

MODEL: USBX-XX-X-X | **DESCRIPTION:** Power USB CABLE 5V to 12V / 24V

FEATURES

- USB 5V DCDC converter to 12V/24V
- Up to 3W isolated output
- type A or C male to stripped cable
- 0.5 meter
- PVC jacket
- Continuous short circuit protection



USB A part

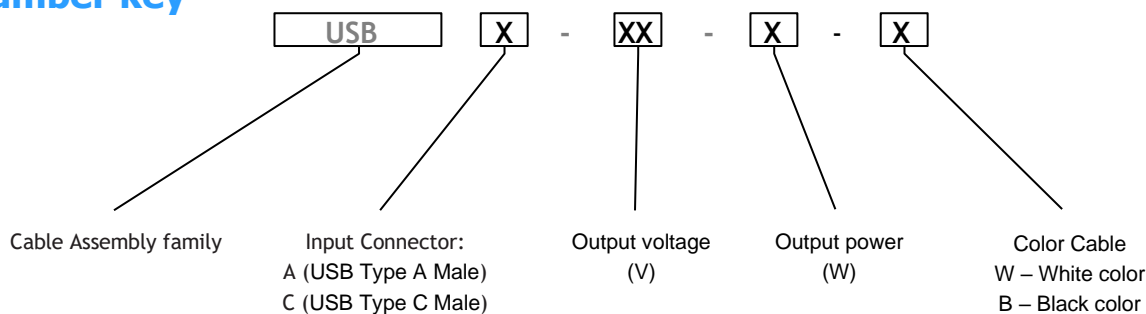


USB C part


Models

Part number	Input voltage		Output voltage		Output current		Power output (W)	Ripple max (mVp-p)	Efficiency (%)
	Typ (Vdc)	Range (Vdc)	Typ (Vdc)	Tolerance (%)	min (mA)	max (mA)			
USBA-24-1-X	5	4,5 to 5,5	24	±10%	-	38	0,9	100	83
USBA-24-2-X	5	4,5 to 5,5	24	±10%	-	73	1,8	200	83
USBA-12-1-X	5	4,5 to 5,5	12	±10%	-	73	0,9	100	83
USBA-12-2-X	5	4,5 to 5,5	12	±10%	-	157	1,8	200	83
USBA-24-3-X	5	4,5 to 5,5	24	±5%	-	0,125	3	100	76
USBA-12-3-X	5	4,5 to 5,5	12	±5%	-	0,125	3	100	76

Note: X correspond to cable color W (White) or B (Black)

Part number key


SPECIFICATIONS

Input

Parameter	Description	Min	Typ	Max	Unit
Operating input voltage	USB	4.5	5	5.5	Vdc
Surge voltage	For maximum of 1 second / 2W output power	-0.9	-	9	Vdc
	For maximum of 1 second / 3W output power	-0.7		16	Vdc
Current	12 Vdc output / 2W output power - full load			500	mA
	24 Vdc output / 2W output power - full load			488	mA
	12 Vdc output / 3W output power - full load			857	mA
	24 Vdc output / 3W output power - full load			857	mA

Output

Parameter	Description	Min	Typ	Max	Unit
Maximum capacitive load	12 Vdc output / 2W output power - full load			560	μF
	24 Vdc output / 2W output power - full load			220	μF
	12 Vdc output / 3W output power - full load			220	μF
	24 Vdc output / 3W output power - full load			47	μF
Output voltage accuracy	12 Vdc output / 2W output power - full load	-7.5		+10	%
	24 Vdc output / 2W output power - full load	-7.5		+10	%
	12 Vdc output / 3W output power - full load	-3		+3	%
	24 Vdc output / 3W output power - full load	-3		+3	%

Protection

Parameter	Description	Min	Typ	Max	Unit
Short circuit protection	continuous, auto recovery				
Over voltage protection	3W output power	110		160	%
Over current protection	3W output power	110	160	250	%

SAFETY AND COMPLIANCE

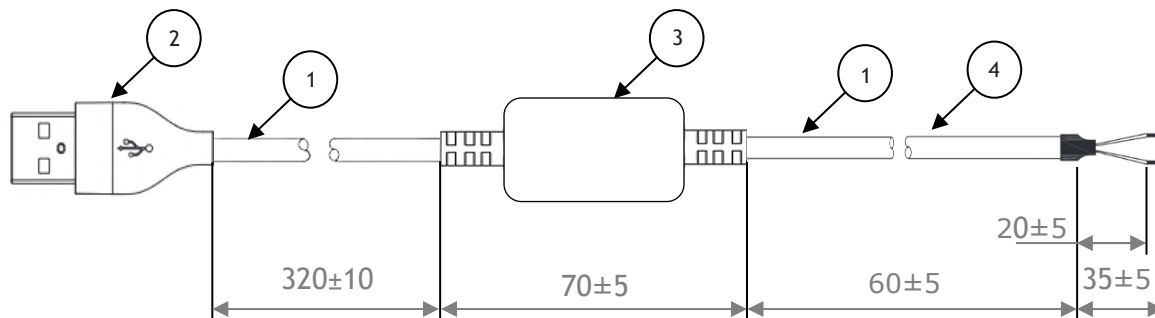
Parameter	Description	Min	Typ	Max	Unit
Isolation voltage	input to output for 1 minute at 1 mA	1000			Vdc
Isolation resistance	input to output at 500 Vdc / 2W output power	1			MΩ
	input to output at 500 Vdc / 3W output power	100			MΩ
Safety approvals	designed to meet 62368: EN/BS EN				

ENVIRONMENTAL

Parameter	Description	Min	Typ	Max	Unit
Operating temperature		-20		+55	°C
Storage temperature		-20		+80	°C

MECHANICAL DRAWING

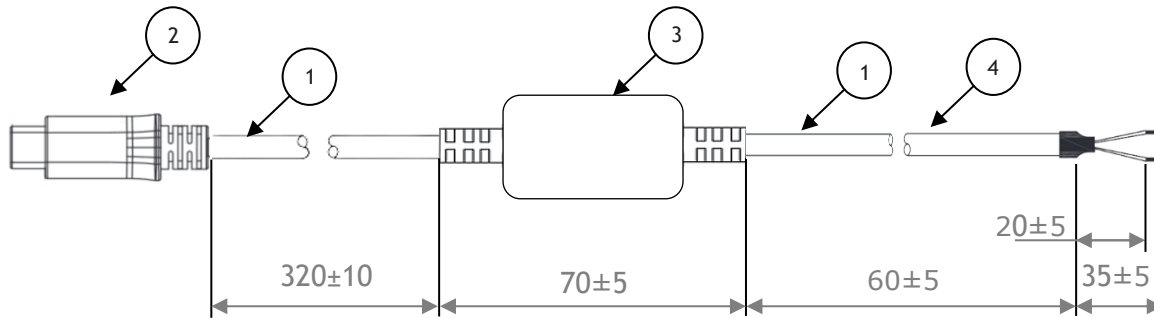
Units:mm



Item	Description	Plating / color	Material
1	Cable	Black / White	PVC - UL 272
2	Connector	shell: nickel term.: gold flash	USB 3.0 Type A
3	Plastic Enclosure	Black / White	ABS plastic
4	Stripped cable	Red: +24V/ +12V Black: Ground	Tinned Copper Wire / ferrules

MECHANICAL DRAWING

Units:mm



Item	Description	Plating / color	Material
1	Cable	Black / White	PVC - UL 272
2	Connector	shell: nickel term.: gold flash	USB 3.0 Type C
3	Plastic Enclosure	Black / White	ABS plastic
4	Stripped cable	Red: +24V/ +12V Black: Ground	Tinned Copper Wire / ferrules

REVISION HISTORY

Rev.	Description	Date
1.0	initial release	12/20/2023

The revision history provided is for informational purposes only and is believed to be accurate.



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