



**ELECTRONICS**



## SPECIFICATION of MGT- 1640-P

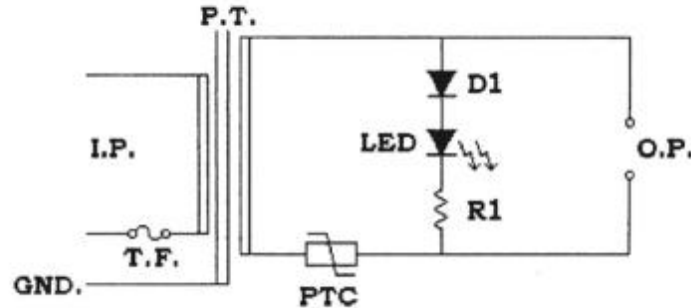
MATERIAL LIST for <u>Circuit (a)</u>				
<b>Components &amp; Specification</b>				
<b>No.</b>	<b>Components</b>	<b>Specification</b>	<b>Manufacturer</b>	<b>Approval</b>
1	Bobbin	UL Recognized Plastic 94V-2 125C Nylon 66 Zytel 101L , 0.74 mm Min	EI Dupont de nemours & Co.,Ltd	E41938
2	Thermal fuse	EYP1BF130 (130°C 1A 250V) 323 (130°C 1A 250V) M33 (130°C 2A 250V)	Matsushita electric Co.,Ltd. Uchihashi estec Co.,Ltd. Joint force metal research	E60271 E50082 E142267
3	Primary wrap	Mylar tape t=0.025 mm 2 turns 31CT or PZ280 Press board t=0.25 mm 1 turn	Nitto Denko Ya Wa enterprise Co., Ltd. Duck Sung Tape Co.,Ltd Abekawa Kogyo Co.,Ltd	E34833 E178516 E105147
4	Primary Lead wire fixed	Mylar tape t=0.025 mm 2 turns	Nitto Denko Ya Wa enterprise Co., Ltd. Duck Sung Tape	E34833 E178516 E105147
5	Primary outer wrap	Mylar tape t=0.025 mm 2 turns 31CT or PZ280 Press board t=0.25 mm 1 turn	Nitto Denko Ya Wa enterprise Co., Ltd. Duck Sung Tape Co.,Ltd Abekawa Kogyo Co.,Ltd	E60271 E50082 E142267
6	Secondary wrap	Mylar tape t=0.025 mm 2 turns 31CT or PZ280 Press board t=0.13 mm 1 turns	Nitto Denko Ya Wa enterprise Co., Ltd. Duck Sung Tape Mistuki special papers	E34833 E178516 E105147
7	Primary cross over	Acetate tape t=0.36 mm 1 sheet	Nitto Denko Ya Wa enterprise Co., Ltd. Duck Sung Tape	E34833 E178516 E105147
8	Winding	Polystyrene enameled copper wire 2UEW wire	Walsin Lihwa electric wire Tai-I wire industrial TA-YA wire & cable	E70566 E85640 E84201
9	Core	Silicon Steel 0.5mm thickness	Kawasaki core New Nippon steel	
10	Lead wire	PRI:UL 1015 AWG#22 105°C 600V SEC:UL 1007 AWG#22 80°C 300V GED:UL 1015 AWG#18 600V	Wonderful wire Pacific Electric & wire	E70566 E41396 E77981
11	PC board	1.6mm thickness 94V-0 LS-402	CHIH HSIEN ENTERPRISE	
12	Diode	1N4002 (1.0A 100V) or better	QUA-TRON electric Co., Ltd. Master instrument	
13	Rectifier	1KΩ(1/4W) C.F type	Qua-tron electrics corp Sunlly seitetsu Co.,Ltd Or equivalent	
14	LED	Color:Green5 φ	Sanlly electronic corp Jyham enterprise Co.,Led Or others	
15	Poly-switch	RUE400	Raychem Corp	E74889
16	Blade	Nickel plated copper 1.5mm thickness US flat pin (with grounding pin)	Tonlong Corp. Others	
17	Output screws	3.5 x 6mm 2 pcs.	Tonshell screws Or others.	
18	Case	Noryl(SE-100;PX-1005)UL94V-1 Color: Black	GE plastic Chi mei enterprise Co.,Ltd	E45587 E56070
19	Name plate	By heat stamp or PVC	E Hong Or equivalent	



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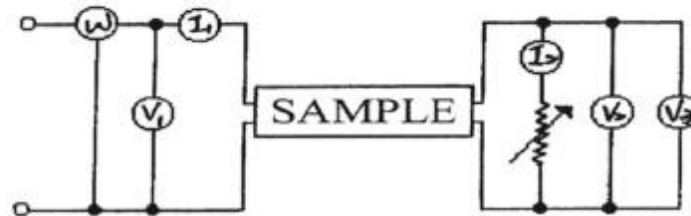


## SPECIFICATION of MGT- 1640-P



SYMBOL	PARTS NAME	SPECIFICATION
I.P.	Input plug	US flat pin (with grounding pin)
T.F.	Thermal fuse	130°C 250V 1A
P.T.	Power transformer	EI-57
D1 ~ D4	Diodes	1N4002 (1.0A 100V) or better
R1	Resistor	1KΩ(1/4W) C.F type
LED		Color:Green 5 φ
PTC	Poly-switch	RUE400
GND	Grounding	Connected to core inside
O.P.	Output screw	3.5mm x 6mm

### TEST CIRCUIT



W: wattmeter (class 0.5)  
 V1: AC voltmeter (class 0.5)  
 I1: AC ammeter (class 0.5)  
 V2: DC voltmeter (class 0.5)  
 I2: DC ammeter (class 0.5)  
 V3: AC rms voltmeter (for ripple test) (class 0.5)  
 (not apply for AC output)

#### Note:

Conditions for making measurement and test are follow:  
 Ambient temperature: 15°C to 35°C  
 Relative humidity: 25% to 85%  
 Air pressure: 86kPa to 106kPa

If there is any doubt about the result, measurements shall be made within the following limits:

Ambient temperature: 25°C +/- 2°C  
 Relative humidity: 60% to 70%

Air pressure: 86kPa to 106kPa



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SPECIFICATION of MGT- 1640-P

DRAWING NO. 圖 號		Applied model 使用機種		
<p>Technical drawing showing front, side, and detail views of the MGT-1640-P component. Dimensions include: front view (width 65±1.0, height 91±1.0, label area 45.5x39), side view (width 54±1.0, top offset 17.5±1.0, hole offset 6.2±0.2, hole diameter 4.8Φ, bottom offset 21.5±1.0), and detail view (LED height 1.5±0.1, LED spacing 12.7±0.2). Labels include 'LABEL 1 (heat stamp)' and 'LED'.</p>				
COLOR	Black	Revised date	Revised status	Approved
UNIT	mm			
MATERIAL				
REVISION				
Prepared by	歐源利	Approved by	歐清彬	Issued date



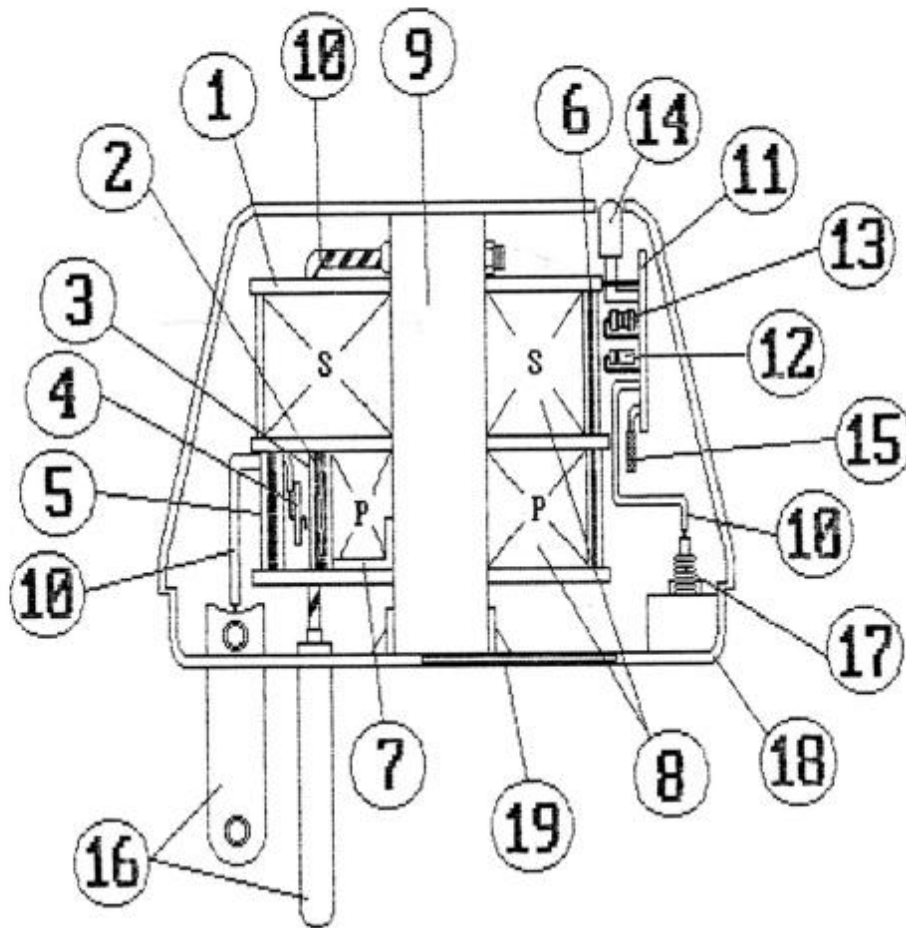
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**SPECIFICATION of MGT- 1640-P**

DRAWING NO.  
圖 號

Applied model  
使用機種



COLOR		Revised date	Revised status	Apr
UNIT				
MATERIAL				
REVISION				
Prepared by	張源利	Approved by	康清彬	Issu

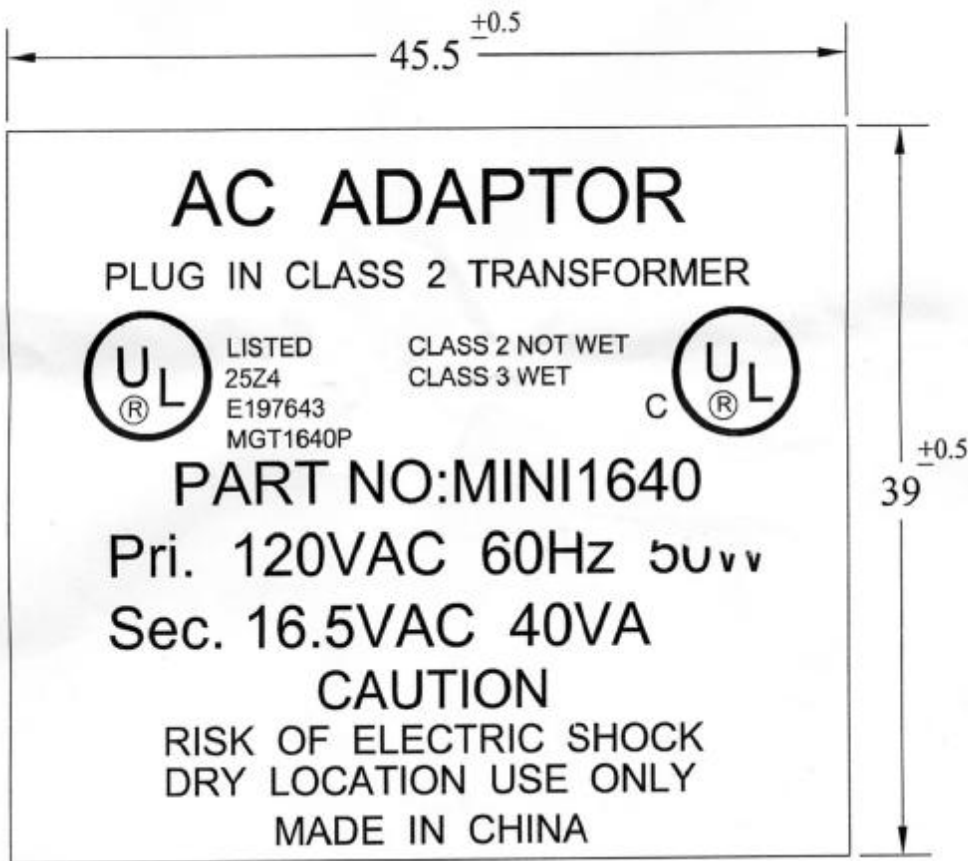


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# SPECIFICATION of MGT- 1640-P

DRAWING NO. 圖 號	Applied model 使用機種
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[ Heat Stamp ]

COLOR		Revised date	Revised status	Approved
UNIT	mm			
MATERIAL	刻於CASE上			
REVISION	REV.			
Prepared by		Approved by		Issued date SEP 13 2002



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SPECIFICATION of MGT- 1640-P

<b>DRAWING NO.</b> 圖 號		<b>Applied model</b> 使用機種				
<h2 style="margin:0;">內 盒 尺 寸 圖</h2>						
<b>NO.</b>	<b>TYPE</b>	<b>長</b>	<b>寬</b>	<b>高</b>	<b>選擇</b>	<p>UNIT: mm</p> <div style="text-align: center;"> </div> <p>長: LENGTH    寬: WIDTH    高: HIGHNESS</p> <p><b>備 註</b>    客 戶 指 訂 規 格</p> <p>長_____ 寬_____ 高_____</p>
1	35	77	44	63		
2	35	76	53	63		
3	41	77	49	67		
4	41	75	51	83		
5	41	74	54	63		
6	41	83	58	74		
7	48	89	60	91		
8	48	90	56	70		
9	48	91	60	80	✓	
10	48	100	55	70		
11	57	104	70	77		
12	57	100	68	94		
13	60	130	65	60		
14	66	175	86	96		
<b>COLOR</b>	WHITE	<b>Revised date</b>	<b>Revised status</b>		<b>Approved</b>	
<b>UNIT</b>	mm					
<b>MATERIAL</b>	銅版紙					
<b>REVISION</b>						
<b>Prepared by</b>	歐源利	<b>Approved by</b>	Lee	<b>Issued date</b>	Sep 16 2002	



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SPECIFICATION of MGT- 1640-P
ELECTRICAL TEST DATA

CUSTOMER : MGT

DATE SEP. 16. 2002

PART NO : MINI 1640

DESIGNED NO. YDQ-7217

Table with columns: ITEM, SPEC, and SAMPLE (1-10). Rows include: PRIMARY EXCITING CURRENT INPUT, PRIMARY LOAD CURRENT INPUT, SECONDARY #1 NO LOAD DC VOLTAGE, SECONDARY #1 DC VOLTAGE LOAD, SECONDARY #2 NO LOAD VOLTAGE, SECONDARY #2 VOLTAGE LOAD, TEMP. RISE AFTER 4 HRS IN 25°C AMBIENT, and HI-POT TEST.

APPROVED BY [Signature] CHECKED BY TEST BY



# SPECIFICATION of MGT- 1640-P

1. SCOPE: This specifications is suitable to the AC adaptor of model MINI1640 designed to EI-57 wall mount.

2. APPLICABLE STANDARDS: UL 1310

3. AGENCY SAFETY: UL/c-UL

4. SURFACE , STRUCTURE:

4-1 Surface: Damage, rusting , foam , cracks are not permitted.

4-2 Appearance: Dimensions and express: As attached drawing.

5. ELECTRICAL CHARACTERISTICS:

5-1 Primary rated voltage & line frequency: 120 VAC 60 Hz 50 W Max.

5-2 Secondary output ratings:

Input voltage	Output voltage	Tolerance	Rated current	No load voltage
120 VAC 60Hz	AC 15.1V	+/- 5%	2400 mA	AC 16.5 V (+/- 5%).

5-3 Exciting current (Io): 120 mA Max. at input 120 VAC 60 Hz without secondary load.

5-4 Primary rated current (Ip): 420 mA Max. at input 120 VAC 60 Hz with output current 2400 mA.

5-5 Ripple voltage: --- mV (RMS) Max. at input --- VAC --- Hz with output current ---- mA.

5-6 Dielectric strength: The specified voltage shall be applied to each item as following without breakdown.

(1) Primary to Secondary & Core: 1.24 KV 60 Hz for one minute.

(2) Secondary to Core: 0.5 KV 60 Hz for one minute. Cut-off current: 1 mA Max.

At an alternative potentials, increasing 20% of voltage may be applied for one second in mass production.

5-7 Insulation test: 500 VDC 100 MΩ Min. between input plug and output plug and case.

5-8 Core loss: Input 120 VAC 60 Hz without secondary load, watts loss shall be under 5.0 W.

5-9 Temperature rise: Input 120 VAC 60 Hz with secondary load 2400 mA, shall not exceed 40 deg on case surface (By thermometer). 75 deg for primary winding (By resistance method). At ambient temp. 25°C.

6. MECHANICAL CHARACTERISTICS:

6-1 AC blade pull test: Pull AC blades by 1.5 kg for one minute without pull out from the case.

6-2 Dropping 4 times from 90 cm onto a wooden board 3 cm thickness, and make sure of no electrical hazardous is found, no separateness of enclosure and no internal components are exposed.

7. TEMPERATURE RANGE:

7-1 Normal operating temperature at: -10°C ----- +40°C

7-2 Storage temperature at: -20°C ----- +70°C

7-3 Normal operating humidity at: 30% ----- 85% R.H.

8. NET WEIGHT (APPROX.): 715 g.

Project Engineer: