Born for Industrial Safety

Archer™ （NJZ-FEL-G Series）

Hazardous Location LED Luminaire

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NJZ-FEL-G Series

Product description

The Archer™ NJZ-FEL-G Series LED Luminaire is designed for installations in hazardous area with presence of flammable gases or combustible dusts as defined by ATEX / IECEx for Zone 1/21 applications.

New generation is great for replacingof existing fluorescent lighting system and provide an incredible 100,000 (L70) maintenance free hours at 25°C.

Features

- Low profile design allows installation in work areas with low ceiling heights
- Lens and LED driver field replaceable by qualified personnel on-site
- UV stable and impact resistant clear or diffused PC lens (standard) to minimize glare
- WAGO screwless terminal block with 5-pole 6mm² max conductor for easy wiring
- Single Lens model 20W to 40W; Double Lens model 40W to 100W
- High luminous efficacy - Up to 120 lm / W.
- Universal Voltage: AC120-277V (50/60Hz)
- Superior CRI75 compared to HPS, LPS, MH
- Ambient range from - 40°C to + 55°C (-20°C to 50°C for Emergency Model)
- Standard 12W 90mins operation time for emergency mode (6W 180mins optional)
- Resistant to shock and vibration

Compliance

IEC/ATEX Standard

IECEX: Ex db eb mb IIC T6 Gb(20 to 60W)
        Ex db eb mb IIC T5 Gb(>60 to 100W)
        Ex tb IIIC T80°C Db

ATEX: II 2 G Ex db eb mb IIC T6 Gb(20 to 60W)
        II 2 G Ex db eb mb IIC T5 Gb(>60 to 100W)
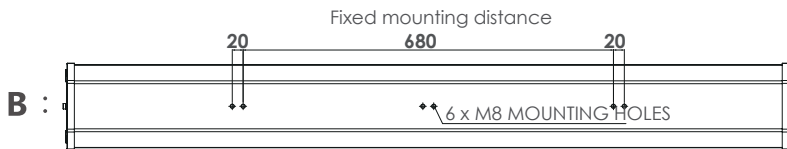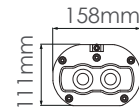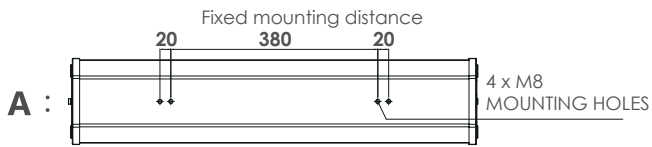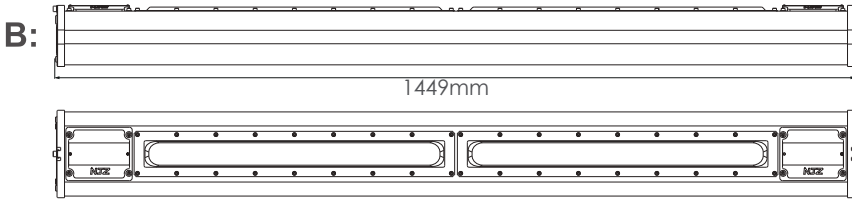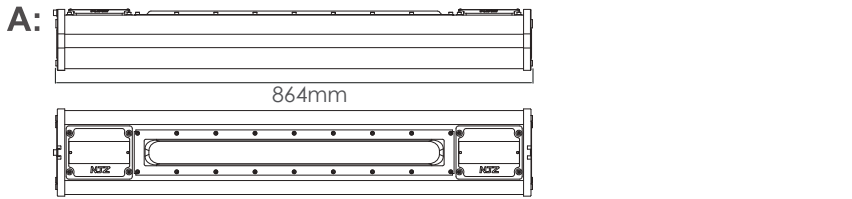   II 2 D Ex tb IIIC T80°C Db

Zone 1,21
CE EMC/LVD/EMF
EN62471
IP66
IK10
5G vibration
1000hrs salt spray

Application

- Power Plants
- Heavy Industrials Storage Facility
- Paper mills
- Wastewater Treatment Plants
- Loading Docks Platforms
- Shipyards
- Chemical Processing Facility
- Petrochemical Processing Facility

LED lumen Maintenance：L70>150,000 Operation Hours@55°C

Product Dimensions

A:

864mm

B:

1449mm

Fixed mounting distance

A :
20   380   20
4 x M8 MOUNTING HOLES

158mm
111mm

Fixed mounting distance

B :
20   680   20
6 x M8 MOUNTING HOLES

unit: mm

Model	Net Weight (Product)	Product Dimension	Gross weight	Package Dimension (L×W×H)
A: NJZ-FEL-G-20/30/40	6.7kg	864×158×111 mm	7.7kg	920×220×170 mm
B: NJZ-FEL-G-40/50/60/80/100	9.9kg	1449×158×111 mm	12.6kg	1505×220×170 mm

Technical Parameter

Electrical

Specification		NJZ-FEL-G-20	NJZ-FEL-G-30	NJZ-FEL-G-40
Rated Power		20W	30W	40W
Input Voltage		AC120-277V		
Input Frequency		50/60Hz		
Input Current	(AC120V)	182mA	242mA	330mA
	(AC230V)	99mA	128mA	172mA
Power Factor		≥0.95		
Driver Efficiency		≥90%		
THD		<20%		
Surge Protection		6KV Line-to ground		
Battery material		Nickel-cadmium		
Expected battery*		3 Year		
Battery Duration*		Standard 12W 90mins@-20°C~+50°C(6W 180mins optional)		

*All values typical (tolerance +/-10%)

Optical

Specification	NJZ-FEL-G-20	NJZ-FEL-G-30	NJZ-FEL-G-40
Lumen Output	2400Lm	3600Lm	4400Lm
Lumens Per Watt	120Lm/W*		
Beam Angle	110°		
Correlated Color Temperature (CCT)	2700K/4000K/5000K/5700K		
Color Rendering Index (CRI)	Ra>70		

 *value calculated based on 5000K ,varies to differrent spec

Environmental

Specification	NJZ-FEL-G-20	NJZ-FEL-G-30	NJZ-FEL-G-40
Ambient Operating Humidity	5%~95% RH		
Ambient Operating Temperature	-40°C~+55°C(-40°F~+122°F) -20°C~+50°C(Emergency Model)		
Optimal Operating Temperature	25°C (77°F)		
Gas Environment	T6		
Dust Environment	T80°C		

Mechanical

Specification	NJZ-FEL-G-20	NJZ-FEL-G-30	NJZ-FEL-G-40
Housing Material	Marine grade aluminum		
Endcap / Front cover	Copper-free (< 0.4%) die-cast aluminum		
Hardware	Stainless steel 316		
Color	Dark Grey (RAL7037)		
Finish	Polyster powder coating for uniform corrosion resistance		
Protection	IP66/IK10		
Lens Material	Polycarbonate		
Wiring	One access cover standard, two for through wiring		
Cable entries	4 x M25 - 2 at each end（standard，other optional）		
Termination	L,L1,L2,L3,N,PE; each Terminal 2x6mm² max		
Mounting	Ceiling (Flush mount), Wall, Suspended (Chain /Eyebolt), Pole		

Technical Parameter

Electrical

Specification		NJZ-FEL-G-50	NJZ-FEL-G-60	NJZ-FEL-G-80	NJZ-FEL-G-100
Rated Power		50W	60W	80W	100W
Input Voltage		AC120-277V			
Input Frequency		50/60Hz			
Input Current	(AC120V)	402mA	497mA	651mA	825mA
	(AC230V)	212mA	264mA	340mA	435mA
Power Factor		≥0.95			
Driver Efficiency		≥90%			
THD		<20%			
Surge Protection		6KV Line-to ground			
Battery material		Nickel-cadmium			
Expected battery*		3 Year			
Battery Duration*		Standard 12W 90mins@-20°C~+50°C(6W 180mins optional)			

*All values typical (tolerance +/-10%)

Optical

Specification	NJZ-FEL-G-50	NJZ-FEL-G-60	NJZ-FEL-G-80	NJZ-FEL-G-100
Lumen Output	5500Lm	6800Lm	8700Lm	10000Lm
Lumens Per Watt	120Lm/W*			
Beam Angle	110°			
Correlated Color Temperature (CCT)	2700K/4000K/5000K/5700K			
Color Rendering Index (CRI)	Ra>70			

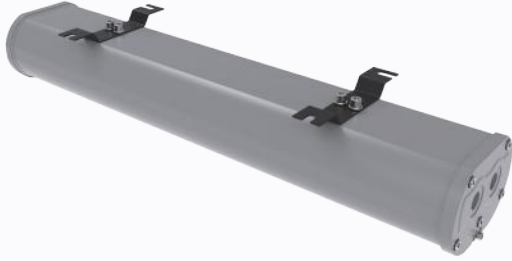*value calculated based on 5000K ,varies to differrent spec

Environmental

Specification	NJZ-FEL-G-50	NJZ-FEL-G-60	NJZ-FEL-G-80	NJZ-FEL-G-100
Ambient Operating Humidity	5%~95% RH			
Ambient Operating Temperature	-40°C~+55°C(-40°F~+122°F) -20°C~+50°C(Emergency Model)			
Optimal Operating Temperature	25°C (77°F)			
Gas Environment	T6		T5	
Dust Environment	T80°C			

Mechanical

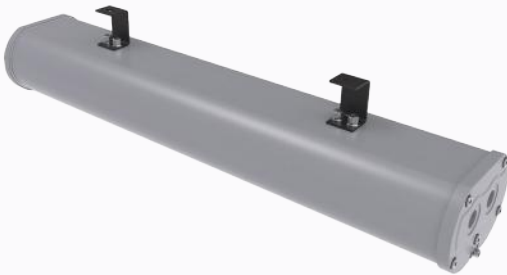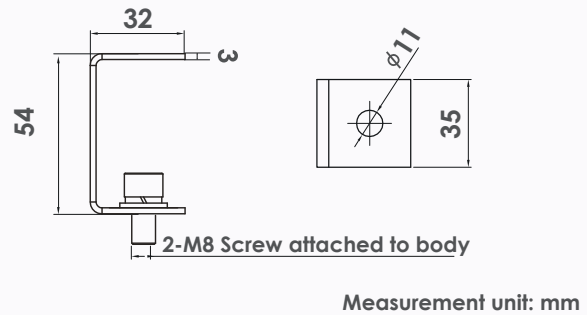| Specification	NJZ-FEL-G-50	NJZ-FEL-G-60	NJZ-FEL-G-80	NJZ-FEL-G-100
Housing Material	Marine grade aluminum			
Endcap / Front cover	Copper-free (< .4%) die-cast aluminum			
Hardware	Stainless steel 316			
Color	Dark Grey (RAL7037)			
Finish	Polyster powder coating for uniform corrosion resistance			
Protection	IP66/IK10			
Lens Material	Polycarbonate			
Wiring	One access cover standard, two for through wiring			
Cable entries	4 x M25 - 2 at each end（standard，other optional）			
Termination	L,L1,L2,L3,N,PE; each Terminal 2x6mm² max			
Mounting	Ceiling (Flush mount), Wall, Suspended (Chain /Eyebolt), Pole			

Mounting
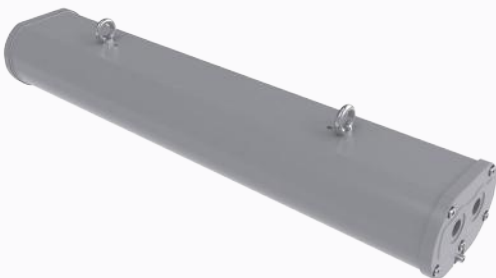
Low Ceiling Mount Bracket

Ordering Code: CB-L1

178
2.5
18
M8 Screw attached to body
Ø9
17
23
20
11
11
157

Measurement unit: mm

High Ceiling Mount Bracket

Ordering Code: CB-H1

32
3
ø11
54
35
2-M8 Screw attached to body

Measurement unit: mm
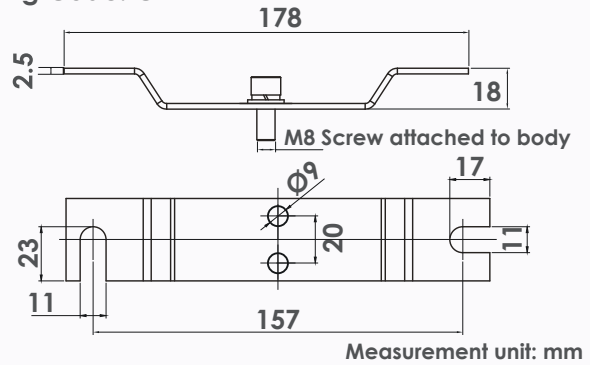
Eyebolt Mount

Ordering Code: EB-1

ø35
ø21
ø7
56
16
M8 Screw attached to body

Measurement unit: mm
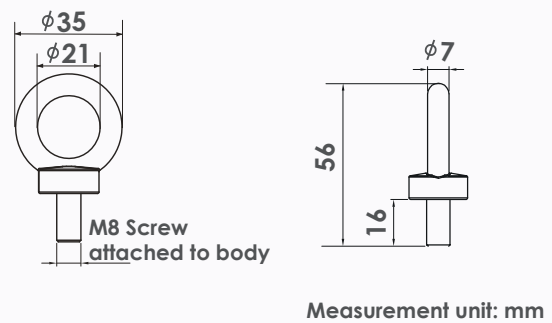
Mounting

Wall Mount Swivel Bracket

Ordering Code: WB-01

3

M8

20

M8 Screw
attached to body

123
70
45
2-Ø8.5
127
M6
6*15°

Measurement unit: mm
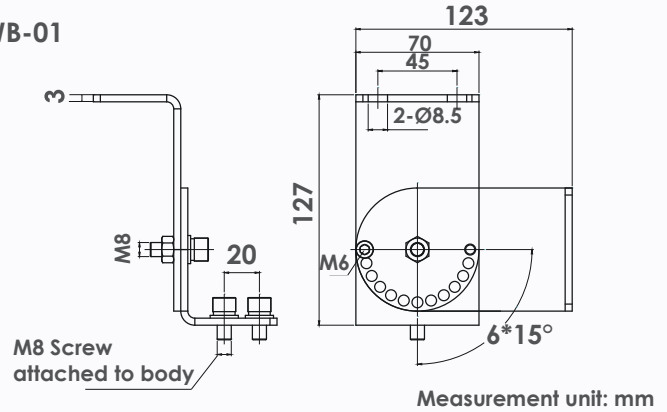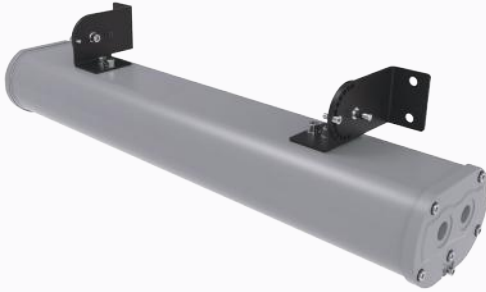
Wall mounting outreach bracket

Ordering Code: WOB-1/ 2

250

120

12

22

φA

B
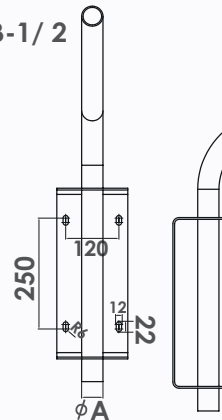
A	B	
	WOB-1	WOB-2
Dia 40-45mm range		
Dia 47-51mm range	800	1500
Dia 54-57mm range		
Dia 58-62mm range		

Measurement unit: mm

Pole Mount Clamp
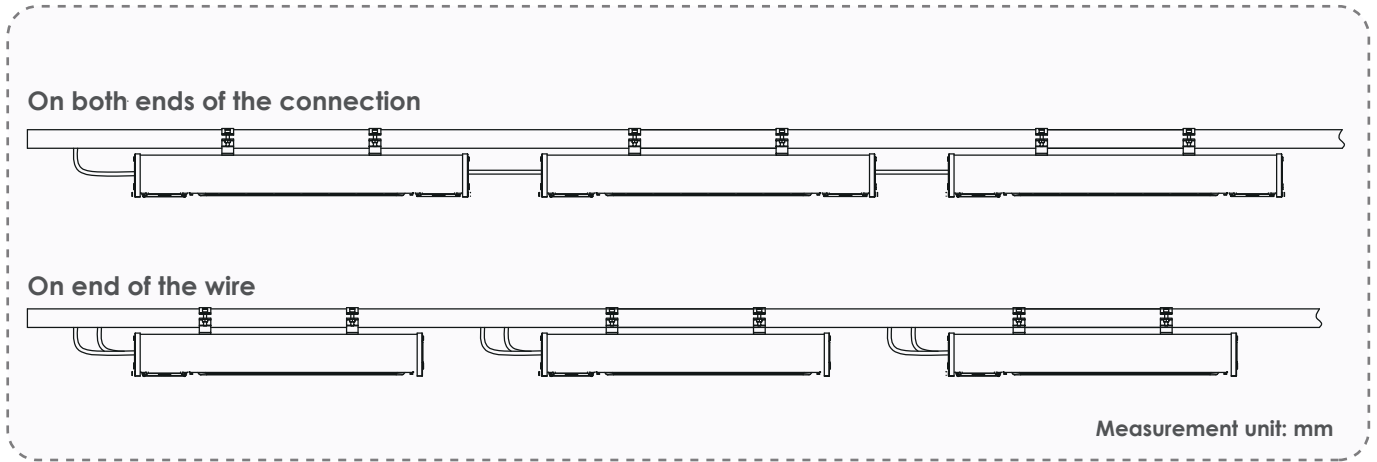
Ordering Code: PC-48/60

A
B
30
C
D
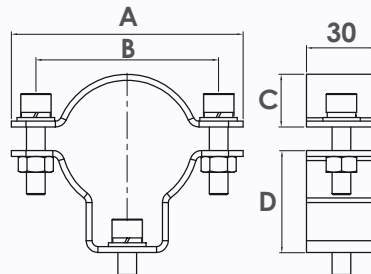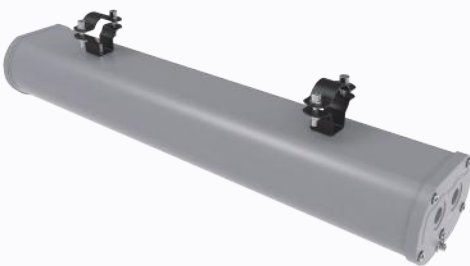
Code	Description	A	B	C	D
PC-48	Dia 40-51mm range	92	72	18	42
PC-60	Dia 54-62mm range	105	84	28	46

Measurement unit: mm

Through Wiring

In-out connection can be made on one or both sides for quick installtion
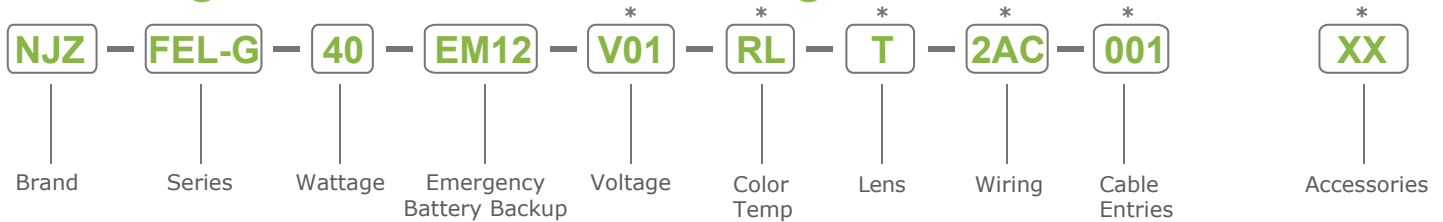
On both ends of the connection

On end of the wire

Measurement unit: mm

Photometric

110 Degree
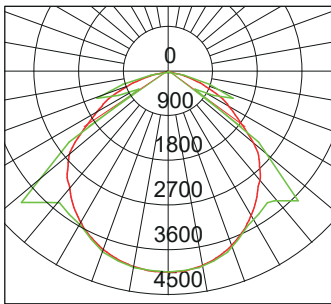
—	V 0.0DEG PLAN,112.1
—	H 0.0DEG PLAN,109.1

Ordering Information and Mounting Accessories

NJZ	–	FEL-G	–	40	–	EM12	–	V01*	–	RL*	–	T*	–	2AC*	–	001*		XX*

| Brand | Series | Wattage | Emergency Battery Backup | Voltage | Color Temp | Lens | Wiring | Cable Entries | Accessories |

*: Suffix not within nomenclature as per Certification, for marketing purpose only

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BRAND

NJZ

SERIES

FEL-G

WATTAGE

20=20W
30=30W
40=40W*
50=50W
60=60W
80=80W
100=100W
(*please speficy if single or double Lens)

EMERGENCY BATTERY BACKUP

BLANK=Standard (Non Emergency)
EM6=6W 180mins
EM12=12W 90mins (Emergency Standard)
*Emergency models standard with Single Access Cover(-1AC)

VOLTAGE

V01= AC120-277V

COLOR TEMP

RN= 2700K
RL= 4000K
RZ= 5000K
RM=5700K
RD=Red
GN=Green
BU=Blue
AM=Amber

LENS TYPE

T=Transparent PC
F=Frosted PC

WIRING

2AC= Dual Access Cover

CABLE ENTRIES*

001 = 4 X M20 X 1.5
002 = 4 X M25 X 1.5 (Standard)
003 = 4 X NPT 1/2
004 = 4 X NPT 3/4
*Contact sales for selection of cable diameter
  or specsheet of plug and cable gland

ACCESSORIES

CB-L1=Low Ceiling Mount Bracket 1 pair
CB-H1=High Ceiling Mount Bracket 1 pair
EB-1=Eyebolt 1 pair
WB-01=Wall Mount Swivel Bracket 1 pair
WOB-1=0.8M wall mounting outreach bracket x1
WOB-2=1.5M wall mounting outreach bracket x1
PC-48=Dia 40-51mm range SS316 pole clamp 1 pair
PC-60=Dia 54-62mm range SS316 pole clamp 1 pair
SC05=3ft. safety Cable kit
R-D40=Replacement Driver x1 (20~40W models)
R-D60=Replacement Driver x1 (50~60W models)
R-D100=Replacement Driver x1 (70~100W models)
R-T=Replacement PC Lens, clear x1
R-F=Replacement PC Lens, frosted x1
R-B=Replacement Battery Pack x1

INSTALLATION TIPS

1.Wago Termination
Conductor range: 0.5 … 4 (6) mm² (20 … 10 AWG)
Rated voltage: 800 V
Rated current/(max. current): 32 A (41 A)

2.Cable gland & Plug
Standard: Plastic plugs x1 + Plastic Cable gland x1
         for 1AC= Single Access Cover
Standard: Plastic plugs x3 + Plastic Cable gland x1
         for 2AC= Dual Access Cover
Optional: Contact sales for other selections

3.Dimming
Standard: 0-10V Dimming (10-100%)

4.Emergency
Auto self-diagnostics function applied
minimum 30 seconds test once a week to verify
the status as per LED indicator

IECEx Ex IP66 IK10

CB-L1

Low Ceiling Mount
Bracket 1 pair

CB-H1

High Ceiling Mount
Bracket 1 pair

EB-1

Eyebolt 1 pair

WB-01

Wall Mount Swivel
Bracket 1 pair

WOB-1/2

wall mounting
outreach bracket x1

PC-48/60

SS316 pole clamp 1 pair

SC05

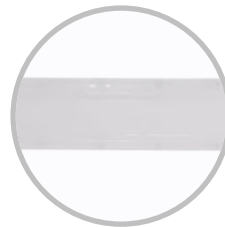Stainless Steel
Safety Cable kit

R-D40/D60/D100

Replacement Driver x1

R-T

Replacement PC Lens,
clear x1

R-F

Replacement PC Lens,
frosted x1

R-B

Replacement Battery Pack x1