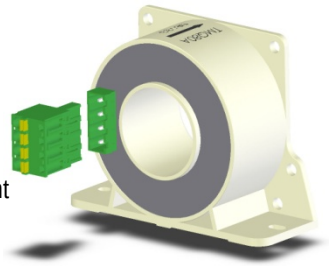
Topstek True RMS Current Transducer TMQ80A..1000A-CL420

TMQ 80A~1000A-CL420



Features

- ♦ Highly reliable Open Loop Hall Effect device
- ♦ Faster response time than temperature sensing
- ♦ Excellent linearity of the output voltage over a wide input range
- ♦ VFD and SCR type waveforms current measurement
- ♦ True RMS output
- ♦ 4-20mA current loop output
- ♦ High isolation voltage between the measuring circuit and the current-carrying conductor (AC3KV)
- ♦ Flame-Retardant plastic case and silicone encapsulant, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range

Applications

- ♦ Power measurement, power panel
- ♦ True RMS AC+DC current measurement

Options

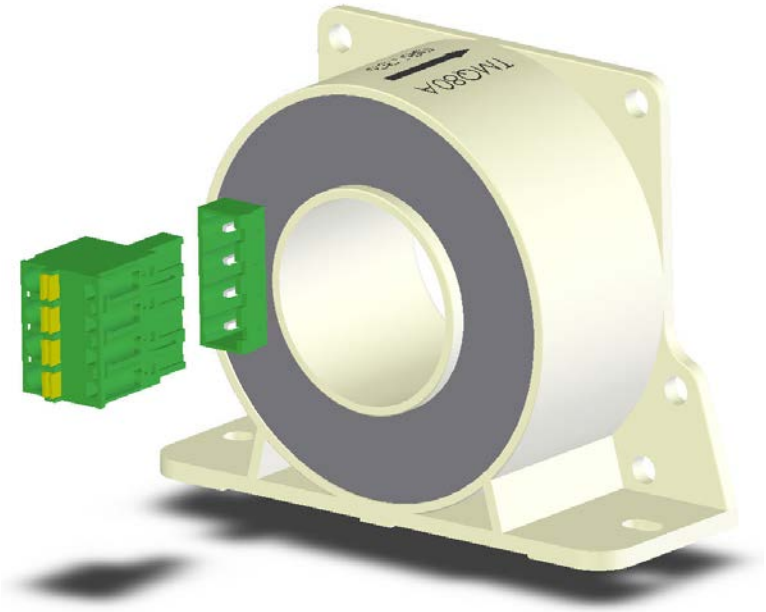
- ♦ Plastic case material:
  PBT+30%GF(white) standard and PC(blue) option
- ♦ Operating temperature range:
  70°C standard and option 85°C available
- ♦ Connector type: specify –E or –M. If other types of connector required, please contact factory for other possibilities.

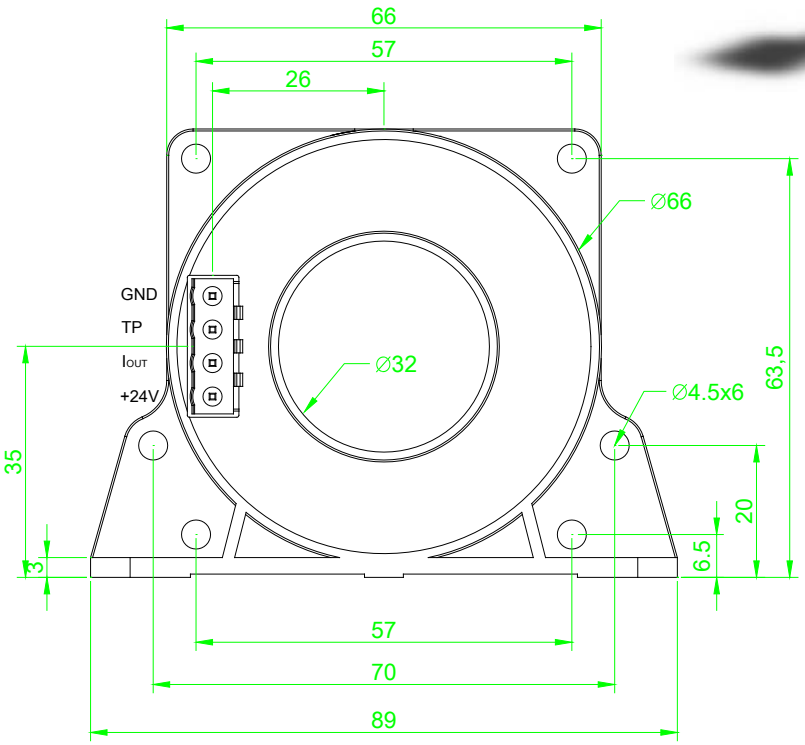
Specifications

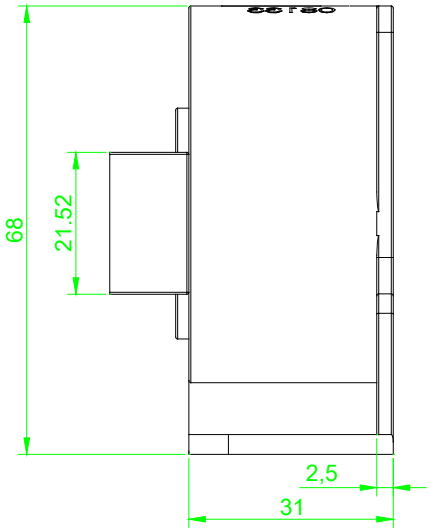
Parameter	Symbol	Unit	80A	100A	200A	300A	400A	500A	600A	1000A
Nominal Input Current	I_{PN}	A RMS	80	100	200	300	400	500	600	1000
Max Primary Current Peak	I_{PMax}	A	±400	±400	±800	±1200	±1600	±2000	±2400	±2400
Current Output Protocol	I_{OUT}	mA	4-20 mA Current Loop, 4mA@ I_P =0A, 20mA@ I_P = I_{PN}							
Output Offset Current	I_{OS}	mA	+4 mA							
Over-Scale Output Current	I_{OL}	mA	<32 mA							
Load Resistance	R_L	Ω	<300 Ω							
Supply Voltage	V_{CC}	V	+20V .. +32V							
Accuracy @ I_{PN}		%	Within ±1% of I_{PN} @25°C(excluding offset)							
Linearity	ρ	%	Within ±1% of I_{PN}							
Consumption Current	I_{CC}	mA	4-20 mA (= I_{OUT})							
Response Time (90% I_{PN} Step)	T_r	μsec	<150 msec							
Frequency bandwidth (±1dB)	f_{BW}	Hz	DC to 6kHz							
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I_{PN}							
Thermal Drift of Zero Current Offset	-	μA/°C	< ±3μA/°C(0-60°C), < ±6μA/°C(-40 .. 70°C)							
Dielectric Strength	-	V	AC3KV X 60 sec							
Isolation Resistance @ 1000 VDC	R_{IS}	MΩ	>1000 MΩ							
Operating Temperature	T_a	°C	-40°C to 70°C							
Storage Temperature	T_s	°C	-45°C to 85°C							
Mass	W	g	240 g							

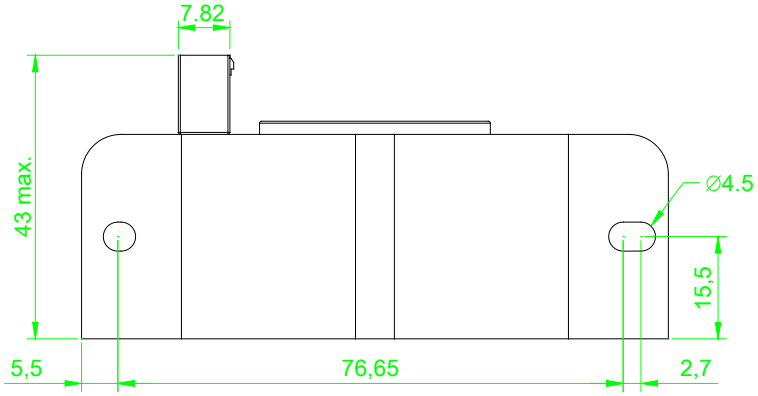
Appearance, dimensions and pin identification of TMQ-CL420-E

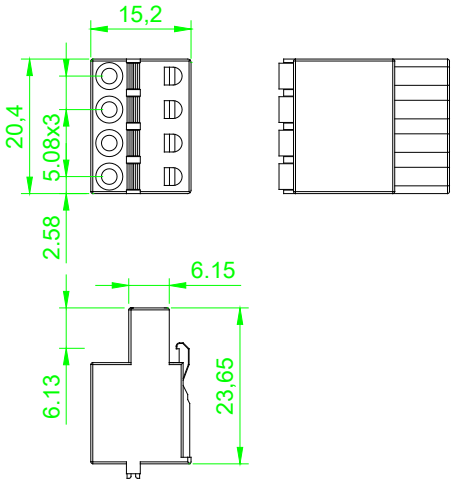
All dimensions in mm ±0.5, holes –0, +0.2 except otherwise noted.





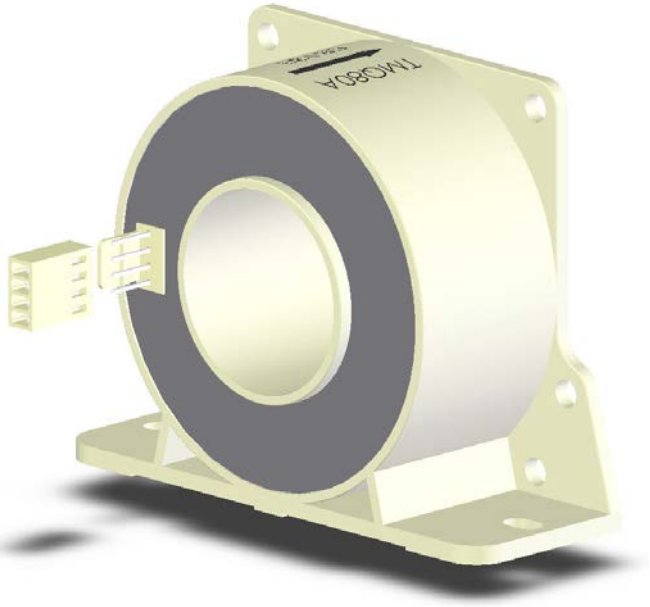


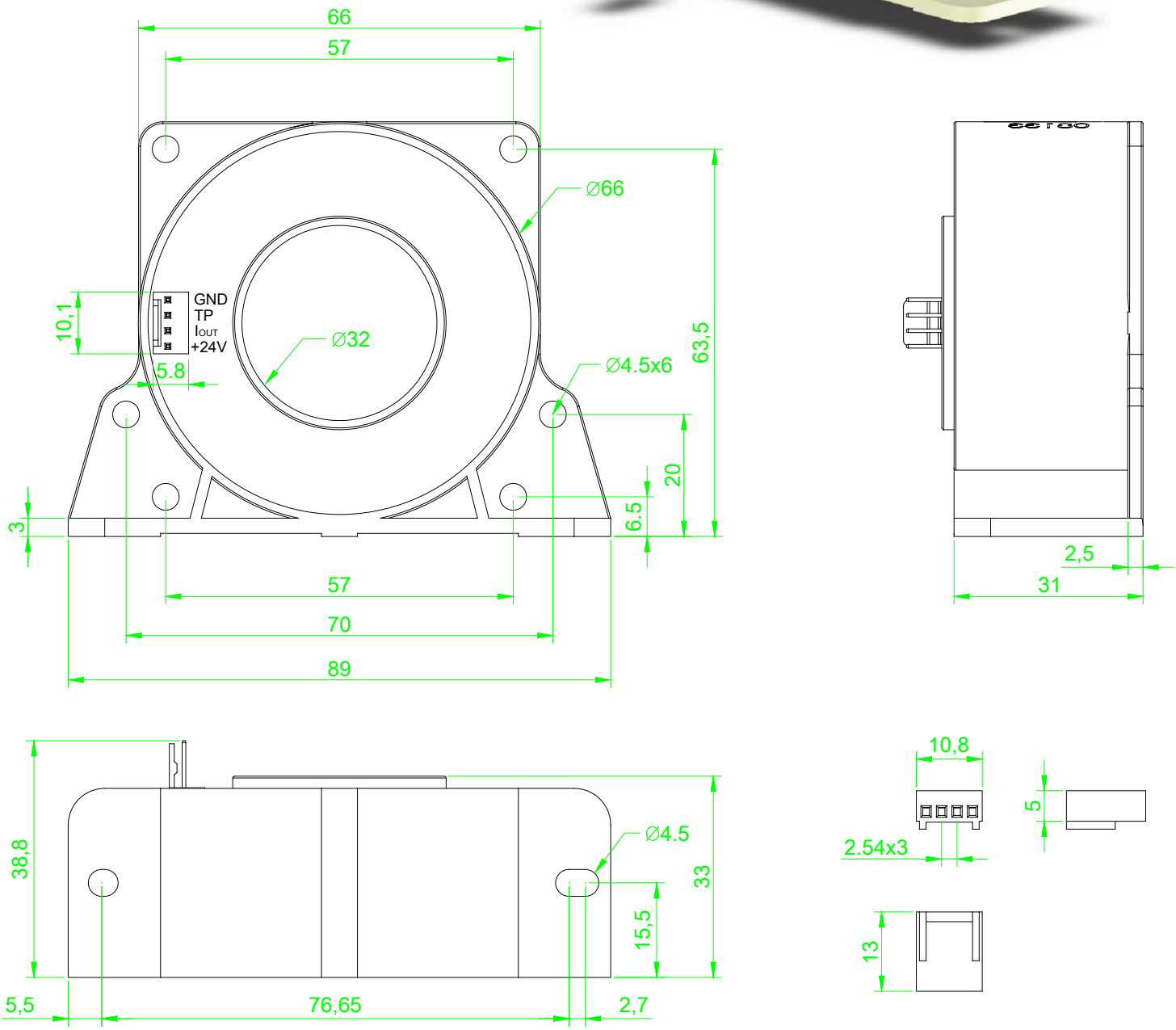




Appearance, dimensions and pin identification of TMQ-CL420-M

All dimensions in mm ±0.5, holes –0, +0.2 except otherwise noted.





Application Connections

TMQ-CL420 can be used with two types of connections. In both cases, the GND pin have no internal connection, and TP Pin is for factory calibration only.

Connection 1:

The power supply is on the receiver side. Only two connector pins are used.

Connection 2:

The power supply is on the CT side. Make sure you have a proper ground connection to prevent grounding noise.