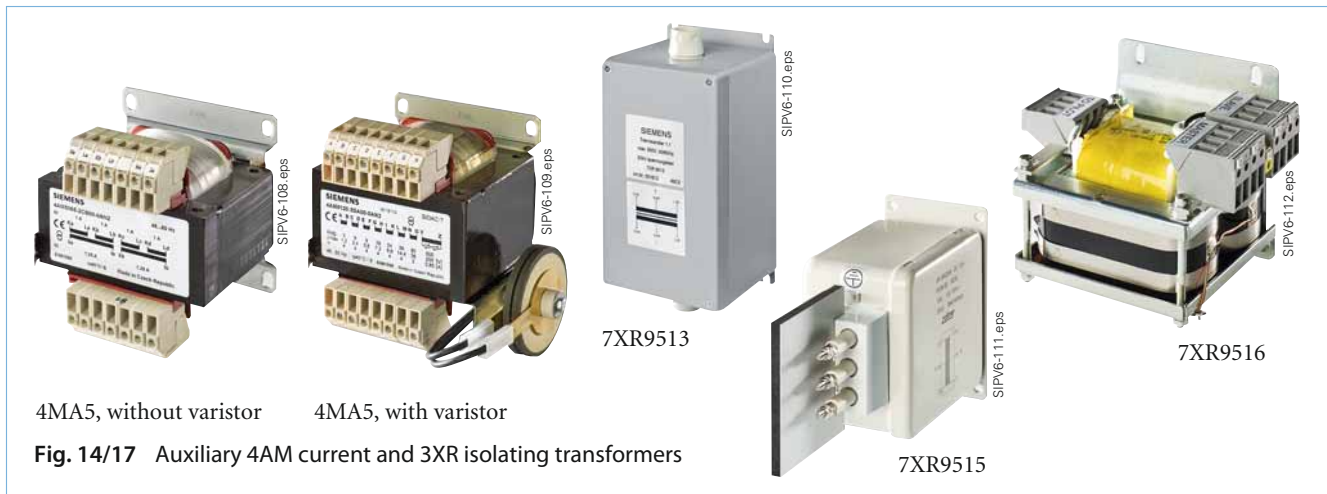


4AM□□ Auxiliary Current Transformers 7XR□□ Isolating Transformers



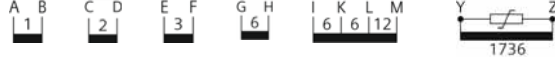
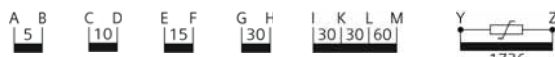
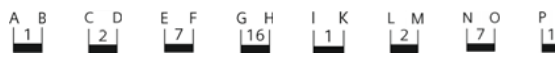
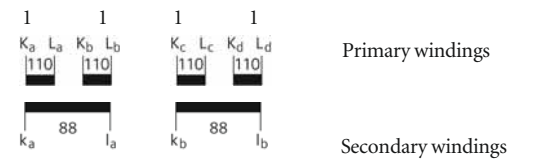



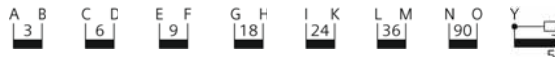



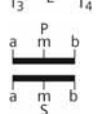
Overview

Application	Comment	Climatic requirements according to former DIN 40040	Features
Matching current transformer	Multi-tap aux. current transformer to match different current transformer ratios. 4AM51 70-7AA: Standard version, primarily for transformer differential protection. 4AM52 72-2AA: Version with double thermal withstand capability, e.g. when connecting to wide-range current transformer (continuous rating $2 \times I_N$). 4AM52 72-3AA: Version with higher saturation factor (mainly for the busbar differential protection). Greater overcurrent factor because of higher voltages	HKG HKG HKG	Numerous ratios can be selected using terminal connections (next page) $f_N = 45$ to 60 Hz
Input and matching current transformer	Input and matching current transformer for phase selective busbar differential protection (a.o. for 7SS60, 7UT6) 4AM51 20-1DA: For 1 A C.T.s 4AM51 20-2DA: For 5 A C.T.s ¹⁾	HKG HKG	$f_N = 45$ to 60 Hz with varistor
3-phase summation input C.T.	Input 3-phase summation current transformer for busbar differential protection (a.o. for 7SS60). 4AM51 20-3DA: For 1 A C.T.s 4AM51 20-4DA: For 5 A C.T.s for line differential protection (a.o. for 7SD600) 4AM49 30-6DA: For 5 A 4AM49 30-7DA: For 1 A	HKG HKG HKG HKG	$f_N = 45$ to 60 Hz with varistor $f_N = 45$ to 60 Hz with varistor
Aux. C.T. for C.T. powered tripping circuits	Auxiliary current transformer for C.T. powered trip coils in stations where no battery supply can be made available. 4AM50 65-2CB: For 1 A C.T.s 4AM50 70-8AB: For 5 A C.T.s Suitable for tripping coils with $I_N \leq 0.5$ A or 1 A, $V_N \leq 40$ V or 20 V, $P \leq 20$ VA.	HKD HKD	Unlike transducers, no defined rated power or class accuracy required. $f_N = 45$ to 60 Hz
Isolating transformer	Isolating transformer for pilot wire differential protection. Provides galvanic isolation between pilot wires and relays. 7XR9 513: For differential protection with 1 pair of pilot wires (a.o. for 7SD600) 7XR9 515: For differential protection with 1 pair of pilot wires (a.o. for 7SD600) 7XR9 516: For communication converter 7XV5662-0AC00 (a.o. for SIPROTEC 4 device 7SA522, 7SA6, 7SD52, 7SD61)	HKG HKG –	20 kV insulation 5 kV insulation 20 kV insulation

Climatic requirements: HKG = -25 °C to $+125$ °C relative humidity max. 75 %; annual average < 65 % on 60 days of the year up to 85 % (equally distributed over the year); condensation not permissible
HKD = -25 °C to $+125$ °C relative humidity max. 90 %; annual average < 80 % on 30 days of the year up to 100 % (equally distributed over the year); condensation permissible

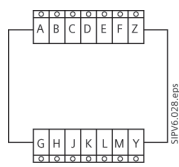
1) If increased thermal withstand is required type 4AM51 20-4DA is recommended.

Order No. and Technical data

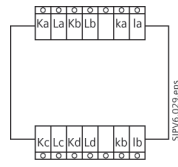
Order No.		Windings of auxiliary current transformers	Weight, approx.
4AM49 30-6DB00-0AN2	Number of windings		1.9 kg
	Max. current, continuously Max. voltage	A 28 28 28 28 6.5 V 0.23 0.46 0.69 1.38 (5.6) 400	
4AM49 30-7DB00-0AN2	Number of windings		2 kg
	Max. current, continuously Max. voltage	A 4.5 4.5 4.5 4.5 1.2 V 1.15 2.3 3.5 7 (20) 400	
4AM51 70-7AA00-0AN2	Number of windings (in relation to each other)		3.6 kg
	Rated current I_N ¹⁾ Max. voltage	A 5 5 5 1 5 5 5 1 V 2 4 14 32 2 4 14 32	
4AM52 72-2AA00-0AN2	Rated current I_N ¹⁾ Max. voltage	A 10 10 10 2 10 10 10 2 V 2 4 14 32 2 4 14 32	5.4 kg
	Rated current I_N ¹⁾ Max. voltage	A 5 5 5 1 5 5 5 1 V 4 8 28 64 4 8 28 64	
4MA50 65-2CB00-0AN2	Rated current I_N ¹⁾ Number of windings		2.9 kg
	Rated current I_N ¹⁾	A 1.25 1.25	
4MA50 70-8AB00-0AN2	Rated current I_N ¹⁾ Number of windings		2.9 kg
	Rated current I_N ¹⁾	A 1.25 1.25	
4AM51 20-1DA00-0AN2	Number of windings		3.6 kg
	Max. current, continuously Max. voltage	A 6.8 6.8 6.8 V 0.4 0.8 1.6 3.2 6.4 12.5 200	
4AM51 20-2DA00-0AN2	Number of windings		3.6 kg
	Max. current, continuously Max. voltage	A 26 26 not fitted V 0.4 0.8 1.6 3.2 6.4 12.5 200	
4AM51 20-3DA00-0AN2	Number of windings		3.6 kg
	Max. current, continuously Max. voltage	A 4 4 4 4 4 4 2 0.85 V 1.2 2.4 3.6 7.2 9.6 14.4 36 200	
4AM51 20-4DA00-0AN2	Number of windings		3.6 kg
	Max. current, continuously Max. voltage	A 17.5 17.5 17.5 17.5 17.5 17.5 8 0.85 V 0.4 0.8 1.2 1.6 2.4 3.2 4.8 200	
7XR9 513	Isolating transformer for differential protection with 1 pair of pilot wires	 Isolating transformer 1:1, max. 550 V 0.4 A continuously, 3 A 10 s, 10 A 1 s test voltage 20 kV, 50 Hz, 1 min	5 kg
7XR9 515	Isolating transformer for differential protection with 1 pair of pilot wires	 Isolating transformer 1:1, max. 450 V test voltage 5 kV, 50 Hz, 1 min	2 kg
7XR9 516	Isolating transformer for communication converter	 Isolating transformer 1:1, max. test voltage 20 kV, 50 Hz, 1 min	1.4 kg

1) Thermal withstand with simultaneous loading of all the windings: 1.2 x I_N /continuously; 10 x I_N /10 s; 25 I_N /1 s.

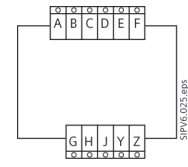
Order No. and Technical data



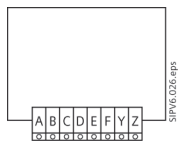
4AM49 30-6DB
4AM49 30-7DB



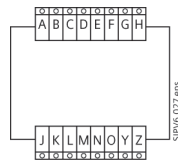
4AM50 65-2CB
4AM50 70-8AB



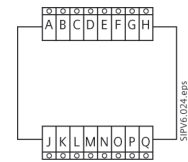
4AM51 20-1DA



4AM51 20-2DA



4AM51 20-3DA
4AM51 20-4DA



4AM51 70-7AA
4AM52 72-2AA
4AM52 72-3AA

Fig. 14/18 Connection of windings