## **SIEMENS**

Data sheet US2:73KT34BFA



Enclosed soft starter, Controller 3RW44436BC34, Std. duty rating 125Hp @460V, Std. duty current rating 180A, Control voltage 115 AC, Noncombination type, Enclosure NEMA type 1, Indoor general purpose use

Figure similar

product brand name	Class 73
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]	116 lb
Height x Width x Depth [in]	36 × 22 × 20 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	3RW44436BC34
number of poles for main current circuit	3
design of power semiconductors (thyristors) for soft starter control	3 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	Class 20 severe duty (350% of motor FLA for 20 seconds)
Features and functions	
ramp-up (soft starting)/ramp-down (soft stop)	Yes
starting voltage [%]	20 100 %
stopping voltage [%]	20 100 %
voltage ramp	Yes
ramp-up time	1 360 s
ramp-down time	1 360 s
torque control	Yes
starting torque [%]	20 100 %
stopping torque [%]	20 100 %
torque limitation [%]	20 200 %
ramp time of torque	1 360 s
adjustable current limitation	Yes
creep speed in both directions of rotation	Yes

pump ramp down integrated bypass contact system external isolation contactor No intrinsic device protection Yes overload protection Yes CLASS 5 / 10 / 15 / 20 / 30 reset function Manual and automatic thermistor motor protection Yes inside-delta circuit Yes DC braking Yes Combined braking Yes Combined braking Yes configuration of control input 1 Configuration of control input 2 Configuration of control input 3 Configuration of control input 4 Configuration of control input 4 Configuration of relay output 1 Configuration of relay output 1 Configuration of relay output 2 Configuration of relay output 3 Configuration of relay output 4 Configuration of relay output 4 Configuration of relay output 3 Configuration of relay output 4 Configuration of relay output 5 Configuration of relay output 6 Configuration of relay output 7 Configuration of relay output 8 Configuration of relay output 9 Configuration of relay output 1 Configuration of relay output 3 Configuration of relay output 4 Configuration of relay output 5 Configuration of relay output 7 Configuration of relay output 9 Configuration of relay output 1 Configuration of relay output 1 Configuration of relay output 3 Configuration of relay output 4 Configuration of relay output 5 Configuration of relay output 6 Configuration of relay output 7 Configuration of relay output 9 Configuration of relay 0 Configuration of relay 0 Configuration of relay 0 Configuration of rel
external isolation contactor intrinsic device protection Yes overload protection Yes trip class CLASS 5 / 10 / 15 / 20 / 30 reset function Manual and automatic thermistor motor protection Yes inside-delta circuit Yes breakaway pulse Yes DC braking Yes combined braking Yes configuration of control input 1 configuration of control input 2 configuration of control input 2 configuration of control input 3 configuration of control input 4 configuration of control input 4 Factory set as STAIP RESET configuration of relay output 1 configuration of relay output 1 configuration of relay output 2 programmable configuration of relay output 3 configuration of relay output 4 Factory set as ON-TIME MOTOR configuration of relay output 4 Factory set as GROUP ERROR display version Graphic display product extension optional human machine interface module type of communication optional error logbook Yes slave pointer function Yes Inumber of parameter sets 3 engineering software (Soft Starter ES) Yes
intrinsic device protection  overload protection  Yes  trip class  CLASS 5 / 10 / 15 / 20 / 30  reset function  Manual and automatic  thermistor motor protection  yes  inside-delta circuit  Yes  breakaway pulse  DC braking  Yes  combined braking  Yes  motor heating  Yes  configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  configuration of control input 4  configuration of relay output 1  configuration of relay output 2  configuration of relay output 3  configuration of relay output 3  configuration of relay output 4  configuration of relay output 3  configuration of relay output 4  configuration of relay output 5  configuration of relay output 6  configuration of relay output 7  configuration of relay output 8  configuration of relay output 9  configuration of relay output 1  Factory set as TRIP RESET  configuration of relay output 1  Factory set as ON-TIME MOTOR  configuration of relay output 3  programmable  configuration of relay output 4  Factory set as GROUP ERROR  display version  operating measured value display  Yes  product extension optional human machine interface  module  type of communication optional  With optional Profibus or Profinet  error logbook  Yes  event list  yes  slave pointer function  Yes  number of parameter sets  3  engineering software (Soft Starter ES)
trip class  trip class  CLASS 5 / 10 / 15 / 20 / 30  reset function  Manual and automatic  thermistor motor protection  inside-delta circuit  Yes  breakaway pulse  Pes  DC braking  Yes  combined braking  Yes  motor heating  Yes  configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  configuration of control input 4  Factory set as START MOTOR  configuration of control input 3  configuration of relay output 1  Factory set as TRIP RESET  configuration of relay output 1  Factory set as ON-TIME MOTOR  configuration of relay output 3  configuration of relay output 4  Factory set as GROUP ERROR  display version  operating measured value display  yes  product extension optional human machine interface  module  type of communication optional  error logbook  Yes  slave pointer function  Yes  number of parameter sets  3  engineering software (Soft Starter ES)  Yes
trip class  reset function  Manual and automatic  thermistor motor protection  yes  inside-delta circuit  Yes  breakaway pulse  DC braking  Yes  combined braking  motor heating  configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  configuration of relay output 1  configuration of relay output 1  configuration of relay output 1  configuration of relay output 2  configuration of relay output 4  configuration of relay output 3  configuration of relay output 4  configuration of relay output 4  configuration of relay output 4  configuration of relay output 3  programmable  configuration of relay output 4  factory set as GROUP ERROR  display version  Graphic display  yes  product extension optional human machine interface module  type of communication optional  with optional Profibus or Profinet  error logbook  yes  event list  yes  slave pointer function  Yes  number of parameter sets  3  engineering software (Soft Starter ES)  Yes
reset function thermistor motor protection Yes inside-delta circuit Yes breakaway pulse DC braking Yes combined braking Yes motor heating Yes configuration of control input 1 configuration of control input 2 programmable configuration of control input 3 configuration of control input 4 configuration of control input 4 configuration of relay output 1 configuration of relay output 1 configuration of relay output 2 programmable configuration of relay output 1 configuration of relay output 2 configuration of relay output 3 configuration of relay output 4 configuration of relay output 3 configuration of relay output 4 configuration of relay output 3 configuration of relay output 3 configuration of relay output 3 programmable configuration of relay output 4 factory set as GROUP ERROR display version Graphic display operating measured value display Yes product extension optional human machine interface module type of communication optional error logbook Yes event list Yes slave pointer function Yes number of parameter sets 3 engineering software (Soft Starter ES) Yes
thermistor motor protection  inside-delta circuit  yes  breakaway pulse  Pes  DC braking  Yes  motor heating  yes  configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  configuration of control input 4  configuration of relay output 1  configuration of relay output 1  configuration of relay output 2  configuration of relay output 3  configuration of relay output 4  configuration of relay output 4  configuration of relay output 4  configuration of relay output 3  configuration of relay output 3  configuration of relay output 4  factory set as ON-TIME MOTOR  configuration of relay output 3  configuration of relay output 3  configuration of relay output 4  factory set as GROUP ERROR  display version  Graphic display  Yes  product extension optional human machine interface module  type of communication optional  with optional Profibus or Profinet  error logbook  Yes  event list  Yes  slave pointer function  Yes  number of parameter sets  3  engineering software (Soft Starter ES)
inside-delta circuit  breakaway pulse  DC braking  Yes  combined braking  Yes  motor heating  Yes  configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  configuration of control input 4  configuration of relay output 1  configuration of relay output 1  configuration of relay output 2  configuration of relay output 2  configuration of relay output 3  configuration of relay output 3  configuration of relay output 3  configuration of relay output 4  factory set as GROUP ERROR  display version  operating measured value display  yes  product extension optional human machine interface module  type of communication optional  with optional Profibus or Profinet  error logbook  Yes  event list  slave pointer function  Yes  number of parameter sets  3  engineering software (Soft Starter ES)  Yes
breakaway pulse DC braking Yes  combined braking Yes  motor heating Yes  configuration of control input 1     Factory set as START MOTOR  configuration of control input 2     programmable     configuration of control input 3     programmable     configuration of control input 4     Factory set as TRIP RESET  configuration of relay output 1     Factory set as ON-TIME MOTOR  configuration of relay output 2     programmable  configuration of relay output 3     programmable  configuration of relay output 3     programmable  configuration of relay output 4     Factory set as GROUP ERROR  display version     Graphic display     operating measured value display     product extension optional human machine interface     module  type of communication optional     with optional Profibus or Profinet  error logbook     Yes  event list     yes  slave pointer function     Yes  trace function     Yes  number of parameter sets     3  engineering software (Soft Starter ES)  Yes
DC braking  combined braking  Yes  motor heating  Configuration of control input 1  configuration of control input 2  configuration of control input 3  configuration of control input 4  Factory set as TRIP RESET  configuration of relay output 1  configuration of relay output 1  configuration of relay output 2  configuration of relay output 2  configuration of relay output 3  configuration of relay output 4  Factory set as GROUP ERROR  display version  Graphic display  operating measured value display  type of communication optional human machine interface  module  type of communication optional  error logbook  event list  Yes  slave pointer function  Yes  number of parameter sets  a engineering software (Soft Starter ES)  Yes
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configuration of relay output 3  configuration of relay output 4  display version  operating measured value display  product extension optional human machine interface module  type of communication optional  error logbook  event list  yes  slave pointer function  trace function  number of parameter sets  engineering software (Soft Starter ES)  programmable  Factory set as GROUP ERROR  Graphic display  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye
configuration of relay output 4  display version  operating measured value display  product extension optional human machine interface module  type of communication optional  error logbook  event list  slave pointer function  trace function  number of parameter sets  engineering software (Soft Starter ES)  Factory set as GROUP ERROR  Graphic display  Yes  Yes  Yes  Yes  Yes  Yes  Yes  3  Factory set as GROUP ERROR  Factory set as GROUP expended  Yes
display version  operating measured value display  product extension optional human machine interface module  type of communication optional  error logbook  event list  slave pointer function  trace function  number of parameter sets  engineering software (Soft Starter ES)  Yes  Yes  Graphic display  Yes  Yes  Yes  Yes  Yes  Yes  Yes  3  Yes  Yes
operating measured value display  product extension optional human machine interface module  type of communication optional  error logbook  event list  slave pointer function  trace function  number of parameter sets  engineering software (Soft Starter ES)  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye
product extension optional human machine interface module  type of communication optional error logbook event list slave pointer function trace function number of parameter sets engineering software (Soft Starter ES)  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye
type of communication optional  error logbook  event list  slave pointer function  trace function  number of parameter sets engineering software (Soft Starter ES)  With optional Profibus or Profinet  Yes  Yes  Yes  3  Yes  Yes  Yes
error logbook Yes event list Yes slave pointer function Yes trace function Yes number of parameter sets 3 engineering software (Soft Starter ES) Yes
event list  slave pointer function  trace function  Yes  trace function  Yes  number of parameter sets  engineering software (Soft Starter ES)  Yes
slave pointer function Yes trace function Yes number of parameter sets engineering software (Soft Starter ES) Yes
trace function Yes number of parameter sets 3 engineering software (Soft Starter ES) Yes
number of parameter sets 3 engineering software (Soft Starter ES) Yes
engineering software (Soft Starter ES)  Yes
disconnector functionality No
Contactor
size of contactor NA
Coil
type of voltage of the control supply voltage AC
control supply voltage
• at AC at 50 Hz rated value 115 V
• at AC at 60 Hz rated value 115 V
Enclosure
degree of protection NEMA rating 1
degree of protection NEMA rating 1  degree of protection NEMA rating of the enclosure NEMA Type 1
design of the housing indoors, usable on a general basis
type of cooling  None
Mounting/wiring Vertical
mounting position Vertical
fastening method Surface mounting and installation
wire length between motor starter and motor maximum 500 m
type of electrical connection for supply voltage line-side  Box lug
tightening torque [lbf·in] for supply  180 195 lbf·in
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded 2/0 AWG 2x 500 MCM (both front & back)
temperature of the conductor for supply maximum permissible 75 °C
material of the conductor for supply  AL or CU
type of electrical connection for load-side outgoing feeder Box lug
tightening torque [lbf·in] for load-side outgoing feeder 180 195 lbf·in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded  3/0 600 kcmil (front only) or 250 500 kcmil (back only) or 2x 500 kcmil (both front & back) AWG

temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	CU
type of electrical connection for auxiliary and control circuit	screw-type terminals
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, J or L)
•	10kA@600V (Class H or K); 100kA@600V (Class R, J or L)  Thermal magnetic circuit breaker
main circuit required	
main circuit required design of the short-circuit trip	
main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)	Thermal magnetic circuit breaker
main circuit required design of the short-circuit trip breaking capacity maximum short-circuit current (Icu) • at 240 V	Thermal magnetic circuit breaker  100 kA
main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V	Thermal magnetic circuit breaker  100 kA 100 kA

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

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

 $\underline{https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:73KT34BFA}$ 

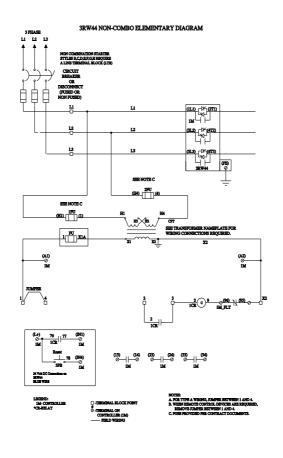
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:73KT34BFA

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=US2:73KT34BFA&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:73KT34BFA&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:73KT34BFA/certificate



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