KEDU ELECTRIC CO.,LTD.

HY12-15

PUSH BUTTON SWITCH

SPECIFICATION

WRITER/DATE	CHECK/DATE	APPROVED/DATE
JIANSHENG 2016.05.06	SIQI WANG 2016.05.06	ZIPING LI 2016.05.06

1. Manufacturer,Product Name,Type,Parameter,Standard

1.1 Manufacturer: KEDU ELECTRIC CO,.LTD.

1.2 Product Name：Push button switch

1.3 Type：HY12-15

1.4 Parameter： 16(10)A/250V～（EN61058）

1.5 Standard：EN61058

1.6 Certificate：TUV

2. Product performance

2.1 Operating environment condition：

2.1.1 Environment temperature：-5~40℃,average temperature in 24h≤35℃

2.1.2 Elevation：≤2000m

2.1.3 RH(relative air humidity)：Clean air, RH ≤50% at 40℃environment temperature , RH can be higher at lower temperature, eg.90% at +20℃.

2.1.4 Class of pollution：2

2.2 Performance and characteristic

Standard	EN61058
Rated voltage	250V～
Rated current	16(10)A
Electrical endurance	5E4
Mechanical endurance	10E4
Contact resistance	Original value≤10mΩ
Terminal type	Tab 6.3×0.8
IP degree	IP65
Rated environment temperature	T120/55 (switch main body can reach to 120℃，controls parts limit to 55℃)

2.3 Appearance：No crack or deformation on the case, label is legible and correct.

2.4 Dielectric property

2.4.1 Humidity processing：RH in humidity cabinet is between 91% and 95%,temperature is at an value in 20℃～30℃(t) and can fluctuate ±1℃.Keep the temperature of the humidity cabinet at a value of t～（t±4）℃ before putting the samples into. After 96h the switch has no damage. Then do insulation resistance test and dielectric test.

2.4.2 Insulation resistance:Put 500VDC on below parts of the switch and measure

it after 1min:

2.4.2.1 Between different poles ≥10MΩ;

2.4.2.2 Between all connected electrification parts and shell≥10MΩ;

2.4.2.3 Between electrification parts and button≥10MΩ;

2.4.3 Dielectric strength: At a sine wave voltage with 50Hz or 60Hz, the voltage is tested from 0V up equably to below value in 5s and with no flashover or breakdown after keeping 5s.

2.4.3.1 Between different poles ,1500V;

2.4.3.2 Between contacts on each poles,1500V;

2.4.3.3 Between electrification parts and shell,3000V 。

2.5 Heat test: Environment temperature is (25±10) ℃,switch is normally assembled and connected with 2.5mm^2 1m flexible wires, temperature rise of the terminals≤45K when switch under 16x1.06=16.96A and 250VAC.

2.6 Endurance test: Environment temperature is (25±10) ℃,normal electrical condition, ON/OFF under 16A/250VAC,ON 1s and OFF 3s for each cycle,15times/min, 5E4.Test steps as below:

1. Speed up:under the condition of rated voltage,6 times of electric load current and power factor≥0.9 to test closing ability of the contact. Under the condition of rated voltage, resistive load current and PF(power factor)≥0.9 to test contact opening ability of the contact. Operating 100cycles at 80mm/s in single load circuit.
2. Low speed:With same electrical conditions as above point. Operating 100cycles at 20mm/s in single load circuit.
3. Speed up: With same electrical conditions as above point. Operating 50000 cycles at temperature 0-55℃ and speed 80mm/s.

Locked-rotor test: 6 times of electric load current and PF 0.6,operating 50 cycles。

The samples doing above testing should be working correctly during the testing and after testing.

2.7 Heating qualified (TE2): After endurance test ,keep the environment temperature at(25±10)℃, switch is normally assembled and connected with 2.5mm^2 1m flexible wires, temperature rise of the terminals≤55K when switch under 16A/250VAC for 1h.

2.8 Insulation qualified (TE3): The sample is without humidity processing before testing. Switch at a sine wave voltage with 50Hz or 60Hz,the voltage is tested from 0V up equably to below value in 5s and with no flashover or breakdown after keeping 5s.

2.8.1 Between different poles,1125V;

2.8.2 Between contacts on each poles,1125V;

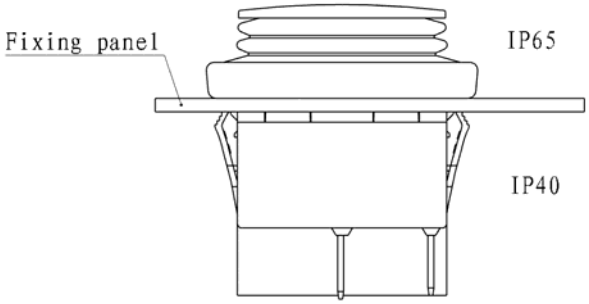
2.8.3 Between electrification parts and shell,2250V 。

2.9 Mechanical strength:

2.9.1 Enough mechanical strength: Strike the weakness of the switch 3 times by a spring impacter with (0.5±0.04)Nm impact energy, switch has no fracture after testing.

2.9.2 Insertion and extraction force: put an axial force steadily, insertion force is 96N max.and extraction force is 88N max.for single pin. The pins do not move obviously or be damaged.

2.9.3 IP degree: IP65 actuating side,IP40 terminal side



3. Inspection and method

3.1 Inspection project

3.1.1 Appearance

3.1.2 Dielectric strength

3.2 Sampling plan

Sampling plan according to GB 2828《Inspection by counting sampling procedures and sampling tables》

No.	Project	Plan	AQL
1	Appearance	II	2.5
2	Dielectric strength	S-3	0.65

3.3 Inspect condition: Unless otherwise specified, temperature should be between 20℃~30℃,switch can be assembled at the test equipment at every position.

3.4 Method

3.4.1 Appearance inspection: Visual check, accord with item 2.3.

3.4.2 Dielectric strength: Check accord with item 2.4.3.

4.Label:

4.1 Logo: KEDU or KEDU

4.1.2 Type

4.1.3 Certificate： TUV

4.1.4 Rated current Ie

4.1.5 Rated voltage Ue

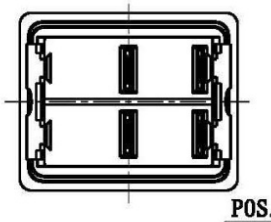
4.2 S Store condition

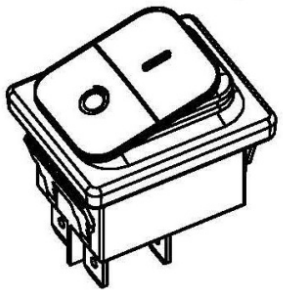
Carton and goods cannot be subjected to wind and rain attacking during shipping or storage. RH≤ 95%.

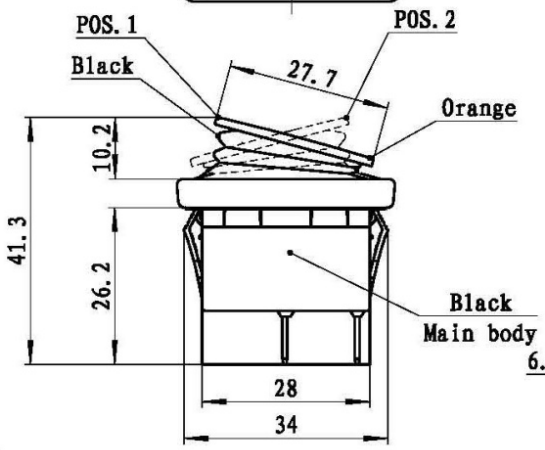
5. Outline Drawing

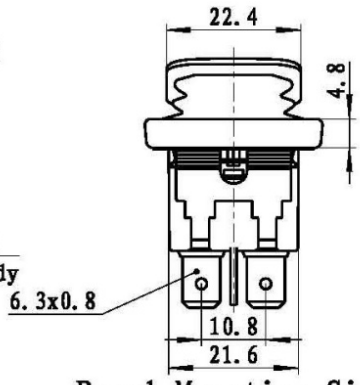
1113440014

Rejigger Index					
REV.	Mark	Qty	Verified Content Description	Verified /Date	Rejigger /Date

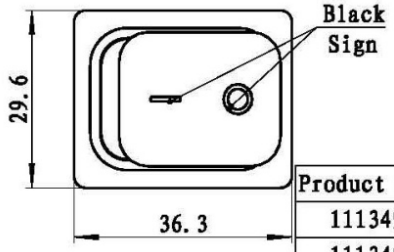


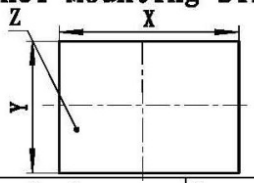






Panel Mounting Size



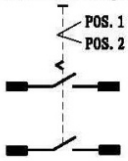


Product number	Rating	Operating Force
111349001	18(12)A 250VAC 5E4	22N(Max)
111349002	16(10)A 250VAC 5E4	10N(Max)

Technical Specification

1. Switch model: HY12-15;
2. Rating see table;
3. Function: ON-OFF;
4. Performed standard: EN61058;
5. Degree of protection: IP40(Main body) IP65(Actuating side).

Circuit diagram



Z=Panel Mounting Thickness

Z	Y	X
0.7~1.25	$22^{+0.2}_{0}$	30.2±0.1
1.25~2.0	$22^{+0.2}_{0}$	30.6±0.1
2.0~3.0	$22^{+0.2}_{0}$	30.8±0.1

Common use register

Drawing

Collation

Old Bottom Drawing No.

Bottom Drawing No.

Signature

Date

Tolerance Not Marked

Basic Dimension	>0~6	>6~30	>30~120	>120~300
Tolerance	±0.1	±0.3	±0.5	±1

Designed by	黄邦然	20160409	Standardization	王思琦	20160409
Collated by	张建生	20160409	Examied by		
Checked by	吴光平	20160409	Drawed by	黄邦然	20160409
Technics			Approved by	李子平	20160409

ASSEMBLE OUTLINE

Phase Mark	REV.	Scale
S	A	1:1

Current Page Total Page

KEDU ELECTRIC

111344001
Push Button Switch

1113440014