SIEMENS

Data sheet

3VA2440-5HN42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4-POLE, LINE PROTECTION ETU350, LSI, IN=400A OVERLOAD PROTECTION IR=160A ...400A SHORT CIRCUIT PROTECTION ISD=1,5... 10 X IR, II=12 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,50%,100%) 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	Without
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	ETU350

General technical data			
Number of poles		4	
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		17	
Electrical endurance (switching cycles)			
• at AC-1 / at 380/415 V / at 50/60 Hz		4 000	
circuit-breaker / Design		3VA	
Mechanical service life (switching cycles) / typical		15 000	

Voltage		
Insulation voltage / Rated value	V	800

Protection class

Protection class IP / on the front IP40 Protective function of the overcurrent release LSI Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 Adjustable response value current / of the 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 400 • at 50 °C / Rated value A 380 • at 65 °C / Rated value A 380 • at 65 °C / Rated value A 368 • at 70 °C / Rated value A 362 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts O 10 Suttability Suttability or use system protection Adjustable perameters Adjustable perameters Adjustable perameters Adjustable perameters Adjustable delayed short-circuit release / initial value • of the short-time delayed short-circuit release / initial value • for N-conductor protection / initial value • for N-conductor protection / initial value • of strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value • of Strip / with I2t characteristic / initial value	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A A 630 Continuous current / Rated value A Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value A 400 Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C /	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value A 400 Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value A 380 • at 65 °C / Rated value • at 70 °C	Protective function of the overcurrent release		LSI
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value A 400 Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value A 380 • at 65 °C / Rated value • at 70 °C	Switching capacity		
Active power loss			M
Active power loss	Discipation		
Province of the short-time delayed short-circuit release / initial value • maximum • maximum • Monator of the short-time delayed short-circuit release / initial value Per No. Continuous current / Rated value / A 400 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value A 388 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts O thurbook of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / A 10 Full-scale value • for N-conductor protection / Full-scale value A 100			
Continuous current / Rated value / maximum		W	70
Continuous current / Rated value / maximum	Floctricity		
Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value A 380 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of t-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / A 15 full-scale value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value Adjustable delay time		A	630
instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitability for use Adjustable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value Adjustable delay time	Continuous current / Rated value	Α	400
Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value A 380 • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value Adjustable delay time	Adjustable response value current / of the	Α	12
Operating voltage • with AC / at 50/60 Hz / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	instantaneous short-circuit release / initial value		
Operating voltage • with AC / at 50/60 Hz / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	Main circuit		
Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time			
at 40 °C / Rated value at 50 °C / Rated value A 400 at 60 °C / Rated value A 380 at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O 50 Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / Full-scale value of ror N-conductor protection / initial value of for N-conductor protection / initial value of for N-conductor protection / Full-scale value Adjustable delay time	• with AC / at 50/60 Hz / Rated value	V	690
at 50 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 368 at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / Full-scale value of ror N-conductor protection / initial value of for N-conductor protection / Full-scale value Adjustable delay time	Operating current		
at 65 °C / Rated value at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / Full-scale value of ror N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time	• at 40 °C / Rated value	Α	400
at 65 °C / Rated value at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / Full-scale value of the short-time delayed short-circuit release / Full-scale value of the N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time	• at 50 °C / Rated value	Α	400
at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability or use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / Full-scale value of the short-time delayed short-circuit release / Full-scale value of the Short-time delayed short-circuit release / Full-scale value of N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time	• at 60 °C / Rated value	Α	380
Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability or use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	● at 65 °C / Rated value	Α	368
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	• at 70 °C / Rated value	Α	352
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • of the short-time delayed short-circuit release / initial value • of the short-time delayed short-circuit release / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	Auxiliary circuit		
Number of NO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / A 10 Full-scale value of r N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time			0
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / A 1.5 initial value of the short-time delayed short-circuit release / A 10 Full-scale value of or N-conductor protection / initial value A 50 of or N-conductor protection / Full-scale value A 100 Adjustable delay time			0
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / A 1.5 initial value of the short-time delayed short-circuit release / A 10 Full-scale value of or N-conductor protection / initial value A 50 of or N-conductor protection / Full-scale value A 100 Adjustable delay time	Cuitability		
Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / A initial value of the short-time delayed short-circuit release / A full-scale value of or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time			system protection
Adjustable response value current of I-trip / Full-scale value of the short-time delayed short-circuit release / A initial value of the short-time delayed short-circuit release / A full-scale value of or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable delay time	A.P. 4.11		
of I-trip / Full-scale value of the short-time delayed short-circuit release / A 1.5 initial value of the short-time delayed short-circuit release / A 10 Full-scale value of r N-conductor protection / initial value A 50 of r N-conductor protection / Full-scale value A 100 Adjustable delay time			
of the short-time delayed short-circuit release / initial value of the short-time delayed short-circuit release / A		Α	12
initial value • of the short-time delayed short-circuit release / A 10 Full-scale value • for N-conductor protection / initial value A 50 • for N-conductor protection / Full-scale value A 100 Adjustable delay time	·		
Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable delay time	•		
 for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable delay time A 50 A 100	• of the short-time delayed short-circuit release /	Α	10
• for N-conductor protection / Full-scale value Adjustable delay time			
Adjustable delay time	• for N-conductor protection / initial value	А	50
	• for N-conductor protection / Full-scale value	Α	100
• of S-trip / with I2t characteristic / initial value s 0.02	Adjustable delay time		
	• of S-trip / with I2t characteristic / initial value	S	0.02
• of S-trip / with l2t characteristic / Full-scale s 0.4 value	·	S	0.4

Adjustable response value current / of the current- dependent overload release / initial value	Α	0.4
Product details		
Product component		
Trip indicator		No
• display		No
• undervoltage release		No
Product property		
for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		
overload proof		V
Product expansion / optional / motor drive		Yes
Product function		
Product function		
 Intrinsic device protection 		Yes
 communication function 		No
Phase failure detection		No
 other measurement function 		No
Accessories		
Manufacturer article number / of the supplied basic		3VA2440-5HN42-0AA0
switch		
Short circuit		
Short circuit Operational short-circuit current breaking capacity		
Operational short-circuit current breaking capacity	kA	85
Operational short-circuit current breaking capacity (lcs)	kA kA	85 55
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value		
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value	kA	55
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value	kA	55
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu)	kA kA	55 6
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value	kA kA	55 6 85
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA	55 6 85 55
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value	kA kA kA	55 6 85 55
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm)	kA kA kA kA	55 6 85 55 6
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value	kA kA kA kA kA	55 6 85 55 6
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA kA kA	55 6 85 55 6 187 121
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value	kA kA kA kA kA	55 6 85 55 6 187 121
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Connections Arrangement of electrical connectors / for main	kA kA kA kA kA	55 6 85 55 6 187 121 9
Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Connections Arrangement of electrical connectors / for main current circuit	kA kA kA kA kA	55 6 85 55 6 187 121 9

Type of electrical connection / for main current circuit		Lug terminal
Mechanical Design		
Height	mm :	248
Width	mm	184
Depth	mm	137
Mounting type	1	fixed mounting
Environmental conditions		
Ambient temperature		
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 Product EMC Dec	claration of	other
Approval Co	nformity	
EHE other	E Konf.	<u>other</u>

Further information

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/3VA24405HN420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA24405HN420AA0/all

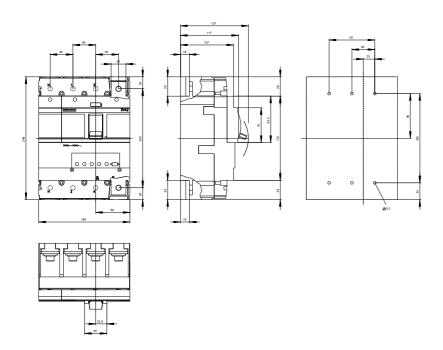
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA24405HN420AA0

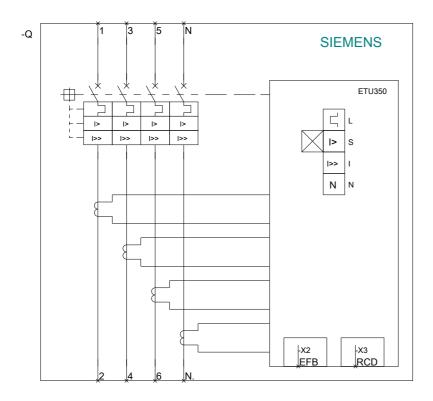
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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