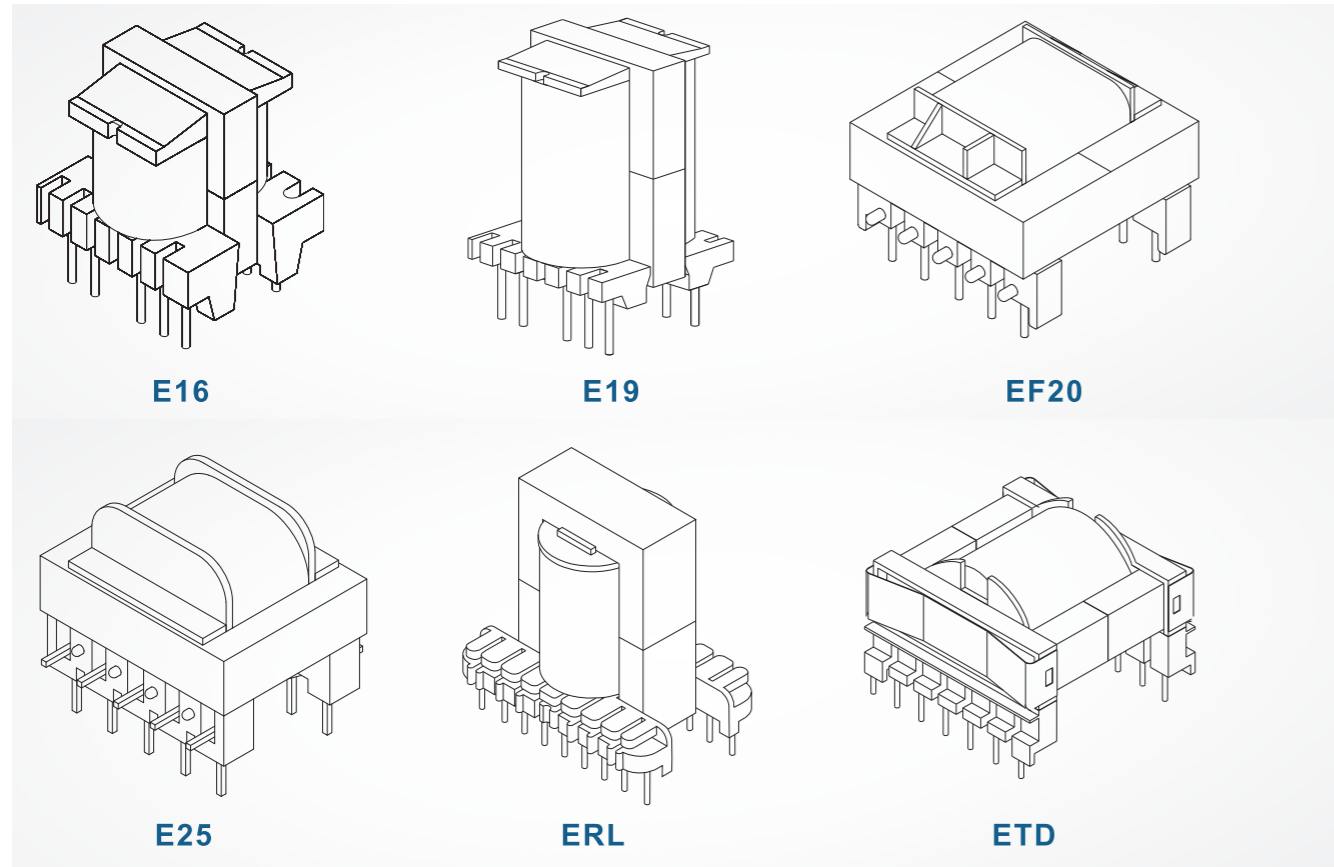


# POWER FERRITE SWITCHING TRANSFORMERS

## FEATURES

- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage Distance Primary / Secondary  $\geq 6mm$
- Construction Conforms to IEC950, IEC335, IEC61558
- Uses UL94 - V0 Listed Materials



Part NO	Size	Output Power Range	Input Voltage
XZM-E16100–XZM-E16112	E16	1.5W–12W	85-265Vrms
XZM-E19100–XZM-E19101	E19	16W–18W	85-265Vrms
XZM-EF2050--XZM-EF2052	E20	20W--24W	185-265Vrms
XZM-E25100–XZM-E25101	E25	30W–35W	185-265Vrms
XZM-EC2850	ERL28	60W	185-265Vrms
XZM-ED2950	ETD29	60W	185-265Vrms
XZM-ED3450	ETD34	90W	185-265Vrms
XZM-ED3950	ETD39	140W	185-265Vrms
XZM-ED4450	ETD44	180W	185-265Vrms

## SIZE E16

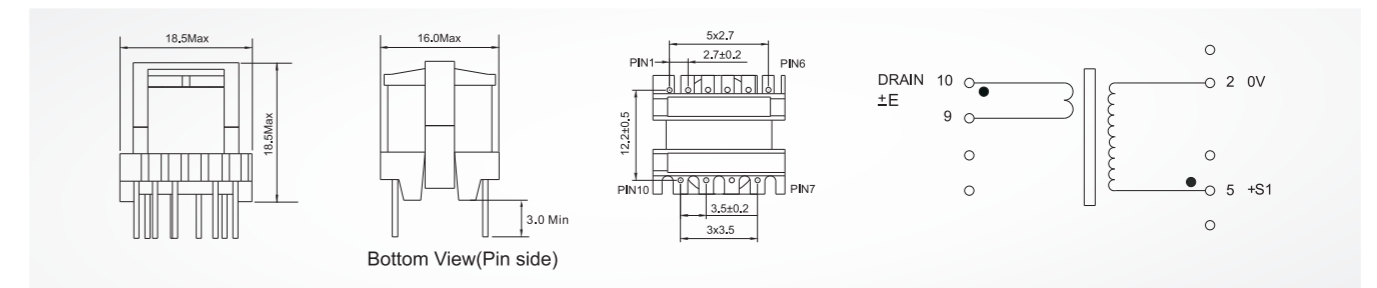
### SINGLE OUTPUT:5 or 12v

PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings				Inductance (+/-10%)	Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum			
XZM-E16100	1.5w	Pri	10-9	85-265Vrms	0.28Apeak	6000 $\mu$ H	< 85 $^{\circ}$ C	
		S1	5-2	3.3-6Vdc	0.4Adc			
XZM-E16101	1.5w	Pri	10-9	85-265Vrms	0.28Apeak	6000 $\mu$ H	< 85 $^{\circ}$ C	
		S1	5-2	7.5-15Vdc	0.2Adc			
XZM-E16102	3.1w	Pri	10-9	85-265Vrms	0.34Apeak	4200 $\mu$ H	< 70 $^{\circ}$ C	
		S1	5-2	3.3-6Vdc	0.9Adc			
XZM-E16103	3.1w	Pri	10-9	85-265Vrms	0.34Apeak	4200 $\mu$ H	< 70 $^{\circ}$ C	
		S1	5-2	7.5-15Vdc	0.4Adc			
XZM-E16104	9w	Pri	10-9	85-265Vrms	0.48Apeak	2100 $\mu$ H	< 60 $^{\circ}$ C	
		S1	5-2	3.3-6Vdc	1.5Adc			
XZM-E16105	9w	Pri	10-9	85-265Vrms	0.48Apeak	2100 $\mu$ H	< 60 $^{\circ}$ C	
		S1	5-2	7.5-15Vdc	0.9Adc			

### OUTLINE DIMENSIONS

### SCHEMATIC



PIN 3 Removed PCB Hole Diameter = 1.1mm

## SIZE E16

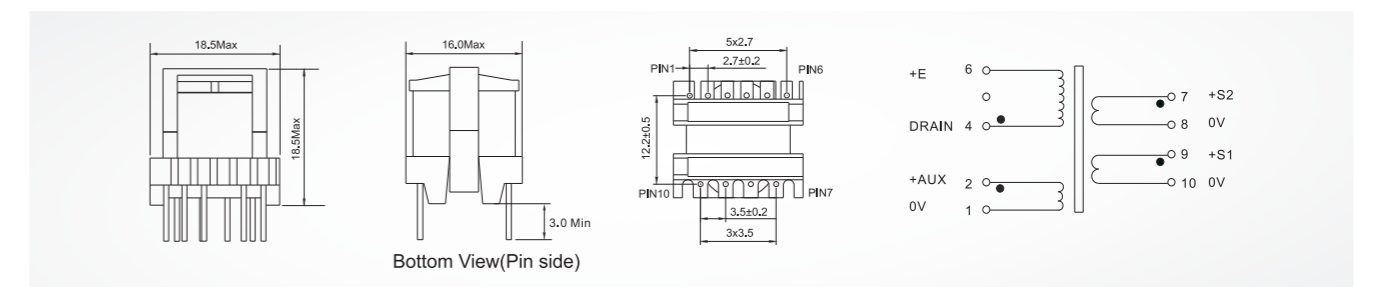
### SINGLE OUTPUT:5/12v

PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings				Inductance (+/-10%)	Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum			
XZM-E16106	5w	Pri	4-6	85-265Vrms	0.27Apeak	3900 $\mu$ H	< 70 $^{\circ}$ C	132KHZ
		Aux	2-1	7-14Vdc	0.1Adc			
		S1	9-10	3.3-7Vdc	1.2Adc			
		S2	7-8	8-17Vdc	0.4Adc			
XZM-E16107	12w	Pri	4-6	185-265Vrms	0.55Apeak	1660 $\mu$ H	< 50 $^{\circ}$ C	132KHZ
		Aux	2-1	7-14Vdc	0.1Adc			
		S1	9-10	3.3-7Vdc	2.0Adc			
		S2	7-8	8-17Vdc	1Adc			

### OUTLINE DIMENSIONS

### SCHEMATIC



PIN 3 Removed PCB Hole Diameter = 1.1mm

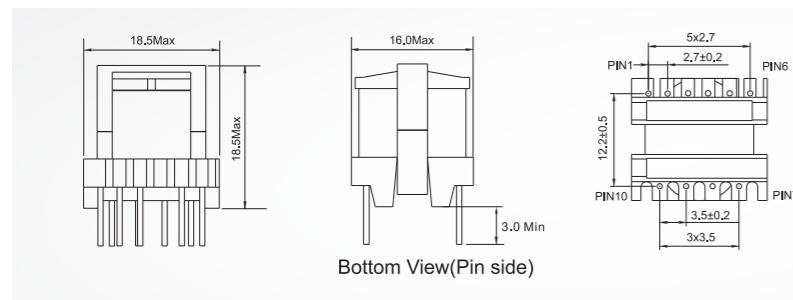
### SIZE E16

**SINGLE OUTPUT:5 or 12v**

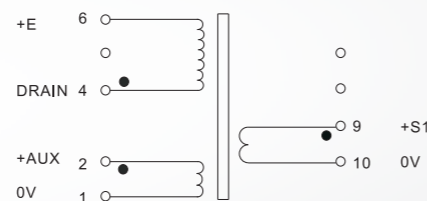
PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings					Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum	Inductance (+/-10%)		
XZM-E16108	6W	Pri	4-6	85-265Vrms	0.35Apeak	3000µH	< 60°C	132KHZ
		Aux	2-1	8-16Vdc	0.1Adc			
		S1	9-10	3-6Vdc	1.2Adc			
XZM-E16109	6W	Pri	4-6	85-265Vrms	0.38Apeak	3000µH	< 60°C	132KHZ
		Aux	2-1	8.5-17Vdc	0.1Adc			
		S1	9-10	9-18Vdc	0.5Adc			

**OUTLINE DIMENSIONS**



**SCHEMATIC**



PIN 3 Removed PCB Hole Diameter = 1.1mm

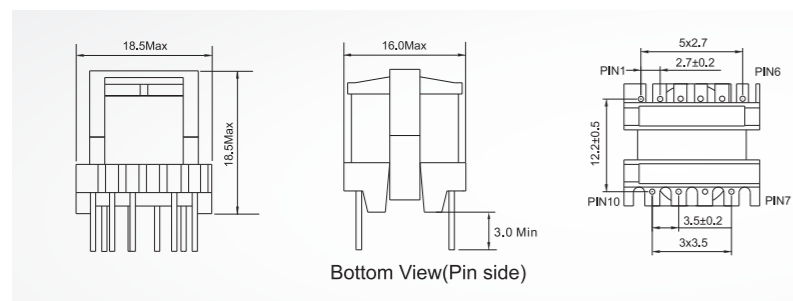
### SIZE E16

**DUAL OUTPUT:3.3+5V**

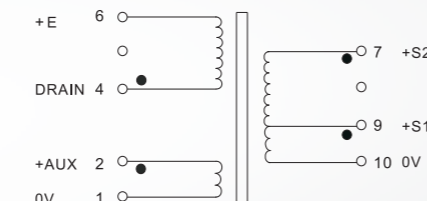
PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings					Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum	Inductance (+/-10%)		
XZM-E16110	6W	Pri	4-6	85-265Vrms	0.35Apeak	3000µH	< 60°C	132KHZ
		Aux	2-1	8-16Vdc	0.1Adc			
		S1	9-10	2-4Vdc	1.8Adc			
		S2	7-10	3-6(VOR)	1.2Adc			

**OUTLINE DIMENSIONS**



**SCHEMATIC**



PIN 3 Removed PCB Hole Diameter = 1.1mm

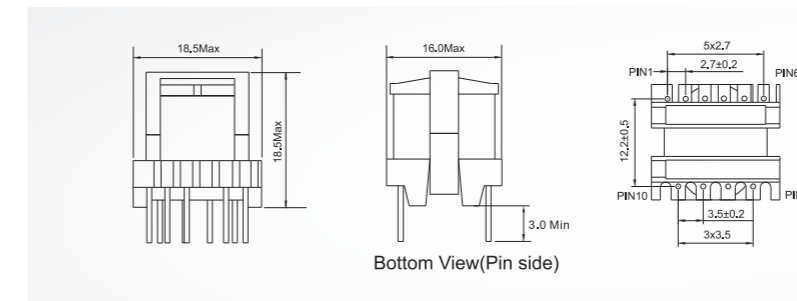
### SIZE E16

**2 OUTPUT:2x24V**

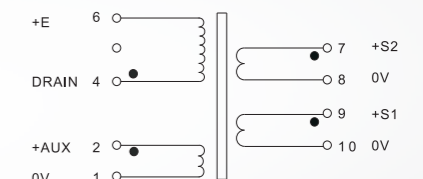
PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings					Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum	Inductance (+/-10%)		
XZM-E16111	12W	Pri	4-6	185-265Vrms	0.5Apeak	1800µH	< 50°C	132KHZ
		Aux	2-1	9-18Vdc	0.2Adc			
		S1	9-10	15-30Vdc	0.4Adc			
		S2	7-8	15-30Vdc	0.4Adc			

**OUTLINE DIMENSIONS**



**SCHEMATIC**



PIN 3 Removed PCB Hole Diameter = 1.1mm

**TYPICAL OUTPUTS**

- +24V 0.5A with S1-S2 in parallel
- +48V 0.25A with S1-S2 in series(8-9connected)
- +15V/-15V 0.4A with pins 8-9 connected to 0V

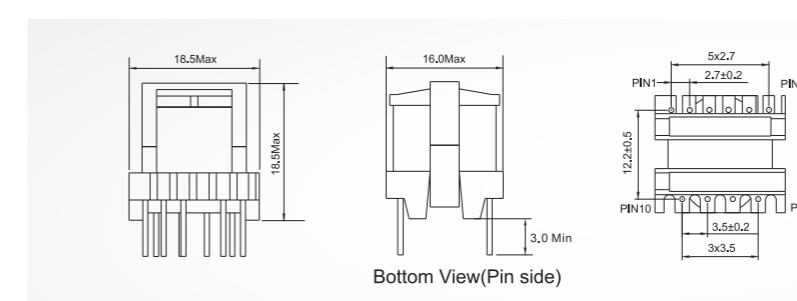
### SIZE E16

**3 OUTPUT:5/15/24V**

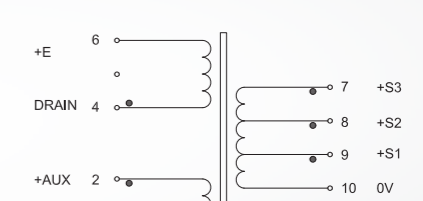
PIN 3 Removed  
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings					Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum	Inductance (+/-10%)		
XZM-E16112	12W	Pri	4-6	185-265Vrms	0.5Apeak	1800µH	< 50°C	132KHZ
		Aux	2-1	12Vdc	0.2Adc			
		S1	9-10	5Vdc	1.5Adc			
		S2	8-10	15Vdc	0.6Adc			
		S3	7-10	24Vdc	0.4Adc			

**OUTLINE DIMENSIONS**



**SCHEMATIC**



PIN 3 Removed PCB Hole Diameter = 1.1mm



### SIZE E19

#### 2 OUTPUT:5/12V

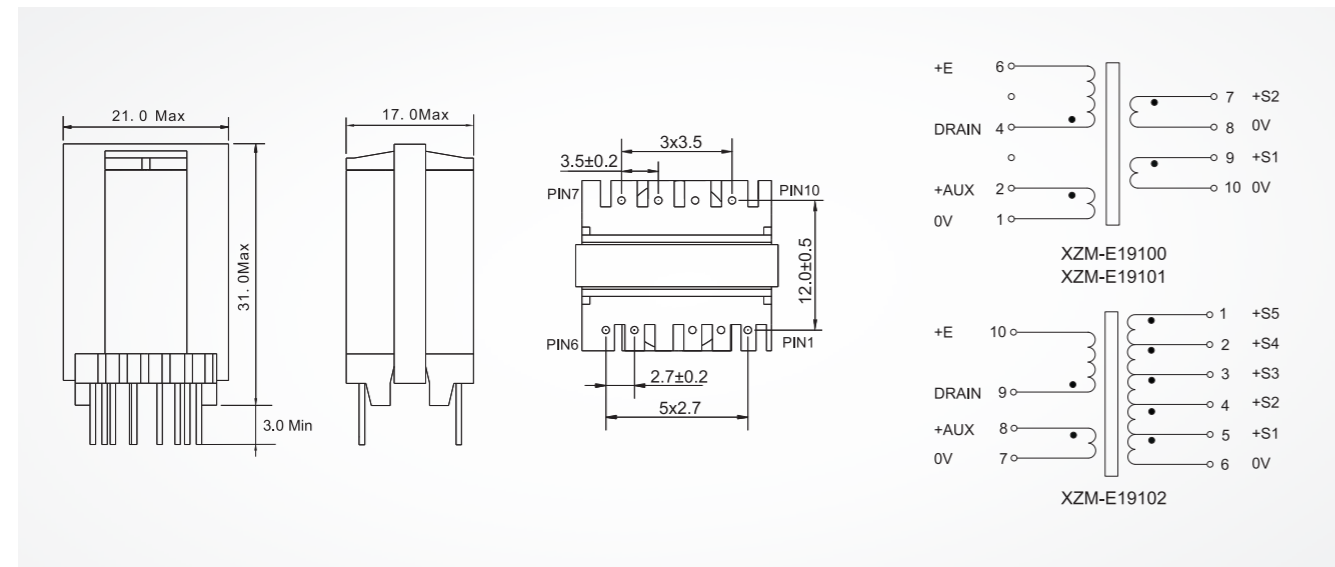
PCB Hole Diameter = 1.1mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency	
		Pins	Voltage	Current Maximum	Inductance (+/-10%)			
XZM-E19100	18w	Pri	4-6	85-265Vrms	0.8Apeak	1250μH	< 50°C	132KHZ
		Aux	2-1	7-12Vdc	0.1Adc			
		S1	9-10	3.3-7Vdc	3Adc			
		S2	7-8	8-16.5Vdc	1.4Adc			
XZM-E19101	18w	Pri	4-6	85-265Vrms	1.1Apeak	900μH	< 50°C	100KHZ
		Aux	2-1	7-12Vdc	0.1Adc			
		S1	9-10	3.3-7Vdc	3Adc			
		S2	7-8	8-16.5Vdc	1.4Adc			

#### 5 OUTPUT:3.3/5/12/18/30V

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency	
		Pins	Voltage	Current Maximum	Inductance (+/-10%)			
XZM-E19102	16w	Pri	9-10	85-265Vrms	0.85Apeak	1250μH	<60°C	132KHZ
		Aux	8-7	15Vdc	0.2Adc			
		S1	5-6	3.3Vdc	2Adc			
		S2	4-6	5Vdc	Sum S1+S2			
		S3	3-6	12Vdc	0.8Adc			
		S4	2-6	18Vdc	0.8Adc			
S5	1-6	30Vdc	0.2Adc					

#### OUTLINE DIMENSIONS



PCB Hole Diameter = 1.1mm

#### SCHEMATIC

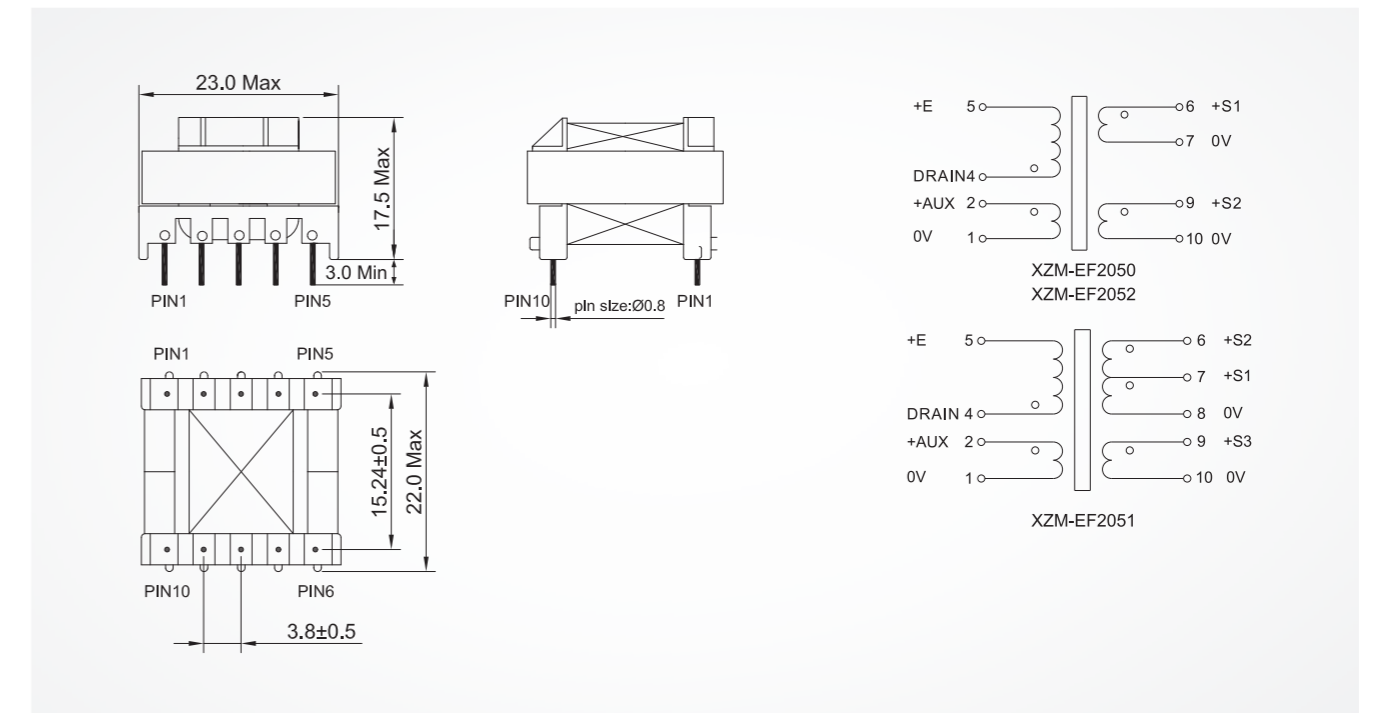
### SIZE EF20

#### 2 or 3 OUTPUTS:5/5v or 12/12v or 3.3+5/12v

PIN 3 Removed  
PCB Hole Diameter=1.2mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency	
		Pins	Voltage	Current Maximum	Inductance (+/-10%)			
XZM-EF2050	24w	Pri	4-5	185-265Vrms	1.0Apeak	1000μH	< 50°C	132KHZ
		Aux	2-1	11-18Vdc	0.3Adc			
		S1	6-7	9-15Vdc	1.5Adc			
		S2	9-10	9-15Vdc	1.5Adc			
XZM-EF2051	20w	Pri	4-5	185-265Vrms	0.9Apeak	1100μH	< 50°C	132KHZ
		Aux	2-1	15Vdc	0.3Adc			
		S1	7-8	3.3Vdc	3Adc			
		S2	6-8	5Vdc	SumS1+S2			
XZM-EF2052	20w	Pri	4-5	185-265Vrms	0.85Apeak	1300μH	< 50°C	132KHZ
		Aux	2-1	7-18Vdc	0.3Adc			
		S1	6-7	3-7.5Vdc	2.0Adc			
		S2	9-10	3-7.5Vdc	2.0Adc			

#### OUTLINE DIMENSIONS



PCB Hole Diameter=1.2mm

#### SCHEMATIC

### SIZE E25

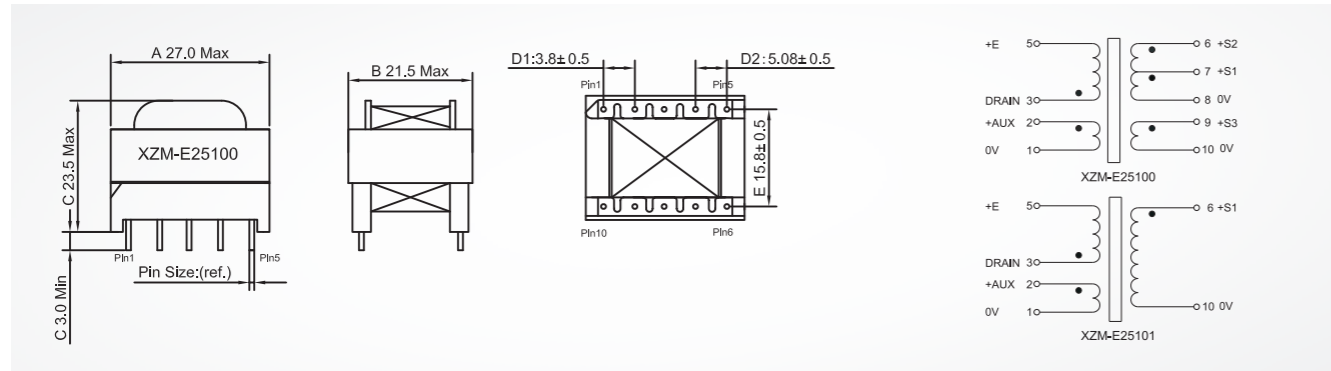
3 or 1 OUTPUTS:5+12/12v or 24v

PIN 4 Removed  
PCB Hole Diameter=1.4mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum		
XZM-E25100	30w	Pri	3-5	185-265Vrms	1.5Apeak	< 50 °C	132KHZ
		Aux	2-1	7-14.5Vdc	1Adc		
		S1	7-8	3.3-7Vdc	3Adc		
		S2	6-8	8-16Vdc	1.5Adc		
XZM-E25101	35w	Pri	3-5	185-265Vrms	1.1Apeak	< 50 °C	132KHZ
		Aux	2-1	8-16Vdc	1Adc		
		S1	6-10	15-30Vdc	1.4Adc		

Note for XZM-E25100:S2 and S3 can be connected in series or in parallel

#### OUTLINE DIMENSIONS



#### SCHEMATIC

### SIZE ETD29

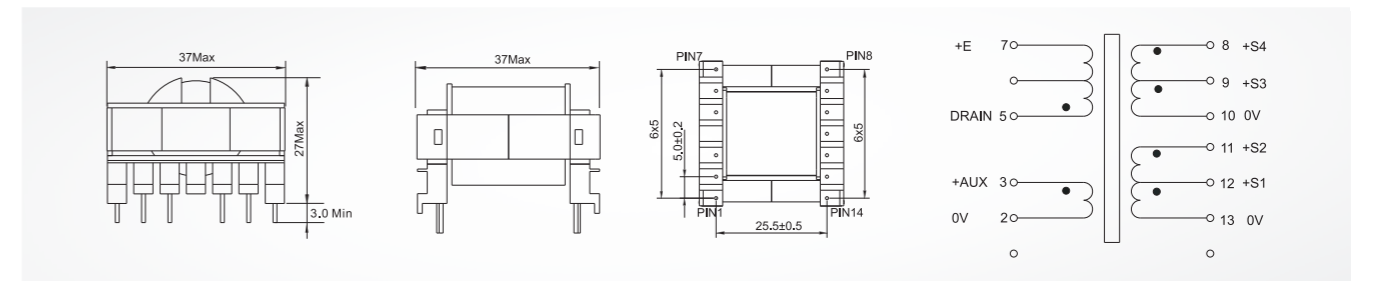
4 OUTPUTS:5+12/5+12v

PIN 4 Removed  
PCB Hole Diameter=1.3mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum		
XZM-ED2950	60w	Pri	5-7	185-265Vrms	3.0Apeak	< 50 °C	60 or 132KHZ
		Aux	3-2	7-14.5Vdc	0.5Adc		
		S1	12-13	3.3-7Vdc	4Adc		
		S2	11-13	8-16.5Vdc	2.5Adc		
		S3	9-10	3.3-7Vdc	4Adc		
		S4	8-10	8-16.5Vdc	2.5Apeak		

Note:S1/S3 or S2/S4 can be connected in series or in parallel

#### OUTLINE DIMENSIONS



PIN 4 Removed PCB Hole Diameter=1.3mm

#### SCHEMATIC

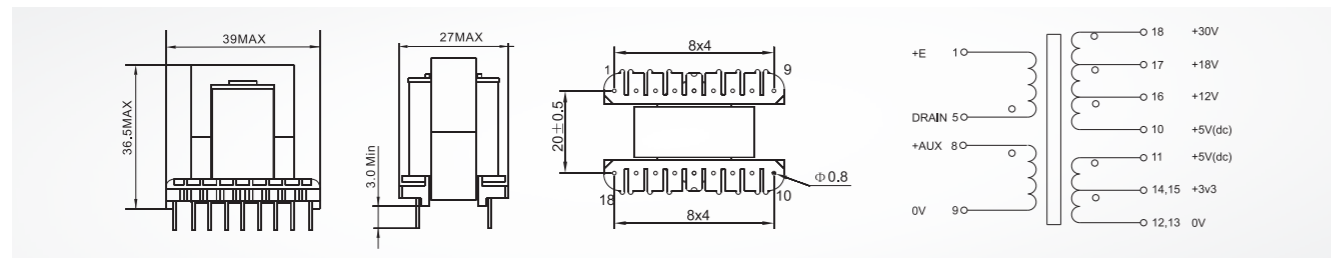
### SIZE ERL28

5 OUTPUTS:3.3/5/12/18/30v

PCB Hole Diameter=1.3mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum		
XZM-EC2850	60w	Pri	5-1	185-265Vrms	3.0Apeak	< 50 °C	60 or 132KHZ
		Aux	8-9	15Vdc	0.5Adc		
		S1	14+15/12+13	3.3Vdc	7Adc		
		S2	11/12+13	5Vdc	Sum S1+S2		
		S3	16-10	12Vdc	2Adc		
		S4	17-10	18Vdc	2Adc		
		S5	18-10	30Vdc	0.5Adc		

#### OUTLINE DIMENSIONS



PCB Hole Diameter=1.3mm

#### SCHEMATIC

### SIZE ETD34

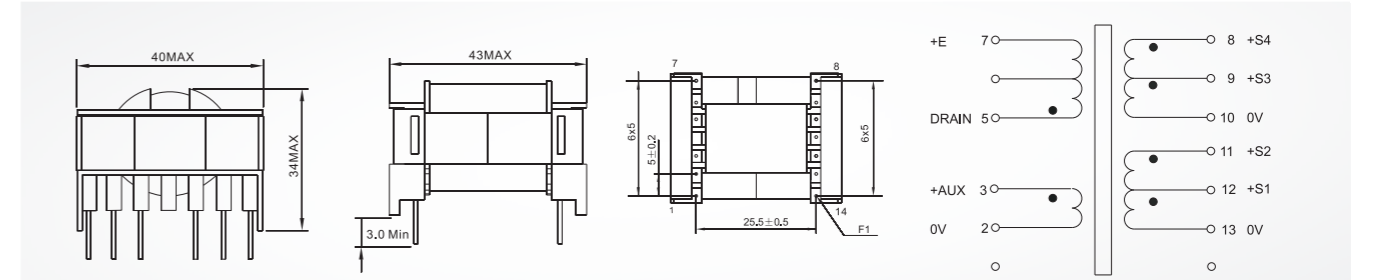
4 OUTPUTS:5+12/5+12v

PIN 4 Removed  
PCB Hole Diameter=1.5mm

Part NO	Output Power Maximum	Windings				Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum		
XZM-ED3450	90w	Pri	5-7	185-265Vrms	2.8Apeak	< 50 °C	132KHZ
		Aux	3-2	7-14Vdc	0.5Adc		
		S1	12-13	3.3-6.5Vdc	5Adc		
		S2	11-13	8.5-17Vdc	3Adc		
		S3	9-10	3.3-6.5Vdc	5Adc		
		S4	8-10	8.5-17Vdc	3Adc		

Note:S1/S3 or S2/S4 can be connected in series or in parallel

#### OUTLINE DIMENSIONS



PIN 4 Removed PCB Hole Diameter=1.5mm

#### SCHEMATIC

# SIZE ETD39

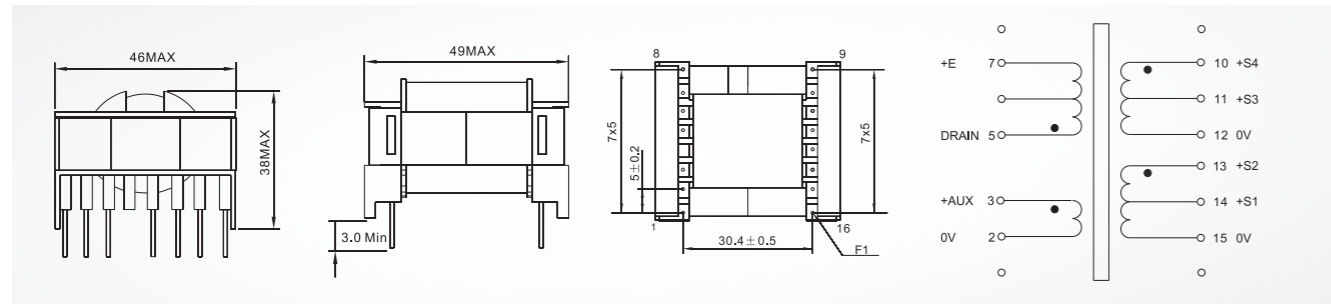
4 OUTPUTS:5+12/5+12v

PIN 4 Removed  
PCB Hole Diameter=1.5mm

Part NO	Output Power Maximum	Windings				Inductance (+/-10%)	Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum			
XZM-ED3950	140w	Pri	5-7	185-265Vrms	4Apeak	440μH	< 50 °C	132KHZ
		Aux	3-2	7-14Vdc	0.5Adc			
		S1	14-15	3.3-6.5Vdc	5Adc			
		S2	13-15	8.5-17Vdc	5Adc			
		S3	11-12	3.3-6.5Vdc	5Adc			
		S4	10-12	8.5-17Vdc	5Adc			

## OUTLINE DIMENSIONS

## SCHEMATIC



PIN 4 Removed PCB Hole Diameter=1.5mm

# SIZE ETD44

4 OUTPUTS:5+12/5+12v

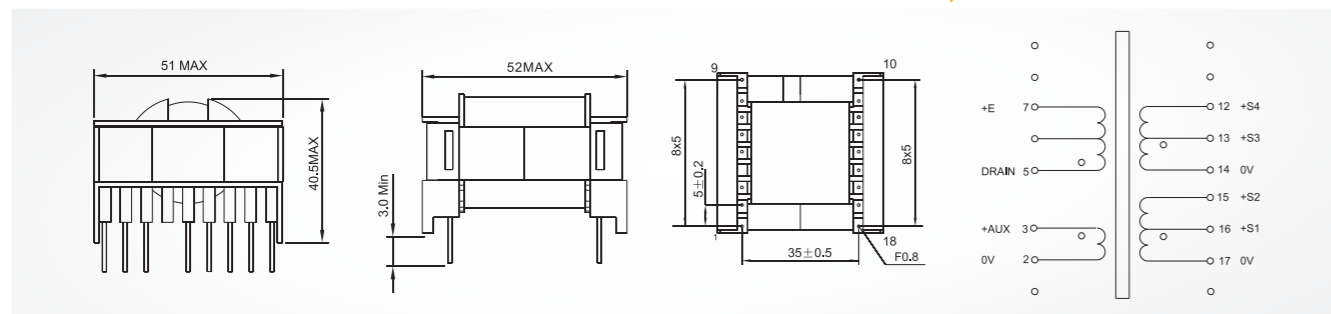
PIN 4 Removed  
PCB Hole Diameter=1.5mm

Part NO	Output Power Maximum	Windings				Inductance (+/-10%)	Ambient Temperature	Frequency
			Pins	Voltage	Current Maximum			
XZM-ED4450	180w	Pri	5-7	185-265Vrms	8Apeak	300μH	< 50 °C	60 or 132KHZ
		Aux	3-2	7-14Vdc	0.5Adc			
		S1	16-17	3.3-6.5Vdc	6Adc			
		S2	15-17	8.5-17Vdc	5Adc			
		S3	13-14	3.3-6.5Vdc	6Adc			
		S4	12-14	8.5-17Vdc	5Adc			

Note:S1/S3 or S2/S4 can be connected in series or in parallel

## OUTLINE DIMENSIONS

## SCHEMATIC



PIN 4 Removed PCB Hole Diameter=1.5mm