

Features

- 90-305 Vac Working Input Voltage
- 15 kA Maximum, 10 kA Nominal (15 strikes) Surge Current Rating Using Industry Standard 8/20us Wave
- UL1449 Type 4, EN 61643-11 – Surge Protective Devices T2 & T3
- IEEE C62.41.2 Location Category C High
- High Temperature, 85°C Maximum Ambient
- Flameproof Plastic Enclosure
- IP66
- Compatible with Inventronics LED Drivers



Description

The PU-20KX10KTXX is designed to be used in conjunction with Inventronics LED Drivers to provide an additional level of surge and transient protection.

Models

Certification	Wiring Configuration (1)	Up (Max Clamped Voltage)	Gas Discharge Tube	Indicator Light(2)	Rated Load Current	Model Number
UL	Parallel	1600 V	N	N	/	PU-20KS10KTTN
UL	Series	1600 V	N	N	15 A	PU-20KD10KTTN
UL, CE, DEMKO	Parallel	2000 V	Y	Y	/	PU-20KS10KTVA
UL, CE, DEMKO	Series	2000 V	Y	Y	15 A	PU-20KD10KTVA
CE, DEMKO, DM with Single- Insulation Wire	Series	1600 V	N	Y	15 A	PU-20KD10KTSL
CE, DEMKO, DM with Double-Insulation Wire	Series	1600 V	N	Y	15 A	PU-20KD10KTSL-FT01
(none – bracket)	/	/	/	/	/	BRU-20KS10KT ⁽³⁾

- Notes:** (1) Dual-port models are designed to interrupt power to the driver if the surge protector is disabled by an excessive surge (TCO open). If no interruption is desired, choose a single-port model or use the alternate connection of a dual-port model described under “Wiring”.
- (2) Models with indicators glow green to show that protection is active.
- (3) The BRU-20KS10KT is an optional bracket which used to fix the surge protector to the housing and it can be ordered separately. The order code is 10B040302X-00.

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Rated Voltage	100 Vac	-	277 Vac	
Max. Continuous Operating Voltage (MCOV)	-	-	320 Vac	
Input Frequency	47 Hz	-	63 Hz	

General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Nominal Discharge Current In(8/20 μ s)	-	-	10 kA	
Number of Surges				
15 kA	1	-	-	
10 kA	15	-	-	
3 kA	100	-	-	
1 kA	500	-	-	

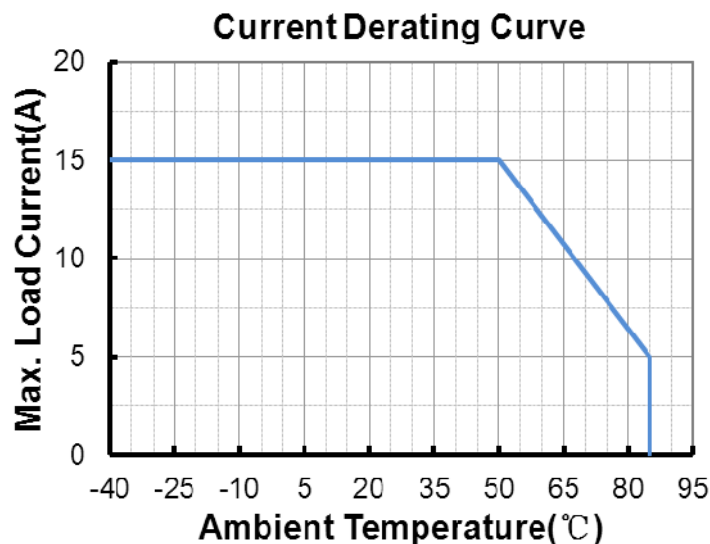
Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-40 °C	-	+50 °C	PU-20KD10KTTN PU-20KD10KTVA PU-20KD10KTSL PU-20KD10KTSL-FT01
	-40 °C	-	+85 °C	PU-20KS10KTTN PU-20KS10KTVA
Storage Temperature and humidity($\leq$ 24 hours)	-40 °C	-	+85 °C	Humidity: $\leq$ 75%RH
Recommended Storage Temperature and Humidity	-10 °C	-	+40 °C	Humidity: $\leq$ 75%RH

Safety & EMC Compliance

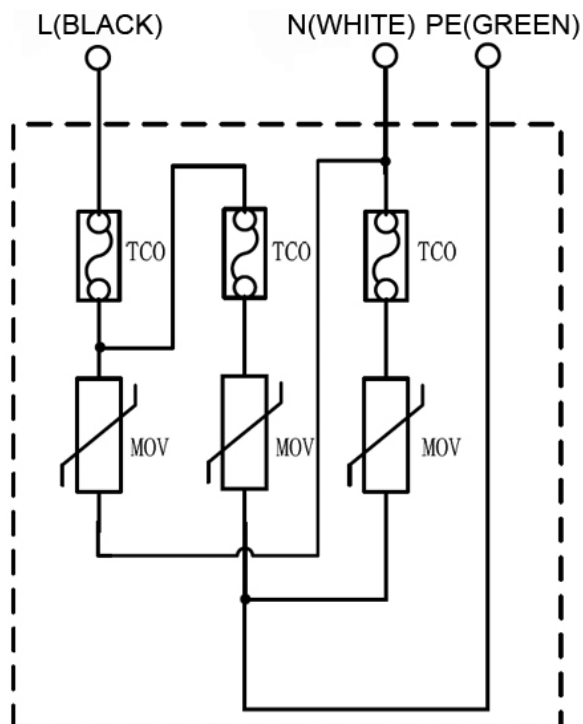
Safety Category	Standard
UL	UL 1449 : Transient Voltage Surge Suppressors
CE/ DEMKO	EN 61643-11: Surge protective devices connected to low-voltage power distribution systems - Requirements and testing methods
IEEE C62.41	Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power Circuits

Current Derating Curve (PU-20KD10KTTN/ PU-20KD10KTVA/ PU-20KD10KTSL/ PU20KD10KTSL-FT01)

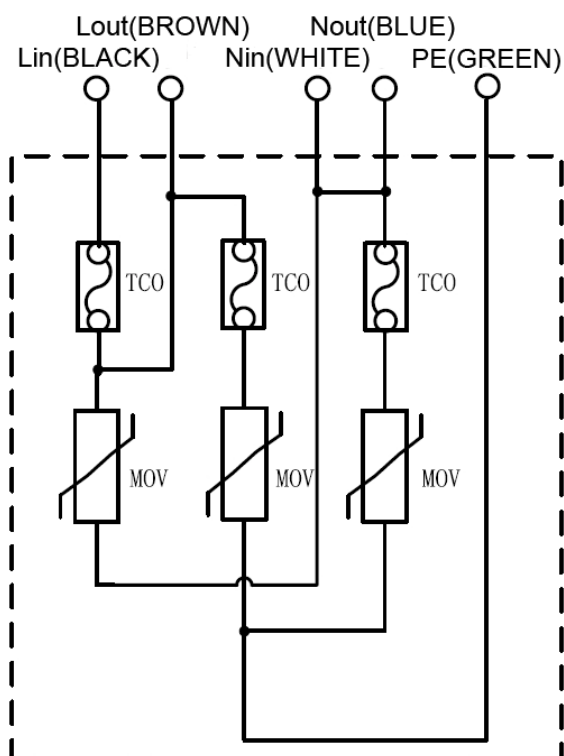


Schematic

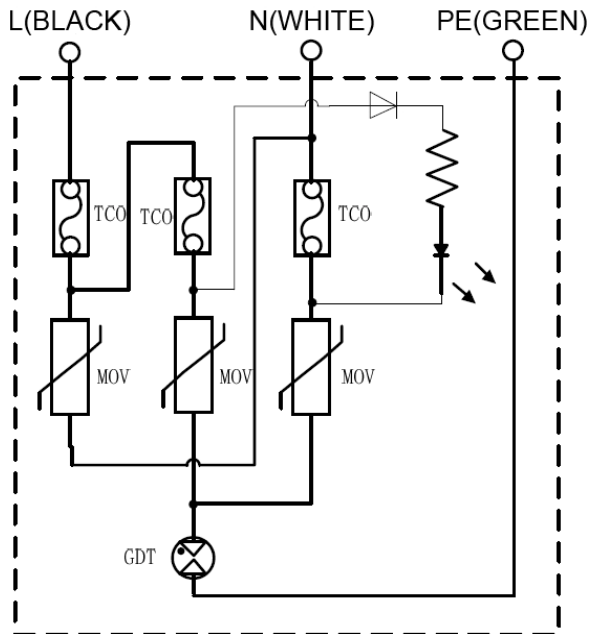
PU-20KS10KTTN



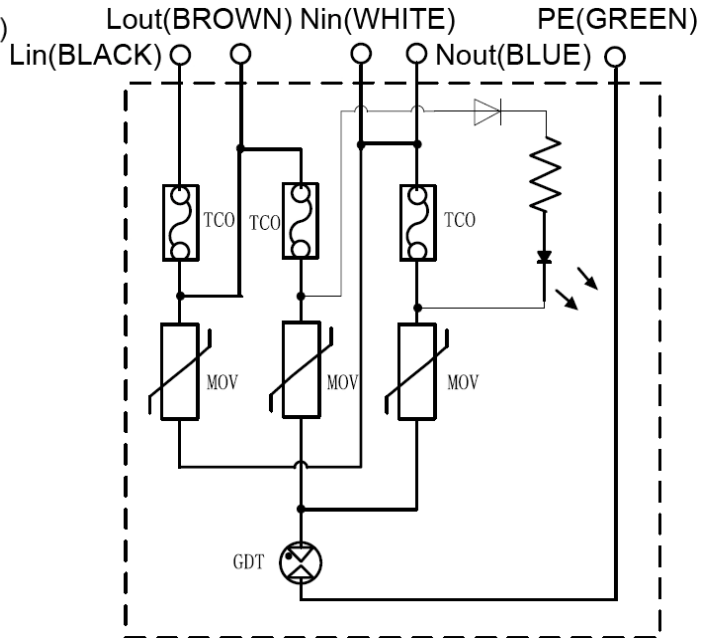
PU-20KD10KTTN



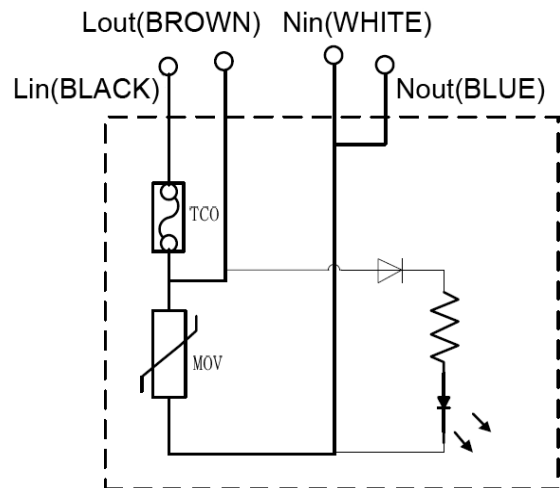
PU-20KS10KTVA



PU-20KD10KTVA

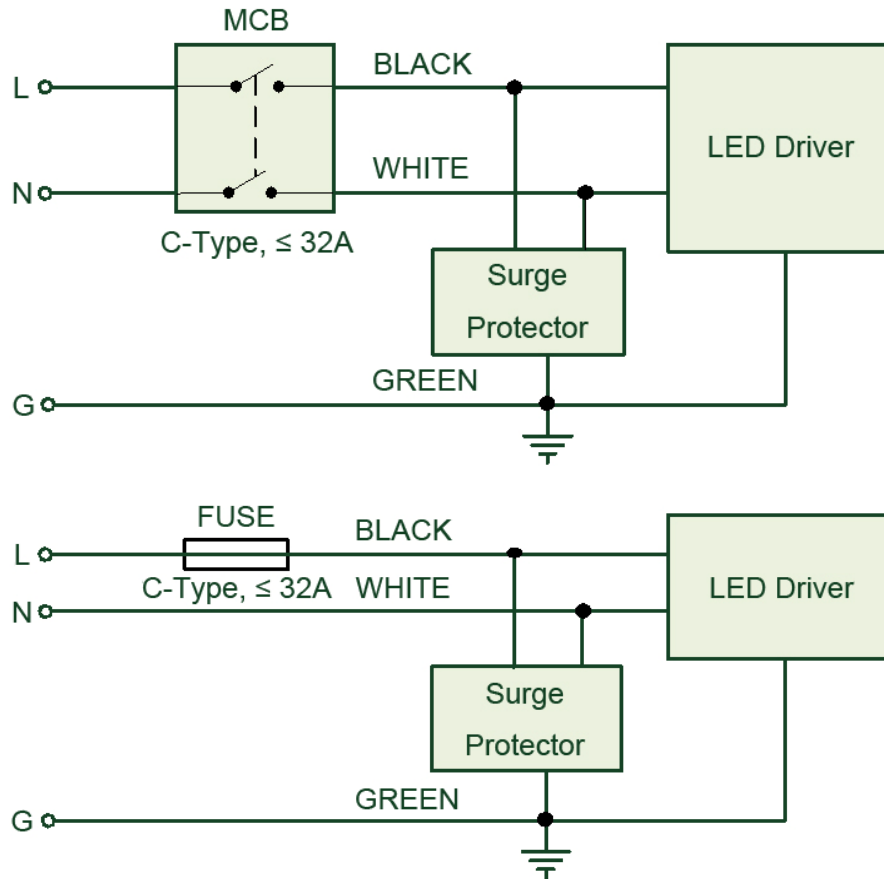


PU-20KD10KTSL / PU-20KD10KTSL-FT01



Wiring

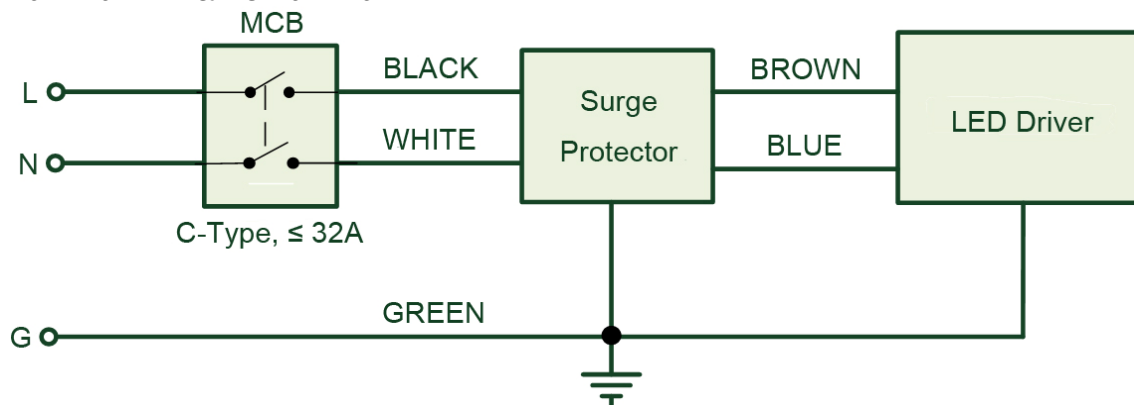
PU-20KS10KTTN & PU-20KS10KTVA

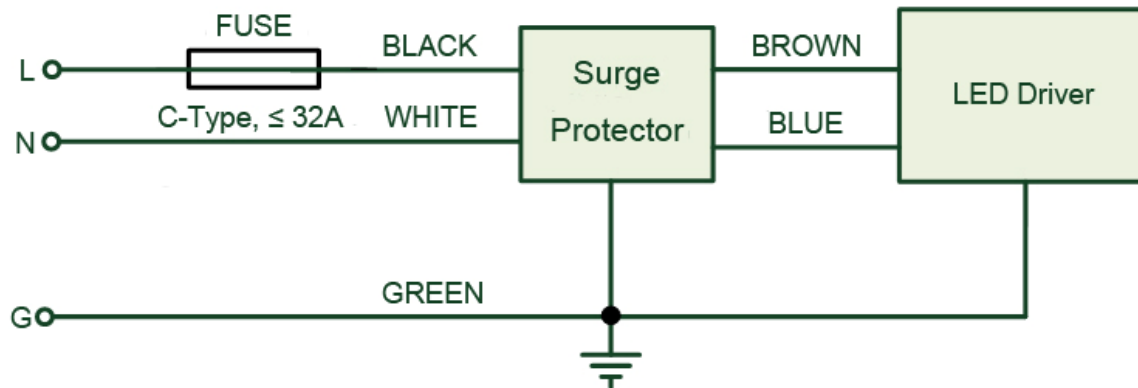


Note: The following connections to dual-port surge protectors will interrupt power to the driver if the surge protector is disabled by an excessive surge (TCO opens). To maintain power to the driver in this event, use a single-port device instead, or make the following change to the connections shown below: connect the “line” input of the LED driver to the black lead of the surge protector along with the MCB or

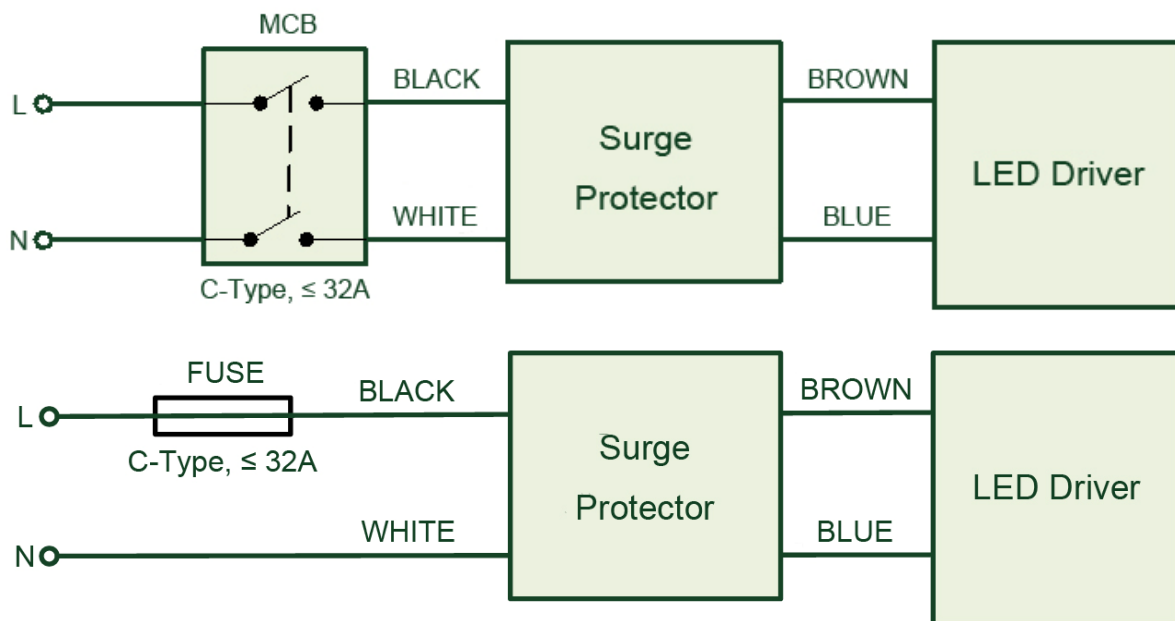
fuse, and leave the brown lead of the surge protector disconnected and capped. The connections to the white and blue leads are unchanged.

PU-20KD10KTTN & PU-20KD10KTVA



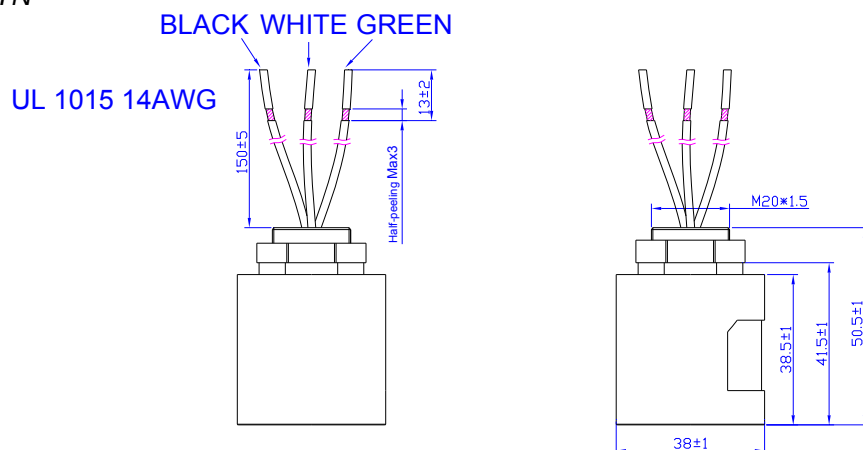


PU-20KD10KTSL/ PU-20KD10KTSL-FT01

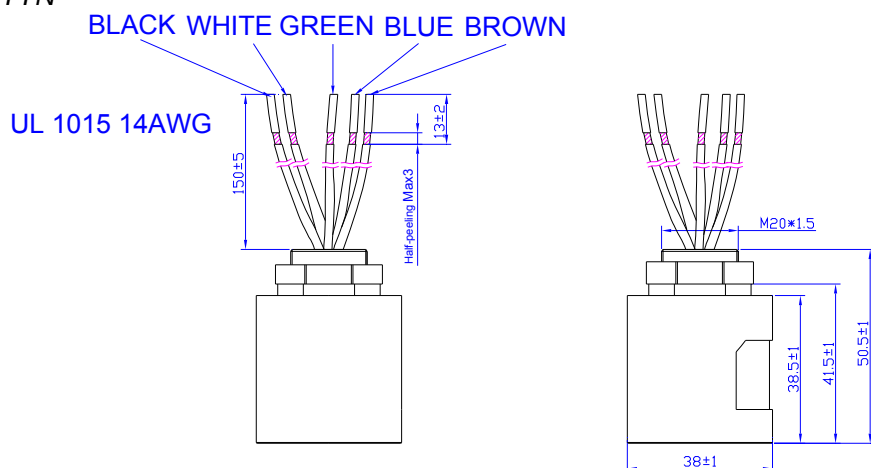


Mechanical Outline

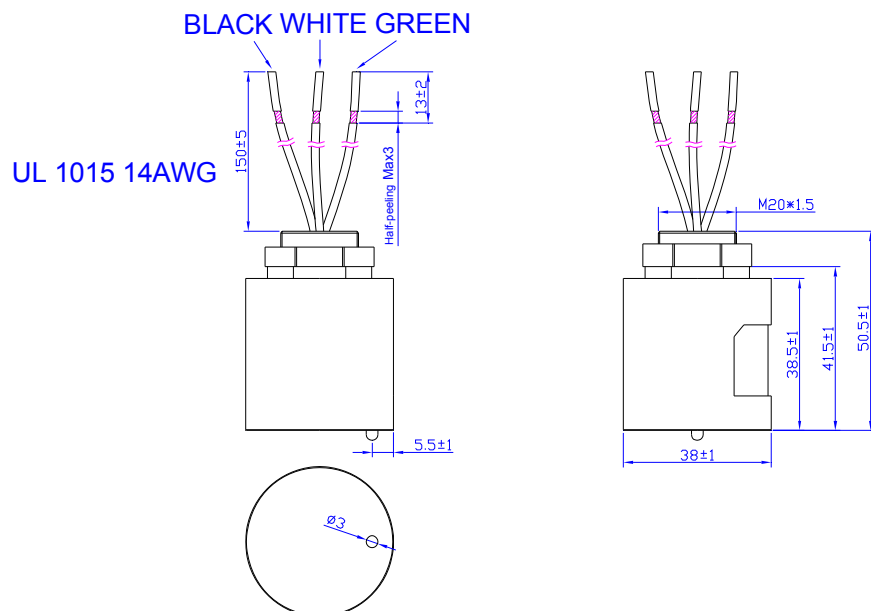
PU-20KS10KTTN



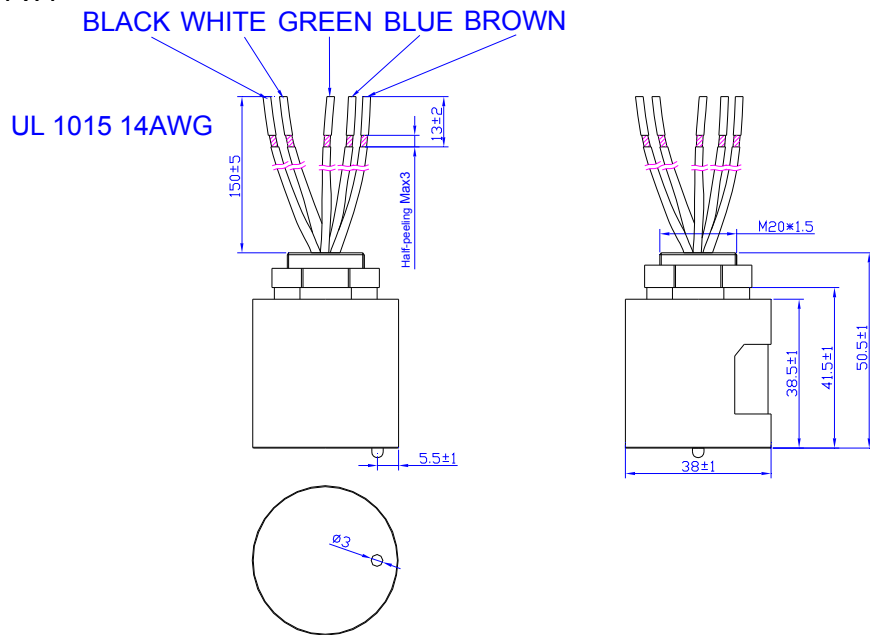
PU-20KD10KTTN



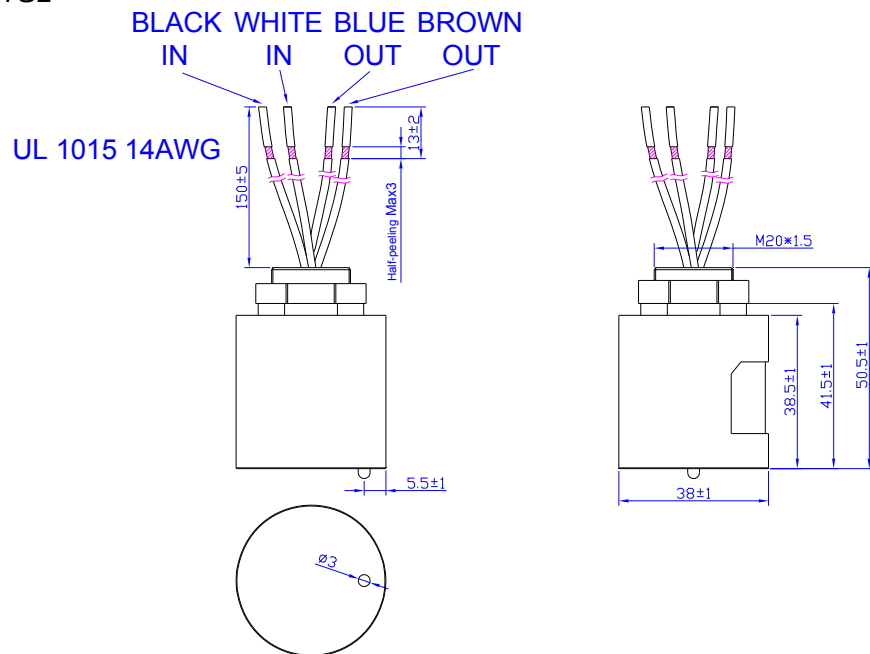
PU-20KS10KTVA



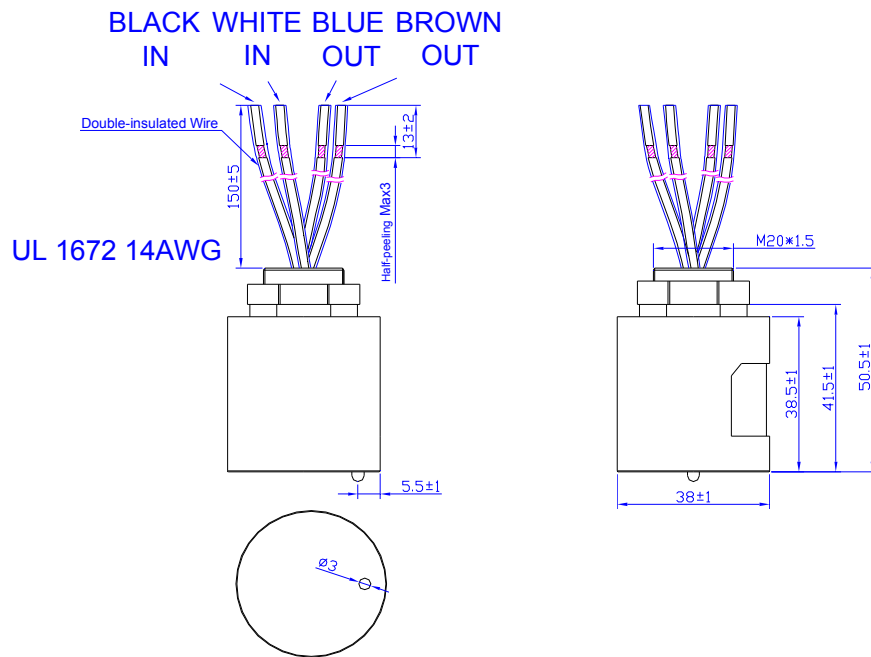
PU-20KD10KTVA



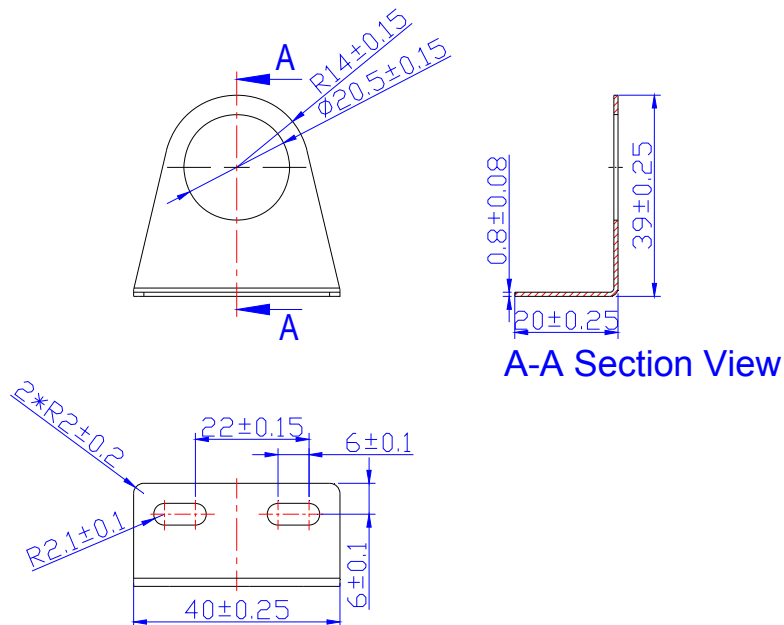
PU-20KD10KTSL



PU-20KD10KTSL-FT01

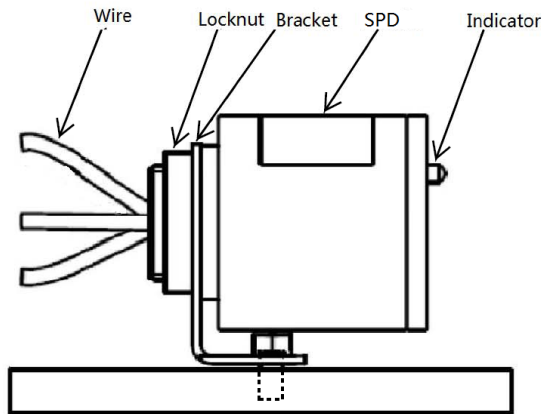


Optional Bracket:
BRU-20KS10KT

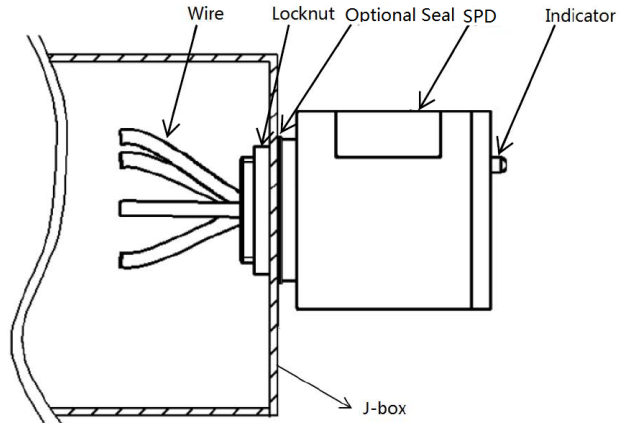


Note: This device is used to fix the surge protector to the housing and it can be ordered separately.

Installation



Bracket Installation



Knock-Out Installation

Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2014-04-25	A	Datasheet Release	/	/
2014-11-15	B	Updated the certificate status of CE/ DEMKO	NA	CE/ DEMKO
2015-4-24	C	PU-20KD10KTTN	/	Added
		PU-20KD10KTVA	/	Added
2015-08-31	D	the "Ports" column	"Single" or "Dual"	"Parallel" or "Series"
2018-01-12	E	Schematic	/	Added wire colors
		Wiring	/	Added wire colors
2018-04-26	F	Features	/	Updated
		Environmental Specifications - Operating Temperature	/	Updated
		Current Derating Curve (PU-20KD10KTTN/ PU-20KD10KTVA/ PU-20KD10KTSL/ PU20KD10KTSL-FT01)	/	Updated