

CMF

Indoor or outdoor current transformer



The CMF current transformer is primarily used with watt-hour meters, with or without thermal demand attachments.

Product features

- 600 volt, indoor or outdoor
- 10 kV BIL, 25 - 60 Hertz
- Available with window or primary bar

Application

The CMF is primarily used with watt-hour meters, with or without thermal demand attachments. Applicable to single or polyphase low voltage circuits, both single and dual ratio units are available. Many ratings feature high rating factors of 3.0 or 4.0 for broad band metering. A wide range of ratings and accessories such as single and dual ratings, high rating factors, primary bar assemblies, or a high base reduce inventory cost and increase application flexibility.

Construction and insulation

The ring-type core and fully distributed winding are assembled to a glass filled polypropylene window liner and injection molded in thermoplastic rubber. The thermoplastic rubber insulating material is permanently molded to the core and coil assembly, resulting in a compact unit with excellent mechanical, thermal, and dielectric characteristics.

Primary

The CMF has a round primary opening suited for circuits requiring more than one cable lead. The large opening accommodates conductors required for full current capacity, even at high rating factors. The 200 ampere unit accommodates two 500 MCM insulated cables. The opening on all other ratings is large enough to accommodate four 500 MCM or three 750 MCM insulated cables. A removable primary bar can be supplied with a slot hole or 4-hole NEMA pattern.

Secondary terminals and cover

The CMF is supplied with embedded compression-type secondary terminals, a short circuit device, and a clear, rectangular snap-on cover suitable for locking with a meter seal. This clear plastic cover allows a visual check of connections and is keyed to ensure the shorting clip is across the terminals when no wires are connected. This safety feature avoids dangerous voltages across the secondary terminals if the primary is energized. Terminals accommodate #14-6 wire and can also serve as a post-type connector by looping wire under the screw head.

Dual ratios are supplied with large compression-type terminals with slotted head screws and a similar short circuit device and cover. The center post also serves as a third terminal on dual ratio transformers.

Test reports

Test reports are stored electronically and can be e-mailed in various formats at the time of shipment.

Broad band metering

Ratings of 50:5 through 1200:5 meet broad band metering requirements of high rating factors and large window openings. This permits using a single transformer rating for a wide range of load.

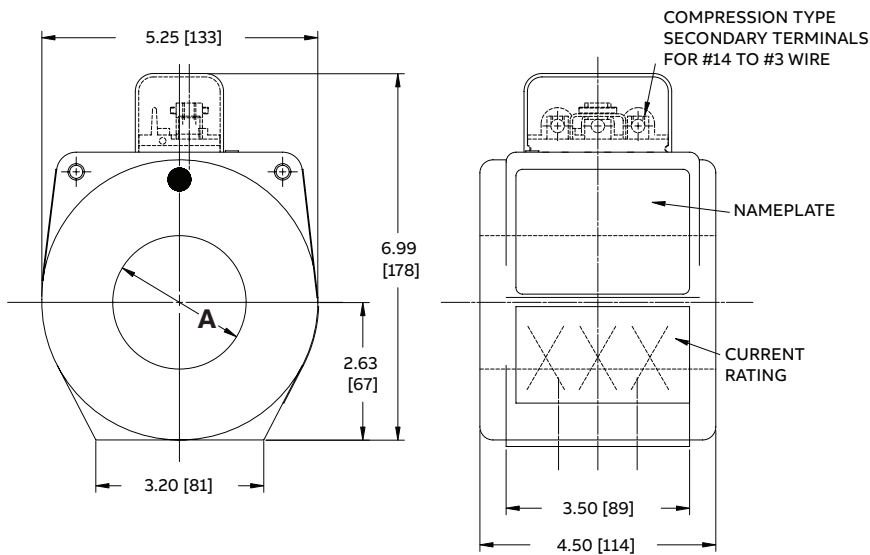
Standards

This unit meets or exceeds all requirements of IEEE C57.13-2016 and can be tested to other standards as requested.

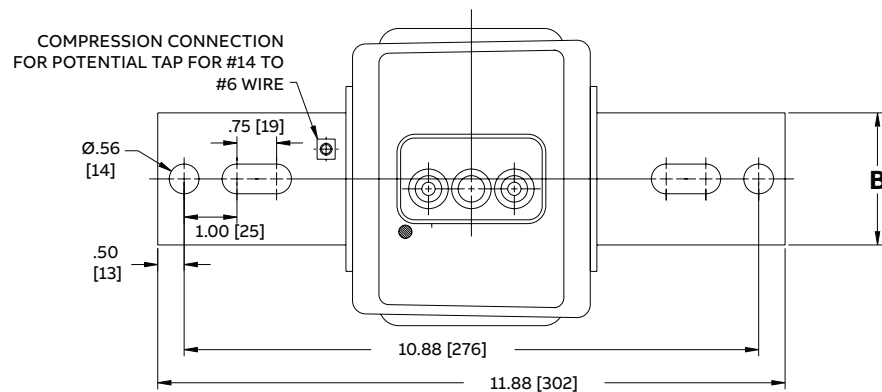
Base

The base is constructed of corrosion-resistant aluminum and secured to the encapsulated base support by four symmetrically located screws.

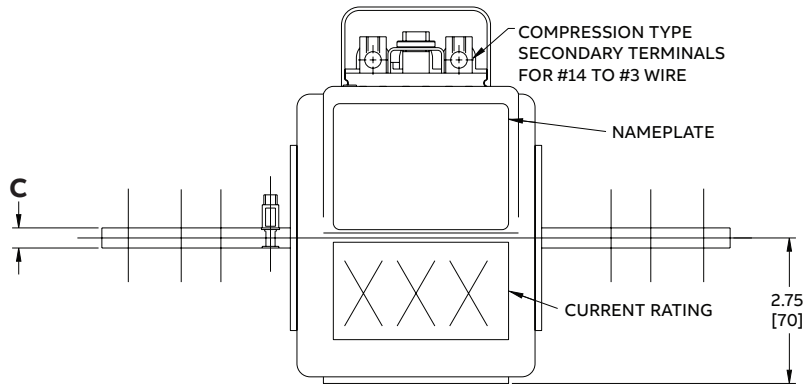
Dimensions (inches [mm])



Window-type



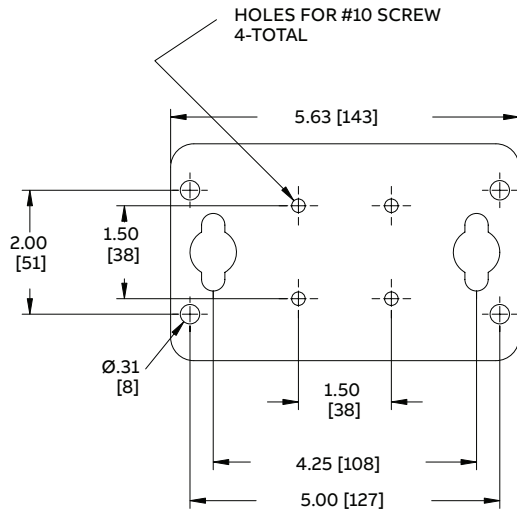
With slot hole primary bar (top view)



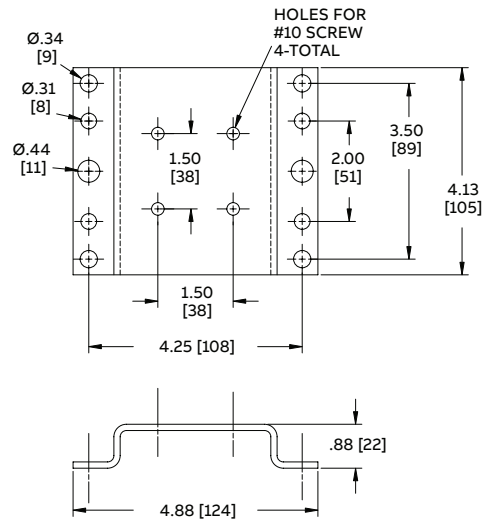
With primary bar (side view)

Window and bar dimensions

Primary ampere rating	A (I.D.)		B (Width)		C (Thk)		Weight (lbs.)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	Window type	Bar type
100 & 200	2.50	64	2.0	51	0.250	6	12.3	14.3
400	3.06	78	2.5	64	0.375	10	8.5	12.5
500	3.06	78	2.5	64	0.375	10	8.5	12.5
600	3.06	78	2.5	64	0.375	10	8.5	12.5
800	3.06	78	2.5	64	0.375	10	8.3	12.5
1200	3.06	78	2.5	64	0.375	10	8.3	12.5
200/400	2.50	64	2.0	51	0.250	6	12.4	14.4
300/600	3.06	78	2.5	64	0.375	10	9.7	13.7
400/800	3.06	78	2.5	64	0.375	10	8.7	12.7



Flat base



High base

Selection guide					
Primary ampere rating	Rating factor		IEEE metering accuracy @ 60 Hz	Style number	
	30°C	55°C		Flat base	High base
Type CMF (window-type)					
50	4.0	3.0	1.2B-0.1	4460A30G25	4460A30G26
100	4.0	3.0	0.3B-0.1	4460A30G23	4460A30G24
200	4.0	3.0	0.3B-0.5	4460A30G01	4460A30G02
300	3.0	2.2	0.3B-0.5	4460A30G17	4460A30G18
400	4.0	3.0	0.3B-0.5	4460A30G03	4460A30G04
500	3.0	2.2	0.3B-0.5	4460A30G05	4460A30G06
600	2.0	1.5	0.3B-0.5	4460A30G07	4460A30G08
800	2.0	1.5	0.3B-0.5	4460A30G09	4460A30G10
1000	2.0	1.5	0.3B-0.5	4460A30G21	4460A30G22
1200	1.5	1.2	0.3B-1.8	4460A30G19	4460A30G20
200/400	4.0/2.0	3.0/1.5	0.3B-0.5/0.3B-0.5	4460A30G11	4460A30G12
300/600	3.0/2.0	2.2/1.5	0.3B-0.5/0.3B-0.5	4460A30G13	4460A30G14
400/800	2.0/2.0	1.5/1.5	0.3B-0.5/0.3B-0.5	4460A30G15	4460A30G16
Type CMF (with primary bar, slot hole)					
50	4.0	3.0	1.2B-0.1	7525A01G29	7525A01G30
100	4.0	3.0	0.3B-0.1	7525A01G25	7525A01G26
200	4.0	3.0	0.3B-0.5	7525A01G01	7525A01G02
300	3.0	2.2	0.3B-0.5	7525A01G17	7525A01G18
400	4.0	3.0	0.3B-0.5	7525A01G03	7525A01G04
500	3.0	2.2	0.3B-0.5	7525A01G05	7525A01G06
600	2.0	1.5	0.3B-0.5	7525A01G07	7525A01G08
800	2.0	1.5	0.3B-0.5	7525A01G09	7525A01G10
1000	2.0	1.5	0.3B-0.5	7525A01G23	7525A01G24
1200	1.5	1.2	0.3B-1.8	7525A01G19	7525A01G20
200/400	4.0/2.0	3.0/1.5	0.3B-0.5/0.3B-0.5	7525A01G11	7525A01G12
300/600	3.0/2.0	2.2/1.5	0.3B-0.5/0.3B-0.5	7525A01G13	7525A01G14
400/800	2.0/2.0	1.5/1.5	0.3B-0.5/0.3B-0.5	7525A01G15	7525A01G16

Additional styles available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.

Optional accessories	
Accessory	Style number
Terminal cover	9628A05G11
Shorting bar	4462A01H01
Shorting nut	4462A02H02
Flat base	9628A05G12
High base	9628A05G13
Primary bar assemblies:	
2.50" diameter (standard)	9628A05G35
3.06" diameter (standard)	9628A05G36
3.06" diameter (NEMA 4-hole)	9628A05G37