SIEMENS

Data sheet 3VA2040-5KQ42-0AA0

Siemens EcoTech

circuit breaker 3VA2 IEC Frame 100 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU860, LSIG, In=40 A overload protection Ir=16 A...40 A short-circuit protection Isd=0.6..10x In, Ii=1.5..12x In neutral conductor protection adjustable (OFF, up to 160%) ground-fault protection, can be switched off Ig=0.4...1 x In= tg=0.05-0.8s nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU860
protection function of the overcurrent release	LSIG
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	2.2 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	0.73 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	15 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	10 500
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Summation current formation L + N conductor
product function	
● communication function	Yes
● other measurement function	Yes
Net Weight	2.73 kg
Current	
operational current	
● at 40 °C	40 A
● at 45 °C	40 A
● at 50 °C	40 A
● at 55 °C	40 A
● at 60 °C	40 A
● at 65 °C	40 A
● at 70 °C	40 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 440 V	55 kA

● at 500 V	36 kA
● at 690 V	2 kA
operating short-circuit current breaking capacity (Ics)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 440 V	55 kA
● at 500 V	36 kA
● at 690 V	2 kA
short-circuit current making capacity (Icm)	
● at 240 V	187 kA
● at 415 V	121 kA
● at 440 V	121 kA
● at 500 V	75.6 kA
● at 690 V	3 kA
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
● minimum	16 A
● maximum	40 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
● minimum	0.5 s
● maximum	25 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic	
● minimum	24 A
● maximum	400 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic	
● minimum	24 A
● maximum	400 A
adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic	
● minimum	0.05 s
● maximum	0.5 s
adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic	
● minimum	0.05 s
● maximum	0.5 s
adjustable response value setting current (Ii) / for I-tripping	
● minimum	60 A
● maximum	480 A
adjustable current response value current / for G-tripping / with standard characteristic	
● initial value	16 A
● full-scale value	40 A
adjustable response value delay time (tg) / for G-tripping / with I0t characteristic	
● minimum	0.05 s
● maximum	0.8 s
adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic	
● minimum	16 A
● maximum	40 A
adjustable response value delay time (tg) / for G-tripping / with I2t characteristic	
● minimum	0.05 s
● maximum	0.8 s
adjustable setting current (InN) / for N-tripping	
● minimum	16 A
● maximum	64 A
design of the N-conductor protection	adjustable OFF; 40% to 160%
product function / grounding protection	Yes

Mechanical Design	
product component	
● undervoltage release	No
● voltage trigger	No
● trip indicator	No
height [in]	7.13 in
height	181 mm
width [in]	5.51 in
width	140 mm
depth [in]	3.39 in
depth	86 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	13 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	25 x 8 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	tin
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	tin
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
● during operation / minimum	-25 °C
● during operation / maximum	70 °C
● during storage / minimum	-40 °C
● during storage / maximum	80 °C
Environmental footprint	
Global Warming Potential [CO2 eq] / total	61.814 kg
Global Warming Potential [CO2 eq] / during manufacturing	14.6 kg
Global Warming Potential [CO2 eq] / during operation	48.9 kg
Global Warming Potential [CO2 eq] / after end of life	-2.2 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval

CCC EG-Konf. UKCA Confirmation VDE Miscellaneous

General Product Approval	EMV	Test Certificates			Marine / Shipping
EAC RCM		Special Test Certificate	Miscellaneous	Type Test Certificates/Test Report	ABS

Marine / Shipping	other

CCS (China Classification Society)

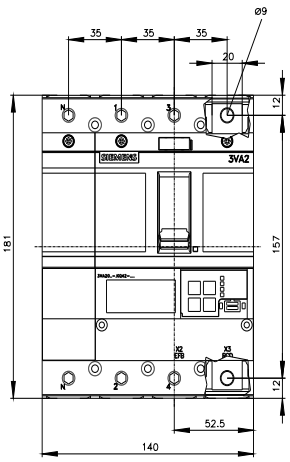
Miscellaneous

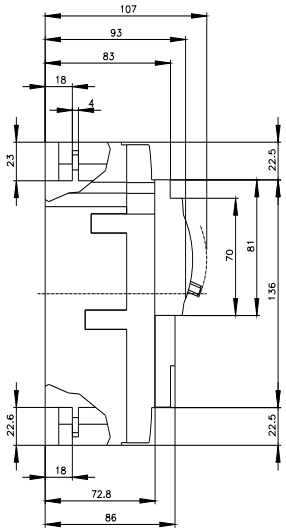
other		Dangerous goods	Environment		
Confirmation	Miscellaneous	Transport Information			Environmental Confirmations

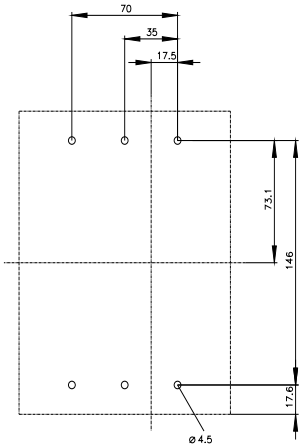
Environment
Environmental Confirmations

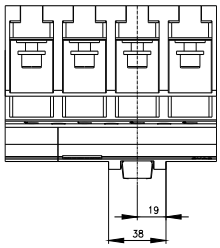
Further information

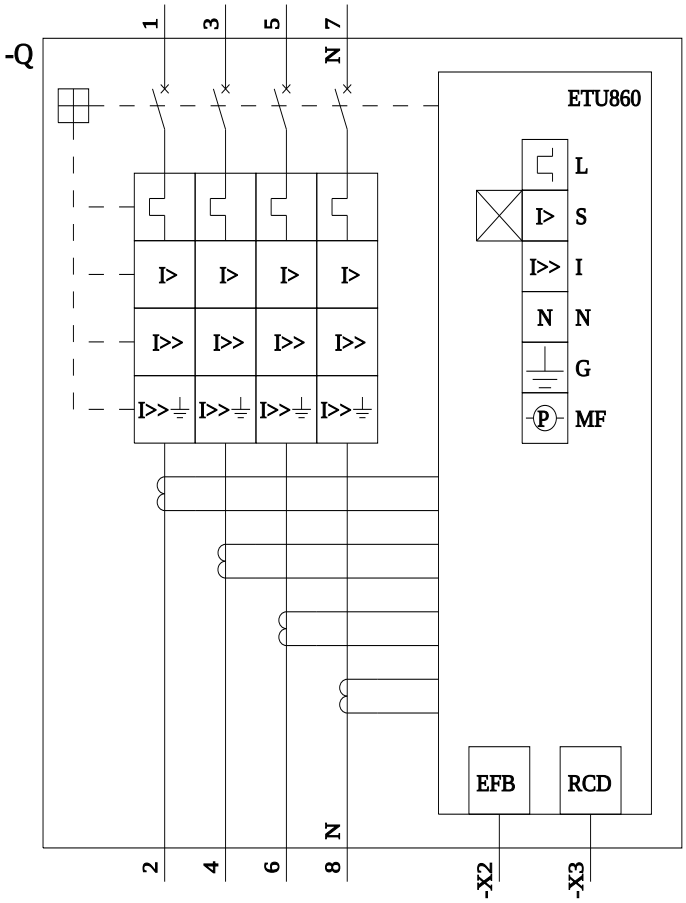
Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2040-5KQ42-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA2040-5KQ42-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2040-5KQ42-0AA0
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications











last modified: 10/24/2024