

AC-DC Power Modules

**POWER
SOLVE**

TMP Series, 7 to 60 Watt

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Features

- Fully encapsulated low profile plastic casing
- PCB mount with solder pins
- Chassis mount with screw terminals
- Single, dual and triple output models
- Universal input 85-264Vac, 47-440Hz
- Safety class II
- Short circuit and overload protection



Electrical Specification

Input Voltage Range	85-264VAC (90-264VAC for TPM Models) / 120-370VDC (not for TMP60 Models)
Input Frequency Range	47-440Hz (47-63Hz for TMP60 Models)
Output Voltage	See tables
Output Current	See tables
Output Voltage set accuracy	±2% max.
Minimum Load Requirement	10% of rated max. current (single & dual output versions) 10% of rated max. current (triple output models, main output) 20% of rated max. current (triple output models, auxiliary outputs)
Output current limitation	>105% Inom. foldback, automatic recovery
Overvoltage Protection	120% of Vout typical
Efficiency	78% typical
EMI suppression	EN55011 class B, EN55022 class B, FCC level B
EMC immunity	EN61000-6-1
Isolation Voltage	3000VAC (input-output)
Isolation Resistance	100MΩ at 500VDC (input-output)
Operating Temperature Range	-25°C to +60°C (derate at 3.5%/°C above 50°C, 2.5%/°C above 40°C for TMP60105C)
Storage Temperature Range	-40°C to + 85°C
Temperature Coefficient	0.02%/K
Safety Approvals	cUL/UL 60950-1, IEC/EN 60950-1, CB report
Degree of protection	safety class II prepared
Casing	plastic (UL94V-0 rated)
Option	DIN rail mounting adapter

Output Voltage and Current Ratings (7 & 10W versions)

MODEL	OUTPUT POWER	OUTPUT 1	OUTPUT 2	OUTPUT 3	RIPPLE & NOISE	LINE REG.	LOAD REG.
TMP07103		3.3VDC / 1400mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP07105		5.0VDC / 1400mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP07112	7W	12VDC / 585mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP07115		15VDC / 465mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP07124		24VDC / 290mA			1.3% (mV pk-pk)	1.0%	1.0%
TPM10103		3.3VDC / 2500mA			1.8% (mV pk-pk)	1.0%	1.0%
TPM10105		5VDC / 2000mA			1.8% (mV pk-pk)	1.0%	1.0%
TPM10112	10W	12VDC / 830mA			1.3% (mV pk-pk)	1.0%	1.0%
TPM10115		15VDC / 665mA			1.3% (mV pk-pk)	1.0%	1.0%
TPM10124		24VDC / 415mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP10103		3.3VDC / 2000mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP10105		5VDC / 2000mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP10112		12VDC / 830mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP10115	10W	15VDC / 665mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP10124		24VDC / 415mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP10212		+12VDC / 380mA	-12VDC / 380mA		1.3% (mV pk-pk)	1.0%	2.5%
TMP10215		+15VDC / 300mA	-15VDC / 300mA		1.3% (mV pk-pk)	1.0%	2.5%

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Output Voltage and Current Ratings (15, 30 & 60W versions)

MODEL	OUTPUT POWER	OUTPUT 1	OUTPUT 2	OUTPUT 3	RIPPLE & NOISE	LINE REG.	LOAD REG.
TMP15105		5.0VDC / 3000mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP15112		12VDC / 1250mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP15115		15VDC / 1000mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP15124		24VDC / 625mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP15148		48VDC / 310mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP15212	15W	+12VDC / 650mA	-12VDC / 650mA		1.3% (mV pk-pk)	1.0%	2.5%
TMP15215		+15VDC / 500mA	-15VDC / 500mA		1.3% (mV pk-pk)	1.0%	2.5%
TMP15252		+5VDC / 1500mA	+12VDC / 625mA		1.3% (mV pk-pk)	1.0%	5.0%
TMP15512		+5VDC / 2000mA	+12VDC / 200mA	-12VDC / 200mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP15515		+5VDC / 2000mA	+15VDC / 150mA	-15VDC / 150mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP30105		5.0VDC / 6000mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP30112		12VDC / 2500mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP30115		15VDC / 2000mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP30124		24VDC / 1250mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP30148		48VDC / 625mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP30212		+12VDC / 1300mA	-12VDC / 1300mA		1.3% (mV pk-pk)	1.0%	2.5%
TMP30215		+15VDC / 1000mA	-15VDC / 1000mA		1.3% (mV pk-pk)	1.0%	2.5%
TMP30252	30W	+5.0VDC / 3000mA	+12VDC / 1250mA		1.3% (mV pk-pk)	1.0%	5.0%
TMP30512		+5.0VDC / 3000mA	+12VDC / 600mA	-12VDC / 600mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP30515		+5.0VDC / 3000mA	+15VDC / 500mA	-15VDC / 500mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP30522		+5.0VDC / 1500mA	+12VDC / 1000mA	-12VDC / 250mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP30316		+3.3VDC / 4000mA	+5.0VDC / 1500mA	+12VDC / 250mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP30317		+5.0VDC / 4500mA	+3.3VDC / 1000mA	+12VDC / 250mA	1.3% (mV pk-pk)	1.0%	1.0%/4.0%
TMP60105		5.1VDC / 10,000mA			1.8% (mV pk-pk)	1.0%	1.0%
TMP60112		12VDC / 5000mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP60115	60W	15VDC / 4000mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP60124		24VDC / 2500mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP60136		36VDC / 1670mA			1.3% (mV pk-pk)	1.0%	1.0%
TMP60148		48VDC / 1250mA			1.3% (mV pk-pk)	1.0%	1.0%

* For chassis mount version add suffix C

Mechanical & Connection Details

Dimensions in mm (inches)

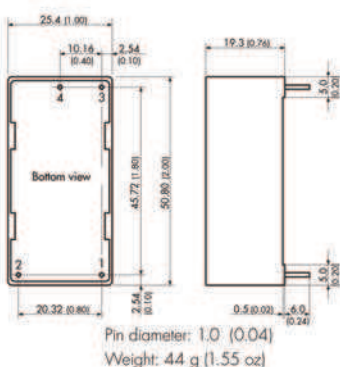
Case Tolerances: ± 0.5 (± 0.02)

Pin Pitch Tolerances: ± 0.25 (± 0.01)

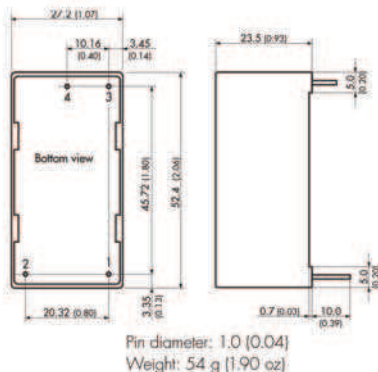
Mounting Hole Tolerance: ± 0.25 (± 0.02)

Pin	TMP07	TMPM10	TMP10	
			Single	Dual
1	AC(N)	AC(N)	AC(N)	AC(N)
2	AC(L)	AC(L)	AC(L)	AC(L)
3	+Vout	+Vout	-Vout	Vout2
4	-Vout	-Vout	N/C	Comm.
5	N/A	N/A	+Vout	Vout1

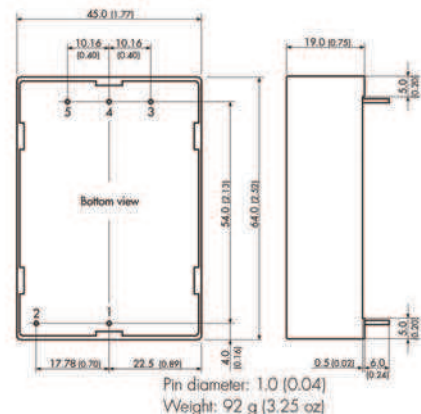
TMP07 Models



TMPM10 Models



TMP10 Models



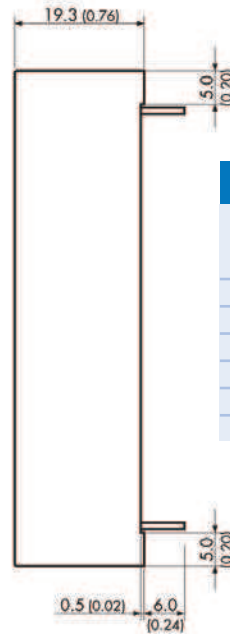
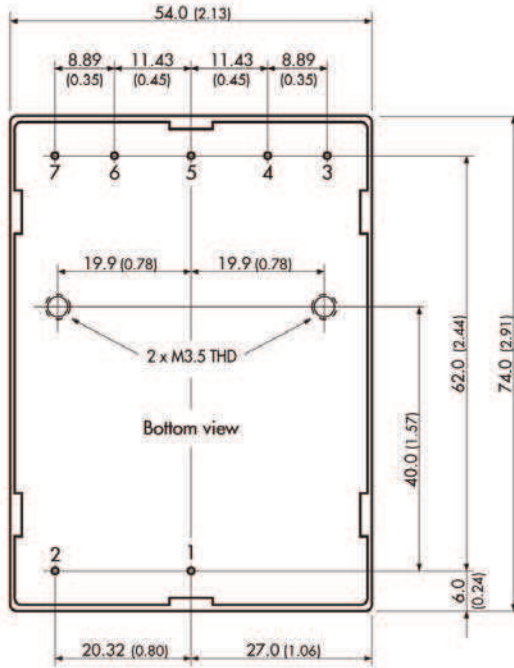
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Mechanical & Connection Details (cont.)

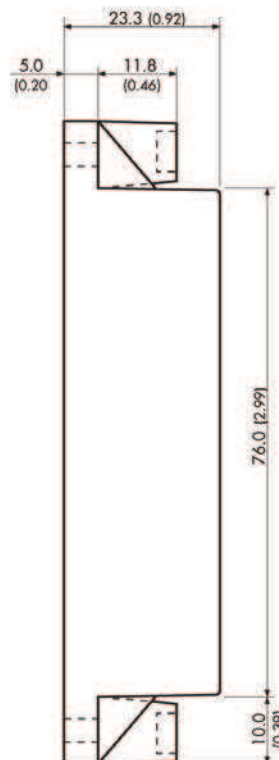
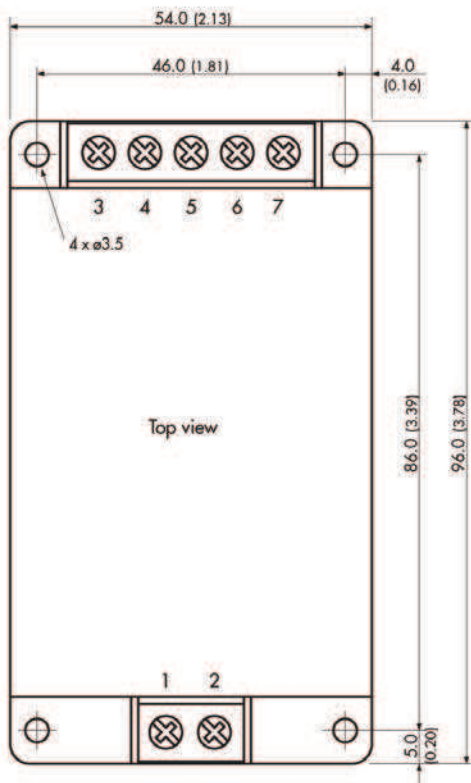
TMP15 Models for PCB Mount



Pin-out				
Pin	Single	Dual sym.	Dual asym.	Triple
1	AC(N)	AC(N)	AC(N)	AC(N)
2	AC(L)	AC(L)	AC(L)	AC(L)
3	No pin	No pin	No pin	Vout3
4	-Vout	Vout2	-Vout2	Comm.
5	No pin	Comm.	+Vout2	Vout2
6	+Vout	Vout1	-Vout1	-Vout1
7	No pin	No pin	+Vout1	+Vout1

Pin diameter: 1.0 (0.04)
Weight: 114 g (4.02 oz)

TMP15 Models for Chassis Mount



Connections				
Pin	Single	Dual sym.	Dual asym.	Triple
1	AC(N)	AC(N)	AC(N)	AC(N)
2	AC(L)	AC(L)	AC(L)	AC(L)
3	N/C	N/C	N/C	Vout3
4	-Vout	Vout2	-Vout2	Comm.
5	N/C	Comm.	+Vout2	Vout2
6	+Vout	Vout1	-Vout1	-Vout1
7	N/C	N/C	+Vout1	+Vout1

Weight: 162 g (5.71 oz)

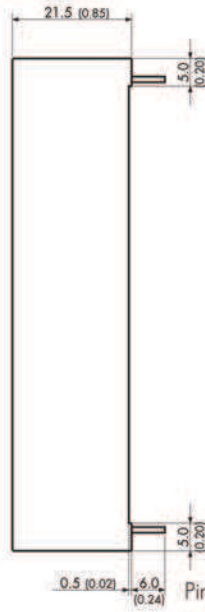
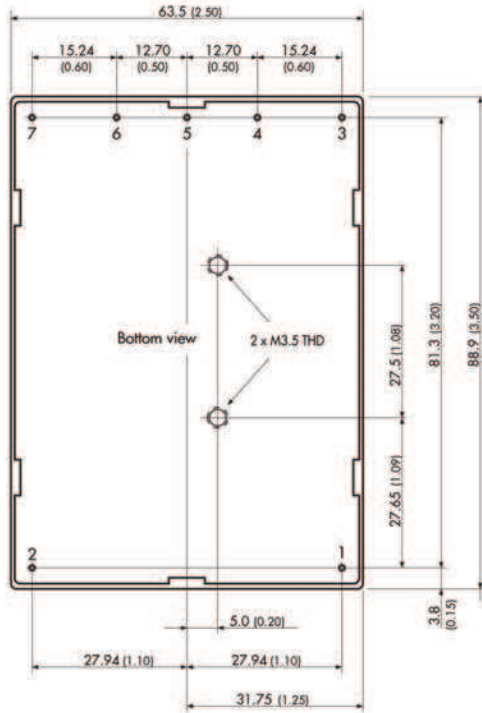
AC-DC Power Modules



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Mechanical & Connection Details (cont.)

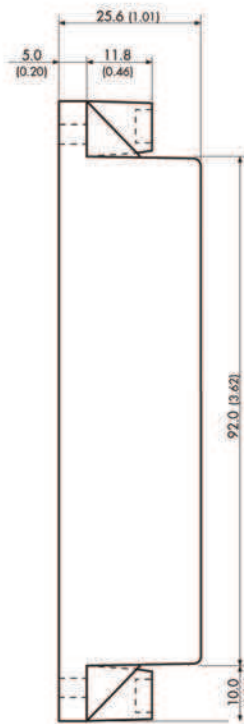
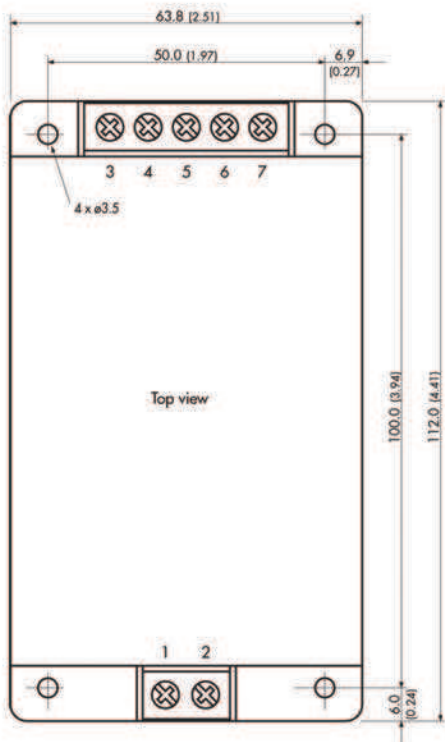
TMP30 Models for PCB Mount



Pin diameter: 1.0 (0.04)
Weight: 177 g (6.24 oz)

Pin-out				
Pin	Single	Dual sym.	Dual asym.	Triple
1	AC(N)	AC(N)	AC(N)	AC(N)
2	AC(L)	AC(L)	AC(L)	AC(L)
3	+Vout	Vout1	+Vout2	Vout2
4	No pin	No pin	+Vout1	+Vout1
5	-Vout	Comm.	-Vout2	Comm.
6	No pin	No pin	-Vout1	-Vout1
7	N/C	Vout2	N/C	Vout3

TMP30 Models for Chassis Mount



Weight: 191 g (6.74 oz)

Connections				
Pin	Single	Dual sym.	Dual asym.	Triple
1	AC(N)	AC(N)	AC(N)	AC(N)
2	AC(L)	AC(L)	AC(L)	AC(L)
3	+Vout	Vout1	+Vout2	Vout2
4	N/C	N/C	+Vout1	+Vout1
5	-Vout	Comm.	-Vout2	Comm.
6	N/C	N/C	-Vout1	-Vout1
7	N/C	Vout2	N/C	Vout3

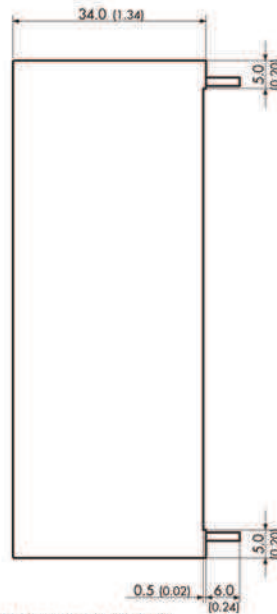
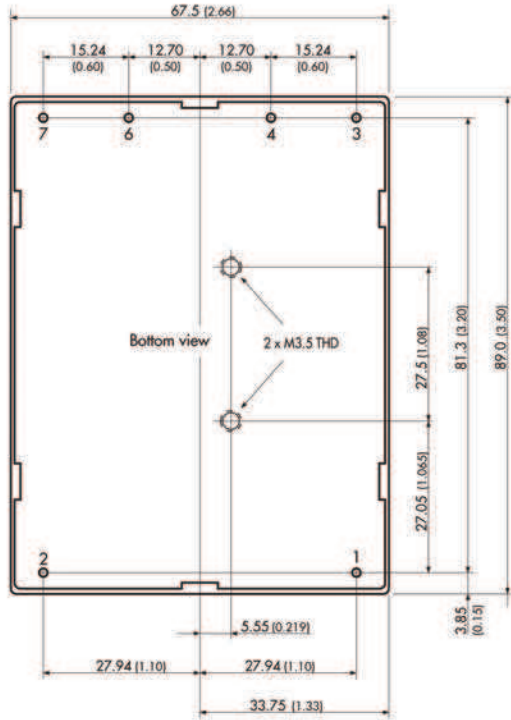
AC-DC Power Modules



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Mechanical & Connection Details (cont.)

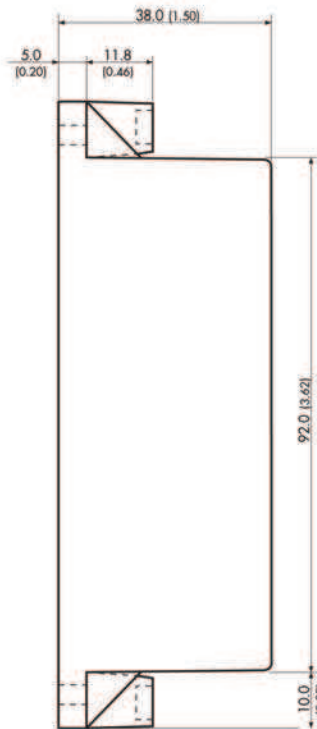
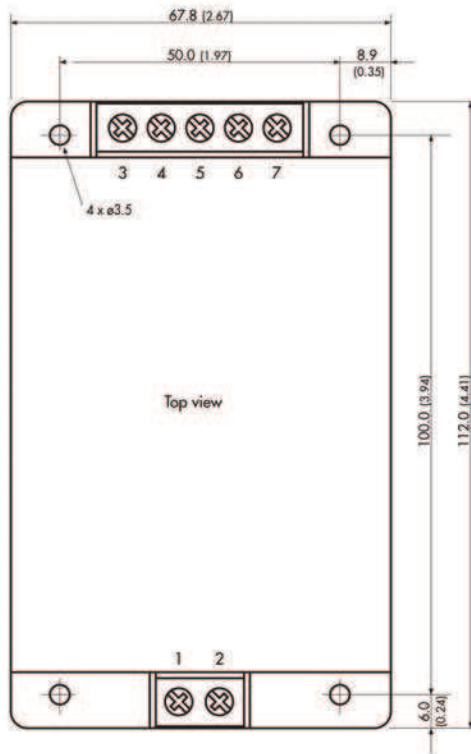
TMP60 Models for PCB Mount



Pin diameter: 2.0 (0.08)
Weight: 345 g (12.17 oz)

Pin-out	
Pin	Single
1	AC(N)
2	AC(L)
3	No pin
4	+Vout
5	No pin
6	-Vout
7	No pin

TMP60 Models for Chassis Mount



Weight: 357 g (12.95 oz)

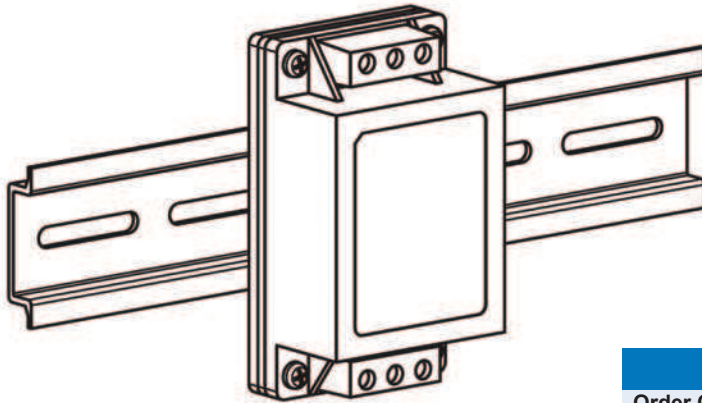
Connections	
Pin	Single
1	AC(N)
2	AC(L)
3	N/C
4	+Vout
5	N/C
6	-Vout
7	N/C

AC-DC Power Modules



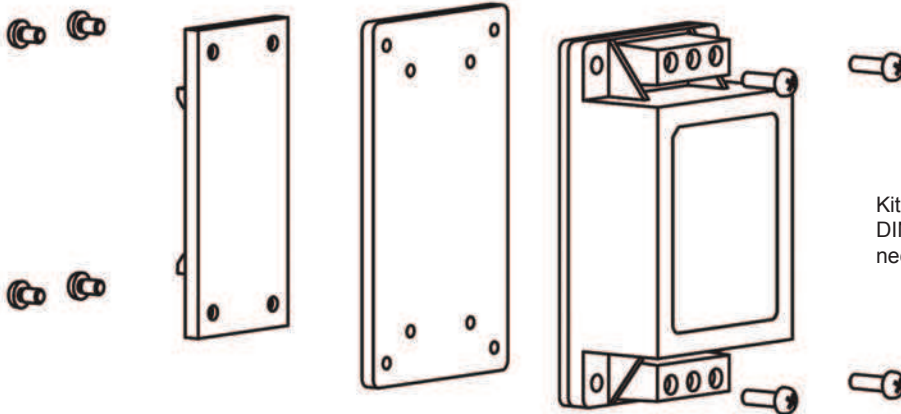
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DIN-Rail Mounting Kit



DIN-Rail Mounting Kit

Order Code	For Models
TMP-MK1	TMP15xxxC
TMP-MK2	TMP30xxxC & TMP60xxxC



Kit contains interface plate,
DIN-rail clip and all
necessary screws