SIEMENS

Data sheet

3RV2331-4DC10



Circuit breaker size S2 for starter combination Rated current 25 A N-release 325 A Screw terminal Standard switching capacity

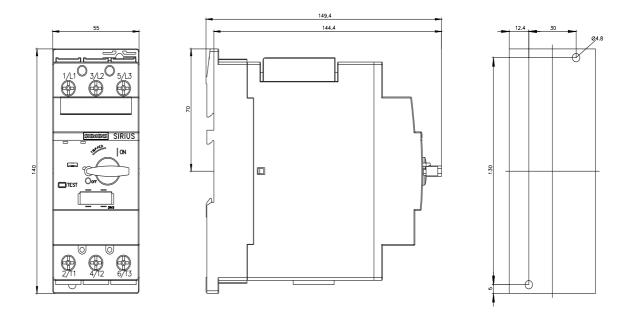


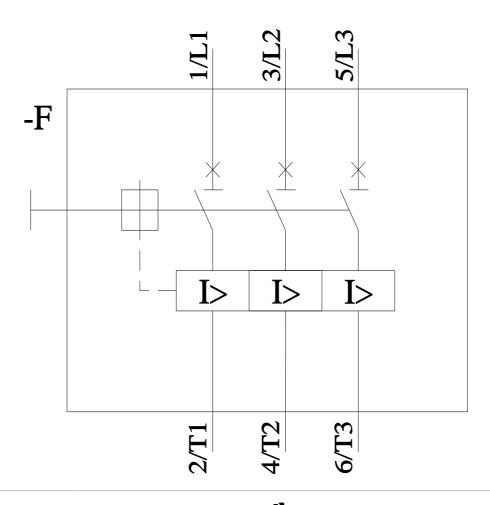
size of the circuit-breaker S2 size of contactor can be combined company-specific S2 product extension auxiliary switch Yes power loss [W] for rated value of the current it AC in hot operating state 14.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 68 kV shock resistance according to IEC 60068-2-27 25/ 11 ms Sinus mechanical service life (operating cycles) 6 • of duxiliary contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m ambient tomporature -20 +60 °C • during storage -50 +80 °C • during transport					
design of the product For starter combinations product type designation 9RV2 Ceneral technical data Size of the circuit-breaker size of the circuit-breaker S2 size of the circuit-breaker S2 power loss [W] for rated value of the current ************************************	product brand name	SIRIUS			
product type designation gRV2 General technical data size of the circuit-breaker S2 size of ontactor can be combined company-specific S2 product extension auxiliary switch Yes power loss [W] for rated value of the current it.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 690 V surge voltage resistance rated value 50 000 • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 • advertage typical 50 000 • advertage typical 50 000 • advering storage	product designation	Circuit breaker			
General technical data S2 size of the circuit-breaker S2 size of contactor can be combined company-specific S2 power loss [W] for rated value of the current Yes • at AC in hot operating state 14.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-227 25g / 11 ms Sinus mechanical service life (operating cycles) - • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 stubstance name Lead - 7439-92-1 Ambient conditions - installation altitude at height above sea level maximum 2 000 m ambient temperature -60 °C -60 °C	design of the product	For starter combinations			
size of the circuit-breaker S2 size of contactor can be combined company-specific S2 product extension auxiliary switch Yes power loss [W] for rated value of the current it AC in hot operating state 14.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 68 kV shock resistance according to IEC 60068-2-27 25/ 11 ms Sinus mechanical service life (operating cycles) 6 • of duxiliary contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m ambient tomporature -20 +60 °C • during storage -50 +80 °C • during transport	product type designation	3RV2			
size of contactor can be combined company-specific S2 product extension auxiliary switch Yes power loss [W] for rated value of the current 14.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 690 V surge voltage resistance rated value 6 KV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) - • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 • of auxiliary contacts typical 50 000 efference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions -20	General technical data				
product extension auxiliary switch Yes power loss [W] for rated value of the current 14.5 W at AC in hot operating state 14.5 W at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 6 kV shock resistance according to EC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) 50 000 of the main contacts typical 50 000 of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to EC 81346-2 Q Substance Prohibitance (Date) 1015/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions -20 +60 °C - during operation -20 +60 °C - during storage -50 +60 °C - during transport	size of the circuit-breaker	\$2			
prover loss [W] for rated value of the current item • at AC in hot operating state per pole 4.8 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value 600 V surge voltage resistance rated value 66 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) 50 000 • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 • of auxiliary contacts typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVH cubstance name Lead - 7439-92-1 Ambient conditions 2000 m installation altitude at height above sea level maximum 2 000 m aubient storage -50 +60 °C • during operation -20 +60 °C • during storage -50 +80 °C • relative humidity during operation 10	size of contactor can be combined company-specific	S2			
• at AC in hot operating state14.5 W• at AC in hot operating state per pole4.8 Winsulation voltage with degree of pollution 3 at AC rated value690 Vsurge voltage resistance rated value690 Vsurge voltage resistance rated value64 Vshock resistance according to IEC 60068-2-2725g / 11 ms Sinusmechanical service life (operating cycles)50 000• of the main contacts typical50 000• of auxiliary contacts typical50 000• of auxiliary contacts typical50 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/15/2014SVHS substance nameLead - 7439-92-1Ambient conditions2 000 mambient temperature-20 +60 °C• during operation-20 +60 °C• during storage-50 +80 °C• during transport-50 +80 °C• lating transport-50 +80 °C• relative humidity during operation3• or polse for main current circuit3operating voltage-50 690 V• at AC-3 rated value maximum690 V	product extension auxiliary switch	Yes			
• at AC in hot operating state per pole4.8 Winsulation voltage with degree of pollution 3 at AC rated value690 Vsurge voltage resistance rated value6 kVshock resistance according to IEC 60068-2:27250 111 ms Sinusmechanical service IIfe (operating cycles)50 000• of the main contacts typical50 000• of auxiliary contacts typical50 000electrical endurance (operating cycles) typical50 000substance Prohibitance (Date)10/15/014SVHC substance nameLead - 7439-92-1Ambient conditions2000 mambient temperature-20 +60 °C• during operation-20 +60 °C• during storage-50 +80 °C• during operation10 95 %Main circuit3number of poles for main current circuit3operating voltage-50 +60 °C• rated value690 V• at AC-3 rated value maximum690 V	power loss [W] for rated value of the current				
insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient temperature 2 000 m • during operation 2 000 m ambient temperature	 at AC in hot operating state 	14.5 W			
surge voltage resistance rated value6 kVshock resistance according to IEC 60068-2-2725g / 11 ms Sinusmechanical service life (operating cycles)-• of the main contacts typical50 000• of auxiliary contacts typical50 000electrical endurance (operating cycles) typical50 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/15/2014SVHC substance nameLead - 7439-92-1Ambient conditions-• during operation-20 +60 °C• during operation-50 +88 °C• during storage-50 +88 °C• during storage-50 +88 °C• during transport-50 +88 °Crelative humidity during operation10 95 %Main circuit3operating voltage20 690 V• at AC-3 rated value maximum690 V• at AC-3 rated value maximum690 V• at AC-3 rated value maximum690 V	 at AC in hot operating state per pole 	4.8 W			
shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) 50 000 • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead -7439-92-1 Ambient conditions 2000 m ambient temperature -20 +60 °C • during operation -20 +60 °C • during transport -50 +80 °C • at AC-3 rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3 rated value maximum 690 V • at AC-3 rated val	insulation voltage with degree of pollution 3 at AC rated value	690 V			
mechanical service life (operating cycles) • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m ambient conditions 2 000 m ambient temperature - • during operation -20 +60 °C • during transport -50 +80 °C • relative humidity during operation 10 95 % Main circuit 3 operating voltage - • atAC-3 rated value maxim	surge voltage resistance rated value	6 kV			
• of the main contacts typical50 000• of auxiliary contacts typical50 000electrical endurance (operating cycles) typical50 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/15/2014SVHC substance nameLead - 7439-92-1Ambient conditions2 000 mambient temperature-• during operation-20 +60 °C• during storage-50 +80 °C• during transport-50 +80 °Crelative humidity during operation10 95 %Main circuit3operating voltage-690 V• at AC-3 rated value maximum690 V• at AC-3e rated value maximum690 V• operating frequency rated value50 60 Hz	shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus			
• of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m ambient temperature -20 +60 °C • during operation -20 +60 °C • during transport -50 +80 °C • during transport -50 +80 °C • relative humidity during operation 10 95 % Main circuit 3 operating voltage - • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • at AC-3e rated value maximum 690 V	mechanical service life (operating cycles)				
electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -20 +60 °C • during operation -20 +60 °C • during storage -50 +80 °C • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage 690 V • at AC-3 rated value maximum 690 V • at AC-3 erated value maximum 690 V • at AC-3 erated value maximum 690 V • at AC-3 erated value maximum 690 V	 of the main contacts typical 	50 000			
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 SVHC substance name Lead - 7439-92-1 Ambient conditions 2 000 m ambient temperature - • during operation -20 +60 °C • during storage -50 +80 °C • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage - • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V	 of auxiliary contacts typical 	50 000			
Substance Prohibitance (Date)10/15/2014SVHC substance nameLead - 7439-92-1Ambient conditions2 000 mambient temperature2 000 m• during operation-20 +60 °C• during storage-50 +80 °C• during transport-50 +80 °Crelative humidity during operation10 95 %Main circuit3operating voltage-20 690 V• at AC-3 rated value maximum690 V• at AC-3e rated value maximum690 V• operating frequency rated value50 60 Hz	electrical endurance (operating cycles) typical	50 000			
SVHC substance name Lead - 7439-92-1 Ambient conditions Lead - 7439-92-1 installation altitude at height above sea level maximum 2 000 m ambient temperature	reference code according to IEC 81346-2	Q			
Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -20 +60 °C • during operation -20 +60 °C • during storage -50 +80 °C • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • at AC-3e rated value 50 60 Hz	Substance Prohibitance (Date)	10/15/2014			
installation altitude at height above sea level maximum 2 000 m ambient temperature -20 +60 °C • during operation -20 +60 °C • during storage -50 +80 °C • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage 20 690 V • at AC-3 rated value maximum 690 V • at AC-3 rated value maximum 690 V • at AC-3 rated value maximum 50 60 Hz	SVHC substance name	Lead - 7439-92-1			
ambient temperature• during operation-20 +60 °C• during storage-50 +80 °C• during transport-50 +80 °C• during transport0 95 %relative humidity during operation10 95 %Main circuit3operating voltage-• rated value20 690 V• at AC-3 rated value maximum690 V• at AC-3e rated value maximum690 V• operating frequency rated value50 60 Hz	Ambient conditions				
• during operation-20 +60 °C• during storage-50 +80 °C• during transport-50 +80 °Crelative humidity during operation10 95 %Main circuit3operating voltage-• rated value20 690 V• at AC-3e rated value maximum690 V• at AC-3e rated value690 V• operating frequency rated value50 60 Hz	installation altitude at height above sea level maximum	2 000 m			
• during storage-50 +80 °C• during transport-50 +80 °Crelative humidity during operation10 95 %Main circuit3operating voltage3• rated value20 690 V• at AC-3e rated value maximum690 V• at AC-3e rated value maximum690 V• operating frequency rated value50 60 Hz	ambient temperature				
• during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage - • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • at AC-3e rated value maximum 690 V	during operation	-20 +60 °C			
relative humidity during operation 10 95 % Main circuit 3 number of poles for main current circuit 3 operating voltage 20 690 V • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • poperating frequency rated value 50 60 Hz	during storage	-50 +80 °C			
Main circuit 3 number of poles for main current circuit 3 operating voltage	during transport	-50 +80 °C			
number of poles for main current circuit 3 operating voltage 20 690 V • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • poperating frequency rated value 50 60 Hz	relative humidity during operation	10 95 %			
operating voltage 20 690 V • rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • operating frequency rated value 50 60 Hz	Main circuit				
• rated value 20 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V • operating frequency rated value 50 60 Hz	number of poles for main current circuit	3			
at AC-3 rated value maximum 690 V at AC-3e rated value maximum 690 V 690 V 690 V 50 60 Hz	operating voltage				
• at AC-3e rated value maximum 690 V operating frequency rated value 50 60 Hz	rated value	20 690 V			
operating frequency rated value 50 60 Hz	 at AC-3 rated value maximum 	690 V			
	• at AC-3e rated value maximum	690 V			
	operating frequency rated value	50 60 Hz			
operational current rated value 25 A	operational current rated value	25 A			
operational current	operational current				

	25 A
• at AC-3 at 400 V rated value	25 A
at AC-3e at 400 V rated value	25 A
operating power	
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
● at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	No
trip class	CLASS 10
maximum short-circuit current breaking capacity (Icu)	
at AC at 240 V rated value	100 kA
at AC at 240 V rated value at AC at 400 V rated value	65 kA
at AC at 500 V rated value	12 kA
at AC at 690 V rated value	5 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	30 kA
• at 500 V rated value	6 kA
at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	325 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	25 A
• at 600 V rated value	25 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	2 hp
— at 230 V rated value	5 hp
 for 3-phase AC motor 	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit	
protection of the main circuit	
• at 240 V	none required
● at 400 V	100
● at 500 V	80
• at 690 V	63
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	140 mm

width	55 mm			
depth	55 mm 149 mm			
required spacing				
with side-by-side mounting at the side	0 mm			
 for grounded parts at 400 V 	· mm			
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
• for live parts at 400 V				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
 for grounded parts at 500 V 				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
• for live parts at 500 V				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
 for grounded parts at 690 V 				
— downwards	50 mm			
— upwards	50 mm			
— backwards	0 mm			
— at the side	10 mm			
— forwards	0 mm			
• for live parts at 690 V				
— downwards	50 mm			
— upwards	50 mm			
— backwards	0 mm			
— at the side	10 mm			
— forwards	0 mm			
Connections/ Terminals				
type of electrical connection				
• for main current circuit	screw-type terminals			
arrangement of electrical connectors for main current circuit	Top and bottom			
type of connectable conductor cross-sections				
for main contacts				
— solid or stranded	2x (1 25 mm²), 1x (1 35 mm²)			
 finely stranded with core end processing 	2x (1 16 mm²), 1x (1 25 mm²)			
 for AWG cables for main contacts 	2x (18 3), 1x (18 2)			
tightening torque				
 for main contacts with screw-type terminals 	3 4.5 N·m			
design of screwdriver shaft	Diameter 5 to 6 mm			
size of the screwdriver tip	Pozidriv size 2			
design of the thread of the connection screw				
for main contacts	M6			
Safety related data	Vec			
product function suitable for safety function	Yes			
suitability for use	No			
 safety-related switching on safety-related switching OFF 	No Yes			
• salety-related switching OFF	10 a			
test wear-related service life necessary	Yes			
proportion of dangerous failures				
with low demand rate according to SN 31920	40 %			
with high demand rate according to SN 31920	40 % 50 %			
B10 value with high demand rate according to SN 31920	50 %			
failure rate [FIT] with low demand rate according to SN 31920	5000 50 FIT			
31920				

ISO 13849							
device type according			3				
overdimensioning according to ISO 13849-2 necessary		Yes					
IEC 61508							
safety device type acc	safety device type according to IEC 61508-2		Туре	A			
T1 value ● for proof test inte 61508	 for proof test interval or service life according to IEC 		10 a				
Electrical Safety							
	the front according to I	EC 60529	IP20				
-	e front according to IE0		finger-safe, for vertical contact from the front				
Display			iniger				
display version for swite	hina status		Hand	landla			
Approvals Certificates			Tiana				
	revel		_				
General Product App	rovai						
CE EG-Konf.	UK CA	<u>Confirmatio</u>	ם			<u>KC</u>	
General Product Approval	Test Certificates			Marine / Shipping			
EHC	Type Test Certific- ates/Test Report	<u>Special Test Ce</u> ate	rtific-	ABS	B U R E A U VERITAS		
Marine / Shipping				other			
Lloyd's Register uis	PRS	RINA		<u>Miscellaneous</u>	<u>Confirmation</u>		
Railway		Environment					
<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD		Siemens EcoTech	Environmental Con- firmations		
Further information							
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875							
Information- and Downloadcenter (Catalogs, Brochures,)							
https://www.siemens.com/ic10							
Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2331-4DC10							
https://mail.industry.siemens.com/mail/en/en/Catalog/product?mitb=3RV2331-4DC10 Cax online generator							
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2331-4DC10 Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4DC10							
Image database (prod	uct images, 2D dimensi	on drawings, 3D r	nodels,	device circuit diagrams	s, EPLAN macros,)		
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2331-4DC10⟨=en Characteristic: Tripping characteristics, I ² t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4DC10/char							
Further characteristic	s (e.g. electrical endura	nce, switching fre	quency	/) =3RV2331-4DC10&object	type=14&gridview=view1		





4/12/2024 🖸