SIEMENS

Data sheet US2:18DUC92NF



Non-reversing motor starter, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 3-12A, 110V 50Hz / 120V 60Hz coil, Combination type, 10A circuit breaker, Enclosure NEMA type 4/12, Water/dust tight for outdoors, Standard width enclosure

Figure similar

design of the product special product feature ESP200 overload relay ESP2000 overload relay ESP20000 overload relay ESP2000 overload re	product brand name	Class 18 & 26
Height x Width x Depth [in] 24 × 11 × 8 in touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature [°F] • during storage • during operation • 4 · · · +104 °F • during storage • during operation • 4 · · · · +104 °F • during storage • during operation • 4 · · · · +104 °F • during storage • during operation • -20 · · · · +65 °C • -20 · · · · +40 °C • during operation • -20 · · · · · +40 °C • during operation • -20 · · · · · +40 °C • • during operation • -20 · · · · · +40 °C • • during operation • -20 · · · · · +40 °C • • during operation • -20 · · · · · +40 °C • • during operation • -20 · · · · · · · · · · · · · · · · · · ·	design of the product	Full-voltage non-reversing motor starter with motor circuit protector
Height x Width x Depth [in]	special product feature	ESP200 overload relay
touch protection against electrical shock installation allitude (fit) at height above sea level maximum ambient temperature [°F] • during storage • during operation ambient temperature • during storage • during operation -4 +104 °F ambient temperature • during storage • during operation -20 +40 °C Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value • at 575/600 V rated value • at 575/600 V rated value • at 30 contacts for main contacts size of contactor number of NO contacts for main contacts a operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of tool auxiliary contacts maximum contact stupical contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage	General technical data	
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during storage during operation during storage during storage during storage during operation during opera	installation altitude [ft] at height above sea level maximum	6560 ft
during operation ambient temperature during storage during operation during operation during operation during operation during of main current operation during operation during of main current operation during o	ambient temperature [°F]	
ambient temperature • during storage • during operation -20 +40 °C Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 575/600 V rated value 5 hp Contactor size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC control supply voltage	during storage	-22 +149 °F
during storage during operation during operation Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value at 575/600 V rated value size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz machanical service life (switching cycles) of the main contacts typical Auxillary contact number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of Not contacts at contactor for auxiliary contacts number of voltage of the control supply voltage AC control supply voltage	during operation	-4 +104 °F
• during operation Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 575/600 V rated value 5 hp • at 575/600 V rated value Size of contactor size of contactor size of contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value rechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC AC AC AC AC AC AC AC AC A	ambient temperature	
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yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 420/300 V rated value • at 4575/600 V rated value • at 575/600 V rated value 5 hp Contactor size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC control supply voltage	 during operation 	-20 +40 °C
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• at 575/600 V rated value 5 hp Contactor size of contactor NEMA controller size 1 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC control supply voltage	• at 220/230 V rated value	2 hp
size of contactor size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum sontact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage AC	 at 460/480 V rated value 	5 hp
size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC NEMA controller size 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	● at 575/600 V rated value	5 hp
number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage AC	Contactor	
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mechanical service life (switching cycles) of the main contacts typical Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC control supply voltage		600 V
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number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage AC		10000000
number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage AC	Auxiliary contact	
number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage control supply voltage AC	number of NC contacts at contactor for auxiliary contacts	0
contact rating of auxiliary contacts of contactor according to UL Coil type of voltage of the control supply voltage AC control supply voltage	number of NO contacts at contactor for auxiliary contacts	1
to UL Coil type of voltage of the control supply voltage control supply voltage AC	number of total auxiliary contacts maximum	8
type of voltage of the control supply voltage control supply voltage AC		10A@600VAC (A600), 5A@600VDC (P600)
control supply voltage	Coil	
	type of voltage of the control supply voltage	AC
	control supply voltage	
at AC at 50 Hz rated value 110 V	 at AC at 50 Hz rated value 	110 V
• at AC at 60 Hz rated value 120 V	 at AC at 60 Hz rated value 	120 V

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holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 VA
apparent holding power of magnet coil at AC	25 VA
operating range factor control supply voltage rated value of magnet coil	0.85 1.1
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	
 overload protection 	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 the current-	3 12 A
dependent overload release make time with automatic start after power failure	3 s
maximum	
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	1 A
contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 1A@250VDC (R300)
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	4, 12
design of the housing	dustproof, waterproof & weatherproof
Circuit Breaker	
type of the motor protection	Motor circuit protector (magnetic trip only)
operational current of motor circuit breaker rated value	10 A
adjustable current response value current of	30 100 A
instantaneous short-circuit trip unit	
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Box lug
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)
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	Screw-type terminals
tightening torque [lbf-in] for load-side outgoing feeder	35 35 lbf·in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded	1x (14 2 AWG)
temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	AL or CU
type of electrical connection of magnet coil	Screw-type terminals

tightening torque [lbf·in] at magnet coil	5 12 lbf·in
type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded	2x (16 12 AWG)
temperature of the conductor at magnet coil maximum permissible	75 °C
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	10 15 lbf·in
type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi-stranded	1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)
temperature of the conductor at contactor for auxiliary contacts maximum permissible	75 °C
material of the conductor at contactor for auxiliary contacts	CU
type of electrical connection at overload relay for auxiliary contacts	Screw-type terminals
tightening torque [lbf·in] at overload relay for auxiliary contacts	7 10 lbf·in
type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi- stranded	2x (20 14 AWG)
temperature of the conductor at overload relay for auxiliary contacts maximum permissible	75 °C
material of the conductor at overload relay for auxiliary contacts	CU
Short-circuit current rating	
design of the short-circuit trip	Instantaneous trip circuit breaker
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	100 kA
• at 480 V	100 kA
• at 600 V	25 kA
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=US2:18DUC92NF

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:18DUC92NF

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:18DUC92NF&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:18DUC92NF/certificate

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