## **SIEMENS**

Data sheet 3TF6844-8CF7



Contactor, Size 14, 3-pole, AC-3, 335kW, 400/380 V (1000 V) Auxiliary switch 44 (4NO+4NC) AC operation 110...132 V AC 50/60 Hz

product designation	Vacuum contactor
product type designation	3TF6
General technical data	
size of contactor	14
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	No
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
of auxiliary circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	300 V
between main and auxiliary circuit	500 V
shock resistance at rectangular impulse	
• at AC	8.1g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at AC	12.8g / 5 ms, 7.4g / 10 ms
mechanical service life (switching cycles)	
of contactor typical	5 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.03.2017 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +55 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity during operation	10 95 %
relative humidity at 55 °C acc. to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
type of voltage for main current circuit	AC

■ at AC-3 rated value maximum     ■ pos 800 V at ambient temperature 40 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1000 V at ambient temperature 55 °C     □ pub 1400 V rated value     □ pub 1400 V rated value     □ pub 1400 V rated value     □ pub 1500 V rated value     □ pub 1500 V for current peak value n=20 rated value     □ pub 1500 V for current peak value n=20 rated value     □ pub 1500 V for current peak value n=30 rated value     □ pub 1500 V for current peak	operating voltage	
• at AC-1 — up to 680 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 55 °C rated value — up to 1000 V at ambient temperature 55 °C rated value • at AC-3 — at 4.00 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 1000 V rated value — at 1000 V rated value • at AC-4 at 400 V rated value — at 1000 V rated value • at AC-5 at 440 V rated value — at 1000 V for current peak value n=20 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — at 400 V rated value — at 680 V rated value — at 680 V rated value — at 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=20 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated valu		1 000 V
— up to 890 Y at ambient temperature 40 °C rated value — up to 1000 V at ambient temperature 55 °C rated value — up to 1000 V at ambient temperature 55 °C rated value e at AC-3 — at 400 V rated value 600 A 600	operational current	
rated value — up to 1000 V at ambient temperature 55 °C rated value — up to 1000 V at ambient temperature 55 °C rated value — at AC-3 — at 400 V rated value — at 500 V rated value — at 1000 V rated value — at AC-3 at 400 V rated value — at AC-6 at 400 V rated value — up to 500 V for current peak value n=20 rated value — up to 1000 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 600 V roc current peak value n=20 rated value up to 600 V for current peak value n=20 rated value up to 600 V for current peak value n=20 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 1000 V for current peak value n=30 rated value up to 1000 V for current peak value n=30 rated value up to 1000 V for current peak value n=30 rated	• at AC-1	
rated value — up to 1000 V at ambient temperature 55 °C rated value — at ACO-3 — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 1000 V rated value — at ACO-6a — up to 500 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value — up to 1000 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 600 V for current peak value n=30 rated value — up to 600 V for current peak value n=30 rated value — up to 600 V for current peak value n=30 rated value — up to 600 V for current peak value n=30 rated value — up to 600 V for current peak value — up to 600 V for current peak value — at 400 °C minimum permissible operating power  • at AC-3 — at 230 V rated value — at 600 V for current peak value n=20 rated value  • up to 600 V for current peak value n=20 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V fo		700 A
rated value		630 A
		450 A
- at 500 V rated value	• at AC-3	
- at 690 V rated value - at 1000 V rated value - at AC-6a - au pu to 500 V for current peak value n=20 rated value - up to 1000 V for current peak value n=20 rated value - up to 1000 V for current peak value n=20 rated value - up to 1000 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 400 V for current peak value n=30 rated value - at 400 V rated value - at 400 V rated value - at 400 V rated value - at 690 V rated value - at 690 V rated value - at 690 V rated value - at 1000 V for current peak value n=20 rated value - up to 400 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=50 rated value - up to 690 V for current peak value n=50 rated value - up to 690 V for current peak value n=50 rated value - up to 690 V for current peak value n=50 rated value - up to 690 V for current peak value n=50 rated value - up to 690 V for current peak value n=50 rated value - u	— at 400 V rated value	630 A
- at 1000 V rated value  • at AC-4 at 40 V rated value	— at 500 V rated value	630 A
• at AC-4 at 400 V rated value • at AC-6a — up to 500 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value — up to 1000 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — at 40 °C minimum permissible operational current for approx. 200000 operating cycles at AC-4 — at 40 °V rated value — at 400 V rated value — at 230 V rated value — at 400 V rot current peak value n=20 rated value — at 400 V rot current peak value n=20 rated value = up to 1000 V for current peak value n=20 rated value = up to 400 V for current peak value n=20 rated value = up to 1000 V for current peak value n=20 rated value = up to 1000 V for current peak value n=20 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak value n=30 rated value = up to 1000 V for current peak	— at 690 V rated value	630 A
• at AC-6a — up to 500 V for current peak value n=20 rated value — up to 690 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value • at AC-6a — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value  connectable conductor cross-section in main circuit at AC-1 — at 40 °C minimum permissible  operational current for approx. 200000 operating cycles at AC-4 — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 690 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value  up to 690 V for current peak value n=20 rated value  up to 1000 V for current peak value n=20 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 rated value  up to 690 V for current peak value n=30 r	— at 1000 V rated value	435 A
- up to 500 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 1000 V for current peak value n=20 rated value - up to 1000 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - at 40 °C minimum permissible operational current for approx. 200000 operating cycles at AC-4 - at 40 °C minimum permissible - at 690 V rated value - at 1000 V rated value - at 200 V value - at 1000 V rated valu	<ul> <li>at AC-4 at 400 V rated value</li> </ul>	610 A
value	• at AC-6a	
value  - up to 1000 V for current peak value n=20 rated value  • at AC-6a  - up to 500 V for current peak value n=30 rated value  - up to 500 V for current peak value n=30 rated value  - up to 500 V for current peak value n=30 rated value  - up to 1000 V for current peak value n=30 rated value  - up to 1000 V for current peak value n=30 rated value  - up to 1000 V for current peak value n=30 rated value  - up to 1000 V for current peak value n=30 rated value  - up to 1000 V for current peak value n=30 rated value  - at 40 °C minimum permissible  - at 400 °C rated value  - at 400 °C rated value  - at 690 V rated value  - at 690 V rated value  - at 690 V rated value  - at 400 °C rated value  - at 400 °C rated value  - at 690 °C rated value  - at 690 °C rated value  - at 690 °C rated value  - at 1000 °C rated value  - at 20 °C value    operating apparent power at AC-6a  - up to 600 °C rated value  - up t	·	513 A
value  ■ at AC-6a  — up to 400 V for current peak value n=30 rated value  — up to 500 V for current peak value n=30 rated value  — up to 500 V for current peak value n=30 rated value  — up to 500 V for current peak value n=30 rated value  — up to 1000 V for current peak value n=30 rated value  — up to 1000 V for current peak value n=30 rated value  connectable conductor cross-section in main circuit at AC-1  ■ at 40 °C minimum permissible  ■ at 400 V rated value  ■ at 400 V rated value  ■ at 690 V rated value  ■ at 690 V rated value  ■ at 690 V rated value  — at 230 V rated value  — at 400 V rated value  — at 690 V rated value  — at 1000 V for current peak value n=20 rated value  ■ up to 400 V for current peak value n=20 rated value  ■ up to 690 V for current peak value n=20 rated value  ■ up to 1000 V for current peak value n=20 rated value  ■ up to 400 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 1000 V for current peak value n=30 rated value  ■ up to 1000 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 1000 V for current peak value n=30 rated value  ■ up to 1000 V for current peak value n=30 rated value  ■ up to 1000 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 590 V for current peak value n=30 rated value  ■ up to 400 V for current peak value n=30 rated value  ■ up to 400 V for current peak value n=30 rated value  ■ up to 400 V for current peak value n=30 rated value  ■ up to 400 V for current peak value n=30 ra		513 A
- up to 400 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - up to 1000 V for current peak value n=30 rated value - at 40 °C minimum permissible - at 40 °C minimum permissible - at 400 V rated value - at 690 V rated value - at 1000 V roted value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 1000 V for current peak value n=20 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for	value	435 A
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value     — up to 690 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value connectable conductor cross-section in main circuit at AC-1     — at 40 °C minimum permissible     — at 400 °C minimum permissible     — at 400 V rated value     — at 400 V rated value     — at 690 V rated value     — at 230 V rated value     — at 400 V rated value     — at 400 V rated value     — at 400 V rated value     — at 1000 V roter current peak value n=20 rated value     — up to 400 V for current peak value n=20 rated value     — up to 690 V for current peak value n=20 rated value     — up to 1000 V for current peak value n=20 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 1000 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value     — up to 400 V for current peak value n=30 rated value		
value — up to 1000 V for current peak value n=30 rated value  connectable conductor cross-section in main circuit at AC-1	value	
value  connectable conductor cross-section in main circuit at AC-1  • at 40 °C minimum permissible  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  • at AC-3  — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 1000 V rated value — at 900 kW  operating apparent power at AC-6a  • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak	value	
at 40 °C minimum permissible  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  • at 230 V rated value  — at 230 V rated value  — at 400 V rated value  — at 690 V rated value  — at 690 V rated value  — at 1000 V rated value  — at 1000 V rated value  — at 1000 V rated value  — 600 kW   operating apparent power at AC-6a  • up to 400 V for current peak value n=20 rated value  • up to 900 V for current peak value n=20 rated value  • up to 1000 V for current peak value n=20 rated value  • up to 1000 V for current peak value n=20 rated value  • up to 400 V for current peak value n=20 rated value  • up to 400 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=30 rated value  • up to 1000 V for current peak value n=20 rated value  • up to 1000 V for current pe	value	342 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  operating power  • at AC-3  — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value — at 1000 V rocurrent peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 1000 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up		
cycles at AC-4  • at 400 V rated value  • at 690 V rated value  operating power  • at AC-3  — at 230 V rated value  — at 400 V rated value  — at 400 V rated value  — at 690 V rated value  — at 690 V rated value  — at 1000 V roc current peak value n=20 rated value  • up to 400 V for current peak value n=20 rated value  • up to 1000 V for current peak value n=20 rated value  • up to 1000 V for current peak value n=20 rated value  • up to 400 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 1000 V for current pea	at 40 °C minimum permissible	480 mm²
• at 690 V rated value 300 A  operating power  • at AC-3  — at 230 V rated value 200 kW — at 690 V rated value 600 kW — at 1000 V rated value 600 kW  operating apparent power at AC-6a  • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 1000 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400		
operating power		
<ul> <li>at AC-3 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>335 kW</li> <li>at 690 V rated value</li> <li>600 kW</li> </ul> </li> <li>operating apparent power at AC-6a <ul> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 1000 V for current peak value n=20 rated value</li> <li>tage of the value</li> </ul> </li> <li>operating apparent power at AC-6a <ul> <li>up to 400 V for current peak value n=20 rated value</li> <li>tage of the value</li> </ul> </li> <li>operating apparent power at AC-6a <ul> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>soperating apparent power at AC-6a</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>to 592 kV-A</li> </ul> </li> <li>thermal short-time current limited to 10 s</li> <li>power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor</li> <li>no-load switching frequency at AC</li> <li>2 000 1/h</li> </ul> <li>operating frequency <ul> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> </ul> </li>	at 690 V rated value	300 A
- at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value 600 kW  operating apparent power at AC-6a • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value value  operating apparent power at AC-6a • up to 400 V for current peak value n=20 rated value value  operating apparent power at AC-6a • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value  operating apparent power at AC-6a • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value  operating apparent power at AC-6a • up to 400 V for current peak value n=30 rated value  oup to 1000 V for current peak value of to 592 kV-A value  thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency • at AC-1 maximum  operating frequency • at AC-3 maximum  700 1/h • at AC-2 at AC-3 maximum	operating power	
- at 400 V rated value - at 690 V rated value - at 1000 V rated value 600 kW  operating apparent power at AC-6a • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • value  thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency • at AC-1 maximum • at AC-2 at AC-3 maximum  700 1/h • at AC-2 at AC-3 maximum  200 1/h	• at AC-3	
- at 690 V rated value - at 1000 V rated value 600 kW  operating apparent power at AC-6a • up to 400 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value operating apparent power at AC-6a • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value value  thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency • at AC-1 maximum • at AC-2 at AC-3 maximum  700 1/h • at AC-3 at AC-3 maximum  200 1/h	— at 230 V rated value	200 kW
— at 1000 V rated value  operating apparent power at AC-6a  oup to 400 V for current peak value n=20 rated value oup to 690 V for current peak value n=20 rated value oup to 1000 V for current peak value n=20 rated value operating apparent power at AC-6a oup to 400 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 1000 V for current peak value n=30 rated value oup to 1000 V for current peak value n=30 rated value sulue thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor no-load switching frequency out at AC-1 maximum out at AC-2 at AC-3 maximum  700 1/h out at AC-3 at AC-3 maximum  700 1/h out at AC-3 at AC-3 maximum out at AC-6a  oup to 400 V for current peak value n=30 rated value sup to 400 V for current peak value n=30 rated value out at AC-1 maximum out at AC-2 at AC-3 maximum out at AC-1 maximum out at AC-2 at AC-3 maximum	— at 400 V rated value	335 kW
operating apparent power at AC-6a	— at 690 V rated value	600 kW
<ul> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 1000 V for current peak value n=20 rated value</li> <li>up to 1000 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>spower loss [W] at AC-3 at 400 V for rated value of the operational current per conductor</li> <li>no-load switching frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>	— at 1000 V rated value	600 kW
<ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 1000 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>thermal short-time current limited to 10 s</li> <li>5040 A</li> <li>45 W</li> <li>operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>	operating apparent power at AC-6a	
up to 1000 V for current peak value n=20 rated value  operating apparent power at AC-6a      up to 400 V for current peak value n=30 rated value     up to 690 V for current peak value n=30 rated value     up to 1000 V for current peak value n=30 rated value     up to 1000 V for current peak value n=30 rated value  thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency at AC  at AC-1 maximum  at AC-2 at AC-3 maximum  at AC-2 at AC-3 maximum  at AC-2 at AC-3 maximum  at AC-4 maximum  at AC-4 maximum  at AC-5 at AC-5 maximum  at AC-6 at AC-7 maximum  at AC-7 maximum  at AC-7 maximum  at AC-8 maximum  at AC-8 maximum  at AC-8 maximum  at AC-8 maximum  at AC-9 maximum  at AC-9 maximum  at AC-1 maximum  at AC-1 maximum  at AC-1 maximum  at AC-1 maximum  at AC-2 maximum  at AC-3 maximum  at AC-4 maximum  at AC-5 maximum  at AC-6 maximum  at AC-7 maximum  at AC-7 maximum  at AC-8 maximum  at AC-8 maximum  at AC-9 maximum  at AC-1 maximum  at AC-2 maximum	• up to 400 V for current peak value n=20 rated value	338 kV·A
operating apparent power at AC-6a  • up to 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value value  thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency at AC  operating frequency • at AC-1 maximum • at AC-2 at AC-3 maximum  200 1/h	• up to 690 V for current peak value n=20 rated value	586 kV·A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>thermal short-time current limited to 10 s</li> <li>power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor</li> <li>no-load switching frequency at AC</li> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>		752 kV·A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 1000 V for current peak value n=30 rated value</li> <li>thermal short-time current limited to 10 s</li> <li>5 040 A</li> <li>power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor</li> <li>no-load switching frequency at AC</li> <li>2 000 1/h</li> <li>operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>	operating apparent power at AC-6a	
<ul> <li>up to 1000 V for current peak value n=30 rated value</li> <li>thermal short-time current limited to 10 s</li> <li>5 040 A</li> <li>power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor</li> <li>no-load switching frequency at AC</li> <li>2 000 1/h</li> <li>operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>		226 kV·A
thermal short-time current limited to 10 s  power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency at AC  operating frequency  o at AC-1 maximum  o at AC-2 at AC-3 maximum  200 1/h		390 kV·A
power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor  no-load switching frequency at AC  operating frequency  • at AC-1 maximum  • at AC-2 at AC-3 maximum  200 1/h	value	592 kV·A
operational current per conductor no-load switching frequency at AC  operating frequency  • at AC-1 maximum  • at AC-2 at AC-3 maximum  200 1/h		
operating frequency	operational current per conductor	
<ul> <li>at AC-1 maximum</li> <li>at AC-2 at AC-3 maximum</li> <li>200 1/h</li> </ul>	no-load switching frequency at AC	2 000 1/h
• at AC-2 at AC-3 maximum 200 1/h		
		700 1/h
ontrol circuit/ Control	• at AC-2 at AC-3 maximum	200 1/h
	Control circuit/ Control	

control supply voltage at AC	
<ul> <li>at 50 Hz rated value</li> </ul>	110 132 V
at 60 Hz rated value	110 132 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	1 200 V·A
● at 60 Hz	1 200 V·A
inductive power factor with closing power of the coil	
● at 50 Hz	1
● at 60 Hz	1
apparent holding power of magnet coil at AC	
● at 50 Hz	13.5 V·A
● at 60 Hz	13.5 V·A
inductive power factor with the holding power of the	
coil	
● at 50 Hz	0.15
• at 60 Hz	0.15
closing delay	
• at AC	70 120 ms
opening delay	
• at AC	70 100 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	
attachable	4
<ul> <li>instantaneous contact</li> </ul>	4
number of NO contacts for auxiliary contacts	
attachable	4
instantaneous contact	4
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	5.6 A
at 400 V rated value	3.6 A
at 500 V rated value	2.5 A
at 690 V rated value	2.3 A
operational current at DC-12 at 440 V rated value	0.33 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	10 A
at 110 V rated value	3.2 A
• at 125 V rated value	2.5 A
at 220 V rated value	0.9 A
at 600 V rated value	0.22 A
operational current at DC-13	
at 24 V rated value	10 A
at 48 V rated value	5 A
• at 110 V rated value	1.14 A
at 125 V rated value	0.98 A
at 220 V rated value	0.48 A
• at 600 V rated value	0.07 A
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	630 A
at 600 V rated value	630 A
yielded mechanical performance [hp]	
Are were unconstructed benchmance inbi	

• for 3-phase AC motor	
<ul> <li>at 200/208 V rated value</li> </ul>	231 hp
— at 220/230 V rated value	266 hp
— at 460/480 V rated value	530 hp
— at 575/600 V rated value	664 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 1000 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 500 A (690 V, 100 kA), aM: 630 A (690 V, 50 kA), BS88: 500 A (415 V, 50 kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gG: 10 A
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing
side-by-side mounting	Yes
height	276 mm
width	230 mm
depth	237 mm
required spacing	
with side-by-side mounting	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
<ul> <li>for live parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
<ul><li>downwards</li></ul>	10 mm
— at the side	10 mm
Connections/ Terminals	
width of connection bar	30 mm
thickness of connection bar	6 mm
diameter of holes	11 mm
number of holes	1
type of electrical connection	
for main current circuit	Connection bar
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	
— stranded	70 240 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	50 240 mm²
at AWG cables for main contacts	2/0 500 kcmil
connectable conductor cross-section for main contacts	
finely stranded with core end processing	240 50 mm²
connectable conductor cross-section for auxiliary contacts	
<ul><li>solid or stranded</li></ul>	0.5 2.5 mm <sup>2</sup>
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	

— solid	2x (0.5 1.0 mm²), 2x (1.0 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.0 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG cables for auxiliary contacts</li> </ul>	2x (18 12)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	500
<ul> <li>for auxiliary contacts</li> </ul>	18 12
Safety related data	
product function mirror contact acc. to IEC 60947-4-1	Yes; One NC contact each must be connected in series for the right and left auxiliary switch block respectively
product function positively driven operation acc. to IEC 60947-5-1	No
protection class IP on the front acc. to IEC 60529	IP00; IP20 with cover
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front with cover
Cortificates/approvals	

Certificates/ approvals

## **General Product Approval**

Functional Safety/Safety of Machinery

Declaration of Conformity









Type Examination Certificate



Declaration of Conformity

**Test Certificates** 

Marine / Shipping

UK Declaration of Conformity Type Test Certificates/Test Report

Special Test Certificate

Miscellaneous





Marine / Shipping

other

Railway



Confirmation

Confirmation

**Special Test Certific-**

<u>ate</u>

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TF6844-8CF7

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TF6844-8CF7

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

https://support.industry.siemens.com/cs/ww/en/ps/3TF6844-8CF7

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

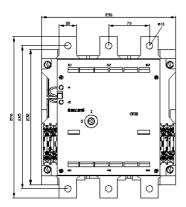
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3TF6844-8CF7&lang=en

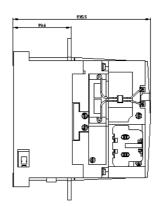
Characteristic: Tripping characteristics, I2t, Let-through current

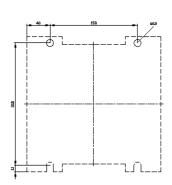
https://support.industry.siemens.com/cs/ww/en/ps/3TF6844-8CF7/char

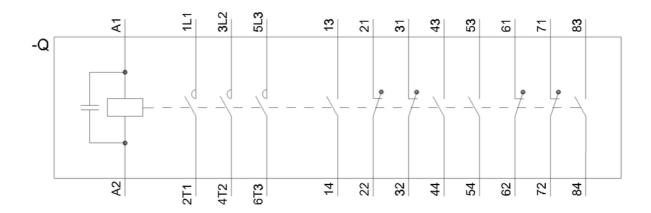
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TF6844-8CF7&objecttype=14&gridview=view1









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