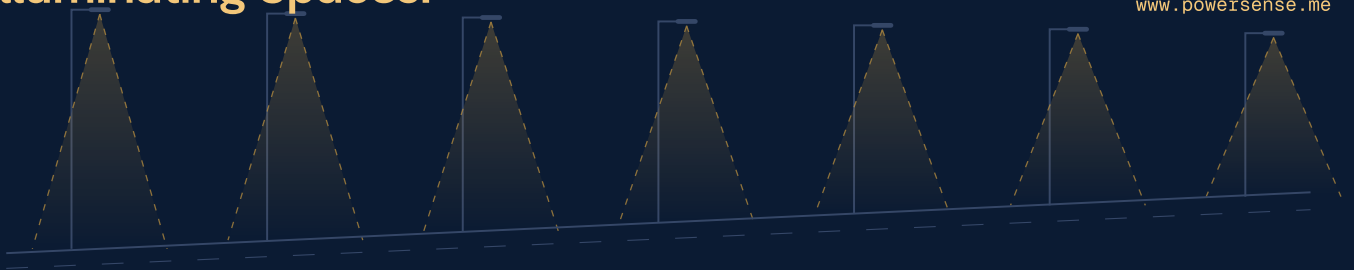
UEFA & TVF references
UEFA-approved stadiums, TVF-approved halls

Powering Systems.
Illuminating Spaces.

+382 67 228 940

info@powersense.me

www.powersense.me





ABOUT POWERSENSE

Light and engineering, without borders.

Founded in 2019 in Kotor, Montenegro. We supply ALKAN® luminaires as official distributor and engineer the systems around them, from first calculation to handover.

12

ALKAN® luminaire categories

57

ALKAN® luminaire models in this catalogue

5

Departments, lighting to HVAC

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SPORTS LIGHTING CREDENTIALS · 01 · VOLLEYBALL

ALKAN® light in halls approved by the Turkish Volleyball Federation (TVF).

ALKAN® floodlights are in use in the TVF-approved official match halls of Türkiye's European-champion women's national volleyball team.



TVF-approved official match halls

Halls approved by the Turkish Volleyball Federation (TVF) for the women's national team's official matches.



5 ALKAN® volleyball hall references

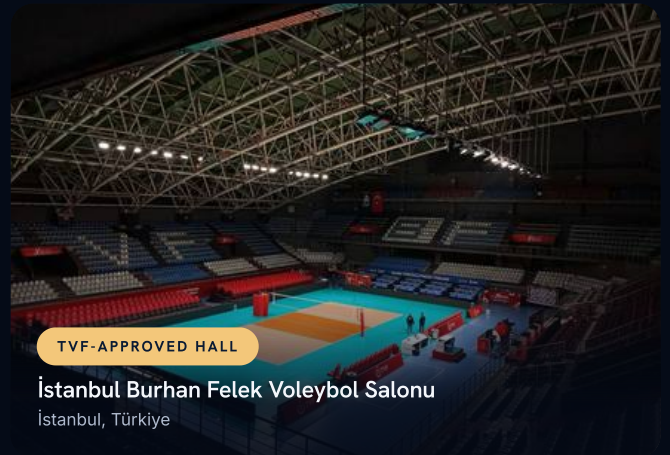
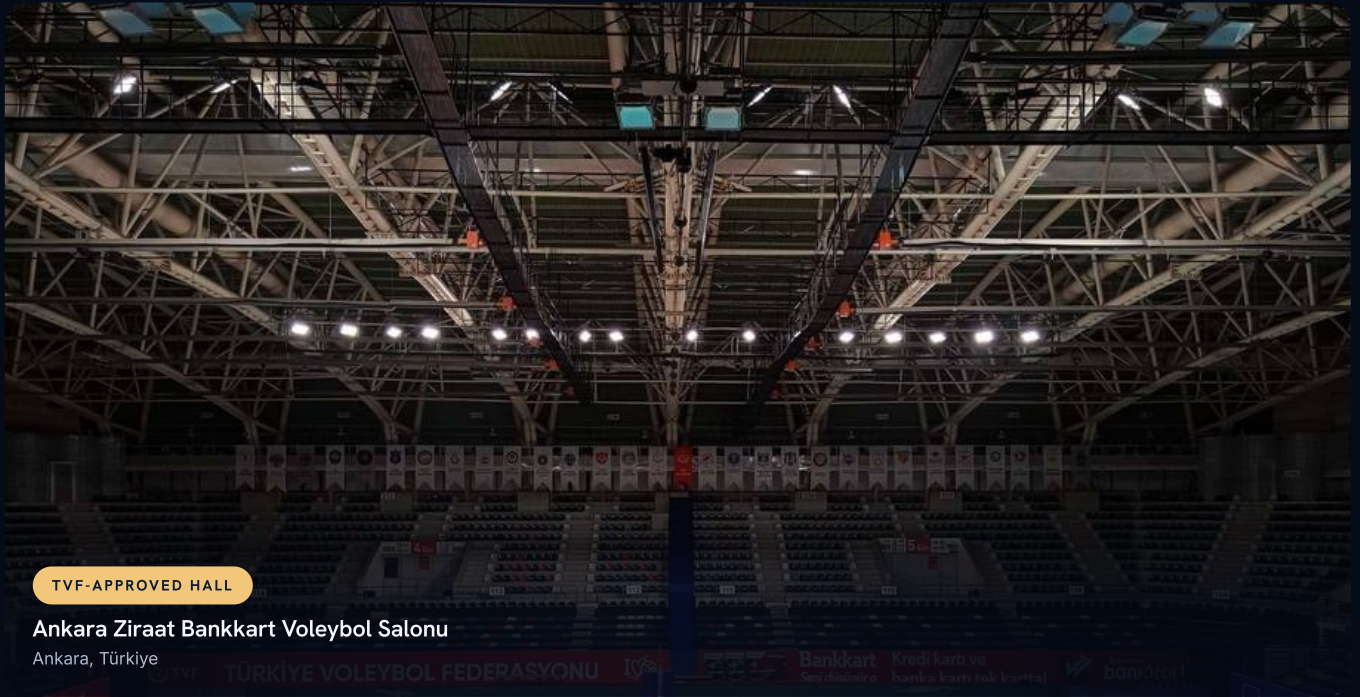
Ankara (2), İstanbul, Bursa and İzmir.



ALKAN® floodlights in operation

In use in all five halls for official matches.

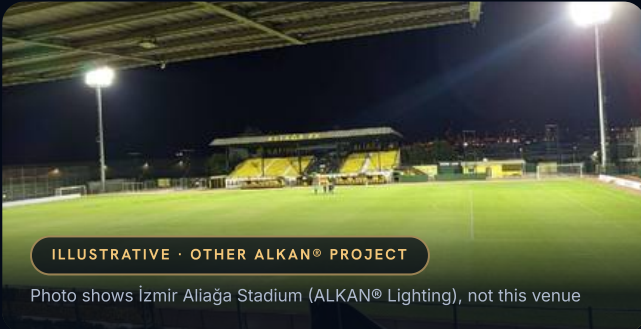
ALKAN® REFERENCE PROJECTS · TVF-APPROVED VOLLEYBALL HALLS



Reference projects of ALKAN® Lighting (manufacturer). Official match halls of the Turkish women's national volleyball team, approved by the Turkish Volleyball Federation (TVF).
Photos: ALKAN® Lighting.

SPORTS LIGHTING CREDENTIALS · 02 · FOOTBALL

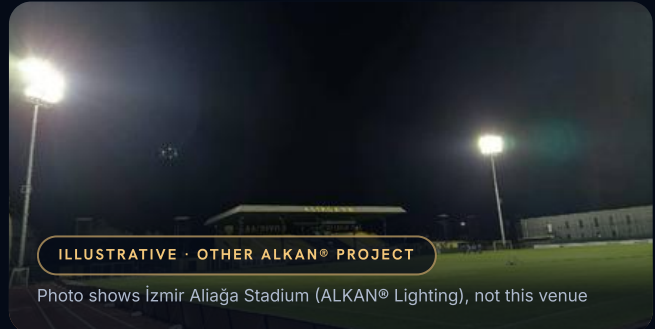
ALKAN® lighting in 4 UEFA-approved stadiums in Türkiye.



UEFA

Kasımpaşa Recep Tayyip Erdoğan Stadium

İstanbul, Türkiye · UEFA Europa League play-off, Galatasaray v Randers, 26 Aug 2021



UEFA

Spor Toto Akhisar Stadium

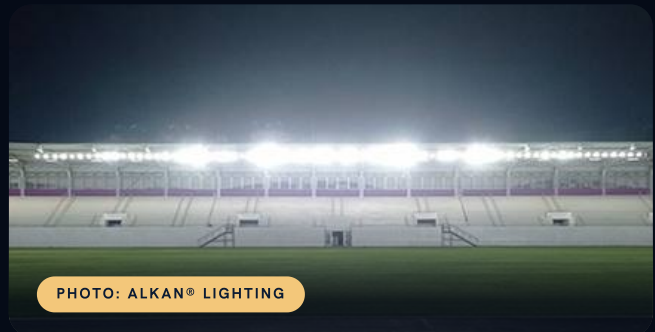
Akhisar, Manisa, Türkiye · UEFA Europa League group stage, Akhisarspor home matches, 2018/19



UEFA

Erzincan 13 Şubat City Stadium

Erzincan, Türkiye · UEFA Women's EURO 2025 qualifier, Türkiye v Azerbaijan, 31 May 2024



UEFA

Sinop City Stadium

Sinop, Türkiye · FIFA Women's World Cup 2027 UEFA qualifier, Türkiye v Switzerland, 18 Apr 2026

ALKAN® reference projects. Each venue has hosted official matches in UEFA competitions or UEFA-organised qualifiers (sources: UEFA, TFF match records).

ALKAN® REFERENCE PROJECTS · STADIUMS



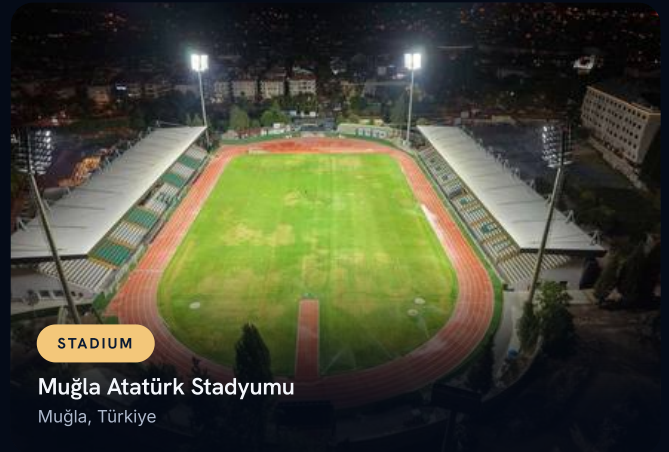
STADIUM

Erzurum Kazım Karabekir Stadyumu
Erzurum, Türkiye



STADIUM

İzmir Aliğa Stadyumu
İzmir, Türkiye



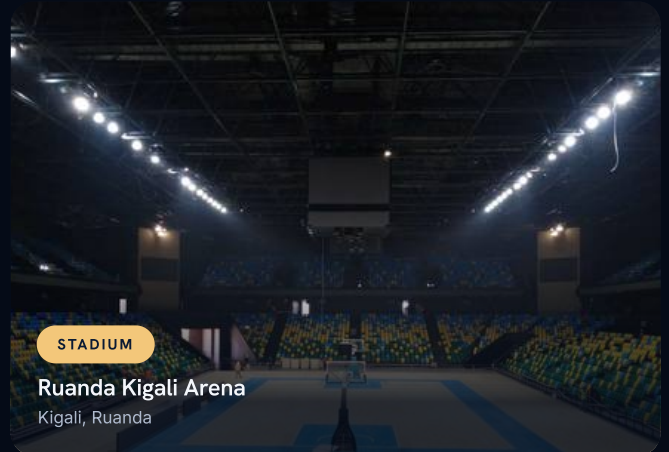
STADIUM

Muğla Atatürk Stadyumu
Muğla, Türkiye



STADIUM

Van Şehir Stadyumu
Van, Türkiye



STADIUM

Ruanda Kigali Arena
Kigali, Ruanda

134

sports projects in ALKAN®'s reference list

General gallery of ALKAN® stadium references; the UEFA-approved venues are listed separately on the facing page.
Photos: ALKAN® Lighting.



OFFICIAL DISTRIBUTOR

Official ALKAN® Lighting distributor for Montenegro.

The full ALKAN® range for contractors, investors and public tenders in Montenegro, the Balkans and Europe.



MANUFACTURER

ALKAN® Lighting, Şile / İstanbul

Founded by Fevzi Alkan in 1967 · source: ALKAN® 2026 catalogue

1967

Company founded

2010

ALKAN® brand

20,000 m²

Indoor production

86,000 m²

Site area

ISO 9001

ISO 14001

ISO 45001

ENEC

CE

CB SCHEME

TEDAŞ

YERLİ MALİ

WHAT YOU GET FROM POWERSENSE

One accountable team, from calculation to handover.



Supply for tenders & contractors

Quotation, selection and supply of ALKAN® luminaires.



Datasheets & certificates

For every product offered; photometric files where published.



DIALux lighting calculations

DIALux lighting calculations and technical support for your project.



Logistics from the factory

Produced in Türkiye, delivered to your site.



After-sales & warranty

Handled in line with ALKAN® warranty terms.



Engineering on site

Installation, commissioning, panels and controls.

Warranty conditions, lead times and certifications depend on the specific product and are confirmed in each offer. Manufacturer facts: ALKAN® 2026 catalogue, "About us".



ALKAN® ASTRO HIGH POWER · 53.AKPRL 3A1500

204,000
lumens.

DATASHEET VALUES

The ASTRO 3A1500.

Verified photometry.

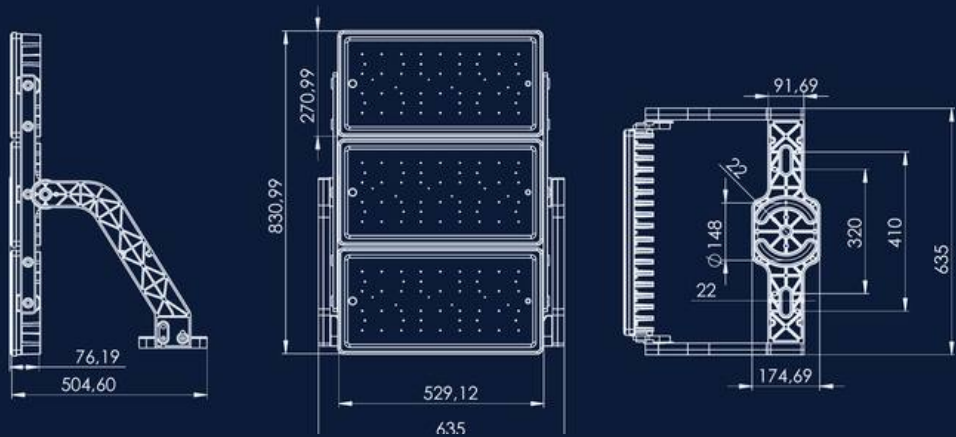
1500 W Power	204,000 lm Luminous flux	136 lm/W Efficacy	IP66 Protection
------------------------	------------------------------------	-----------------------------	---------------------------



ENEC and ENEC+ (TÜV Rheinland): declared photometry independently verified.

Power	1500 W
Luminous flux	204,000 lm
Efficacy	136 lm/W
Optics	10° / 17° / 25° / 30°
Colour temperature	4000 K
Colour rendering	Ra>70
Impact resistance	Body: IK09 · Glass: IK08
Ingress protection	IP66
Controls	1-10V DIM, DALI, DMX, RDM, PWM
Supply	186–264 VAC, 50/60 Hz
Ambient	–40 °C ... +50 °C
Body	Aluminium injection, RAL 7016 anthracite
Glass	4 mm extra-clear tempered
Weight	37.40 kg
W × L × H	635 × 831 × 505 mm

TECHNICAL DRAWING · mm · SOURCE: ALKAN® DATASHEET



Tolerances: power +2.5%, luminous flux -10%, efficacy -5%. Standards on datasheet: EN 60598-1 / EN 60598-2-5 / LM-79 / LM-80.

ASTRO HIGH POWER · SERIES

Eight models, 300 W to 1500 W.



ASTRO HIGH POWER · 300 W

53.AKPRL 1A0300



Power	300 W
Flux	33,600 lm
Efficacy	112 lm/W
Optics	Symmetric / asymmetric (optional)
CCT	3000 K / 4000 K / 5700 K / 6500 K
CRI	Ra>90 · TLCI 90
IK	body IK10 · glass IK08
Controls	0-10V DIM, DALI
Weight	7.40 kg
W×L×H	390 × 410 × 126 mm



ASTRO HIGH POWER · 500 W

53.AKPRL 1A0500




Power	500 W
Flux	68,000 lm
Efficacy	136 lm/W
Optics	10° / 17° / 25° / 30°
CCT	4000 K
CRI	Ra>70
IK	body IK09 · glass IK08
Controls	1-10V DIM, DALI, DMX, RDM, PWM
Weight	11.30 kg
W×L×H	550 × 359 × 174 mm



ASTRO HIGH POWER · 650 W

53.AKPRL 2A0650



Power	650 W
Flux	73,350 lm (25°) · 70,000 lm (40°)
Efficacy	112.8 / 107.7 lm/W
Optics	25° / 40°
CCT	4000 K / 5700 K / 6500 K
CRI	Ra>90
IK	body IK09 · glass IK08
Controls	DALI
Weight	28.20 kg
W×L×H	635 × 730 × 510 mm



ASTRO HIGH POWER · 690 W

53.AKPRL 2A0690 (TLCI 95)



Power	690 W
Flux	92,460 lm (17°) · 82,110 lm (25°)
Efficacy	134 / 119 lm/W
Optics	17° / 25°
CCT	4000 K / 5700 K / 6500 K
CRI	TLCI 95
IK	body IK10 · glass IK08
Controls	0-10V DIM, DALI, DMX, RDM, PWM
Weight	—
W×L×H	635 × 730 × 510 mm



ASTRO HIGH POWER · 1000 W

53.AKPRL 2A1000



Power	1000 W
Flux	136,000 lm
Efficacy	136 lm/W
Optics	10° / 17° / 25° / 30°
CCT	4000 K
CRI	Ra>70
IK	body IK09 · glass IK08
Controls	1-10V DIM, DALI, DMX, RDM, PWM
Weight	26.30 kg
W×L×H	635 × 707 × 505 mm



ASTRO HIGH POWER · 1200 W

53.AKPRL 2A1200



Power	1200 W
Flux	168,000 lm
Efficacy	140 lm/W
Optics	40°
CCT	4000 K / 5700 K / 6500 K
CRI	Ra>70
IK	body IK09 · glass IK08
Controls	0-10V DIM, DALI, DMX, RDM, PWM
Weight	28.20 kg
W×L×H	635 × 730 × 510 mm

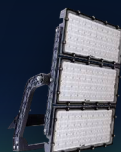


ASTRO HIGH POWER · 1200 W

53.AKPRL 2A1200 (Ra>80)



Power	1200 W
Flux	160,800 lm (10°, 17°) · 157,200 lm (25°) · 145,200 lm (40°)
Efficacy	134 / 134 / 131 / 121 lm/W
Optics	10° / 17° / 25° / 40°
CCT	4000 K / 5700 K / 6500 K
CRI	Ra>80
IK	body IK10 · glass IK08
Controls	0-10V DIM, DALI, DMX, RDM, PWM
Weight	28.20 kg
W×L×H	635 × 730 × 510 mm



ASTRO HIGH POWER · 1500 W

53.AKPRL 3A1500



Power	1500 W
Flux	204,000 lm
Efficacy	136 lm/W
Optics	10° / 17° / 25° / 30°
CCT	4000 K
CRI	Ra>70
IK	body IK09 · glass IK08
Controls	1-10V DIM, DALI, DMX, RDM, PWM
Weight	37.40 kg
W×L×H	635 × 831 × 505 mm

Certification

ENEC (TÜV Rheinland) for type 53.AKPRL xAy, 300–1500 W.
ENEC+ for 1A0500, 2A1000 and 3A1500.

Common to all models

Aluminium body, 4 mm extra-clear tempered glass, IP66, -40 °C to +50 °C, 186–264 VAC.

Weight of 2A0690 (TLCL 95) not stated on the product page. Tolerances: power +2.5%, flux -10%, efficacy -5%.

SPORTS & AREA FLOODLIGHTS

Floodlighting that turns every match into an event.

Stadiums, sports fields and wide outdoor areas, calculated to EN 12193 for the required class.

up to 65%

Energy saving vs 250 W metal-halide

up to 50%

Energy saving vs 400 W sodium-vapour

LED sports retrofit with PLANET and ALFA floodlights, planned in DIALux to EN 12193.



ALKAN® · 100-240 W

Planet

Power	100-240 W
Flux	15,000-36,000 lm
Efficacy	137-157 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 150-400 W

Alfa

Power	150-400 W
Flux	18,750-54,000 lm
Efficacy	125-155 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 200-300 W

Astro 5x5

Power	200-300 W
Flux	29,000-45,000 lm
Efficacy	135-155 lm/W
CCT	3000 K / 4000 K / 5700 K / 6500 K
CRI	Ra>70 / Ra>80
IP · IK	IP66 · Body IK10, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	100,000 h (L90B10) (L90B10 / L70B10)



ALKAN® · 100-150 W

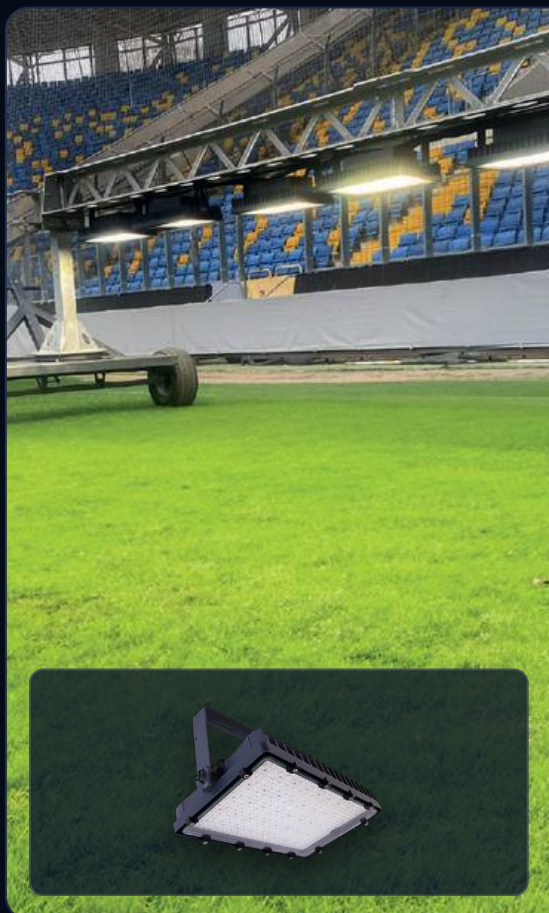
Planet 3X4

Power	100-150 W
Flux	14,600-21,150 lm
Efficacy	132-152 lm/W
CCT	3000 K / 4000 K / 5700 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	100,000 h (L70B10) / 100,000 h (L90)

GROW & TURF LIGHTING

Specified in photons, not lumens.

-
- 01 **A spectrum built for photosynthesis**
400–700 nm, with 660 nm deep red in both GREENA and PURELED Sera.
-
- 02 **Rated by photon flux**
GREENA: 750 to 1,062.5 $\mu\text{mol/s}$ at 2.5 $\mu\text{mol/J}$, 300 to 425 W.
-
- 03 **Turf that holds up all year**
GREENA rigs keep stadium turf durable through low-light winters.



ALKAN® · 300-425 W

Greena



Turf growth luminaire that combines 5700 K white light with 660 nm deep-red LEDs to support photosynthesis, root development and turf durability, for year-round use including winter.

Power	300-425 W
CCT	5700 K
IP · IK	IP66 · Body IK10, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	50,000 h
Versions	300, 330, 400, 425 W
Photon flux	750-1,062.5 $\mu\text{mol/s}$ · 2.5 $\mu\text{mol/J}$
Control	ON/OFF and dimming, DALI optional



ALKAN® · 100 W

Pureled Sera



Full-spectrum luminaire that provides the wavelengths plants need for photosynthesis and growth. Its 660 nm deep-red component is particularly effective during flowering.

Power	100 W
Flux	15,105 lm
Efficacy	151 lm/W
IP	IP65
Ambient	-20 °C to +35 °C
Lifetime	60,000 h

ROAD & STREET LIGHTING

Road lighting engineered for the road class.

EN 13201 assigns every road a class (M, C or P). We calculate luminance, uniformity and threshold increment in DIALux before a luminaire is chosen.



ALKAN® · 140-200 W

Venüs Small

Power	140-200 W
Flux	20,300-30,000 lm
Efficacy	140-155 lm/W
CCT	3000 K / 4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 30-80 W

Venüs Nano

Power	30-80 W
Flux	4,620-11,760 lm
Efficacy	142-168 lm/W
CCT	3000 K - 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 100-120 W

Venüs Mini

Power	100-120 W
Flux	15,500-18,360 lm
Efficacy	153-155 lm/W
CCT	3000 K - 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 50-150 W

Merkur

Power	50-150 W
Flux	8,400-22,050 lm
Efficacy	135-168 lm/W
CCT	3000 K / 4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 60-100 W

Kataner Road & Street

Power	60-100 W
Flux	8,400-13,000 lm
Efficacy	130-140 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 50-100 W

Neva Mini

Power	50-100 W
Flux	7,900-15,300 lm
Efficacy	141-158 lm/W
CCT	3000 K - 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 100-150 W

Neva Small

Power	100-150 W
Flux	15,500-22,950 lm
Efficacy	139-165 lm/W
CCT	3000 K - 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 40-60 W

Aydora

Power	40-60 W
Flux	4,800-6,600 lm
Efficacy	110-120 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h

IP66; operating range -40 °C to +45 °C or +50 °C by model. ENEC HN 69291507 covers Venüs Nano (30-80 W), Venüs Mini (100-120 W), Venüs Small (140-200 W) and Merkur (60-150 W); Aydora: HN 69291784 (40-60 W).

OUTDOOR, CANOPY & PORT LIGHTING

TEDAŞ-approved versions and outdoor specialists.

Road luminaires in the versions approved by TEDAŞ, Türkiye's electricity distribution authority, plus floodlights and high-power luminaires for canopies, yards, ports and logistics areas, calculated to EN 13201 and EN 12464-2.

TEDAŞ-APPROVED ROAD LUMINAIRES

Model	Power	Flux	Efficacy	IP
Venüs Nano Mid Power	29–79 W	4,263–11,885 lm	147–156 lm/W	IP66
Venüs Mini	64–100 W	9,152–15,227 lm	143–153 lm/W	IP66
Venüs Small	137–190 W	21,509–30,590 lm	137–161 lm/W	IP66
Neva Nano	39–58 W	5,265–8,272 lm	135–142 lm/W	IP66
Neva Mini	93 W	13,625 lm	147 lm/W	IP66

TEDAŞ approval certificates as published by ALKAN® for the models listed. Full datasheets and certificate copies are supplied with every offer.

WHERE THEY FIT



Roads & streets

Venüs and Neva TEDAŞ versions, calculated to the EN 13201 road class (M, C or P).



Petrol-station canopies

Planet Canopy, IP66 · IK08, 80–140 W.



Ports, yards & logistics areas

Nano Projektör and Pureled Outdoor, planned to EN 12464-2 for outdoor workplaces.



Warehouses & halls

Hawk high-bay with anodised body for salt-laden air, 75–115 W.



ALKAN® · 80-140 W

Planet Canopy

Power	80-140 W
Flux	10,000-17,500 lm
Efficacy	125-153 lm/W
CCT	4000 K
CRI	Ra>70
IP · IK	IP66 · IK08
Ambient	-20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 30-80 W

Nano Projektör

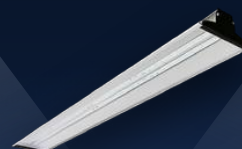
Power	30-80 W
Flux	4,410-12,240 lm
Efficacy	130-166 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +50 °C
Lifetime	60,000 h



ALKAN® · 92-369 W

Pureled Outdoor

Power	92-369 W
Flux	15,000-60,500 lm
Efficacy	164 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP	IP65
Ambient	-20 °C to +35 °C
Lifetime	60,000 h



ALKAN® · 75-115 W

Hawk

Power	75-115 W
Flux	9,375-13,570 lm
Efficacy	118-125 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	60,000 h

INDUSTRIAL & HIGH-BAY LIGHTING

Robust light for plants, warehouses and ports.

EN 12464-1 sets illuminance, uniformity, UGR and colour rendering per task. We calculate mounting height, spacing and rack geometry before you order.



ALKAN® · 90–200 W

Ares

CE

Power	90–200 W
Flux	13,950–40,000 lm
Efficacy	138–200 lm/W
CCT	6500 K
CRI	Ra>80
IP · IK	IP66 / IP65 · Body IK09, glass IK08
Ambient	–20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 92–369 W

Pureled Indoor

CE

Power	92–369 W
Flux	15,000–60,500 lm
Efficacy	164–165 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP	IP40
Ambient	–20 °C to +35 °C
Lifetime	60,000 h



ALKAN® · 33-150 W

Venoled

Power	33-150 W
Flux	5,610-24,750 lm
Efficacy	160-175 lm/W
CCT	6500 K
CRI	Ra>70
IP · IK	IP65 · Body IK09, glass IK08
Ambient	-20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 33-150 W

Venoled Gen2

Power	33-150 W
Flux	5,280-23,250 lm
Efficacy	155-160 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · IK08
Ambient	-20 °C to +40 °C
Lifetime	100,000 h (L70B10)



ALKAN® · 60-100 W

Kataner High Bay

Power	60-100 W
Flux	8,400-13,000 lm
Efficacy	130-140 lm/W
CCT	4000 K / 6500 K
CRI	Ra>70
IP · IK	IP66 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 120-150 W

Otto

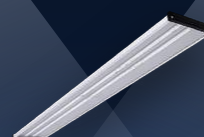
Power	120-150 W
Flux	16,080-20,100 lm
Efficacy	134 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80
IP · IK	IP65 · Body IK09, glass IK08
Ambient	-40 °C to +45 °C
Lifetime	100,000 h (L70B10)



ALKAN® · 50-260 W

Everest High Bay

Power	50-260 W
Flux	6,000-31,200 lm
Efficacy	110-120 lm/W
CCT	6500 K
CRI	Ra>80
IP · IK	IP65 / IP40 · IK08
Ambient	-20 °C to +35 °C
Lifetime	60,000 h



ALKAN® · 75-115 W

Eagle High Bay

Power	75-115 W
Flux	9,375-13,250 lm
Efficacy	115-125 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	60,000 h

INDOOR, ARCHITECTURAL & WATERPROOF

Light that gives buildings their character.

Offices, schools, retail and public buildings checked against EN 12464-1; sealed IP54 to IP65 luminaires for car parks and damp areas.



ALKAN® · 8-20 W

Proton LED Tube

CE

Power	8-20 W
Flux	960-2,000 lm
Efficacy	100-120 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80
IP	IP20
Ambient	-20 °C to +45 °C
Lifetime	30,000 h

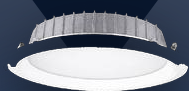


ALKAN® · 25-36 W

Lotus

CE

Power	25-36 W
Flux	4,200-4,300 lm
Efficacy	117-172 lm/W
CCT	6500 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	50,000 h



ALKAN® · 7-24 W

Star Downlight

Power	7-24 W
Flux	490-2,400 lm
Efficacy	70-100 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 7-24 W

New Star Downlight

Power	7-24 W
Flux	490-2,400 lm
Efficacy	70-100 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 7-24 W

Star Spot Surface Mounted

Power	7-24 W
Flux	490-2,400 lm
Efficacy	70-100 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Ambient	-20 °C to +45 °C
Lifetime	60,000 h



ALKAN® · 15-18 W

Sento IP65

Power	15-18 W
Flux	1,220-1,386 lm
Efficacy	70-80 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80
IP	IP65
Ambient	-20 °C to +45 °C
Lifetime	50,000 h



ALKAN® · 20-33 W

Karadeniz

Power	20-33 W
Flux	2,000-3,400 lm
Efficacy	100-104 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80 / Ra>70
IP	IP65
Ambient	-20 °C to +45 °C
Lifetime	60,000 h / 50,000 h



ALKAN® · 18-43 W

Metro Aluminium Waterproof

Power	18-43 W
Flux	1,800-4,500 lm
Efficacy	100-105 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP54
Ambient	-20 °C to +45 °C
Lifetime	60,000 h

More ALKAN® indoor, linear, track-spot and waterproof families follow on the next spread.

WATERPROOF & DUSTPROOF · IP65+

Sealed light for car parks, workshops and damp areas.



ALCAN® · 23-53 W

Waterpro

CE

Power	23-53 W
Flux	3,105-7,155 lm
Efficacy	135 lm/W
CCT	4000 K / 6500 K
IP · IK	IP66 · IK08
Lifetime	100,000 h (L70B10)



ALCAN® · 36 W

Odin

CE

Power	36 W
Flux	3,900 lm
Efficacy	110 lm/W
CCT	6500 K
IP	IP66
Lifetime	35,000 h



ALCAN® · 33-40 W

Karadeniz Slim

CE

Power	33-40 W
Flux	3,500-4,000 lm
Efficacy	100-105 lm/W
CCT	4000 K
IP	IP65
Lifetime	60,000 h



ALCAN® · 18-40 W

Setra Waterproof

CE

Power	18-40 W
Flux	1,548-4,200 lm
Efficacy	86-105 lm/W
CCT	4000 K
IP	IP65
Lifetime	60,000 h

INDOOR, LINEAR & TRACK SPOTS



ALKAN® · 18-80 W

Solis

CE

Power	18-80 W
Flux	2,988-11,680 lm
Efficacy	146-176 lm/W
CCT	4000 K / 6500 K
CRI	Ra>80
IP	IP40
Lifetime	60,000 h



ALKAN® · 38-55 W

Riva 55 Slim

CE

Power	38-55 W
Flux	3,420-4,550 lm
Efficacy	90 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Lifetime	60,000 h



ALKAN® · 38-55 W

Kilyos 55 Slim

CE

Power	38-55 W
Flux	3,420-4,550 lm
Efficacy	90 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Lifetime	60,000 h



ALKAN® · 19-60 W

Hover

CE

Power	19-60 W
Flux	2,945-9,480 lm
Efficacy	155-158 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP20
Lifetime	60,000 h



ALKAN® · 24 W

Luna

CE

Power	24 W
Flux	3,000 lm
Efficacy	125 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP20
Lifetime	60,000 h



ALKAN® · 7-24 W

New Star Spot Surface Mounted

CE

Power	7-24 W
Flux	490-2,400 lm
Efficacy	70-100 lm/W
CCT	4000 K
CRI	Ra>80
IP	IP40
Lifetime	60,000 h

All luminaires on this spread: CE declaration; ENEC-certified LED driver where stated by ALKAN®. Tolerances: power +5%, luminous flux -10%, efficacy -5%.



LIGHTING ENGINEERING · DIALUX EVO

See the light before you buy it.

DIALux lighting calculations and technical support for your project, modelled with the real photometric data of the ALKAN® luminaire.

CALCULATION REPORT

ISOLUX & FALSE COLOUR

3D RENDERS

SCHEDULE & BOQ

Every project is calculated individually.

HOW WE CALCULATE

- 01 Brief and drawings**
Plans, heights, surfaces and use. We agree the target class.
- 02 Model and photometry**
The space in DIALux evo with ALKAN® LDT/IES files.
- 03 Calculation**
Illuminance, uniformity, glare and luminance at every grid point.
- 04 Optimisation**
Fewest luminaires and lowest installed load that meet the standard.
- 05 Report and supply**
The layout we calculate is the one we quote and deliver.

CALCULATED TO THE RIGHT STANDARD

EN 12464-1

Offices

500 lx· U_0 0.60 · UGR $\leq$ 19

EN 13201

Roads · class P2

10 lx

average · 2 lx minimum

EN 12193

Football · class II

200 lx· U_2 0.60

EN 1838

Emergency escape routes

1 lx

minimum on the route floor

— LIGHTING SERVICES

From calculation to commissioning.

Lighting design, DIALux calculations and technical support, control systems and LED retrofit, with ALKAN® luminaires supplied and commissioned by Powersense.

01 Brief and target values

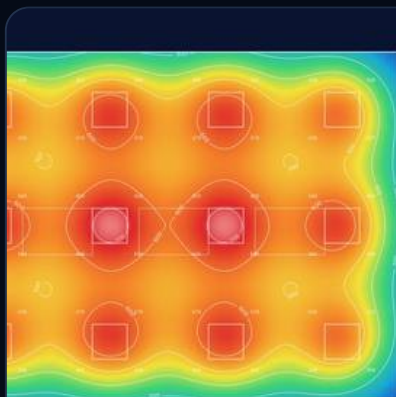
Use, tasks and daylight are analysed and the target values set to the standard.

02 Concept, luminaires and DIALux calculations

Luminaires, optics and controls chosen and verified for illuminance, uniformity, glare and energy.

03 Supply, programming and handover

The calculated layout is supplied, installed, programmed and commissioned by one team.



Lighting Design

Concept, calculation and luminaire schedules for interior, exterior and road lighting, with ALKAN® luminaires supplied by Powersense.

- ALKAN® LED luminaires for interiors and architecture
- Road and street luminaires
- Floodlights and sports lighting
- Industrial and high-bay luminaires
- Poles, cabling and distribution
- Lighting controls and sensors

EN 12464-1

EN 12464-2

EN 13201-2



Lighting Control Systems

DALI-2, KNX and wireless lighting control: strategy, hardware, programming and commissioning.

- DALI-2 and D4i drivers and controllers
- KNX interfaces and gateways
- Wireless control: Casambi and ZigBee
- Presence and daylight sensors
- Street-lighting control nodes
- PoE lighting and energy monitoring

IEC 62386

ISO/IEC 14543-3

EN 50090



LED Retrofit & Energy Audits

Survey, measurement, luminaire-by-luminaire replacement plans and payback analysis for LED conversion.

- ALKAN® LED luminaires matched fitting for fitting
- LED tubes and retrofit options
- Sensors and dimming
- Wireless control

EN 12464-1

EN 13201-2

EN 15193-1



Lighting Supply, Installation & Commissioning

Luminaires, poles, cabling and controls supplied against the approved calculation, installed under coordination and commissioned by Powersense.

- ALKAN® LED luminaires and accessories
- Poles, brackets and fixings
- Cabling and distribution
- Control systems and sensors

IEC 60364-6

IEC 60364-5-52

IEC 60598-1

EN 12464-1

EN 12464-2

EN 13201-2

EN 12193

EN 1838

EN 15193-1

IEC 62386 (DALI)

ENGINEERING & CONTRACTING

Electrical, automation and turnkey contracting.

The engineers who specify and supply the equipment also design, build and verify the system.

01

Feasibility & requirements

02

Calculations & studies

03

Design documents

04

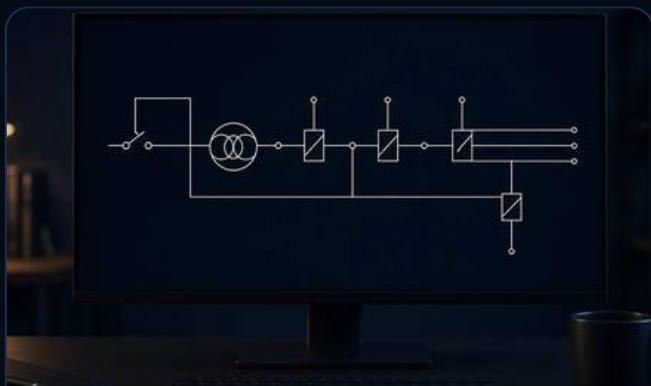
Procurement & manufacture

05

Installation & commissioning

06

Verification & handover



Electrical design

Concept, basic and detailed design with calculations and specifications.



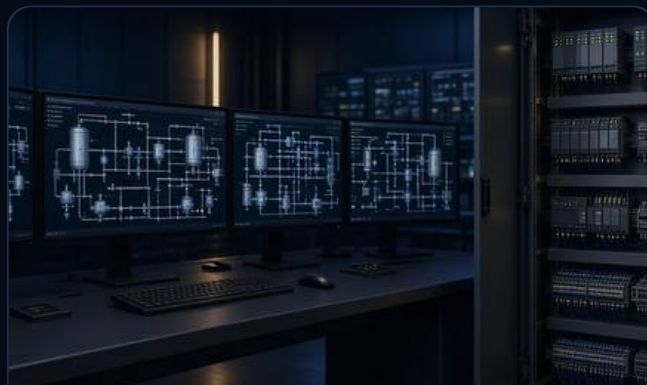
LV switchboards & panels

Designed and verified to IEC 61439, built and wired by Powersense.



Turnkey contracting

Power, low-current and automation, verified to IEC 60364-6.



Industrial & building automation

PLC and SCADA engineering, drives, KNX and DALI control.



HVAC & smoke control

Heat-load, airflow and smoke-control calculations, CFD.



Power & building systems

LV/MV, busbar, cables, generators, UPS, security, fire detection.

ELECTRICAL PANELS & POWER DISTRIBUTION

The complete power chain, engineered and supplied.

Transformers, switchgear, panels, busbars, cables, generators and UPS: the complete power chain, engineered, supplied and commissioned by one team.



Low-Voltage Switchgear & Protection

Circuit breakers, contactors, motor starters, power-factor correction and metering, selected as one coordinated low-voltage protection system.

- Air, moulded-case and miniature circuit breakers
- Residual-current devices, fuse switches and isolators
- Contactors, thermal relays and motor starters
- Capacitors, reactive-power relays and harmonic filters
- Network analysers, meters and monitoring devices
- AC drives, soft starters and PLCs

IEC 60947-2

IEC 60947-4-1

IEC 60947-3



Medium-Voltage Switchgear & Transformers

Power and distribution transformers, MV switchgear and prefabricated substations, rated for load, fault level and the grid operator's connection terms.

- Power transformers, 2,500 to 63,000 kVA
- Distribution transformers, 10 to 2,500 kVA
- Dry-type transformers up to 630 kVA
- GIS, AIS and metal-clad MV switchgear
- Vacuum and SF6 breakers, fuses and disconnectors
- Concrete kiosks and measuring transformers

IEC 60076-1

IEC 60076-11

IEC 62271-200



Busbar Trunking Systems

Copper and aluminium busbar trunking for feeders, rising mains and plug-in distribution, rated for current, fault level and future growth.

- Aluminium busbar trunking
- Copper busbar trunking
- Feeder and distribution runs
- Plug-in tap-off units
- Rising mains
- Connection units to transformers and boards

IEC 61439-6

IEC 61439-1

IEC 60909-0



Power, Control & Data Cables

Power, control, signal and data cables specified by current, route, environment and reaction to fire.

- Installation, LV, MV and HV power cables
- Underground and halogen-free (LSZH) cables
- Control, signal, telephone and antenna cables
- Fibre-optic and copper data cables
- Solar, marine and railway cables
- Special cables on request

IEC 60364-5-52

IEC 60287-1-1

IEC 60502-1



Cable Trays & Cable Management

Galvanised cable trays, ladders and accessories, sized for cable weight, fill and support spacing.

- Hot-dip galvanised cable trays
- Bends, junctions and accessories
- Supports and fixings
- Other routing systems on request

IEC 61537

IEC 60364-5-52

IEC 60364-5-54



Generator Sets & Standby Power

Diesel, gas, gasoline, marine and solar generator sets with transfer and synchronisation panels, sized for the load that starts, not only the load that runs.

- Diesel generator sets, 80 to 1,385 kVA
- Gasoline generators, 2.7 to 16 kVA
- Natural-gas generators, 8 to 17 kVA
- Marine generators, 8 to 31 kVA
- Mobile solar PV generators, 100 to 3,000 W
- Transfer and synchronisation panels, remote monitoring

ISO 8528-1

ISO 8528-5

ISO 3046-1



UPS Systems, Rectifiers & Solar Inverters

UPS systems, rectifiers and solar inverters sized for the critical load, the required autonomy and the connection point.

- Single-phase and three-phase UPS
- Modular UPS systems
- Rectifiers and battery chargers
- Solar inverters built to IEC standards

IEC 62040-3

IEC 62485-2

IEC 62109-1

BUILDING AUTOMATION & CONTROLS

PLC, SCADA, KNX and low-current systems.

PLC, SCADA and DCS automation, KNX and DALI building control and low-current security systems, designed, programmed and commissioned by one team.



Industrial & Building Automation (PLC, SCADA)

Control philosophy, PLC and SCADA engineering, instrumentation and drives, with controllers, panels and field devices supplied and commissioned by Powersense.

- PLCs and distributed controllers
- HMI panels and SCADA software
- Field instruments and sensors
- AC drives and soft starters
- Network analysers and energy meters
- Automation panels built and wired in-house

IEC 61131-3

IEC 62443

EN 60204-1



KNX Building Automation

KNX and DALI lighting, blinds, HVAC and access control on one open building bus, designed, programmed and commissioned by Powersense.

- KNX actuators and sensors
- Touch panels and room controllers
- DALI and ZigBee gateways
- Power supplies, line couplers and IP interfaces
- Blind, HVAC and access functions
- KNX IoT-ready integration and energy visualisation

ISO/IEC 14543-3

EN 50090

IEC 62386



Security, Fire Alarm & Low-Current Systems

CCTV, thermal cameras, fire and gas detection and access control, planned around risk, coverage and the rules for the building.

- IP and analogue CCTV systems
- Thermal cameras
- Fire and gas detectors and panels
- Card-based access control

IEC 62676-4

CEN/TS 54-14

EN 54-2

HVAC & INDUSTRIAL VENTILATION

Fans selected from the duty point.

Industrial fans, ventilation and smoke-control systems, selected from the duty point, engineered, automated and installed.



Industrial Fans & Ventilation Systems

Axial, radial, jet and smoke-extraction fans selected from the duty point, with Ex-proof and acoustic options.

- Axial and mixed-flow wall and duct fans
- Duct-type and roof radial fans
- Acoustic fan boxes
- High-pressure axial fans and extractors
- Axial smoke-extraction fans and jet fans
- Ex-proof axial fans

ISO 5801

ISO 12759

EN 12101-3



HVAC & Smoke-Control Engineering

Heat-load, airflow and smoke-control calculations, CFD simulation, ventilation control and commissioning, with fans and control panels supplied by Powersense.

- Axial and mixed-flow fans
- Duct-type and roof radial fans
- Axial smoke-extraction fans and jet fans
- High-pressure axial fans and acoustic fan boxes
- Ex-proof fans for explosive atmospheres
- Control panels and detector interfaces

EN 16798-1

ASHRAE 62.1

EN 12101-3

- Heat load and ventilation rates**
EN 16798-1 or ASHRAE 62.1, loads per zone.
- Duty point and fan selection**
Fan curve matched to the system curve.
- Smoke-control concept**
Extraction, make-up air and temperature class to EN 12101.
- CFD verification**
Airflow and smoke movement simulated in the real geometry.
- Control and commissioning**
Scenarios tested with the fire alarm; airflow measured and recorded.

ALKAN® REFERENCE PROJECTS · INFRASTRUCTURE

ALKAN® projects beyond the stadium.

ALKAN® REFERENCE IN MONTENEGRO



STREET LIGHTING · PODGORICA

Millennium Bridge, Podgorica

In 2021 Komunalne usluge Podgorica installed 29 ALKAN® Neptun 140 W ENEC-certified street luminaires on the Millennium Bridge. They have run without faults since installation and the client is satisfied with the result.

29

Luminaires

140 W

ALKAN® Neptun

2021

Installed

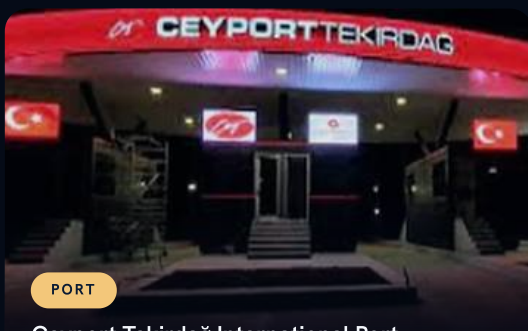
Client: Komunalne usluge Podgorica. Photo: Millennium Bridge (rear), 2023, Desemeus, Wikimedia Commons, CC BY-SA 4.0.

BRIDGE & HIGHWAY

Çanakkale 1915 Bridge Lighting Project

Çanakkale, Türkiye · photo: Zafer, Wikimedia Commons, public domain

FURTHER ALKAN® REFERENCES



PORT

Ceyport Tekirdağ International Port
Tekirdağ, Türkiye

Reference projects of ALKAN® Lighting (manufacturer). Photos: ALKAN® Lighting unless credited.

Tedaş - Road And Street Lighting

Teskoop Organized Industrial Zone

Teka Cigar Factory

Tamtimber Factory

Maltepe Belediyesi Park · İstanbul, Türkiye

Duzce Organized Industrial Zone · Düzce, Türkiye

Çorum Organized Industrial Zone · Çorum, Türkiye

Beykoz Municipality · İstanbul, Türkiye

Büyük Cekmece Rosemarina Parking Park Lighting Project · İstanbul, Türkiye

İstanbul Sultangazi Tempoint Residential Parking Parking Lighting Project · İstanbul, Türkiye

İstanbul Sefaköy Cultural Center Lighting Project · İstanbul, Türkiye

İstanbul Halkalı Karat 34 Emlak Residence Car Parking Lighting Project · İstanbul, Türkiye

İstanbul Esenyurt Sembol Residence Parking Park Lighting Project · İstanbul, Türkiye

Arin Forest Products Production Area And Management Areas Lighting Project

CERTIFICATES & STANDARDS

Documented performance, shown only where it applies.



ENEC · ASTRO HIGH POWER

HN 69291440 · TÜV Rheinland · 2025-01-06

53.AKPRL xAy, 300-1500 W. EN IEC 60598-1, EN 60598-2-5.



ENEC+ · ASTRO HIGH POWER

H+ 69291496 · 2025-03-10

1A0500, 2A1000, 3A1500. Declared photometry verified (EN 62722-2-1).



ENEC · ASTRO 400-1200 W

HN 69291785 · 2026-02-27

53.AKPRL 1Axxxx / 2Axxxx (-M). EN IEC 60598-1, EN 60598-2-5, EN 62262.

CB

CB test certificate · ASTRO

DE 2-045797 · 2025-12-09

53.AKPRL 1Axxxx / 2Axxxx (-M), 400-1200 W. IEC 60598-1, IEC 60598-2-5.



ENEC · VENÜS & MERKÜR

HN 69291507 · 2025-02-27

Venüs Nano, Mini, Small; Merkür. EN IEC 60598-1, EN 60598-2-3.



ENEC · PLANET & NANO

HN 69291508 · 2025-02-27

53.AKPRL xxxN-y (30-80 W), xxxP-y (100-200 W).



ENEC · AYDORA

HN 69291784 · 2026-02-04

53.AKPRK 0xxA, 40-60 W park and garden luminaire.



CE · EC Declaration

LVD 2014/35/EU · January 2025

ALKAN series AKPRL, AKYAL, AKATL, AKYTL, AKUTL, AKBAL, AKSPL and others.

ISO

ISO 9001 · 14001 · 45001

ALKAN Asya Afrika Üretim A.Ş. · 2026

ISO 9001:2015 and 14001:2015 (SIGMACERT), ISO 45001:2018 (BELLA Certification). Scope: production and sale of indoor and outdoor lighting fixtures.

TEDAŞ

TEDAŞ conformity approvals · LED street luminaires

53.AKYAL series · 12 models

029VN, 035VN, 043VN, 049VN, 064VM, 068VN, 079VN, 099VM, 137V, 144V, 157V, 190V. One approval certificate per model, TEDAŞ.MLZ/2010-057.D.

YMB

Domestic Goods (Yerli Mali) · LED street luminaires & floodlights

No. 2026108305543 · No. 2026108305677

İstanbul Chamber of Industry. Street luminaires issued 29/07/2026 (domestic content 57.07 %), floodlights 31/07/2026 (60.35 %); class E; valid until 12/08/2027 as stated.

İSO

Manufacturer & Manufacturing Qualification

İstanbul Chamber of Industry · 17.02.2026

Manufacturer Certificate and Manufacturing Qualification Certificate; capacity report no. 2026-303; valid until 5.02.2028 as stated.

STANDARDS WE DESIGN TO

EN 12464-1

EN 12464-2

EN 13201-2

EN 12193

EN 1838

EN 15193-1

IEC 61439

IEC 60364-6

A certificate is listed only for the exact family, type and wattage stated by the issuing body. Copies are supplied with every offer.

REQUEST A QUOTATION

Tell us about your project.

Send a site plan or a short description. We reply with a proposal backed by calculation.

- 01 Send a site plan**
Dimensions, intended use and any existing documents.
- 02 We reply with a proposal**
Calculated values, luminaire schedule and offer.
- 03 Then we deliver**
Supply, installation and commissioning by one team.

POWERSENSE

Powersense D.O.O.

CONTACT

☎ +382 67 228 940

✉ info@powersense.me

🌐 www.powersense.me

📍 Powersense D.O.O. · Sveta Vrača, Daošine, Zgrada "Pop Commerce", Stan 30 · Dobrota – Kotor, Montenegro

Request a quote →

www.powersense.me/contact

POWERSENSE



Powering Systems. Illuminating Spaces.

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Technical data from ALKAN® datasheets, the ALKAN® 2026 catalogue and www.powersense.me. Declared values: tolerance +2.5% power, -10% luminous flux, -5% lm/W. ALKAN® reserves the right to change designs and specifications. ALKAN® is a registered trademark of its owner. © 2026 Powersense D.O.O.