# **SIEMENS**

Product data sheet 5SY7604-7



CIRCUIT BREAKER 400V 15KA, 3+N-POLE, C, 4A, D=70MM

Similar to image

Technical data:				
product brand name		SENTRON		
Product designation		5SY miniature circuit breaker		
Mounting type		Quick assembly system		
Type of voltage		AC/DC		
Height	mm	90		
Width	mm	72		
Depth	mm	76		
Net weight	g	579		
mounting position		any		
Mounting depth	mm	70		
Current / for AC / rated value	Α	4		
Tripping characteristic class		С		
Supply voltage				
for AC / rated value	V	400		
Supply voltage / for DC / rated value				
with multi-phase operation / with AC / rated value	V	400		
Number of poles /note		3P+N		
Switching capacity current				

in accordance with IEC 60947-2 / rated value  with DC / in accordance with IEC 60947-2 / rated value  acc. to EN 60098 / rated value  Breaking capacity short-circuit current (ton)  with DC / in accordance with EN 60989-2  with AC / in accordance with UL 1077 and CSA C222 No 235  Active power loss / at rated value current / with AC / in warm operating startly per pole  Number of width units  Product extension / can be installed / supplementary device  Product feature / sealable  Begree of pollution  Influence of the surrounding temperature  - during storage  - during storage  - during storage  Product property / properties for main switches in accordance with EN 60294-1  Product equipment / fouch-protection  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / fouch-protection  Resistance against shock / according to IEC 60068-2-6  Overvoltage class  - with multi-phase operation / with AC / rated value  - with multi-phase operation / with AC / rated value  - with multi-phase operation / with AC / rated value  - with multi-phase operation / with AC / rated value  - with with end processing  - mm²  - o.75 35  - solid  - mm²  - o.75 35  - roduct component  - finely stranded  - with with end processing  - with with screw-type terminals  - combined terminal bottom  Tightening torque  - with screw-type terminals  - with screw-type terminal			
# acc. to EN 60898 / rated value  Breaking capacity short-circuit current (len)  * with DC / in accordance with EN 60898-2  * With AC / in accordance with UL 1077 and CSA C22.2 No.235  * KA  * SCACTIVE power loss / at rated value current / with AC / in warm operating state / per pole  Number of width units  Product extension / can be installed / supplementary device  Product extension / can be installed / supplementary device  Product extension / can be installed / supplementary device  Product extension / can be installed / supplementary device  Product feature / soalable  Degree of pollution  Influence of the surrounding temperature  Ambient temperature  - during storage  * Ves  Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-7  Insulation voltage  * solid  * with multi-phase operation / with AC / rated value  * AWO number  * as encoded connectable conductor cross-section  * solid  * mm²  * innelly stranded  * with wire end processing  * mm²  * innelly stranded  * with wire end processing  * mm²  * combined terminal top  * combined terminal both  * combined termi	• in accordance with IEC 60947-2 / rated value	kA	40
Breaking capacity short-circuit current (ton)  • with DC / in accordance with EN 60898-2  • with AC / in accordance with UL 1077 and CSA C22.2 No.235  Active power loss / at rated value current / with AC / in warm operating state / per pole  Number of width units  Product extension / can be installed / supplementary device  Product feature / sealable  Product feature / sealable  Degree of pollution  Influence of the surrounding temperature  • during storage  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-7  Insulation voltage • with multi-phase operation / with AC / rated value  * with multi-phase operation / with AC / rated value  * with wire end processing  Product component • combined terminal top • with screw-type terminals  Tightening torque (Ibf-in)	• with DC / in accordance with IEC 60947-2 / rated value	kA	15
- with DC / in accordance with EN 60898-2 - with AC / in accordance with UL 1077 and CSA C22.2 No 235  Active power loss / at rated value current / with AC / in warm operating state / per pole Number of width units  Product extension / can be installed / supplementary device Product feature / sealable  Degree of pollution Influence of the surrounding temperature - during storage - during storage - value property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical Resistance against vibration / according to IEC 60068-2-6 Overvoitage class - with multi-phase operation / with AC / rated value  - with multi-phase operation / with AC / rated value  AWG number - is encoded connectable conductor cross-section - finely stranded - with wire end processing - voith wire end processing - voith combined terminal bottom - combined terminal top - combined terminal bottom - Tightening torque - with screw-type terminals - Tightening torque (Ibf-in) - vertical conductor (Ibf-in) - vertical co	• acc. to EN 60898 / rated value	kA	15
* with AC / in accordance with UL 1077 and CSA C222 No.235  Active power loss / at rated value current / with AC / in warm operating state / per pole  Number of width units  Product extension / can be installed / supplementary device  Product feature / sealable  Product feature / sealable  Degree of pollution  Influence of the surrounding temperature  Ambient temperature  - during storage  Product property / properties for main switches in accordance with EM 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-67  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  • with multi-phase operation / with AC / rated value  • solid  • munip storage  • with wire end processing  Product component  • with wire end processing  • with screw-type terminals  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (Ibf-in)  **Ves  **C	Breaking capacity short-circuit current (Icn)		
Active power loss / at rated value current / with AC / in warm operating state / per pole  Number of width units  Product extension / can be installed / supplementary device  Product extension / can be installed / supplementary device  Degree of pollution  Influence of the surrounding temperature  Ambient temperature  - during storage  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product quipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  - with multi-phase operation / with AC / rated value  AWG number  - as encoded connectable conductor cross-section  Section de conducteur raccordable  - with wire end processing  Product component  - combined terminal top  - combined terminal bottom  Tightening torque  - with screw-type terminals  Tightening torque (lbf-in)  AUG and a supplementary device  Yes  1.4 4  4  4  4  4  4  4  4  4  4  4  4  4	• with DC / in accordance with EN 60898-2	kA	15
operating state / per pole         Kumber of width units         4           Product extension / can be installed / supplementary device         Yes           Product feature / sealable         7         Yes           Degree of pollution         3         Influence of the surrounding temperature         max. 95% humidity           Ambient temperature         °C         25 +55           - during storage         °C         40 +75           Position / of power supply cord         Any           Product property / properties for main switches in accordance with EN 6024-1         Yes           Mechanical operating cycles as operating time / typical         20000           Resistance against vibration / according to IEC 60068-2-6         50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)           Overvoltage class         Yes           Product equipment / touch-protection         Yes           Resistance against shock / according to IEC 60068-2-6         Yes           Insulation voltage         440           • with multi-phase operation / with AC / rated value         40           • se encoded connectable conductor cross-section         14 4           • section de conducteur raccordable         14 4           • multibrin         0.75 35           • multibrin         0.75 35      <	• with AC / in accordance with UL 1077 and CSA C22.2 No.235	kA	5
Product extension / can be installed / supplementary device         Yes           Product feature / sealable         Yes           Degree of pollution         3           Influence of the surrounding temperature         max. 95% humidity           Ambient temperature         °C -25 +55           Ambient temperature         °C -40 +75           • during storage         Any           Product property / properties for main switches in accordance with EN 60204-1         Yes           Mechanical operating cycles as operating time / typical         20,000           Resistance against vibration / according to IEC 60068-2-6         50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)           Overvoltage class         3           Product equipment / touch-protection         Yes           Resistance against shock / according to IEC 60068-2-27         150m/s² at 11ms half-sine           Insulation voltage         vith multi-phase operation / with AC / rated value         V         440           AWG number         14 4         4           • solid         mm²         0.75 35           • millibrin         mm²         0.75 35           • fluitbrin         mm²         0.75 35           • fluitbrin         mm²         0.75 25           Product component	•	W	1.4
Product feature / sealable         Yes           Degree of pollution         3           Influence of the surrounding temperature         "C -25 +55           Ambient temperature         "C -40 +75           - during storage         "C -40 +75           Product property / properties for main switches in accordance with EN 80204-1         Yes           Mechanical operating cycles as operating time / typical         20,000           Resistance against vibration / according to IEC 60068-2-6         50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)           Overvoltage class         3           Product equipment / touch-protection         Yes           Resistance against shock / according to IEC 60068-2-27         150m/s² at 11ms half-sine           Insulation voltage         ***           • with multi-phase operation / with AC / rated value         V         440           AWG number         ***         14 4           • solid         mm²         0.75 35           • multibrin         mm²         0.75 35           • finely stranded         ***         ***           • with wire end processing         mm²         0.75 25           Product component         Yes           • combined terminal top         Yes           • with screw-ty	Number of width units		4
Degree of pollution   Influence of the surrounding temperature   max. 95% humidity     Ambient temperature   °C   -25 +55     Ambient temperature   °C   -40 +75     Position / of power supply cord   Any     Product property / properties for main switches in accordance with EN 60204-1     Mechanical operating cycles as operating time / typical   Som/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)     Overvoltage class   3     Product equipment / touch-protection   Yes     Resistance against shock / according to IEC 60068-2-6   50m/s² at 11ms half-sine     Insulation voltage   440     with multi-phase operation / with AC / rated value   V   440     AWG number   14 4     section de conducteur raccordable   14 4     solid   mm²   0.75 35     multibrin   mm²   0.75 35     finely stranded   with wire end processing   mm²   0.75 35     Froduct component   verifical temperature   verific	Product extension / can be installed / supplementary device		Yes
Influence of the surrounding temperature  Ambient temperature  - during storage  **C -40 +75  Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  • with multi-phase operation / with AC / rated value  • solid  • multibrin  • solid  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (lbf-in)	Product feature / sealable		Yes
Ambient temperature  Ambient temperature  during storage  "C 40 +75  Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-7  Insulation voltage  with multi-phase operation / with AC / rated value  AWG number  as encoded connectable conductor cross-section  Section de conducteur raccordable  insulation  finely stranded  with wire end processing  Product component  combined terminal top  combined terminal top  combined terminal bottom  Tightening torque  with screw-type terminals  N-m  2.5 3  Lamber  2.5 3  Lamber  4.0 +75  Any  Yes  -40 +75  -40 +75  -40 +75  Any  Yes  -40 +75	Degree of pollution		3
Ambient temperature  • during storage  Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  V 440  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal top  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N-m 2.5 3   **C 40 +75  40 +75  Any  Yes  **Ves  **Solid**  **Insulation voltage**  • with wire end processing  **Product component**  • combined terminal top  • combined terminal top  • combined terminal topt  • with screw-type terminals  **N-m 2.5 3  Tightening torque (lbf-in)	Influence of the surrounding temperature		max. 95% humidity
• during storage  Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (lbf-in)	Ambient temperature	°C	-25 +55
Position / of power supply cord  Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (lbf-in)  Any  Yes  Sol,000  Yes  150m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)  50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)  14 4  440  Aug  • 150m/s² at 11ms half-sine  150m/s² at	Ambient temperature		
Product property / properties for main switches in accordance with EN 60204-1  Mechanical operating cycles as operating time / typical  Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • mm²  0.75 35  mm²  0.75 35  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (lbf-in)	during storage	°C	-40 <b>+7</b> 5
with EN 60204-1     20,000       Resistance against vibration / according to IEC 60068-2-6     50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)       Overvoltage class     3       Product equipment / touch-protection     Yes       Resistance against shock / according to IEC 60068-2-27     150m/s² at 11ms half-sine       Insulation voltage <ul> <li>with multi-phase operation / with AC / rated value</li> <li>AWG number</li> <li>as encoded connectable conductor cross-section</li> <li>14 4</li> </ul> Section de conducteur raccordable <ul> <li>solid</li> <li>multibrin</li> <li>finely stranded</li> <li>with wire end processing</li> </ul> mm² 0.75 35           Product component         combined terminal top               combined terminal bottom             Yes               Tightening torque              N·m 2.5 3                with screw-type terminals             N·m 2.5 3	Position / of power supply cord		Any
Resistance against vibration / according to IEC 60068-2-6  Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • mm²  0.75 35  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N-m  2.5 3   50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)  3  3  Yes  150m/s² at 11ms half-sine  14 4  440  440  440  440  440  450  460  470  470  470  470  470  470  47			Yes
Overvoltage class  Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  V 440  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • mm² 0.75 35  • multibrin  • with wire end processing  mm² 0.75 25  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N-m 2.5 3  Tightening torque (lbf-lin)	Mechanical operating cycles as operating time / typical		20,000
Product equipment / touch-protection  Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • multibrin  • finely stranded  • with wire end processing  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N·m  2.5 3  150m/s² at 11ms half-sine  14 4  440  440  440  440  440  45  40  40	Resistance against vibration / according to IEC 60068-2-6		50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)
Resistance against shock / according to IEC 60068-2-27  Insulation voltage  • with multi-phase operation / with AC / rated value  V 440  AWG number  • as encoded connectable conductor cross-section  14 4  Section de conducteur raccordable  • solid  • multibrin  • finely stranded  • with wire end processing  mm²  0.75 35  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N·m  2.5 3  150m/s² at 11ms half-sine  14 4	Overvoltage class		3
Insulation voltage  • with multi-phase operation / with AC / rated value  * W 440  AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • solid  • mm²  0.75 35  • multibrin  • finely stranded  • with wire end processing  mm²  0.75 25  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N·m  2.5 3  Tightening torque (Ibf-in)	Product equipment / touch-protection		Yes
with multi-phase operation / with AC / rated value  AWG number     *as encoded connectable conductor cross-section  Section de conducteur raccordable     *solid     *mm²	Resistance against shock / according to IEC 60068-2-27		150m/s² at 11ms half-sine
AWG number  • as encoded connectable conductor cross-section  Section de conducteur raccordable  • solid  • mm²  0.75 35  • multibrin  • mm²  0.75 35  • multibrin  • with wire end processing  mm²  0.75 25  Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N·m  2.5 3	Insulation voltage		
*as encoded connectable conductor cross-section  Section de conducteur raccordable     *solid     *solid     *mm²	• with multi-phase operation / with AC / rated value	V	440
Section de conducteur raccordable  • solid  • multibrin  • mm²  • finely stranded  • with wire end processing  mm²  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  Tightening torque (lbf-in)	AWG number		
<ul> <li>solid</li> <li>mm² 0.75 35</li> <li>mm² 0.75 35</li> <li>finely stranded</li> <li>with wire end processing</li> <li>mm² 0.75 25</li> </ul> Product component <ul> <li>combined terminal top</li> <li>combined terminal bottom</li> <li>Tightening torque</li> <li>with screw-type terminals</li> <li>N·m 2.5 3</li> </ul> Tightening torque (lbf-in)	as encoded connectable conductor cross-section		14 4
<ul> <li>multibrin</li> <li>finely stranded</li> <li>with wire end processing</li> <li>mm²</li> <li>0.75 25</li> </ul> Product component <ul> <li>combined terminal top</li> <li>combined terminal bottom</li> </ul> Tightening torque <ul> <li>with screw-type terminals</li> <li>N·m</li> <li>2.5 3</li> </ul> Tightening torque (lbf-in)	Section de conducteur raccordable		
• finely stranded     • with wire end processing  Product component     • combined terminal top     • combined terminal bottom  Tightening torque     • with screw-type terminals  N·m 2.5 3  Tightening torque (lbf-in)	• solid	mm²	0.75 35
<ul> <li>with wire end processing</li> <li>mm² 0.75 25</li> <li>Product component         <ul> <li>combined terminal top</li> <li>combined terminal bottom</li> </ul> </li> <li>Tightening torque         <ul> <li>with screw-type terminals</li> <li>N·m 2.5 3</li> </ul> </li> <li>Tightening torque (lbf-in)</li> </ul>	• multibrin	mm²	0.75 35
Product component  • combined terminal top  • combined terminal bottom  Tightening torque  • with screw-type terminals  N·m 2.53  Tightening torque (lbf-in)	finely stranded		
combined terminal top     combined terminal bottom     Yes  Tightening torque     with screw-type terminals  N·m 2.5 3  Tightening torque (lbf-in)	with wire end processing	mm²	0.75 25
• combined terminal bottom  Tightening torque  • with screw-type terminals  N-m  2.5 3  Tightening torque (lbf-in)	Product component		
Tightening torque  • with screw-type terminals  N·m 2.5 3  Tightening torque (lbf-in)	combined terminal top		Yes
• with screw-type terminals  N·m 2.5 3  Tightening torque (lbf-in)	combined terminal bottom		Yes
Tightening torque (lbf-in)	Tightening torque		
	with screw-type terminals	N⋅m	2.5 3
• with screw connection	Tightening torque (lbf-in)		
	• with screw connection	lbf-in	22 26

Product feature	
• silicon-free	Yes
• halogen-free	Yes
Number of test cycles / for environmental testing / in accordance with IEC 60068-2-30	6
Reference code / according to DIN EN 61346-2	F

### Certificates/approvals:

#### **General Product Approval**

**Declaration of** Conformity









#### **Shipping Approval**









other other

## 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/5SY7604-7

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

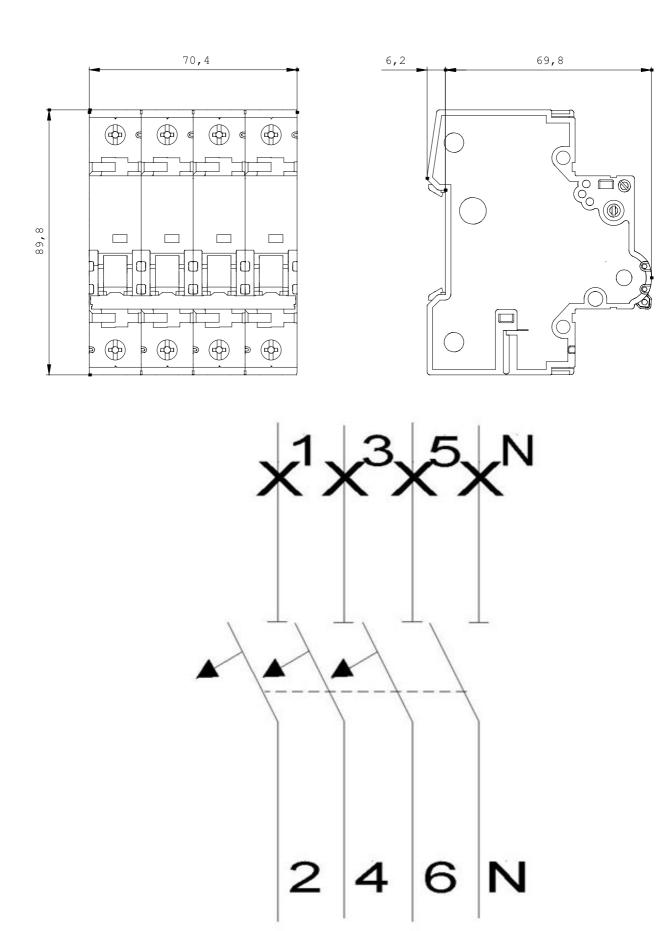
http://support.automation.siemens.com/WW/view/en/5SY7604-7/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY7604-7

**CAx-Online-Generator** 

http://www.siemens.com/cax



last change: Apr 7, 2014