## **SIEMENS**

Data sheet US2:30CUBB32B2VF



2-speed 3-phase motor starter, Size 0, One winding consequent pole, Constant or variable torque, Solid-state overload relays, Low Spd OLR range 0.75-3.4A, High Spd OLR range 0.75-3.4A, 110V 50Hz / 120V 60Hz coil, Enclosure NEMA type 1, Indoor general purpose use

product brand name	Class 30
design of the product	Full-voltage two speed motor starter
special product feature	ESP200 overload relay
General technical data	
weight [lb]	24 lb
Height x Width x Depth [in]	20 × 12 × 8 in
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6560 ft
ambient temperature [°F]	
during storage	-22 +149 °F
during operation	-4 +104 °F
ambient temperature	
during storage	-30 +65 °C
during operation	-20 +40 °C
country of origin	USA
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	0 hp
• at 220/230 V rated value	0 hp
• at 460/480 V rated value	1 hp
● at 575/600 V rated value	2 hp
Contactor	
size of contactor	NEMA controller size 0
number of NO contacts for main contacts	6
operating voltage for main current circuit at AC at 60 Hz maximum	600 V
operational current at AC at 600 V rated value	18 A
mechanical service life (operating cycles) of the main contacts typical	1000000
Auxiliary contact	
number of NC contacts at contactor for auxiliary contacts	2
number of NO contacts at contactor for auxiliary contacts	2
number of total auxiliary contacts maximum	8
contact rating of auxiliary contacts of contactor according to UL	345VA@115VAC / 768VA@240VAC
Coil	
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
holding power at AC minimum	8 W
apparent pick-up power of magnet coil at AC	218 VA

	05.1/4
apparent holding power of magnet coil at AC	25 VA
operating range factor control supply voltage rated value of magnet coil	01
percental drop-out voltage of magnet coil related to the input voltage	50 %
ON-delay time	19 29 ms
OFF-delay time	10 24 ms
Overload relay	
product function	
<ul> <li>overload protection</li> </ul>	Yes
phase failure detection	Yes
asymmetry detection	Yes
ground fault detection	Yes
• test function	Yes
external reset	Yes
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of overload relay	
for low rotational speed	0 3 A
for high rotational speed	0 3 A
tripping time at phase-loss maximum	3 s
relative repeat accuracy	1%
product feature protective coating on printed-circuit board	Yes
number of NC contacts of auxiliary contacts of overload relay	1
number of NO contacts of auxiliary contacts of overload relay	1
operational current of auxiliary contacts of overload relay	
• at AC at 600 V	5 A
• at DC at 250 V	1A
contact rating of auxiliary contacts of overload relay according to	5
UL	3
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
with single-phase operation at AC rated value     with multi-phase operation at AC rated value	600 V 300 V
with multi-phase operation at AC rated value	
with multi-phase operation at AC rated value     Enclosure	300 V
with multi-phase operation at AC rated value     Enclosure  degree of protection NEMA rating	300 V
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating     design of the housing	300 V
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating     design of the housing     Mounting/wiring	1 indoors, usable on a general basis
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating     design of the housing     Mounting/wiring     mounting position	1 indoors, usable on a general basis  vertical
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating     design of the housing     Mounting/wiring     mounting position     fastening method	1 indoors, usable on a general basis  vertical Surface mounting and installation
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  design of the housing  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating 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  type of connectable conductor cross-sections at line-side for	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating 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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded	1 indoors, usable on a general basis  vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating 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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C AL or CU
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible material of the conductor for supply  type of electrical connection for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  type of connectable conductor cross-sections for AWG cables	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1 75 °C AL or CU Screw-type terminals
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible  material of the conductor for supply  type of electrical connection for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder  temperature of the conductor for load-side outgoing feeder	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1  75 °C AL or CU Screw-type terminals 20 24 lbf-in
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible material of the conductor for supply  type of electrical connection for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  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	1 indoors, usable on a general basis  vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1  75 °C  AL or CU  Screw-type terminals  20 24 lbf-in  2
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating 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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder 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	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2 75 °C
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating 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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder 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 type of electrical connection of magnet coil	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2 75 °C CU Screw-type terminals
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder 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 type of electrical connection of magnet coil tightening torque [lbf·in] at magnet coil type of connectable conductor cross-sections of magnet coil for	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2 75 °C
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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 type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder 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 type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2 75 °C CU Screw-type terminals 5 12 lbf·in
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible  material of the conductor for supply  type of electrical connection for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder maximum permissible  material of the conductor for load-side outgoing feeder  type of electrical connection of magnet coil  tightening torque [lbf-in] at magnet coil  type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1  75 °C AL or CU Screw-type terminals 20 24 lbf-in 2  75 °C  CU Screw-type terminals 5 12 lbf-in 2
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible  material of the conductor for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  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  type of electrical connection of magnet coil  tightening torque [lbf-in] at magnet coil  type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1  75 °C AL or CU Screw-type terminals 20 24 lbf-in 2  75 °C CU Screw-type terminals 20 24 lbf-in 2  75 °C CU Screw-type terminals 5 12 lbf-in 2
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible material of the conductor for supply  type of electrical connection for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  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  type of electrical connection of magnet coil  tightening torque [lbf-in] at magnet coil  type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2 75 °C CU Screw-type terminals 5 12 lbf-in 2 75 °C CU Screw-type terminals
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating  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  type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible  material of the conductor for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  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  type of electrical connection of magnet coil  tightening torque [lbf-in] at magnet coil  type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil	1 indoors, usable on a general basis  vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1  75 °C AL or CU Screw-type terminals 20 24 lbf-in 2  75 °C CU Screw-type terminals 20 24 lbf-in 2

temperature of the conductor at contactor for auxiliary contacts maximum permissible  material of the conductor at contactor for auxiliary contacts  type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  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  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  design of the short-circuit trip  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 480 V  • at 600 V  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		
type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  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 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  design of the short-circuit trip  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  certificate of suitability  Screw-type terminals  7 10 lbf-in  2  75 °C  CU  To C  Thermal magnetic circuit breaker  10  14 kA  • at 480 V  • at 600 V  REMA ICS 2; UL 508; CSA 22.2, No.14		75 °C
tightening torque [lbf-in] at overload relay for auxiliary contacts  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  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  design of the short-circuit trip  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14	material of the conductor at contactor for auxiliary contacts	CU
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  material of the conductor at overload relay for auxiliary contacts  CU  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14	,,	Screw-type terminals
for AWG cables for auxiliary contacts single or multi-stranded  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  CU  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  10 kA  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14	tightening torque [lbf·in] at overload relay for auxiliary contacts	7 10 lbf·in
contacts maximum permissible material of the conductor at overload relay for auxiliary contacts  CU  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 480 V  • at 600 V  Certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		2
Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 480 V  • at 600 V  Certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		75 °C
design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  10 kA  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14	material of the conductor at overload relay for auxiliary contacts	CU
circuit required  design of the short-circuit trip  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  10 kA  certificate of suitability  Thermal magnetic circuit breaker  14 kA  10 kA  10 kA	Short-circuit current rating	
maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V  10 kA  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		10
<ul> <li>at 240 V</li> <li>at 480 V</li> <li>at 600 V</li> <li>certificate of suitability</li> <li>14 kA</li> <li>10 kA</li> <li>NEMA ICS 2; UL 508; CSA 22.2, No.14</li> </ul>	design of the short-circuit trip	Thermal magnetic circuit breaker
• at 480 ∨             • at 600 ∨	maximum short-circuit current breaking capacity (Icu)	
at 600 V     10 kA     certificate of suitability     NEMA ICS 2; UL 508; CSA 22.2, No.14	• at 240 V	14 kA
certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14	• at 480 V	10 kA
	• at 600 V	10 kA
Firstbay information	certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14
	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=US2:30CUBB32B2VF

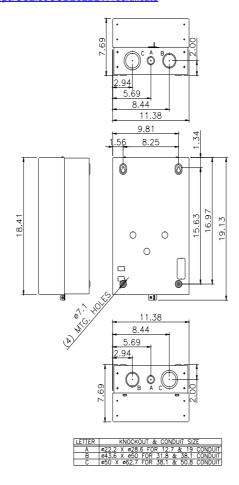
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:30CUBB32B2VF

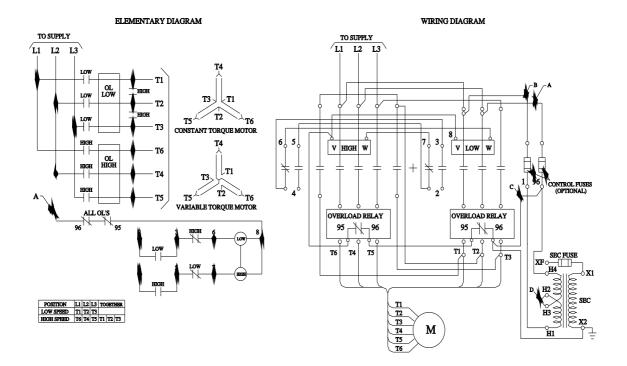
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:30CUBB32B2VF&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:30CUBB32B2VF/certificate





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