## **SIEMENS**

Data sheet US2:17FUF82NG12

product brand name design of the product special product feature ESP200 overload relay  Ceneral technical data  weight [Ib] Height x Width x Depth [in] 124 × 20 × 8 in 125 × 20 × 8 in 125 × 20 × 8 in 125 × 20 × 8 in 126 × 20 × 8 in 126 × 20 × 8 in 127 × 140 × 15		Non-reversing motor starter, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, Combination type, 60A fusible disconnect, 60A/250V fuse clip, Enclosure NEMA type 4/12, Water/dust tight for outdoors, Extra-wide enclosure
Special product feature  Ceneral trichment data  Weight [1b]  Height x Width x Depth [n]  Louch protection against electrical shock  Installation altitude [1t] at height above sea level maximum  ambient temperature [1t]  • during storage  • during operation  ambient temperature  • during storage  •	product brand name	Class 17
weight [1b] 48 lb Height x Width x Depth [in] 24 × 20 × 8 in touch protection against electrical shock NA for enclosed products installation altitude [ft] at height above sea level maximum 6560 ft ambient temperature [TF] • during storage - 22 +149 TF • during storage - 22 +149 TF • during storage - 30 +65 TC • during storage - 30 +65 TC • during storage - 30 +65 TC • during operation - 20 +40 TC country of origin  Horspower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/280 Y rated value 15 hp • at 460/480 V rated value 0 hp • at 220/230 V rated value 0 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp  size of contactor  counter of NO contacts for main contacts 0 hp operation all current at AC at 600 V rated value 45 A mechanical service life (operating cycles) of the main contacts hybrical  Axillary contact number of NO contacts at contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts maximum 7 contact rating of auxiliary contacts of contactor according to UL 10A(@600VAC (A600), 5A@600VDC (P600)  Coil  bype of voltage of the control supply voltage rated value 9 20 240 V • at AC at 60 Hz rated value 9 220 V • at AC at 60 Hz rated value 9 220 V • at AC at 60 Hz rated value 10 24 ms  OF-F-delay time 10 24 ms	design of the product	Non-reversing motor starter with fusible disconnect
weight [ib] Height x Width x Depth [in] 124 × 20 × 8 in NA for enclosed products Installation altitude [it] at height above sea level maximum 1560 ft ambient temperature [F] 1	special product feature	ESP200 overload relay
Height X Width X Depth [in]  touch protection against electrical shock Installation allitude (fil) at height above sea level maximum ambient temperature [*F]  • during storage • during operation operation • during operation	General technical data	
touch protection against electrical shock installation altitude [it] at height above sea level maximum ambient temperature [*F]  • during storage • during operation ambient temperature • during storage • during operation • during storage • during operation • during operation • during operation  • during operation • 20 +40 °C  country of origin  USA  **Inseppower ratings** yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value • at 450/480 V rated value • at 450/480 V rated value • at 450/480 V rated value • at 675/600 V rated value • at 675/600 V rated value • at 675/600 V rated value • operating voltage for main contacts 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  mechanical service life (operating cycles) of the main contacts typical  Ausiliary 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  1 number of NO contacts at contactor for auxiliary contacts  20  **Auxiliary contact*  100/000000  **Localiar target of auxiliary contacts maximum  7 contact rating of auxiliary contacts maximum  8 a NC  **Control supply voltage  **at AC at 50 Hz rated value  **at AC at 50 Hz rated value  **at AC at 50 Hz rated value  **at AC at 60 Hz	weight [lb]	48 lb
Installation altitude [ft] at height above sea level maximum ambient temperature [FT] • during operation ambient temperature • during operation ambient temperature • during operation • during storage • during operation • 20 +40 °C  country of origin  Viscase power ritings  yielded mechanical sepformance [hp] for 3-phase AC motor • at 200208 V rated value • at 220230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 675/6800 V rated value • 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  mechanical service life (operating 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 NC obtacts at contactor for auxiliary contacts number of NC auxiliary contacts maximum 7 contact rating of auxiliary contacts maximum 7 rated of voltage of the control supply voltage • at AC at 50 Hz rated value • at AC at 50 Hz rated value • at AC at 50 Hz rated value  apparent pick-up power of magnet coil at AC apparent pick-up power of magnet coil at AC apparent holding power of magnet coil related to the input voltage ON-4-delay time  OFF-delay time  0 -22 +449 °C  -25 +149 °F  -25 +149 °F  -26 +149 °F  -26 +149 °F  -26 +150 °F  -26 +160 °F  -27 +140 °F  -28 +160 °F  -29 +140 °F  -20 +160 °F  -20 +1	Height x Width x Depth [in]	24 × 20 × 8 in
ambient temperature [*F]  • during storage • during operation  country of origin  USA  **Horsepower ratings**  yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 200/208 V rated value • at 48/0490 V rated value • at 48/0490 V rated value • at 575/600 V rated value • at 575/600 V rated value • on hp  **Contactor  size of contactor  number of NO contacts for main contacts	touch protection against electrical shock	NA for enclosed products
during storage during operation during storage during storage during storage during storage during operation during storage during operation	installation altitude [ft] at height above sea level maximum	6560 ft
during operation     ambient temperature	ambient temperature [°F]	
ambient temperature  • during storage • during operation  country of origin  USA  **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 675/600 V rated value • at 60 value  **Contactor**  size of contactor number of NO contacts for main contacts sperating voltage for main current circuit at AC at 60 Hz maximum poperational current at AC at 600 V rated value  ### decided of the control service (life (operating 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 NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts at contactor for auxiliary contacts 1 number of No contacts 1 number of No contacts 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	during storage	-22 +149 °F
during storage     during operation     country of origin  Horsepower ratings  yielded mechanical performance (hp) for 3-phase AC motor     at 200/208 V rated value     at 200/208 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 60/480 V rated value     at 60/480 V rated value     be at 575/600 V rated value     be at 575/600 V rated value     be at 675/600 V rated value     be at 675/600 V rated value     be at 675/600 V rated value  Size of contactor  number of NO contacts for main contacts     operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value     depending of the control supply collage 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 tool auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to UL     folion of auxiliary contacts of contactor according to	during operation	-4 +104 °F
during operation     country of origin     USA  Viscaepower ratings  yielded mechanical performance [hp] for 3-phase AC motor	ambient temperature	
country of origin USA  Horsopower 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 460/480 V rated value • at 675/600 V rated value  O hp  Contactor  size of contactor size of contactor NEMA controller size 2  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 (operating 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 1 number of NC contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts of contactor according to UL  Coll  type of voltage of the control supply voltage • at AC at 50 Hz rated value • apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC operating range factor control supply voltage of magnet coil at AC operating range factor control supply voltage of magnet coil at AC operating range factor control supply voltage rated value of magnet coil at AC operating range factor control supply voltage of magnet coil etated to the input voltage ON-delay time  ON-delay time  10 24 ms	during storage	-30 +65 °C
yielded mechanical performance [hp] for 3-phase AC motor  • at 200/230 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 675/600 V rated value • on the control supply voltage for main current circuit at AC at 60 Hz maximum operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  45 A mechanical service life (operating cycles) of the main contacts fypical number of NC contacts at contactor for auxiliary contacts number of NC contacts at contact for auxiliary contacts number of NC contacts at contact for auxiliary contacts number of NC contacts at contact or for auxiliary contacts number of NC contacts at contact or for auxiliary contacts number of NC deap for auxiliary contacts maximum 7 contact rating of auxiliary contacts of contactor according to UL  coll type of voltage of the control supply voltage at AC at 50 Hz rated value at AC at 50 Hz rated value aparent holding power of magnet coil at AC apparent holding power of magnet coil at AC ap	during operation	-20 +40 °C
yielded mechanical performance [hp] for 3-phase AC motor  • at 220/230 V rated value • at 420/430 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value • on the 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  45 A mechanical service life (operating 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 10000000  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts maximum 7 contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage • at AC at 50 Hz rated value • at AC at 50 Hz rated value • at AC at 60 Hz rated value	country of origin	USA
at 220/230 V rated value at 220/230 V rated value at 460/480 V rated value be at 460/480 V rated value at 575/600 V rated value be at 575/600 V rated value contactor  Size of contactor  Size of 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 operational current at AC at 600 V rated value operational current of the contacts of the main contacts typical number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum rocontact rating of auxiliary contacts of contactor according to UL  Coll  Lype of voltage of the control supply voltage  at AC at 50 Hz rated value  at AC at 50 Hz rated value  at AC at 50 Hz rated value  apparent holding power at AC minimum apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC operating range factor control supply voltage rated value of magnet coil percental drop-out voltage of magnet coil related to the input voltage ON-delay time  10 24 ms	Horsepower ratings	
at 220/230 V rated value at 480/480 V rated value b at 480/480 V rated value contactor  NEMA controller size 2  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  mechanical service life (operating 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 1 number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  at AC at 50 Hz rated value  at AC at 50 Hz rated value  at AC at 60 Hz rated val	vielded mechanical performance [hp] for 3-phase AC motor	
at 460/480 V rated value bat 575/600 V rated value  O hp  NEMA controller size 2  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 (operating 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 rocontact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage at AC at 50 Hz rated value apparent pick-up power of magnet coil at AC apparent holding power at AC minimum apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC operating range factor control supply voltage rated value of magnet coil percental drop-out voltage of magnet coil related to the input voltage ON-delay time  0 hol-delay time 0 holding power of magnet coil related to the input voltage ON-delay time 0 holding power of magnet coil related to the input voltage ON-delay time 0 holding power of magnet coil related to the input voltage ON-delay time 0 holding power of magnet coil related to the input voltage ON-delay time 0 holding power of magnet coil related to the input voltage ON-delay time	• at 200/208 V rated value	10 hp
at 460/480 V rated value by at 575/600 V rated value  O hp  NEMA controller size 2  number of NO contacts for main contacts sperating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (operating 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 rocontact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage at AC at 50 Hz rated value apparent pick-up power of magnet coil at AC apparent holding power at AC minimum apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC apparent pick-up over of magnet coil at AC apparent pick-up power of magnet coil at AC apparent pick-up power of magnet coil at AC apparent pick-up power of magnet coil at AC apparent pick-up over	● at 220/230 V rated value	
• at 575/600 V rated value  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  mechanical service life (operating 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 NC contacts at contactor for auxiliary contacts  number of Not contacts at contacts of contactor for auxiliary contacts  number of total auxiliary contacts maximum  7  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  • at AC at 60 Hz rated value  • at AC at 60 Hz rated value  • at AC and find Hz rated value  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  0 hg AD  NEMA controller size 2  number of NO contacts at contactors  10000000  Va5 A  1000000  Va5 A  10000000  Va5 A  10000000  Va5 A  1000000  Va5 A  1000000  Va5 A  1000000  Va5 A  1000	● at 460/480 V rated value	
Size of contactor  size of contactor  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 mechanical service life (operating 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 NO contacts at contacts of contactor according to UL  coit  type of voltage of the control supply voltage	● at 575/600 V rated value	·
number of NO contacts for main current circuit at AC at 60 Hz maximum operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  mechanical service life (operating 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 rocontact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage	Contactor	
number of NO contacts for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (operating 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 rontact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  • at AC at 50 Hz rated value • at AC at 50 Hz rated value holding power at AC minimum apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC operating range factor control supply voltage rated value of magnet coil percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  OFF-delay time  600 V  600 V	size of contactor	NEMA controller size 2
maximum operational current at AC at 600 V rated value mechanical service life (operating 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 7 contact rating of auxiliary contacts of contactor according to UL  Ooil  type of voltage of the control supply voltage  • at AC at 50 Hz rated value • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  holding power at AC minimum apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC operating range factor control supply voltage rated value of magnet coil percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  OFF-delay time  45 A  10000000  10000000  100000000  1000000		3
mechanical service life (operating 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 NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  7 contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 50 Hz rated value  190 220 V  • at AC at 60 Hz rated value  holding power at AC minimum  8.6 W  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  0 24 ms		600 V
mechanical service life (operating 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  Tooli  type of voltage of the control supply voltage  o at AC at 50 Hz rated value  o at AC at 60 Hz rated value  holding power at AC minimum  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  10000000  0  10000000  110000000  11000000	operational current at AC at 600 V rated value	45 A
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  type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  holding power at AC minimum  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  10 24 ms	mechanical service life (operating cycles) of the main contacts	10000000
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  type of voltage of the control supply voltage  o at AC at 50 Hz rated value  o at AC at 60 Hz rated value  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  OFF-delay time  1024 ms  1024 ms  1024 ms		
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  type of voltage of the control supply voltage  at AC at 50 Hz rated value  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  10 29 ms		0
number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  7  10A@600VAC (A600), 5A@600VDC (P600)  AC  220 W  40  40  40  40  40  40  40  40  40  4		
contact rating of auxiliary contacts of contactor according to UL  Tooil  type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  AC  AC  AD  AD  AD  AD  AD  AD  AD  AD		7
type of voltage of the control supply voltage  • at AC at 50 Hz rated value  • at AC at 60 Hz rated value  190 220 V  • at AC at 60 Hz rated value  220 240 V  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  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms	<u> </u>	10A@600VAC (A600), 5A@600VDC (P600)
type of voltage of the control supply voltage  ontrol supply voltage  at AC at 50 Hz rated value  at AC at 60 Hz rated value  blolding power at AC minimum  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  OFF-delay time  AC  190 220 V  220 V  221 VA  221 VA  2218 VA  25 VA  0.85 1.1  50 %  Voltage  19 29 ms  OFF-delay time  10 24 ms		
control supply voltage  ■ at AC at 50 Hz rated value  ■ at AC at 60 Hz rated value  190 220 V  ■ at AC at 60 Hz rated value  220 240 V  holding power at AC minimum  8.6 W  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  218 VA  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms		AC
<ul> <li>at AC at 50 Hz rated value</li> <li>at AC at 60 Hz rated value</li> <li>220 240 V</li> <li>holding power at AC minimum</li> <li>8.6 W</li> <li>apparent pick-up power of magnet coil at AC</li> <li>apparent holding power of magnet coil at AC</li> <li>operating range factor control supply voltage rated value of magnet coil</li> <li>percental drop-out voltage of magnet coil related to the input voltage</li> <li>ON-delay time</li> <li>OFF-delay time</li> <li>19 29 ms</li> <li>OFF-delay time</li> <li>10 24 ms</li> </ul>		
<ul> <li>◆ at AC at 60 Hz rated value</li> <li>bolding power at AC minimum</li> <li>apparent pick-up power of magnet coil at AC</li> <li>apparent holding power of magnet coil at AC</li> <li>apparent holding power of magnet coil at AC</li> <li>operating range factor control supply voltage rated value of magnet coil</li> <li>percental drop-out voltage of magnet coil related to the input voltage</li> <li>ON-delay time</li> <li>OFF-delay time</li> <li>220 240 V</li> <li>0.85 W</li> <li>0.85 1.1</li> <li>50 %</li> <li>0.85 1.1</li> <li>10 29 ms</li> <li>0.85 24 ms</li> </ul>	****	190 220 V
holding power at AC minimum  apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms		
apparent pick-up power of magnet coil at AC  apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms		
apparent holding power of magnet coil at AC  operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms		
operating range factor control supply voltage rated value of magnet coil  percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  OFF-delay time  0.85 1.1  50 %  19 29 ms  10 24 ms		
percental drop-out voltage of magnet coil related to the input voltage  ON-delay time  19 29 ms  OFF-delay time  10 24 ms	operating range factor control supply voltage rated value of	
ON-delay time         19 29 ms           OFF-delay time         10 24 ms	percental drop-out voltage of magnet coil related to the input	50 %
OFF-delay time 10 24 ms		19 29 ms
·		
Overload relay	Overload relay	
product function		

• overload protection	Yes
<ul><li>overload protection</li><li>phase failure detection</li></ul>	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- dependent overload release	13 52 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 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
Disconnect Switch	
response value of switch disconnector	60A / 250V
design of fuse holder	Class R fuse clips
operating class of the fuse link	Class R
Enclosure	1.10
degree of protection NEMA rating	4, 12
design of the housing	dustproof, waterproof & weatherproof
Mounting/wiring	
mounting position	vertical
mounting position	vertical
fastening method	Surface mounting and installation
fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation  Box lug
fastening method  type of electrical connection for supply voltage line-side  tightening torque [lbf-in] for supply	Surface mounting and installation  Box lug  35 35 lbf·in
fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation  Box lug
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	Surface mounting and installation  Box lug  35 35 lbf·in
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	Surface mounting and installation  Box lug  35 35 lbf·in  1x (14 2 AWG)
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in
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	Surface mounting and installation  Box lug  35 35 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C
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	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU
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  type of electrical connection for auxiliary contacts	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals
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  type of electrical connection for auxiliary contacts  tightening torque [lbf·in] at contactor for auxiliary contacts  tightening torque [lbf·in] at contactor for auxiliary contacts	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf-in
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 type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts 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	Surface mounting and installation  Box lug  35 35 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)
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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts 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	Surface mounting and installation  Box lug  35 35 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)  75 °C
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 at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts 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 material of the conductor at contactor for auxiliary contacts maximum permissible material of the conductor at contactor for auxiliary contacts maximum permissible	Surface mounting and installation  Box lug  35 35 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf-in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)  75 °C  CU

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	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)
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=US2:17FUF82NG12

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:17FUF82NG12

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:17FUF82NG12&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:17FUF82NG12/certificate

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