Metering Current Transformers

DATA SHEET

SERIES 24

Extended Range Types S, T & W to AS 60044.1

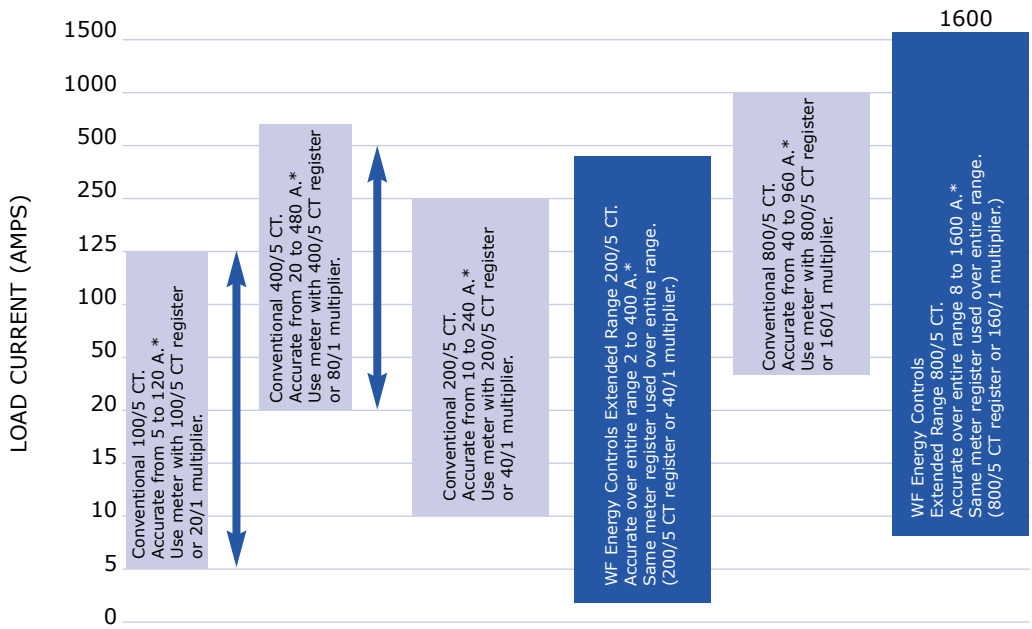
AS 60044.1 specify limits of current error and phase displacement for special application extended range current transformers which have been designed to match the load range capacity of long range kWh meters. The usual current transformer operated meter is rated at 5/15 amps and, for example, if operated by a Type 'S' current transformer will satisfactorily register loading up to 400 amps.

In accordance with AS 60044.1, special application extended range current transformers are designated by class accuracy followed by the letter 'S' and rated extended primary current 120% or 150% or 200%. For types 'S', 'T' and 'W' their class accuracy is therefore shown as '0.2S' or '0.5S' and extended range primary current.

In addition to reducing the stockholding of CTs there is also a major advantage that CT ratio changes are reduced or eliminated. It is recognised that ratio changes, coupled with the associated change in the meter multiplier (or register) and the amended accounting procedure are a major cause of errors in levying charges. The cost of a ratio change can be significant, and even for a small electricity authority can amount to some hundreds of dollars.

Extended range CTs have also proven to be of particular benefit in seasonal industries, e.g. milling, where there is a wide variation between minimum and peak activity.

A GRAPHICAL COMPARISON, showing ranges of accuracy of:
(a) Conventional CTs
(b) WF Energy Controls Extended Range CTs



Typical Loading of Extended Range CTs.

* The word 'accurate' is used in the above diagram to denote "Accurate within the limits of current and phase error specified by Australian Standard A.S. 60044.1.

Type S

Type T

Type W

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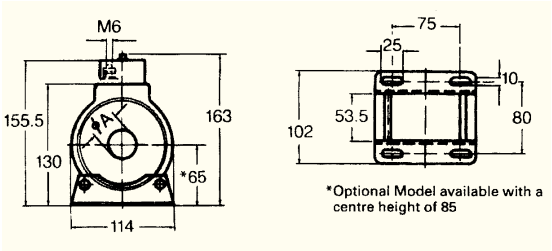
SPECIFICATIONS	
CURRENT RATIO (Ip/Is):	200/5A
ACCURACY CLASS:	0.2S & 0.5S
BURDEN/VA:	0.2 OHM/5 VA
EXTENDED PRIMARY CURRENT:	200%
RANGE OF LOADING:	2 A TO 400 A
THERMAL LIMIT CURRENT:	200%
SHORT TIME CURRENT:	40 kA/0.5 SECOND
FREQUENCY:	50/60 HZ
INSULATION LEVEL:	3 kV
SYSTEM VOLTAGE:	0.72 kV

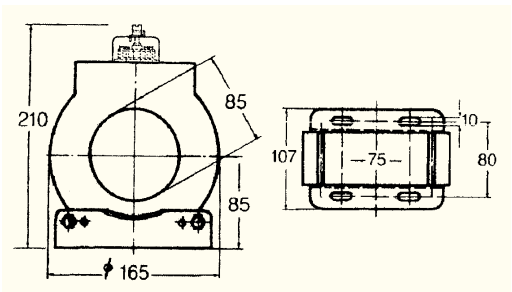
Type S



TYPE	Window Diameter
S	32
S45	45

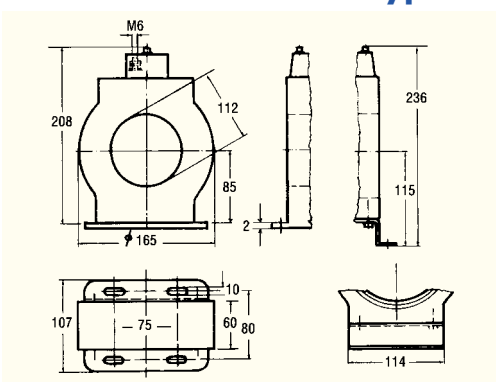
SPECIFICATIONS	
CURRENT RATIO (Ip/Is):	800/5A
ACCURACY CLASS:	0.2S & 0.5S
BURDEN/VA:	0.6 OHM/15 VA
EXTENDED PRIMARY CURRENT:	200%
RANGE OF LOADING:	8 A TO 1600 A
THERMAL LIMIT CURRENT:	200%
SHORT TIME CURRENT:	40 kA/0.5 SECOND
FREQUENCY:	50/60 HZ
INSULATION LEVEL:	3 kV
SYSTEM VOLTAGE:	0.72 kV

Type T



SPECIFICATIONS	
CURRENT RATIO (Ip/Is):	1500/5A
ACCURACY CLASS:	0.2S & 0.5S
BURDEN/VA:	0.6 OHM/15 VA
EXTENDED PRIMARY CURRENT:	200%
RANGE OF LOADING:	15 A TO 3000 A
THERMAL LIMIT CURRENT:	200%
SHORT TIME CURRENT:	40 kA/0.5 SECOND
FREQUENCY:	50/60 HZ
INSULATION LEVEL:	3 kV
SYSTEM VOLTAGE:	0.72 kV

Type W



CONSTRUCTION & MATERIALS

ENCAPSULATION - Epoxy Resin

OUTER CASE - Fibreglass filled polyester resin

TERMINAL COVER
Type S, T & W - Round clear polycarbonate

TERMINAL COVER SEALING SCREWS - Brass, nickel plated

TERMINALS - 6mm, brass, silver plated with silver plated nuts. Spring washers - stainless steel.

MOUNTING BRACKETS -
Type S - Anodised aluminium
Type T - Zinc plated steel
Type W - Low base - Zinc plated steel
- High base - Anodised aluminium

ACCESSORIES AVAILABLE - Bus bar clamps

OPTIONS - Tunnel terminals, low base/high base (Type W)