

Measuring current transformers WR70x175S(P)...WR200x500S(P)

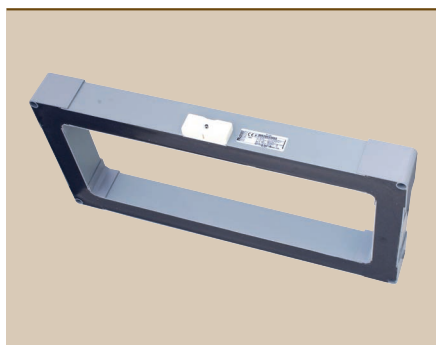


Measuring current transformers

WR70x175S(P)...WR200x500S(P)



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Measuring current transformers WR200x500S(P)

Product description

The highly sensitive WR...S series measuring current transformers of rectangular type convert AC currents into evaluable measurement signals, in combination with RCM and RCMS series residual current monitors and evaluators.

In addition, the measuring current transformers can be used in combination with insulation fault location systems (EDS) for IT systems. They are designed to measure the locating current generated by a PGH locating current injector or an ISOMETER® IRDH. In combination with EDS series insulation fault locators the test current is converted into evaluable signals.

The WR...SP series measuring current transformers feature an integrated screening. This screening is intended to avoid false tripping of connected RCM... or EDS... devices, when high load currents or inrush currents occur in the system being monitored.

WR...SP series measuring current transformers are particularly suitable for use in busbar systems and are designed for load currents ≥ 500 A.

Connection to the respective device is via a two-wire cable.

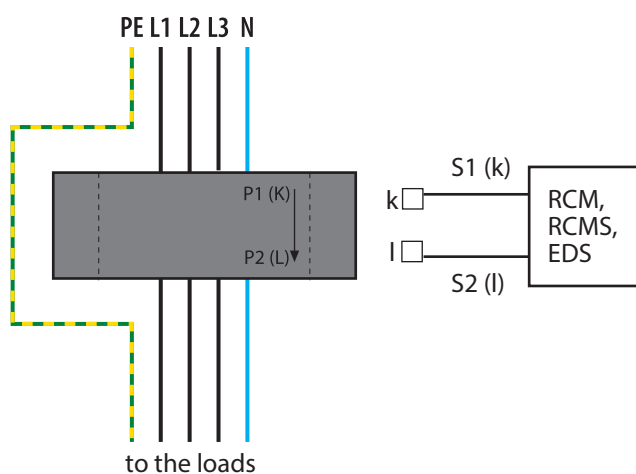
Standards

WR70x175S(P)...WR200x500S(P) measuring current transformers comply with the device standards: DIN EN 60044-1, IEC 60044-1.

Installation instructions

- Make sure that all live conductors are routed through the measuring current transformer
- Do not route shielded conductors through the measuring current transformer
- Never route a PE conductor through the measuring current transformer!

Wiring diagram



Device features

- For RCMS460/490 residual current monitoring systems
- For RCM420 residual current monitors
- For EDS460/490 insulation fault locators
- The WR...SP measuring current transformers are particularly suitable for use in busbar systems. This series is to be used for load currents ≥ 500 A.

Approvals



Technical data

Insulation coordination acc. to IEC 60044-1

Highest system voltage for electrical equipment U_m	AC 720 V
Rated impulse withstand voltage U_{isol}	3 kV

Measuring circuit

Rated transformation ratio	600/1
Rated burden	180 Ω
Rated primary current	≤ 10 A (100 A)
Rated primary current	≥ 10 mA
Nominal power	50 mVA
Rated frequency	50...400 Hz
Internal resistance	5...8 Ω
Secondary overvoltage protection	suppressor diode P6KE6V8CP
Accuracy class	5
Rated continuous thermal current	100 A
Rated short-time thermal current	14 kA/1 s
Rated dynamic current	35 kA/30 ms

Environment

Standard	IEC 60044-1
Shock resistance IEC 60068-2-27 (device in operation)	15 g/11 ms
Bumping IEC 60068-2-29 (transport)	40 g/6 s
Vibration resistance IEC 60068-2-6 (device in operation)	1 g/10...150 Hz
Vibration resistance IEC 60068-2-6 (transport)	2 g/10...150 Hz
Ambient temperature (during operation)	-10...+50 °C
Ambient temperature (during storage)	-40...+70 °C
Climatic class acc. to DIN IEC 60721-3-3	3K5

Connection

Connection	screw-type terminals
Connection rigid/flexible	0.2...4/0.2...2.5 mm ²
flexible with ferrules with/without plastic sleeve	0.25...2.5 mm ²
Conductor sizes (AWG)	24...12
Connection to the evaluator	
single wire ≥ 0.75 mm ²	0...1 m
single wire, twisted ≥ 0.75 mm ²	0...10 m
shielded cable ≥ 0.6 mm ²	0...40 m
Shielded cable (shield on one side connected to PE)	recommended: J-Y(St)Y min. 2 x 0.6

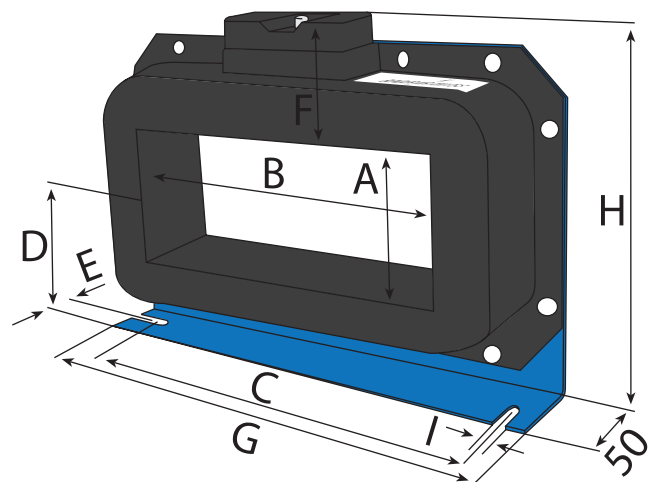
Other

Operating mode	continuous operation
Mounting	any position
Degree of protection, internal components (DIN EN 60529)	IP40
Degree of protection, terminals (DIN EN 60529)	IP20
Screw mounting	M5
Flammability class	UL94 V-0
Operating manual	TBP409004

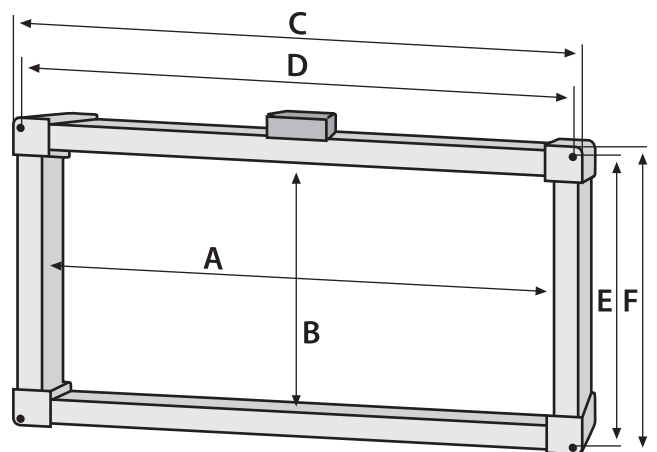
Ordering information

Screening	Internal dimensions	Type	Art. No.
without screening	70 x 175 mm	WR70x175S	B 911 738
	115 x 305 mm	WR115x305S	B 911 739
	150 x 350 mm	WR150x350S	B 911 740
	200 x 500 mm	WR200x500S	B 911 763
Screening integrated	70 x 175 mm	WR70x175SP	B 911 790
	115 x 305 mm	WR115x305SP	B 911 791
	150 x 350 mm	WR150x350SP	B 911 792
	200 x 500 mm	WR200x500SP	B 911 793

Dimensions (mm) and weights (g)



Type WR70x175S(P)...WR150x350S(P)



Type WR200x500S(P)

Type	Dimensions (mm)									Weight
	A	B	C	D	E	F	G	H	I	
WR70x175S(P)	70	175	225	85	22	46	261	176	7.5	2900 g
WR115x305S(P)	115	305	360	116	25	55	397	240	8	6300 g
WR150x350S(P)	150	350	415	140	28	55	460	285	8	8250 g
WR200x500S(P)	500	200	585	568.5	268.5	285	-	-	-	9000 g

Approvals

Type	UL	GL
WR70x175S(P)	■	■
WR115x305S(P)	■	■
WR150x350S(P)	■	-
WR200x500S(P)	-	-



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