## **SIEMENS**

## **Data sheet**

3RE4122-3AA35-4SY0

STARTER,FVNR,S0,3PH,SSOLR,120VAC,NEMA 1



product brand name	Siemens
product designation	Non-reversing motor starter
special product feature	No factory installed accessories
General technical data	
weight [lb]	8 lb
Height x Width x Depth [in]	11 × 7 × 5 in
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6 560 ft
country of origin	Germany
Power and control electronics	
number of poles for main current circuit	3
type of voltage of the control supply voltage	AC
control supply voltage	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	110 V
at AC at 60 Hz rated value	120 V
disconnector functionality	No
yielded mechanical performance [hp] for 3-phase AC motor	
<ul><li>at 200/208 V rated value</li></ul>	2 hp
<ul><li>at 220/230 V rated value</li></ul>	3 hp
<ul><li>at 460/480 V rated value</li></ul>	5 hp
<ul><li>at 575/600 V rated value</li></ul>	7.5 hp
Contactor	
number of NO contacts for main contacts	3
operating voltage at AC-3 rated value maximum	600 V
mechanical service life (operating cycles) of the main contacts typical	10 000 000
Auxiliary contact	
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of total auxiliary contacts maximum	8
contact rating of auxiliary contacts of contactor according to UL	10A@600V(A600), 2.5A@600V(Q600)
Coil	
apparent pick-up power of magnet coil at AC	67 VA
apparent holding power of magnet coil at AC	6.5 VA
operating range factor control supply voltage rated value of magnet coil	0.8 1.1
ON-delay time	9 38 ms
OFF-delay time	4 16 ms
Overload relay	
product function	

overload protection     phase failure detection     preserver failure detection     asymmetry detection     easymmetry detection     ground fault detection     test function     external reset     yes     external reset     yes  reset function     Manual, automatic and remote trip class     adjustment range of thermal overload trip unit     adjustment range of thermal overload trip unit     number of NC contacts of auxiliary contacts of overload relay     number of NC contacts of auxiliary contacts of overload relay     operational current of auxiliary contacts of overload relay     at AC at 600 V     at DC at 250 V     at DC at 250 V     at DC at 250 V     outlact rating of auxiliary contacts of overload relay according to UL     insulation voltage (Ui)     with single-phase operation at AC rated value     with multi-phase operation at AC rated value     degree of protection NEMA rating of the enclosure     design of the housing     mounting position     Vertical     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor cross-sections at line-side for     2x (16 12), 2x (14 8)
asymmetry detection ground fault detection test function external reset reset function Manual, automatic and remote trip class CLASS 5 / 10 / 20 / 30 adjustment range of thermal overload trip unit adjustment range of thermal overload trip unit number of NC contacts of auxiliary contacts of overload relay number of NC contacts of auxiliary contacts of overload relay operational current of auxiliary contacts of overload relay et at AC at 600 V at DC at 250 V 1 A contact rating of auxiliary contacts of overload relay according to UL insulation voltage (Ui) ewith single-phase operation at AC rated value ewith multi-phase operation at AC rated value with multi-phase operation at AC rated value swith multi-phase operation at AC rated value degree of protection NEMA rating of the enclosure design of the housing mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  18 21 lbf-in
ground fault detection     test function     external reset     yes     reset function     Manual, automatic and remote     trip class     CLASS 5 / 10 / 20 / 30     adjustment range of thermal overload trip unit     number of NC contacts of auxiliary contacts of overload relay     number of NO contacts of auxiliary contacts of overload relay     operational current of auxiliary contacts of overload relay     • at AC at 600 V     • at DC at 250 V     • at DC at 250 V     contact rating of auxiliary contacts of overload relay according to UL     insulation voltage (UI)     • with single-phase operation at AC rated value     • with multi-phase operation at AC rated value     • with multi-phase operation at AC rated value     design of the housing     indoors, usable on a general basis  Mounting/wiring     mounting foriting for supply voltage line-side     tightening torque [lbf-in] for supply     18 21 lbf-in
test function     external reset     reset function     Manual, automatic and remote     trip class     CLASS 5 / 10 / 20 / 30     adjustment range of thermal overload trip unit     number of NC contacts of auxiliary contacts of overload relay     number of NO contacts of auxiliary contacts of overload relay     number of NO contacts of auxiliary contacts of overload relay     operational current of auxiliary contacts of overload relay     • at AC at 600 V     • at DC at 250 V     1 A     contact rating of auxiliary contacts of overload relay according to UL     insulation voltage (UI)     • with single-phase operation at AC rated value     • with multi-phase operation at AC rated value     • with multi-phase operation at AC rated value     design of the housing     indoors, usable on a general basis  ### Mounting/wiring  ### mounting position     Vertical fastening method     Surface mounting and installation  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply      18 21 lbf-in
external reset  reset function  Manual, automatic and remote  trip class  CLASS 5 / 10 / 20 / 30  adjustment range of thermal overload trip unit  number of NC contacts of auxiliary contacts of overload relay number of NO contacts of auxiliary contacts of overload relay operational current of auxiliary contacts of overload relay  • at AC at 600 V  • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL insulation voltage (Ui)  • with single-phase operation at AC rated value  • with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure  design of the housing  mounting position  Vertical fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf·in] for supply  18 21 lbf·in
reset function Manual, automatic and remote  trip class CLASS 5 / 10 / 20 / 30  adjustment range of thermal overload trip unit 3 12  number of NC contacts of auxiliary contacts of overload relay 1  number of NC contacts of auxiliary contacts of overload relay 1  operational current of auxiliary contacts of overload relay 0  • at AC at 600 V 5  • at DC at 250 V 1 A  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui) • with single-phase operation at AC rated value 600 V  • with multi-phase operation at AC rated value 300 V  Enclosure  degree of protection NEMA rating of the enclosure design of the housing indoors, usable on a general basis  Mounting/wiring  mounting position Vertical  fastening method Surface mounting and installation  type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  1 A 21 lbf-in
trip class  adjustment range of thermal overload trip unit  adjustment range of thermal overload trip unit  number of NC contacts of auxiliary contacts of overload relay  number of NO contacts of auxiliary contacts of overload relay  operational current of auxiliary contacts of overload relay  • at AC at 600 V  • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  • with single-phase operation at AC rated value  • with multi-phase operation at AC rated value  • with multi-phase operation at AC rated value  swith multi-phase operation at AC rated value  or with multi-phase operation at AC rated value  indoors, usable on a general basis  Mounting/wiring  mounting position  Vertical  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  18 21 lbf-in
adjustment range of thermal overload trip unit  number of NC contacts of auxiliary contacts of overload relay number of NO contacts of auxiliary contacts of overload relay  operational current of auxiliary contacts of overload relay  • at AC at 600 V  • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  • with single-phase operation at AC rated value  • with multi-phase operation at AC rated value  sign of the housing  Mounting/wiring  mounting position  Vertical  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  1   a 21 lbf-in
number of NC contacts of auxiliary contacts of overload relay number of NC contacts of auxiliary contacts of overload relay operational current of auxiliary contacts of overload relay • at AC at 600 V • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL insulation voltage (Ui) • with single-phase operation at AC rated value • with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure design of the housing  mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  1 A  5 A  6 A  6 D V  5 A  6 O V  5 A  6 O V  5 A  6 O V  5 A  6 O V  5 A  6 O V  5 A  6 O V  7 O C R300)  Enclosure  6 O V  8 O V  9 O Find D C C C C C C C C C C C C C C C C C C
number of NO contacts of auxiliary contacts of overload relay operational current of auxiliary contacts of overload relay  • at AC at 600 V • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL insulation voltage (Ui) • with single-phase operation at AC rated value • with multi-phase operation at AC rated value  • with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure design of the housing  mounting /wiring  mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  1 A  5 A  5 A  600 V  5 A  5 A  600 V  5 A  600 V  5 A  600 V  600
operational current of auxiliary contacts of overload relay  • at AC at 600 V  • at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  • with single-phase operation at AC rated value  • with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure  design of the housing  Mounting/wiring  mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  18 21 lbf-in
at AC at 600 V at DC at 250 V  1 A  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  with single-phase operation at AC rated value with multi-phase operation at AC rated value with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure  design of the housing  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  18 21 lbf-in
at DC at 250 V  contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  with single-phase operation at AC rated value with multi-phase operation at AC rated value  degree of protection NEMA rating of the enclosure  design of the housing  Mounting/wiring  mounting position  fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply  1 A  5A@600VAC (B600), 1A@250VDC (R300)  NEMA 1 standard size enclosure  indoors, usable on a general basis  Vertical  Surface mounting and installation  Screw-type terminals  tightening torque [lbf-in] for supply  18 21 lbf-in
contact rating of auxiliary contacts of overload relay according to UL  insulation voltage (Ui)  • with single-phase operation at AC rated value • with multi-phase operation at AC rated value  100 V  • with multi-phase operation at AC rated value  200 V  Enclosure  degree of protection NEMA rating of the enclosure  design of the housing  Mounting/wiring  mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  5A@600VAC (B600), 1A@250VDC (R300)
UL insulation voltage (Ui)  ● with single-phase operation at AC rated value  ● with multi-phase operation at AC rated value  300 V  Enclosure  degree of protection NEMA rating of the enclosure  design of the housing  Mounting/wiring  mounting position  fastening method  type of electrical connection for supply  with multi-phase operation at AC rated value  300 V  NEMA 1 standard size enclosure  indoors, usable on a general basis  Vertical  Surface mounting and installation  Surface mounting and installation  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  18 21 lbf-in
<ul> <li>with single-phase operation at AC rated value</li> <li>with multi-phase operation at AC rated value</li> <li>300 V</li> <li>Enclosure</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>indoors, usable on a general basis</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>surface mounting and installation</li> <li>type of electrical connection for supply voltage line-side</li> <li>tightening torque [lbf·in] for supply</li> <li>18 21 lbf·in</li> </ul>
<ul> <li>with multi-phase operation at AC rated value</li> <li>Brolosure</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>type of electrical connection for supply voltage line-side</li> <li>tightening torque [lbf·in] for supply</li> </ul> We with multi-phase operation at AC rated value NEMA 1 standard size enclosure indoors, usable on a general basis Vertical Surface mounting and installation Screw-type terminals tightening torque [lbf·in] for supply 18 21 lbf·in
degree of protection NEMA rating of the enclosure  design of the housing  mounting/wiring  mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf·in] for supply  NEMA 1 standard size enclosure  indoors, usable on a general basis  Vertical  Surface mounting and installation  Screw-type terminals  18 21 lbf·in
degree of protection NEMA rating of the enclosure  design of the housing  indoors, usable on a general basis  Mounting/wiring  mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  NEMA 1 standard size enclosure  NEMA 1 standard size enclosure  Indoors, usable on a general basis  Vertical  Surface mounting and installation  Screw-type terminals  18 21 lbf-in
design of the housing indoors, usable on a general basis  Mounting/wiring  mounting position Vertical fastening method Surface mounting and installation type of electrical connection for supply voltage line-side Screw-type terminals tightening torque [lbf-in] for supply 18 21 lbf-in
Mounting/wiring       mounting position     Vertical       fastening method     Surface mounting and installation       type of electrical connection for supply voltage line-side     Screw-type terminals       tightening torque [lbf·in] for supply     18 21 lbf·in
mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply  18 21 lbf-in
fastening method  Surface mounting and installation  type of electrical connection for supply voltage line-side  screw-type terminals  tightening torque [lbf-in] for supply  18 21 lbf-in
fastening method  Surface mounting and installation  type of electrical connection for supply voltage line-side  screw-type terminals  tightening torque [lbf-in] for supply  18 21 lbf-in
type of electrical connection for supply voltage line-side  Screw-type terminals  tightening torque [lbf·in] for supply  18 21 lbf·in
tightening torque [lbf-in] for supply  18 21 lbf-in
type of confiderable contractor cross-sections at inte-state total ( Tu 12), 2A ( 17 0 )
AWG cables single or multi-stranded
temperature of the conductor for supply maximum permissible 60 °C
material of the conductor for supply CU
type of electrical connection for load-side outgoing feeder Screw-type terminals
tightening torque [lbf·in] for load-side outgoing feeder 18 21 lbf·in
type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded
temperature of the conductor for load-side outgoing feeder maximum permissible
material of the conductor for load-side outgoing feeder CU
type of electrical connection of magnet coil  Screw-type terminals
tightening torque [lbf·in] at magnet coil 7 10 lbf·in
type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded 2x (20 16), 2x (18 14)
temperature of the conductor at magnet coil maximum 75 °C permissible
material of the conductor at magnet coil CU
type of electrical connection for auxiliary contacts  Screw-type terminals
tightening torque [lbf-in] at contactor for auxiliary contacts 7 10 lbf-in
type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded
temperature of the conductor at contactor for auxiliary contacts maximum permissible  75 °C
material of the conductor at contactor for auxiliary contacts
tightening torque [lbf·in] at overload relay for auxiliary contacts 7 10 lbf·in
type of connectable conductor cross-sections at overload relay for AWG cables for auxiliary contacts single or multi-stranded
temperature of the conductor at overload relay for auxiliary contacts maximum permissible 75 °C
material of the conductor at overload relay for auxiliary contacts
Short-circuit current rating
design of the fuse link for short-circuit protection of the main circuit required  Class J
design of the short-circuit trip  Thermal magnetic circuit breaker
maximum short-circuit current breaking capacity (Icu)
• at 240 V 5 kA

● at 480 V

● at 600 V

certificate of suitability

UL 60947-4-1

**Approvals Certificates** 

General Product Approval

Test Certificates other Environment





Confirmation

Environmental Confirmations

## Further information

Industrial Controls - Product Overview (Catalogs, Brochures,...)

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=3RE4122-3AA35-4SY0

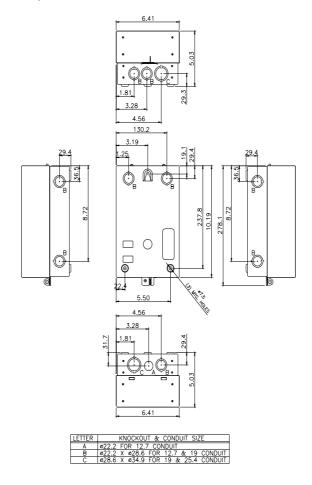
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RE4122-3AA35-4SY0&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RE4122-3AA35-4SY0&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/3RE4122-3AA35-4SY0/certificate



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