SIEMENS

Data sheet 5SY4450-7CV



MCB Icu=15KA 400V 4P C50

General technical data	
number of poles	4
design of pole	4P
tripping characteristic class	C
mechanical service life (operating cycles) typical	10 000
overvoltage category	3
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
• with multi-phase operation at AC rated value	440 V
• **operational current**	
— **at 40 °C rated value**	47.25 A
— at 50 °C rated value	44.3 A
— at 55 °C rated value	42.75 A
• **operational current at AC rated value**	50 A
Supply voltage	
supply voltage	
• at AC	400 V
• at DC rated value	60 V
operating voltage at DC rated value maximum	72 V
supply voltage frequency rated value	50/60 Hz
Protection class	
protection class IP	IP20, with connected conductors
Breaking Capacity	
switching capacity current	
• according to EN 60898 rated value	10 kA
• according to IEC 60947-2 rated value	15 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	4.8 W
suitability for operation	Infrastructure / Industry
Product details	
product feature touch protection	Yes
product component	
• combined terminal top	Yes
• combined terminal bottom	Yes

Subject to change without notice
© Copyright Siemens

• neutral conductor switching	No
product feature properties for main switches in accordance with EN 60204-1	Yes
product feature halogen-free	Yes
product feature sealable	Yes
product feature silicon-free	Yes
product extension installable supplementary devices	Yes
Connections	
connectable conductor cross-section solid	
• minimum	0.75 mm²
• maximum	35 mm²
connectable conductor cross-section stranded	
• minimum	0.75 mm²
• maximum	35 mm²
connectable conductor cross-section finely stranded with core end processing	
• minimum	0.75 mm²
• maximum	25 mm²
tightening torque [lbf·in] with screw-type terminals	
• minimum	22 lbf·in
• maximum	31 lbf·in
tightening torque with screw-type terminals	
• minimum	2.5 N·m
• maximum	3.5 N·m
position of power supply cord	Any
Mechanical Design	
height	90 mm
width	72 mm
depth	76 mm
installation depth	70 mm
number of modular width units	4
fastening method	DIN rail
mounting position	any
Net Weight	650 g
Environmental conditions	
influence of the surrounding temperature	max. 95% RH up to 55°C
standard	IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)
ambient temperature during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	28

Approvals Certificates

Environment		General Product Approval		
EPD	Environmental Confirmations	Environmental Confirmations	CCC	Confirmation

General Product Approval			Maritime application	other	
UKCA	Miscellaneous	EAC	CCS (China Classification Society)	Confirmation	产品合格 QC PASS

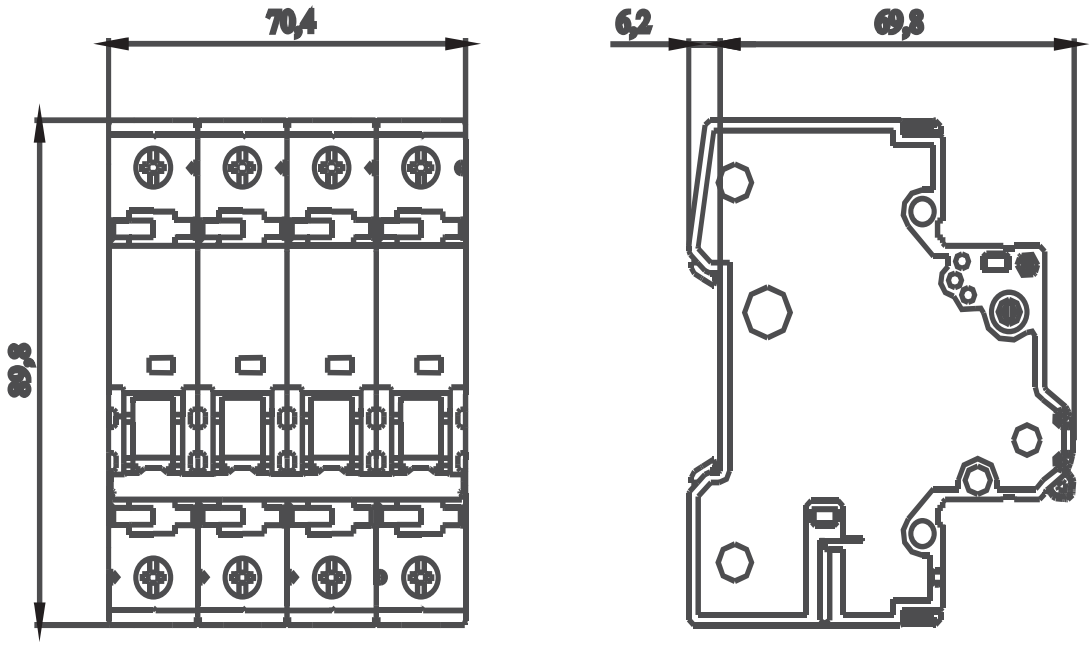
Subject to change without notice
© Copyright Siemens

Railway

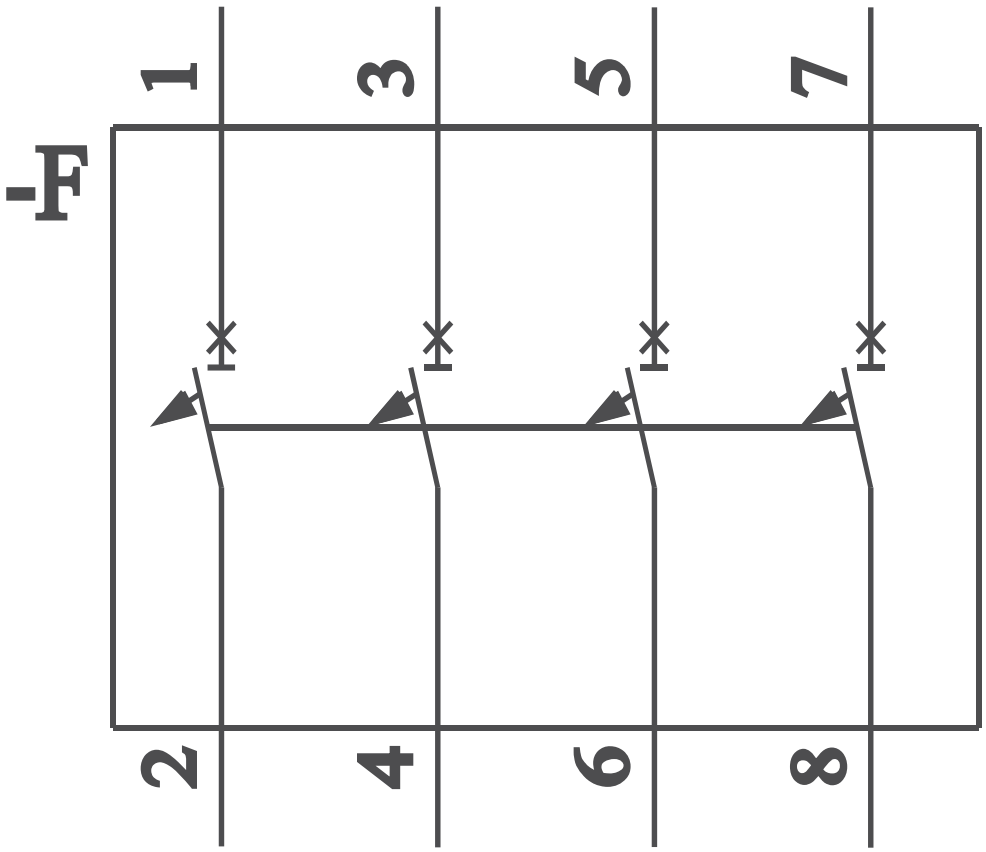
Confirmation

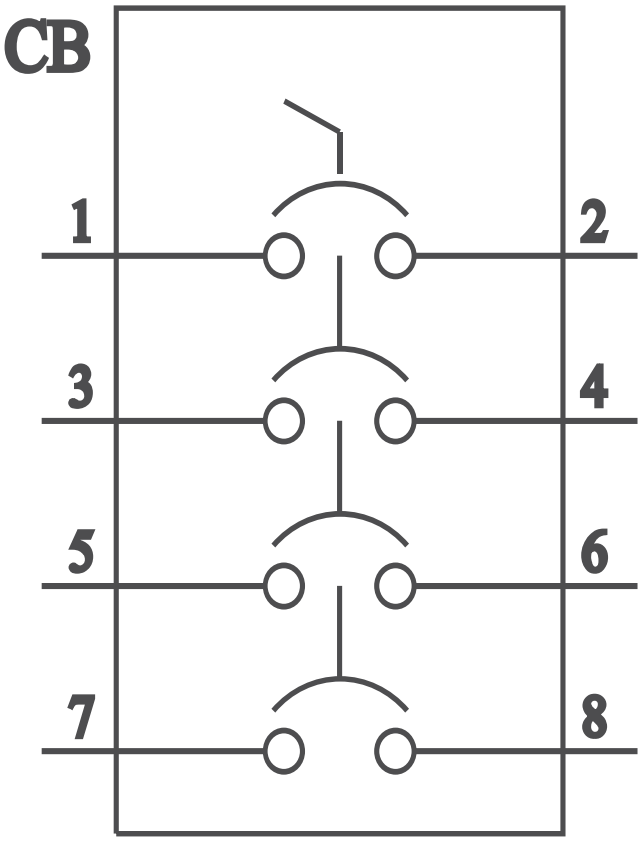
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SY4450-7CV
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SY4450-7CV
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4450-7CV
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications
Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod__no>



© Copyright Siemens





last modified: 8/6/2025

Subject to change without notice
© Copyright Siemens

Subject to change without notice
© Copyright Siemens