DUAK ENERGY PVT. LTD.

THE NAME OF TRUST | AN ISO 9001:2015 CERTIFIED CO.

Govt. of India Approved Clean Energy & Lithium-Ion Manufacturer

Jaipur Manufacturing Works | RIICO Industrial Area, Rajasthan, India

DUAK STREET-LUMEN | **20W – 120W INTEGRATED**

AUTONOMOUS SMART DUSK-TO-DAWN SOLAR LED STREET LIGHT

FLAGSHIP SERIES



KEY TECHNICAL BENCHMARKS & RATINGS

Luminosity Wattage Ratin	20W / 40W / 60W / 90W / 120W
Optical Lumens Output	> 160 lm/W (Bridgelux / Lumile
Solar Panel Technology	High-Efficiency Mono PERC (>21
Integrated Battery Pack	Automotive LiFePO4 Inbuilt Sto
Continuous Rainy Backup	3 to 5 Consecutive Cloudy / Ra
Intelligent PIR Detectio	Smart PIR Sensor (10 - 12m Cov
Night Dimming Profiles	4-Stage Automatic Power Saving
Die-Cast Body Alloy	Die-Cast Aluminum with Anti-Co
Weatherproof Rating	IP65 Weatherproof & Lightning
Operational LED Lifespan	> 50,000 Hours Zero-Maintenanc

KEY ADVANTAGES & ENGINEERING EXCELLENCE

160 lm/W Ultra-Bright Optics

- **High optical efficiency illuminates wide roadways**
- Even light distribution eliminates dangerous dark spot

High-Efficiency Mono PERC Panel

- **Superior solar conversion charges even in monsoons**
- Compact panel area reduces wind resistance on poles

Integrated Theft-Proof LiFePO4

- **Battery is sealed inside light head — 100% theft-p**
- 3,000+ cycle life eliminates frequent battery replacem

Smart Dusk-to-Dawn & Motion Dimming

- **Automatically switches on at dusk with 100% power**
- Dims to 30% power during late night to save battery

Corrosion-Proof Die-Cast Armor

- **Robust die-cast aluminum housing resists rust & co**
- IP65 rated against dust, driving rain, and insects

Zero Cabling & Zero Electricity Bills

- **100% off-grid installation requires zero trenching**
- Reduces infrastructure costs for highways, colonies &

DUAK ENERGY PVT. LTD. | Works: RIICO Industrial Area, Jaipur, Rajasthan, India

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DUAK ENERGY | DUAK ALL-IN-ONE SOLAR STREET LIGHT

COMPLETE ENGINEERING SPECIFICATIONS & REGULATORY COMPLIANCE DATASHEET

TECHNICAL SPECIFICATIONS	20W	40W	60W	90W	120W
Luminous Output (Lumens)	3,200 lm	6,400 lm	9,600 lm	14,400 lm	19,200 lm
Color Temperature (CCT)	5700K - 6500K	5700K - 6500K	5700K - 6500K	5700K - 6500K	5700K - 6500K
Solar Panel Capacity (Mono)	30W / 18V	50W / 18V	80W / 18V	120W / 18V	160W / 18V
LiFePO4 Battery Capacity	12.8V 12Ah	12.8V 24Ah	12.8V 36Ah	12.8V 54Ah	12.8V 72Ah
Recommended Pole Height (m)	4 - 5	5 - 6	6 - 7	7 - 9	9 - 12
Installation Spacing (m)	12 - 15	15 - 18	18 - 22	22 - 28	28 - 35
Charging Time (Hours)	5 - 6 hrs	5 - 6 hrs	5 - 6 hrs	5 - 6 hrs	5 - 6 hrs
Discharge Time per Night	12 - 14 hrs	12 - 14 hrs	12 - 14 hrs	12 - 14 hrs	12 - 14 hrs
PIR Sensing Angle / Range	120° / 8-12m	120° / 8-12m	120° / 8-12m	120° / 8-12m	120° / 8-12m
Housing Material	Die-Cast Alum.	Die-Cast Alum.	Die-Cast Alum.	Die-Cast Alum.	Die-Cast Alum.
Ingress Protection Rating	IP65	IP65	IP65	IP65	IP65
Operating Temperature	-20°C ~ +65°C	-20°C ~ +65°C	-20°C ~ +65°C	-20°C ~ +65°C	-20°C ~ +65°C
Standard Warranty Coverage	3 Years	3 Years	3 Years	3 Years	3 Years

CERTIFIED REGULATORY COMPLIANCE STANDARDS:

• IEC 62109-1 / 62109-2 (Safety) • IEC 61000-6-1 / 6-3 (EMC) • CE Directives • ISO 9001:2015 • MNRE & BIS Approved

DUAK CORPORATE ADVANTAGE & QUALITY ASSURANCE

Jaipur Manufacturing Works: Automated robotic assembly with 100% 48-hr full-load burn-in testing.

DUAK Sathi Pan-India Network: Authorized on-site field engineers across 28 states for immediate support.

Up to 10-Year Comprehensive Warranty: Direct manufacturer warranty with zero-downtime spare dispatch.

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