## **SIEMENS**

product brand name

Data sheet US2:73CR34WFA

Class 73



Enclosed soft starter, Controller 3RW40271BB14, Std. duty rating 20Hp @460V, Std. duty current rating 29A, Control voltage 110-230 AC/DC, Noncombination type, Encl NEMA type 4X 304 S-Steel, Water/dust tight noncorrosive

product brand name	01000 70
design of the product	Enclosed soft starter
special product feature	Control transformer, built-in overload relay and bypass contactor included.
General technical data	
weight [lb]	131 lb
Height x Width x Depth [in]	55 × 29 × 11 in
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6560 ft
ambient temperature [°F]	
<ul> <li>during storage</li> </ul>	-22 +149 °F
during operation	-4 +104 °F
ambient temperature	
during storage	-30 +65 °C
during operation	-20 +40 °C
country of origin	USA
Power and control electronics	
manufacturer's article number of soft starter	3RW40271BB14
number of poles for main current circuit	3
design of power semiconductors (thyristors) for soft starter control	2 controlled phases
operating range factor supply voltage rated value	0.85 1.1
operating range factor of control voltage rated value	0.85 1.1
operating condition for standard duty	Class 10 standard duty (350% of motor FLA for 10 seconds)
operating condition for severe duty	NA
Features and functions	
ramp-up (soft starting)/ramp-down (soft stop)	Yes
starting voltage [%]	40 100 %
stopping voltage [%]	40 100 %
voltage ramp	Yes
ramp-up time	0 20 s
ramp-down time	0 20 s
torque control	No
adjustable current limitation	Yes
creep speed in both directions of rotation	No
pump ramp down	No
integrated bypass contact system	Yes
external isolation contactor	Yes
intrinsic device protection	Yes

overload protection	Yes
trip class	CLASS 5 / 15 / 20
reset function	Manual, automatic and remote
thermistor motor protection	No
inside-delta circuit	No
breakaway pulse	No
DC braking	No
combined braking	No
motor heating	No
configuration of control input 1	ON / OFF
configuration of control input 2	NA NA
configuration of control input 2	NA NA
configuration of control input 3	NA
configuration of relay output 1	ON / RUN
configuration of relay output 1	BYPASSED
configuration of relay output 2	
	OVERLOAD / FAILURE
configuration of relay output 4	NA ALER-
display version	4 LEDs
operating measured value display	No No
product extension optional human machine interface module	No
type of communication optional	None
error logbook	No
event list	No
slave pointer function	No
trace function	No
number of parameter sets	1
engineering software (Soft Starter ES)	No
disconnector functionality	No
Contactor	
size of contactor	NA
Coil	IVA
type of voltage of the control supply voltage	AC/DC
	AOIDO
control supply voltage	110 220 1/
at DC rated value	110 230 V
<ul><li>at DC rated value</li><li>at AC at 50 Hz rated value</li></ul>	110 230 V
<ul><li>at DC rated value</li><li>at AC at 50 Hz rated value</li><li>at AC at 60 Hz rated value</li></ul>	
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> </ul> Enclosure	110 230 V 110 230 V
at DC rated value     at AC at 50 Hz rated value     at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating	110 230 V 110 230 V 4X, 304 stainless steel
at DC rated value at AC at 50 Hz rated value at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating degree of protection NEMA rating of the enclosure	110 230 V 110 230 V 4X, 304 stainless steel NEMA 4x 304 stainless steel enclosure
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> </ul> Enclosure degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion
at DC rated value at AC at 50 Hz rated value at AC at 60 Hz rated value  Enclosure degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing type of cooling	110 230 V 110 230 V 4X, 304 stainless steel NEMA 4x 304 stainless steel enclosure
at DC rated value at AC at 50 Hz rated value at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing type of cooling  Mounting/wiring	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> </ul> Enclosure <ul> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> </ul>	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical
at DC rated value at AC at 50 Hz rated value at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing type of cooling  Mounting/wiring	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation
at DC rated value  at AC at 50 Hz rated value  at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating  degree of protection NEMA rating of the enclosure  design of the housing  type of cooling  Mounting/wiring  mounting position  fastening method  wire length between motor starter and motor maximum	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical
at DC rated value  at AC at 50 Hz rated value  at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing type of cooling  Mounting/wiring mounting position fastening method wire length between motor starter and motor maximum type of electrical connection for supply voltage line-side	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation
at DC rated value  at AC at 50 Hz rated value  at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating  degree of protection NEMA rating of the enclosure  design of the housing  type of cooling  Mounting/wiring  mounting position  fastening method  wire length between motor starter and motor maximum	110 230 V 110 230 V  4X, 304 stainless steel NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion None  Vertical Surface mounting and installation 300 m
at DC rated value  at AC at 50 Hz rated value  at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating  degree of protection NEMA rating of the enclosure  design of the housing  type of cooling  Mounting/wiring  mounting position  fastening method  wire length between motor starter and motor maximum  type of connectable conductor cross-sections at line-side	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation 300 m  Box lug
at DC rated value at AC at 50 Hz rated value at AC at 60 Hz rated value  Enclosure  degree of protection NEMA rating degree of protection NEMA rating of the enclosure design of the housing type of cooling  Mounting/wiring mounting position fastening method wire length between motor starter and motor maximum type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation 300 m  Box lug 2/0 14 AWG
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>Enclosure</li> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>wire length between motor starter and motor maximum</li> <li>type of connectable conductor cross-sections at line-side</li> <li>at AWG cables single or multi-stranded</li> <li>temperature of the conductor for supply maximum</li> <li>permissible</li> </ul>	110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation  300 m  Box lug  2/0 14 AWG
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>Enclosure</li> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>wire length between motor starter and motor maximum</li> <li>type of electrical connection for supply voltage line-side</li> <li>at AWG cables single or multi-stranded</li> <li>temperature of the conductor for supply maximum</li> <li>permissible</li> <li>material of the conductor for supply</li> </ul>	110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation  300 m  Box lug  2/0 14 AWG  75 °C  CU
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>Enclosure</li> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>wire length between motor starter and motor maximum</li> <li>type of electrical connection for supply voltage line-side</li> <li>type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded</li> <li>temperature of the conductor for supply maximum permissible</li> <li>material of the conductor for supply</li> <li>type of electrical connection for load-side outgoing feeder</li> <li>tightening torque [lbf-in] for load-side outgoing feeder</li> <li>type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder</li> </ul>	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation 300 m  Box lug 2/0 14 AWG  75 °C  CU  Box lug
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>Enclosure</li> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>wire length between motor starter and motor maximum</li> <li>type of electrical connection for supply voltage line-side</li> <li>type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded</li> <li>temperature of the conductor for supply maximum permissible</li> <li>material of the conductor for supply</li> <li>type of electrical connection for load-side outgoing feeder</li> <li>tightening torque [lbf·in] for load-side outgoing feeder</li> <li>type of connectable conductor cross-sections at AWG</li> </ul>	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation 300 m  Box lug 2/0 14 AWG  75 °C  CU  Box lug 18 22 lbf·in
<ul> <li>at DC rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>Enclosure</li> <li>degree of protection NEMA rating</li> <li>degree of protection NEMA rating of the enclosure</li> <li>design of the housing</li> <li>type of cooling</li> <li>Mounting/wiring</li> <li>mounting position</li> <li>fastening method</li> <li>wire length between motor starter and motor maximum</li> <li>type of electrical connection for supply voltage line-side</li> <li>type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded</li> <li>temperature of the conductor for supply maximum permissible</li> <li>material of the conductor for load-side outgoing feeder</li> <li>type of electrical connection for load-side outgoing feeder</li> <li>type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder</li> <li>type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder</li> <li>temperature of the conductor for load-side outgoing feeder</li> <li>temperature of the conductor for load-side outgoing feeder</li> </ul>	110 230 V 110 230 V  4X, 304 stainless steel  NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion  None  Vertical  Surface mounting and installation 300 m  Box lug 2/0 14 AWG  75 °C  CU  Box lug 18 22 lbf·in 2x (14 10 AWG)

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tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals	7 10 lbf·in
temperature of the conductor for auxiliary and control contacts maximum permissible	75 °C
material of the conductor for auxiliary and control contacts	CU
Short-circuit current rating	
design of the fuse link for short-circuit protection of the main circuit required	10kA@600V (Class H or K); 100kA@600V (Class R or J)
design of the short-circuit trip	Thermal magnetic circuit breaker
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	42 kA
• at 480 V	42 kA
• at 600 V	0 kA
certificate of suitability	NEMA ICS 2; UL 508A
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=US2:73CR34WFA

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

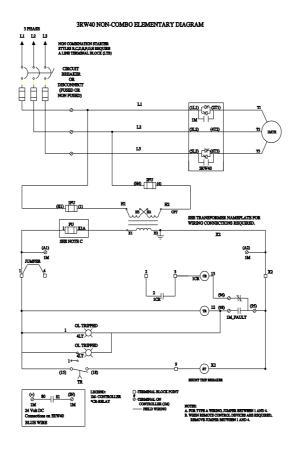
https://support.industry.siemens.com/cs/US/en/ps/US2:73CR34WFA

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:73CR34WFA&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:73CR34WFA/certificate



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