SIEMENS

Data sheet

3VA2450-7KQ32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 3-POLE, LINE PROTECTION ETU860, LSIG, IN=500A OVERLOAD PROTECTION IR=200A ...500A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..14X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT;UPTO 160% GROUND-FAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,05-0,8MS BUSBAR CONNECTION

Figure similar

Model			
product brand name		SENTRON	
Product designation		Molded case circuit breaker	
Design of the product		Line protection	
Product variations		Selective Applications	
Ground fault monitoring version		Summation current formation L-conductor	
Design of the auxiliary release		without auxiliaryrelease	
Design of the auxiliary switch		Without	
Design of the operating mechanism		toggle handle	
Type of the driving mechanism / motor drive		No	
Design of the overcurrent release		ETU860	
General technical data			
Number of poles		3	
Trip class / of the L-trip / with I2t characteristic / initial value		0.5	
Trip class / of the L-trip / with I2t characteristic / Full- scale value		20	
Electrical endurance (switching cycles)			
• at AC-1 / at 380/415 V / at 50/60 Hz		4 000	
Total disconnection time / for G-tripping / with standard characteristic / initial value	S	0.05	
Total disconnection time / for G-tripping / with standard characteristic / Full-scale value	S	0.8	
circuit-breaker / Design		3VA	
Mechanical service life (switching cycles) / typical		15 000	

Insulation voltage / Rated value V 800 Protection class Protection class IP IP40 Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity Switching capacity Switching capacity class of the circuit breaker C Dissipation Adive power loss • maximum W Continuous current / Rated value / maximum A 630 Continuous current / Rated value Continuous current / Rated value A Operating voltage • • with AC / at 50/60 Hz / Rated value V 650 Operating voltage • with AC / at 50/60 Hz / Rated value A • at 80 °C / Rated value	Voltage		
Protection class IP IP40 Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity C Switching capacity C Dissipation Active power loss maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 500 Main circuit Operating outlage v 690 Operating outlage with AC / at 50/60 Hz / Rated value A 10° C / Rated value A 40° C / Rated value A 40° C / Rated value A 400 A 460 at 60° C / Rated value A 460 at 60° C / Rated value A 460 A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Suitability for use system protection Adjustable response value current for G-tripping / with 12t characteristic / initial value for G-tripping / with 12t characteristic / initial value for G-tripping / with 12t characteristic / in		V	800
Protection class IP IP40 Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity C Switching capacity C Dissipation Active power loss maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 500 Main circuit Operating outlage v 690 Operating outlage with AC / at 50/60 Hz / Rated value A 10° C / Rated value A 40° C / Rated value A 40° C / Rated value A 400 A 460 at 60° C / Rated value A 460 at 60° C / Rated value A 460 A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Suitability for use system protection Adjustable response value current for G-tripping / with 12t characteristic / initial value for G-tripping / with 12t characteristic / initial value for G-tripping / with 12t characteristic / in			
Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity Switching capacity class of the circuit breaker C Dissipation Adive power loss W Active power loss W 105 Electricity Continuous current / Rated value / maximum A Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Operating voltage v 690 Operating voltage • with AC / at 50/60 Hz / Rated value V 690 690 Operating voltage V 690 600 600 • at 60 °C / Rated value A 500 440 440 • at 60 °C / Rated value A 460 440 • at 60 °C / Rated value A 460 60 60 • at 70 °C / Rated value A 460 60 60 500 • at 60 °C / Rated value A 460 60 500 500 500 500 500 500 500			IP40
Protective function of the overcurrent release LSIG Switching capacity Switching capacity Switching capacity class of the circuit breaker C Dissipation Active power loss • maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value Adjustable response value current / of the instantaneous short-circuit release / initial value A Operating rollage v • with AC / at 50/60 Hz / Rated value A Operating current A • at 40 °C / Rated value A • at 60 °C / Rated value A • at 70 °C / Rated value A			
Switching capacity Switching capacity class of the drout breaker C Dissipation Active power loss • maximum W 105 Electricity C Continuous current / Rated value / maximum A 630 Adjustable response value current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 500 Main circuit Operating voltage vith AC / at 50/60 Hz / Rated value V 690 Operating current			
Switching capacity class of the circuit breaker C Dissipation C Active power loss maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 630 Continuous current / Rated value / A 500 AA 500 AA 500 AA 500 A 500 C (Rated value A 500 A (S00) <			2010
Dissipation Active power loss with any maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit Operating voltage v 690 690 Operating outge A 500 600 at 40 °C / Rated value A 500 600 at 65 °C / Rated value A 460 400 at 70 °C / Rated value A 440 75 Number of NC contacts / for auxiliary contacts 0 700 Suitability Sustem protection </td <td></td> <td></td> <td></td>			
Active power loss W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit Operating voltage U 690 Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current at 40 °C / Rated value A 500 • at 60 °C / Rated value A 500 • at 60 °C / Rated value A 460 • at 65 °C / Rated value A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Suitability Suitability for use Suitability for use system protection Adjustable peraponse value current • for G-tripping / with 12t characteristic / initial value • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with 12t characteristic / Full-scale value A 1	Switching capacity class of the circuit breaker		C
• maximum W 105 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit A 500 Operating voltage • Wth AC / at 50/60 Hz / Rated value V 690 Operating current - - - - - - - - - • at 40 °C / Rated value A 500 - <td>Dissipation</td> <td></td> <td></td>	Dissipation		
Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit Operating voltage V 690 Operating outrent - - • at 40 °C / Rated value A 500 • at 40 °C / Rated value A 500 • at 60 °C / Rated value A 500 • at 60 °C / Rated value A 460 • at 60 °C / Rated value A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 0 Number of NC contacts / for auxiliary contacts 0 0 Suitability Suitability for use system protection Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 value • for G-tripping / with standard characteristic / initial value A 0.2	Active power loss		
Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit A 690 Operating voltage • • 690 • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °C / Rated value A 500 • at 40 °C / Rated value A 500 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 400 • 440 440 • 440 • 440 •	• maximum	W	105
Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit A 690 Operating voltage • • 690 • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °C / Rated value A 500 • at 40 °C / Rated value A 500 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 400 • 440 440 • 440 • 440 •			
Continuous current / Rated value A 500 Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit Operating voltage • • • with AC / at 50/60 Hz / Rated value V 690 Operating current • 690 • at 40 °C / Rated value A 500 • at 60 °C / Rated value A 500 • at 60 °C / Rated value A 460 • at 60 °C / Rated value A 440 • at 65 °C / Rated value A 440 • at 65 °C / Rated value A 440 • at 70 °C / Rated value A 440 • at 70 °C / Rated value A 400 • at 70 °C / Rated value A 440 Auxiliary circuit V 0 Number of NC contacts / for auxiliary contacts 0 Suitability Suitability for use system protection Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1		A	630
Adjustable response value current / of the instantaneous short-circuit release / initial value A 1.5 Main circuit Operating voltage vith AC / at 50/60 Hz / Rated value V 690 Operating current at 40 °C / Rated value V 690 operating current at 40 °C / Rated value A 500 e at 40 °C / Rated value A 500 e at 60 °C / Rated value A 475 e at 60 °C / Rated value A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 0 Suitability for use system protection A Adjustable parameters A 0.2 Adjustable response value current A 0.2 e for G-tripping / with 12t characteristic / initial value A 1 of or G-tripping / with 12t characteristic / Full-scale value A 1 of or G-tripping / with 12t characteristic / Full-scale value A 1 of or G-tripping / with 12t characteristic / Full-scale value A 1 of or G-tripping / with 12t characteristic / Full-scale value A			
Instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value V 690 Operating current at 40 °C / Rated value A 500 at 50 °C / Rated value A 500 at 60 °C / Rated value A 460 at 65 °C / Rated value A 460 at 70 °C / Rated value A Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability for use system protection Adjustable parameters A Adjustable response value current for G-tripping / with 12t characteristic / initial value for G-tripping / with 12t characteristic / Full-scale value for G-tripping / with 12t characteristic / Full-scale value for G-tripping / with 12t characteristic / Full-scale A for G-tripping / with standard characteristic / A O.2 initial value			
Operating voltage v 690 Operating current at 40 °C / Rated value A 500 • at 40 °C / Rated value A 500 • at 50 °C / Rated value A 500 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 475 • at 60 °C / Rated value A 460 • at 70 °C / Rated value A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use system protection Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with standard characteristic / A 0.2			
Operating voltage v 690 Operating current at 40 °C / Rated value A 500 • at 40 °C / Rated value A 500 • at 50 °C / Rated value A 500 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 475 • at 60 °C / Rated value A 460 • at 70 °C / Rated value A 440 Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use system protection Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with standard characteristic / A 0.2			
• with AC / at 50/60 Hz / Rated value V 690 Operating current - - • at 40 °C / Rated value A 500 • at 50 °C / Rated value A 500 • at 60 °C / Rated value A 475 • at 65 °C / Rated value A 460 • at 65 °C / Rated value A 440 Auxiliary circuit A 440 Auxiliary circuit 0 0 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability system protection Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with standard characteristic / A 0.2 0			
Operating current A 500 • at 40 °C / Rated value A 500 • at 50 °C / Rated value A 500 • at 60 °C / Rated value A 475 • at 65 °C / Rated value A 460 • at 65 °C / Rated value A 440 Auxiliary circuit A 440 Auxiliary circuit 0 0 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use Suitability or use system protection Adjustable parameters 0.2 of or G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with standard characteristic / A 1 0.2 • initial value A 0.2 0		V	690
at 40 °C / Rated valueA500• at 50 °C / Rated valueA500• at 60 °C / Rated valueA475• at 65 °C / Rated valueA460• at 70 °C / Rated valueA440Auxiliary circuitNumber of NC contacts / for auxiliary contacts0Number of NO contacts / for auxiliary contacts0Suitabilitysystem protectionSuitabilitysystem protectionAdjustable parameters4Adjustable response value current • for G-tripping / with 12t characteristic / initial valueA0.2• for G-tripping / with 12t characteristic / Full-scale valueA1• for G-tripping / with standard characteristic / initial valueA0.2			
• at 50 °C / Rated valueA500• at 60 °C / Rated valueA475• at 65 °C / Rated valueA460• at 70 °C / Rated valueA440Auxiliary circuitNumber of NC contacts / for auxiliary contacts0Number of NO contacts / for auxiliary contacts0Suitabilitysystem protectionAdjustable parameters0Adjustable response value currentA0.2• for G-tripping / with 12t characteristic / initial valueA1• for G-tripping / with standard characteristic / initial valueA0.2		А	500
• at 60 °C / Rated value A 475 • at 65 °C / Rated value A 460 • at 70 °C / Rated value A 440 Auxiliary circuit A 440 Auxiliary circuit 0 0 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability 0 Suitability system protection Adjustable parameters system protection Adjustable response value current A 0.2 • for G-tripping / with 12t characteristic / initial value A 1 • for G-tripping / with 12t characteristic / Full-scale value A 0.2		А	500
• at 65 °C / Rated value A 460 • at 70 °C / Rated value A 440 • at 70 °C / Rated value A 440 Auxiliary circuit A 440 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability 0 Suitability for use system protection Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale A 1 • for G-tripping / with standard characteristic / Full-scale A 0.2 • for G-tripping / with standard characteristic / A 0.2 0		А	475
• at 70 °C / Rated value A 440 Auxiliary circuit A 440 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability 0 Suitability system protection Adjustable parameters system protection Adjustable response value current • for G-tripping / with 12t characteristic / initial value • for G-tripping / with 12t characteristic / Full-scale value A • for G-tripping / with standard characteristic / A 0.2			
Auxiliary circuit 0 Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability 0 Suitability system protection Adjustable parameters system protection Adjustable response value current 0 • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with standard characteristic / A 0.2			
Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability 0 Suitability for use system protection Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value A 0.2 0.2			
Number of NO contacts / for auxiliary contacts 0 Suitability system protection Suitability for use system protection Adjustable parameters 0 Adjustable response value current 0 • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with standard characteristic / Full-scale value A 0.2			
Suitability system protection Adjustable parameters system protection Adjustable response value current 0.2 • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale A 1 • for G-tripping / with standard characteristic / Full-scale A 0.2	-		
Suitability for use system protection Adjustable parameters Adjustable response value current • for G-tripping / with l2t characteristic / initial value A 0.2 • for G-tripping / with l2t characteristic / Full-scale value A 1 • for G-tripping / with l2t characteristic / Full-scale value A 0.2 • for G-tripping / with standard characteristic / Full-scale value A 0.2	Number of NO contacts / for auxiliary contacts		U
Adjustable parameters Adjustable response value current A • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with 12t characteristic / Full-scale value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 0.2 • for G-tripping / with standard characteristic / Full-scale value A 0.2	Suitability		
Adjustable response value current A 0.2 • for G-tripping / with 12t characteristic / initial value A 0.2 • for G-tripping / with 12t characteristic / Full-scale value A 1 • for G-tripping / with 12t characteristic / Full-scale value A 0.2 • for G-tripping / with standard characteristic / Full-scale value A 0.2	Suitability for use		system protection
Adjustable response value current A 0.2 • for G-tripping / with l2t characteristic / initial value A 0.2 • for G-tripping / with l2t characteristic / Full-scale value A 1 • for G-tripping / with l2t characteristic / Full-scale value A 0.2 • for G-tripping / with standard characteristic / Full-scale value A 0.2	Adjustable parameters		
value for G-tripping / with I2t characteristic / Full-scale A for G-tripping / with standard characteristic / A for G-tripping / with standard characteristic / A 			
value • for G-tripping / with standard characteristic / A 0.2 initial value		А	0.2
• for G-tripping / with standard characteristic / A 0.2 initial value		A	1
	• for G-tripping / with standard characteristic /	A	0.2
for G-tripping / with standard characteristic / A 1 Full-scale value		А	1

 of I-trip / Full-scale value 	A	13
 of the short-time delayed short-circuit release / initial value 	A	0.6
 of the short-time delayed short-circuit release / Full-scale value 	A	10
 of S-trip / with standard characteristic / initial value 	A	0.6
 of S-trip / with standard characteristic / Full- scale value 	A	10
 for N-conductor protection / initial value 	А	0.2
 for N-conductor protection / Full-scale value 	А	2
Adjustable delay time		
 for G-tripping / with I2t characteristic / initial value 	S	0.05
 for G-tripping / with I2t characteristic / Full-scale value 	S	0.8
 of S-trip / with I2t characteristic / initial value 	S	0.05
 of S-trip / with I2t characteristic / Full-scale value 	S	0.5
 of S-trip / with standard characteristic / initial value 	S	0.05
 of S-trip / with standard characteristic / Full- scale value 	S	0.5
Adjustable response value current / of the current- dependent overload release / initial value	A	0.4
Product details		
Product component		
• Trip indicator		No
• display		Yes
undervoltage release		No
Product property		
 of the circuit breaker with tripping unit / Tripping characteristic adjustable 		No
 for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof 		Yes
Product expansion / optional / motor drive		Yes
Product function		
Product function		
Intrinsic device protection		Yes
 communication function 		Yes
 Phase failure detection 		No

Accessories		
Manufacturer article number / of the supplied basic switch		<u>3VA2450-7KQ32-0AA0</u>
Switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		450
• at 240 V / Rated value	kA	150
• at 415 V / Rated value	kA	110
at 690 V / Rated value	kA	6
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	150
• at 415 V / Rated value	kA	110
• at 690 V / Rated value	kA	6
Short-circuit current making capacity (Icm)		
• at 240 V / Rated value	kA	330
• at 415 V / Rated value	kA	242
• at 690 V / Rated value	kA	9
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit	_	
Type of connectable conductor cross-section		
 for flat-bar terminal connection / minimum 		20 x 1
 for flat-bar terminal connection / maximum 		35 x 10
Type of electrical connection / for main current circuit		Lug terminal
lechanical Design		
Height	mm	248
Width	mm	138
Depth	mm	137
Mounting type		fixed mounting
invironmental conditions		
Ambient temperature	*0	25
during operation / minimum	°C	-25
during operation / maximum	°C	70
 during storage / minimum 	°C	-40
 during storage / maximum 	°C	80
Certificates		
Equipment marking		
• acc. to DIN EN 61346-2		Q
 acc. to DIN EN 81346-2 		Q

General Produ	uct Approval	EMC	Declaration of Conformity	other
	EHC	other	EG-Konf.	other

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system) https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA24507KQ320AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA24507KQ320AA0/all

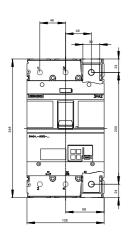
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA24507KQ320AA0

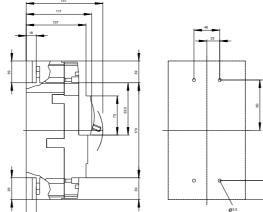
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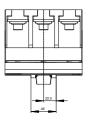
http://www.siemens.com/cax

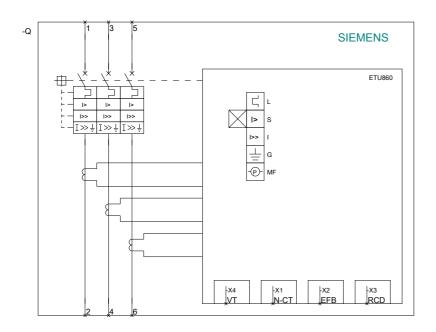
Tender specifications

http://ausschreibungstexte.siemens.com/tiplv









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