

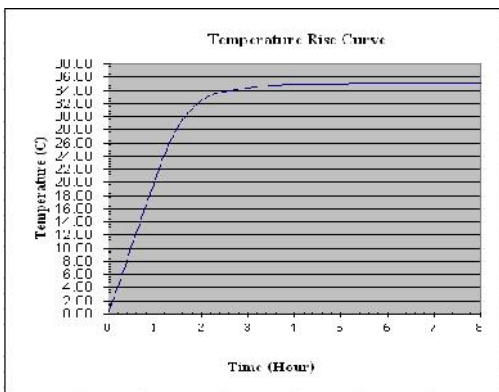
Specification : Transformer & Power Supply for Electronics Security Type.

Model :PD-03-01 *Engicon*

Introduce

Electronic security system is very important today because a system can help you in monitoring, detecting or controlling things in the area of a running system but electronic security system must work 24 hours for such purposes we much needed in the selection of high quality equipment used in the system for performance optimization.

PPCTECH Co.,Ltd. is produced about transformer, power supply, adaptor for electronic security system we specifically designed for use 24 hours we design and support power supply to a company with a leading system integration company in Thailand we supply adaptor power supply to distributors of CCTV camera brand American, Europe and Japan.

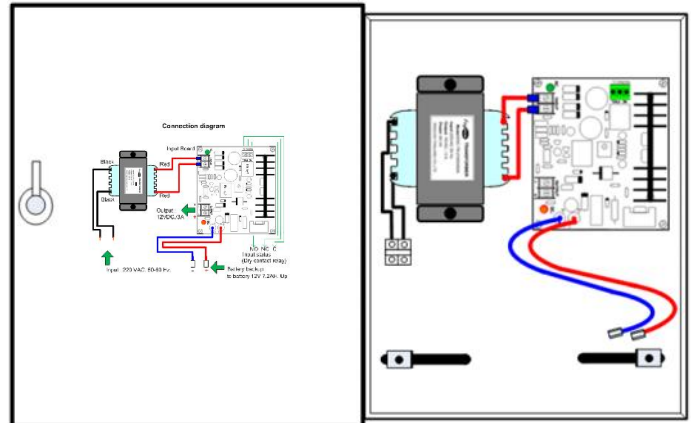


Model: PD-03 On 25 °C Ambient

Power Supply for Electronic Security System may be used in a different by depending on the electrical properties of equipments such as cameras which use the adaptor of AC and DC, access control use power supply /with charger because they want battery backup and supply to other equipments such as reader, magnetic lock, finger scan, fire alarm system need to power supply for difference current for difference side if you need to power supply for other equipment please contact us from telephone or E- mail as below.

Power Supply Option

- PD-03 → BPD-03 +TS16-4
- PD-XX-YYB
- YY = 01 → BPD-03 +TS16-4 + indoor box dimensions(W=22, H=28, D = 10 cm)
- YY = 02 → BPD-03 +TS16-4 + indoor box dimensions(W=22, H=28, D = 10 cm)+ Breaker10A
- YY = 03 → BPD-03 +TS16-4 + indoor box dimensions(W=32, H=44, D = 10 cm)
- YY = 04 → BPD-03 +TS16-4 + indoor box dimensions(W=32, H=44, D = 10 cm) Breaker10A
- YY = 05 → BPD-03 +TS16-4 + Outdoor box dimensions(W=25, H=35, D = 15 cm)
- YY = 06 → BPD-03 +TS16-4 + Outdoor box dimensions(W=25, H=35, D = 15 cm) Breaker10A
- B → Include battery 12V7.5AH



Design Principles

Electronic security system that demands high stability, equipment used in the system must have high quality and good compatibility if some equipments do not have the quality it's effect to the system was not stable.

Many system integrators may see transformer, adaptor power supply is less important in the system but actually, these equipments are also important as well. Because if they do not have quality equipment will make no quality system although the use of other equipments high quality.

PPCTECH Co., Ltd.'s products quality and specializes for transformers and power supply to use for the actual environment we select quality electronic part to products adaptor power supply and design for low magnetic flux density transformer to reduce residual magnetism so transformer is less heat and long life more than transformer in general.

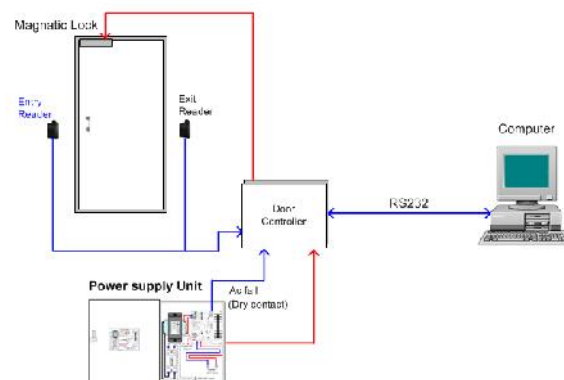
Transformer Design Equation

$$N_p = \frac{V_{in}}{4.44 f B A}$$

$$N_s = \frac{V_{out}}{4.44 f B A}$$

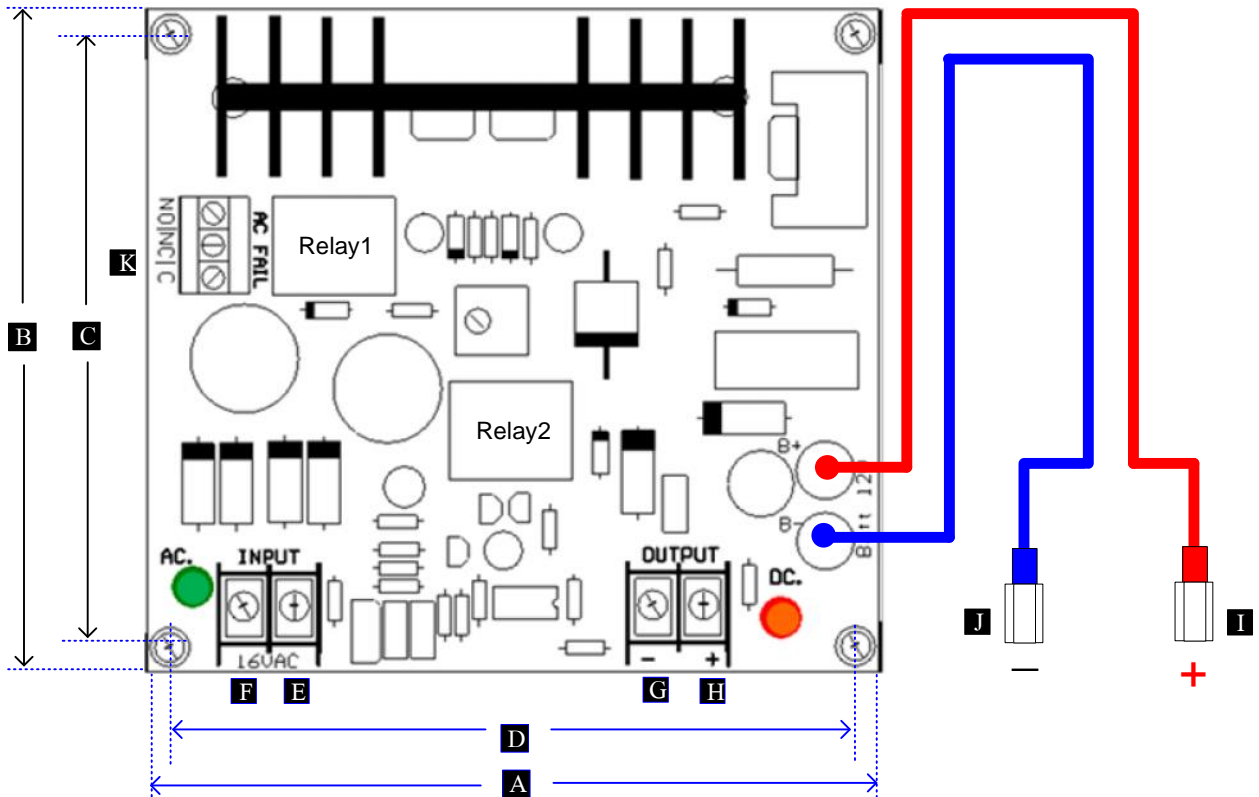
N_p : Primary Turn Turn.
 N_s : Secondary Turn Turn.
 f : Line Frequency Hz.
 V_{in} : AC. Input Voltage Volt.
 V_{out} : AC. Output Voltage Volt.
 B : Flux Density Wb/mm.²
 A : Cross Section Areas m.²

Transformer design will set B : Flux density low or set turn of transformer more than general transformer for reduce residual magnetism of transformer so transformer is less heat than transformer in general.



Access control system diagram

Specification : AC to DC power supply Electronic Security Type.

Model :BPD-03 *Engicon*


Character	Description	Unit mm/Inch
A	Length of Power Supply/Charger Board	115/4.53
B	Width of Power Supply/Charger Board	105/4.13
C	Holes for Holing Dimension 1	95/3.74
D	Holes for Holing Dimension 2	107/4.21
F E	Input:16 Vac./4A from TS16-4,0	
G	Output : - 0 VDC	
H	Output : +12 VDC. Current 3A	
I	Battery Charge 800mA to Battery+ (12 V)	300/11.8
J	Battery Charge 800mA to Battery - (0V)	300/11.8
K	AC Fail Supervision Terminal (NO-NC-C)	

LED Indicators

Red(DC)	Green(AC)	Power Supply Status
ON	ON	Normal Operating Condition.
ON	OFF	Lost of AC, Battery is Supplying Power.
OFF	ON	Power Supply Fail ,No DC. Output
OFF	OFF	No DC. Output, Lost of AC., Discharged or No Battery Present

Product Specifications

Input Voltage :	16 Vac., 4A 50-60 Hz.
Output Voltage :	12 VDC.
Output Current :	3.0 A. (2.2A continuous)
Output Power (VA) :	36 VA.
Protection :	- Thermal Over Load ,Output Short Circuit Protection. - Battery fuse 5 A for battery Over load. - Battery Discharged Protection (cut out battery from load if voltage discharged was under 10 V.)
Temperature Rise :	35 °C.
Steady State Times :	117 mS.
Power Status Show:	LED indicators for AC input and DC Output
Supervision:	- AC Fail Supervision (from C Contacts)
Dimensions :	115 mm/4.53" X 105 mm/4.13" X 48 mm/1.89".
Weight :	0.27 kg.
Ambient Operating Temp. :	0-55 °C.
Input Connection :	Terminal
Output Connection :	Terminal
Battery Charger :	Charging 800 mA Maximum/ Discharge 5 A Max)

-Power consumption must not exceed 26.4 watts when used at all times (24 Hr).

-Battery under voltage discharge protection by Cutout battery from Output in voltage less than 10V

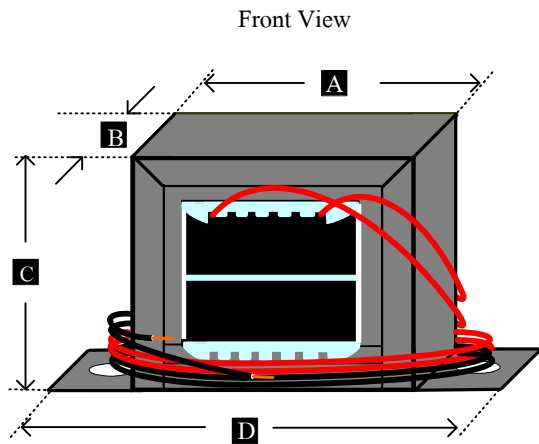
-Product design for Access control system

Customer Confirmed

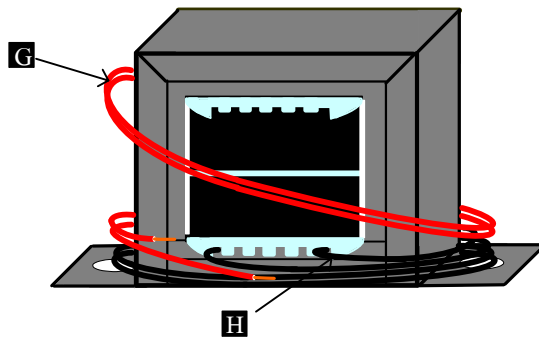
Company logo Sealed	Approved by :
	Position :

Specification : Transformer for Electronic Security Type.

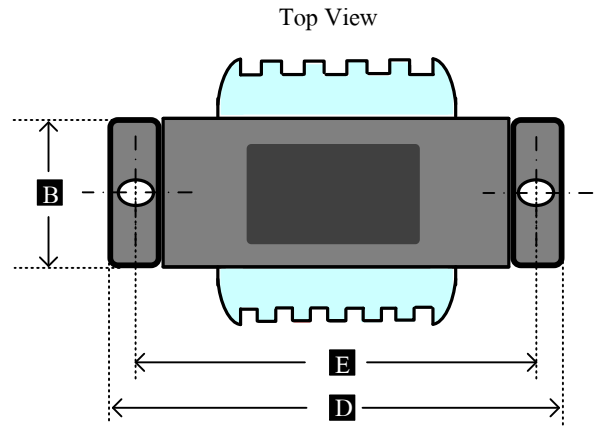
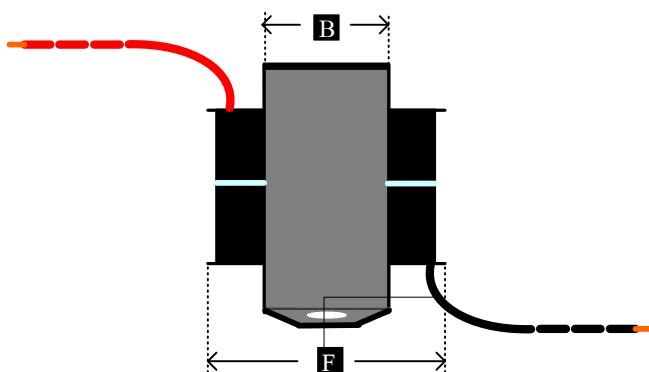
Model : TS16-4



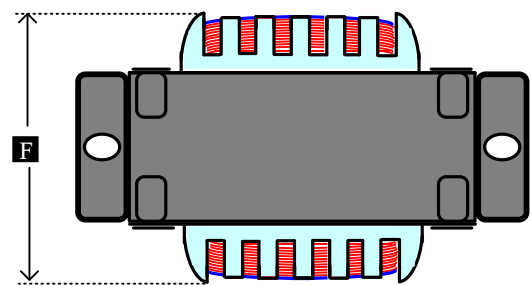
Rear View



Side View



Bottom View



Character	Description	Unit mm/inch
A	Transformer Dimension	78 /3.07
B	Transformer Dimension	44/1.73
C	Transformer Dimension	66/2.59
D	Transformer Dimension	110/4.33
E	Transformer Dimension	95/3.84
F	Transformer Dimension	73/2.87
G	Output Conneciton 16 VAC50-60 Hz. 4A.	300/11.81
H	Input Connection 220 VAC 50-60 Hz.	Length

Product Specifications

Input Voltage :	220 Vac. ,350 mA, 50 Hz.
Output Voltage :	16 Vac.
Output Current :	4.0 A. (3A continuous)
Output Power (VA) :	64 VA.
Flux density :	1.10 Wb/m ²
Temperature Rise :	27 °C.
Steady State Times :	4.20 mS.
Dimensions :	110 mm/4.33" X 58 mm/2.28" X 66 mm/2.59"
Weight :	1.65 kg.
Ambient Operating Temp. :	0-55 °C.
Input Connection :	Black colour lead wire
Output Connection :	Red color lead wire

* Transformer for Input Power supply for Access control

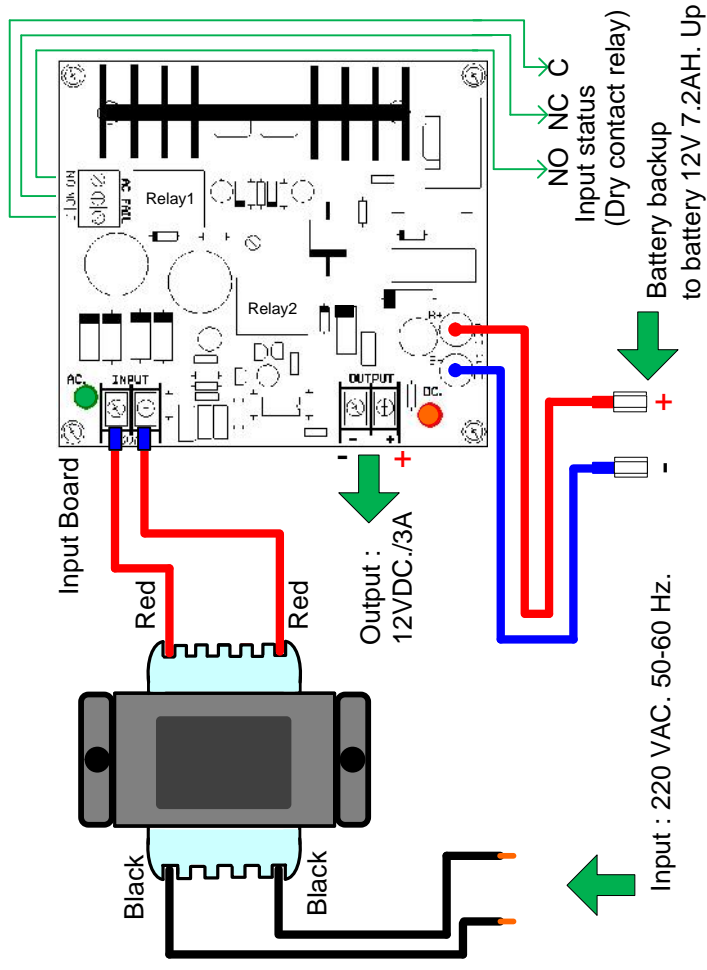
Model : PD-01, PD-02, PD-03

-Product design for Access control system

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	Position :

Connection diagram



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Scaled	
	Position :



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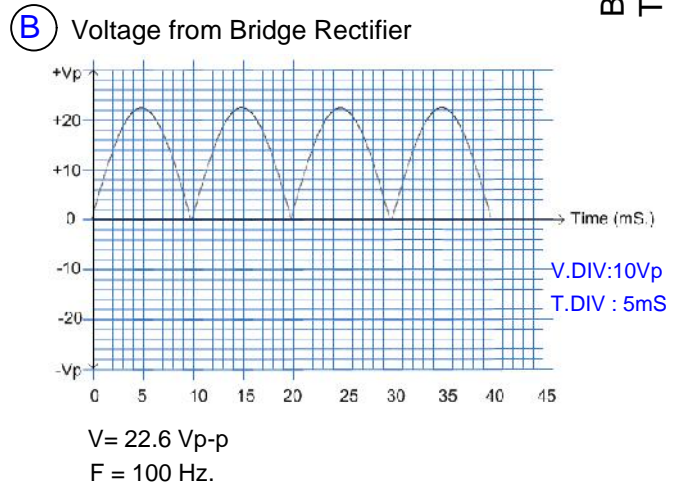
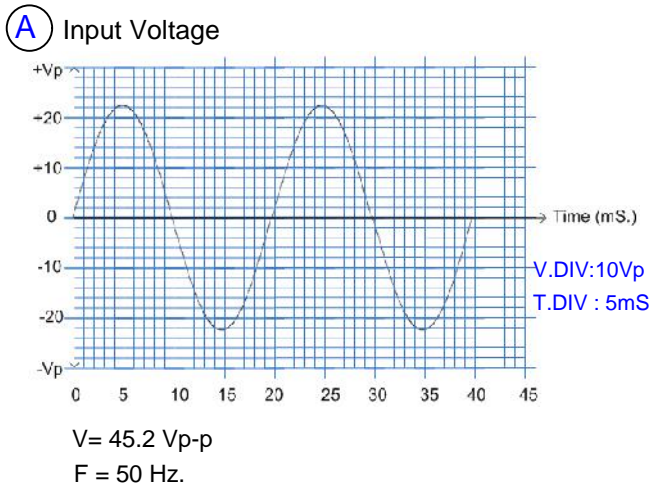
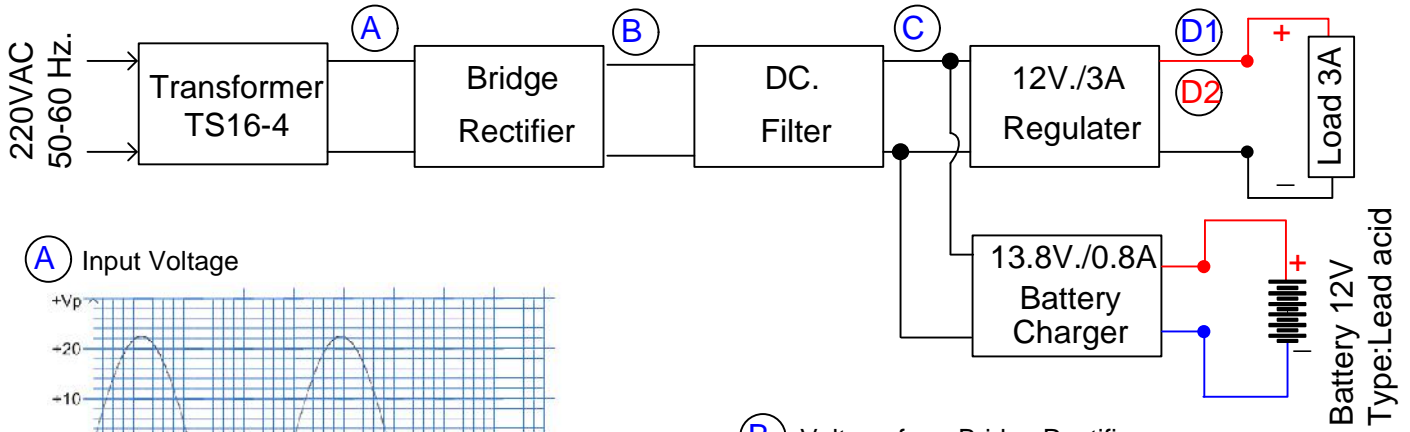
PROJECT NAME: Special Product for Access Control	DRAWN BY: Mr. Toedsak Thoithong
PRODUCT ID: PD-03-01	CHECKED BY:
PRODUCT DSC: Power Supply for Access control	APPROVED BY: Mr. Teeparak Puttarak
DRAWING TITLE: Connection Diagram	DATE: 20/10/58
DRAWING NO.01	SCALE: None
	DRW:



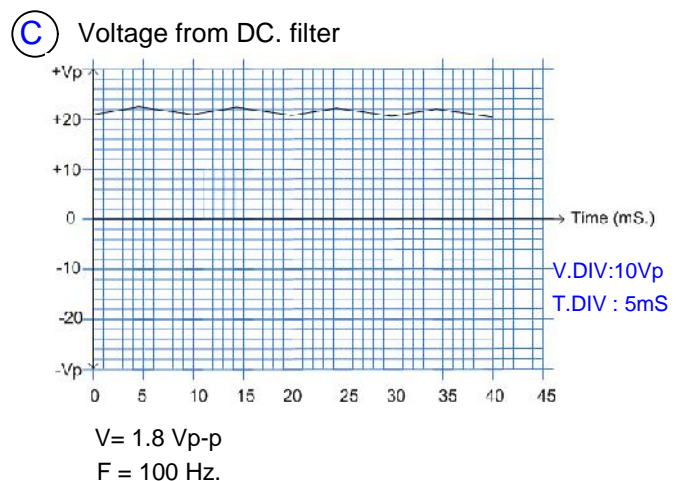
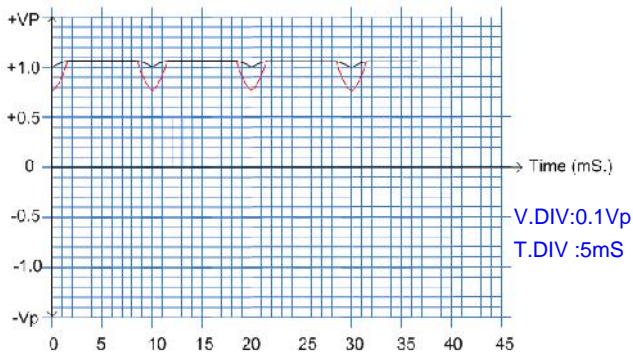
Power Supply Ripple Testing Report

Document No : PTE0809-001PSCH Product ID : PD-03
 Customer Name : Product Type: Power Supply Board. Date : 20-10-58
 Specification : Input : 16 VAC 50-60 Hz. ,Output : 12 VDC 3 A with Charger 13.8VDC 800mA Max

Testing Condition by Output Load 3A., Battery Standby and Battery Charging Conditions.



- (D1)** Output ripple with Battery standby condition (Battery full or no present battery)
- (D2)** Output ripple with Battery charging condition.



(D1) V = 0.06 Vp-p F = 100 Hz. **(D2)** V = 0.3 Vp-p F = 100 Hz.

Black Wave form

Red Wave form

PPCTECH CO.,LTD.

Test by:
Test Engineer

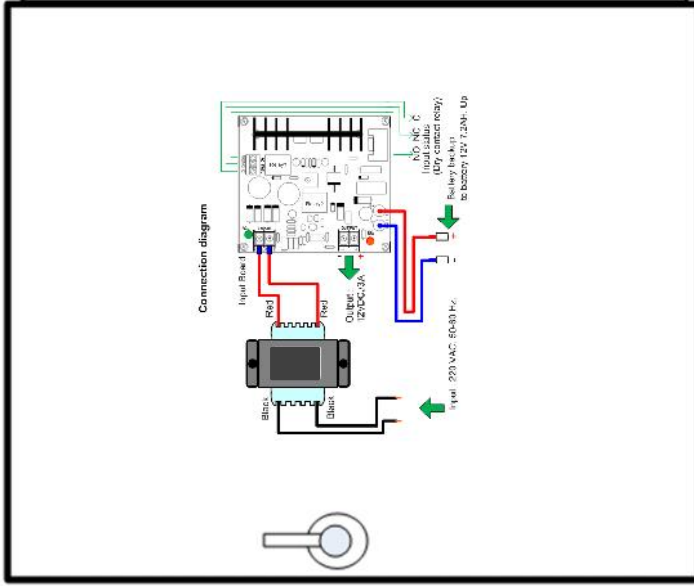
Check by :
Production QA

Approved by :
Production Manager

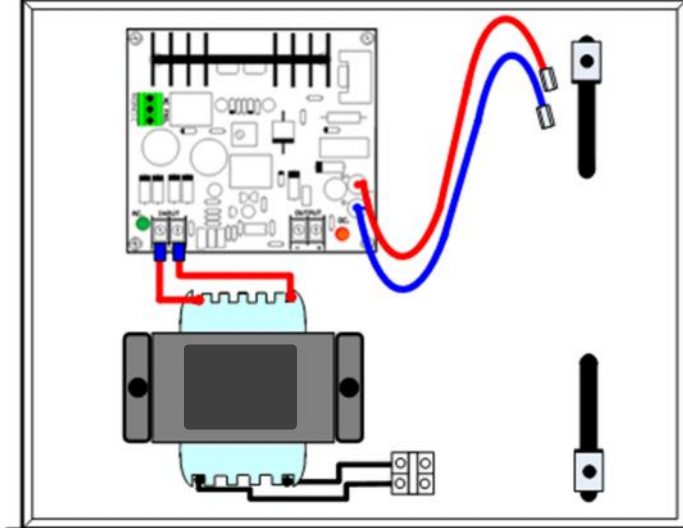
CUSTOMER

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Position :

22



28



27.5

21.5

Unit : Cm.

Customer Confirmed

Company logo Sealed

Approved by :

Position :



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District, Nakhon Pathom, Thailand 73160

PROJECT NAME: Special Product for Access Control

DRAW BY : Mr.Toedsak Thothong

PRODUCT ID: PD-03-01

CHECKED BY :

PRODUCT DSC: Power Supply for Access control

APPROVED BY : Mr. Teeparak Puttarak

DRAWING TITLE : PD-01-01B on Indoor Box

SCALE : None

DATE : 20/10/58

DRW: