

Switching Devices – Contactors and Contactor Assemblies

Power Contactors for Switching Motors

Introduction



Type		S6 3RT105			S10 3RT1.6			S12 3RT1.7			
3RT10 contactors · 3RT12 vacuum contactors											
Type AC, DC operation		3RT1054 (p. 3/71 ... 3/73)		3RT1055	3RT1056	3RT1064 (p. 3/71 ... 3/73)		3RT1065	3RT1066	3RT1075 (p. 3/71 ... 3/73)	3RT1076
Type		--		--	--	3RT1264 (p. 3/135)		3RT1265	3RT1266	3RT1275 (p. 3/135)	3RT1276
AC-3											
I _e /AC-3/400 V		A	115	150	185	225	265	300	400	500	
400 V		kW	55	75	90	110	132	160	200	250	
230 V		kW	37	45	55	55	75	90	132	160	
690 V		3RT10/3RT12 kW	110	132	160	200	250	250	400	400/500	
1 000 V		3RT10/3RT12 kW	75	90	90	90/315	132/355	132/400	250/560	250/710	
AC-4 (at I _a = 6 × I _e)											
400 V		kW	55	75	90	110	132	160	200	250	
400 V		3RT10/3RT12 kW	29	38	45	54/78	66/93	71/112	84/140	98/161	
(200 000 operating cycles)											
AC-1 (40 °C, ≤ 690 V)											
I _e		3RT10/3RT12 A	160	185	215	275/330	330	330	430/610	610	
3RT14 AC-1 contactors											
Type		3RT1456 (p. 4/15, 4/16)				3RT1466 (p. 4/15, 4/16)		3RT1476 (p. 4/15, 4/16)			
I _e /AC-1/40 °C≤ 690 V		A	275			400		690			
Accessories for contactors											
Auxiliary switch blocks		• On front • Lateral		3RH19, 3RT1926 3RH19				(p. 3/97, 3/102) (p. 3/99, 3/100)			
Surge suppressors		3RT1956-1C (RC element)				(p. 3/104)					
Terminal covers		3RT1956-4EA. (p. 3/118)				3RT1966-4EA. (p. 3/118)					
Box terminal blocks		3RT1955-4G, 3RT1956-4G (p. 3/116)				3RT1966-4G (p. 3/116)					
3RB2 overload relays											
3RB electronic overload relays											
• For standard applications		3RB2056 50 ... 200 A		(p. 7/117, 7/118)		3RB2066 55 ... 250 A or 160 ... 630 A		(p. 7/117, 7/118)			
		3RB2153 50 ... 200 A		(p. 7/119)		3RB2163 55 ... 250 A or 160 ... 630 A		(p. 7/119)			
• For High-Feature applications		3RB22, 3RB23 and 3RB24		(p. 7/128) (p. 7/136)		3RB22, 3RB23 and 3RB24		(p. 7/128) (p. 7/136)			
		with current measuring module 3RB2956-2TH2		(p. 7/140)		with current measuring module 3RB2966-2WH2		(p. 7/140)			
		20 ... 200 A				63 ... 630 A					
3RV10 molded case motor starter protectors											
Molded case motor starter protectors		3RV1063	40 ... 200 A	(p. 7/75)		3RV1073	160 ... 400 A	(p. 7/75)	3RV1083 252 ... 630 A	(p. 7/75)	
Reversing contactor assemblies ¹⁾											
Complete units		Type	--								
400 V		kW	55	75	90	110	132	160	200	250	
Assembly kits/ wiring modules		3RA1953-2A (p. 3/110)				3RA1963-2A (p. 3/110)		3RA1973-2A (p. 3/110)			
Mechanical interlocks		3RA1954-2A (p. 3/114)									
Contactor assemblies for star-delta (wye-delta) starting ¹⁾											
Complete units		Type	--								
400 V		kW	--								
Assembly kits/ wiring modules		3RA1953-2B (p. 3/112)				3RA1963-2B (p. 3/112)		3RA1973-2B (p. 3/112)			

¹⁾ Contactor assemblies for customer assembly:
 - Reversing contactor assemblies, see pages 3/168 to 3/170,
 - Contactor assemblies for star-delta (wye-delta) starting,
 see pages 3/185 to 3/190.

Note:

Safety characteristics for contactors, see "Standards and approvals", page 16/6.

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW



Contactors with screw terminals: 3RT2 (sizes S00 to S3) and 3RT1 (sizes S6 to S12)

3RT contactors, sizes S00 to S12

Our power range:

- Contactors for switching motors:
 - Size S00: 3RT201 up to 7.5 kW
 - Size S0: 3RT202 up to 18.5 kW
 - Size S2: 3RT203 up to 37 kW
 - Size S3: 3RT204 up to 55 kW
 - Sizes S6 to S12: 3RT10 up to 250 kW
- For vacuum contactors for switching motors, [see page 3/126 onwards](#):
 - Sizes S10 and S12: 3RT12 up to 250 kW
 - Size 14: 3TF6 up to 450 kW

Standards

IEC/EN 60947-1,
IEC/EN 60947-4-1,
IEC/EN 60947-5-1 (auxiliary switches)

Ambient conditions

If the devices are in ambient conditions which deviate from common industrial conditions (IEC 60721-3-3 "Stationary Use, Weather-Protected"), information must be obtained about possible restrictions with regard to the reliability and endurance of the device and possible protective measures. In this case contact our Technical Support:
<https://support.industry.siemens.com/My/ww/en/requests>

Auxiliary contact complement

- Size S00: an auxiliary contact is integrated in the basic device.
- Sizes S0 to S3: the basic units contain two integrated auxiliary contacts (1 NO + 1 NC).
All basic units, with the exception of coupling relays in sizes S00 and S0, can be expanded using auxiliary switch blocks, [see page 3/88 for the permitted selection of auxiliary switches](#).
- Sizes S6 to S12: These contactors are supplied with two laterally mounted auxiliary switch blocks. The fitting of auxiliary switches is possible on the front and on the side (the 3RT12 vacuum contactor is an exception: only lateral fitting of auxiliary switches is possible here).

For detailed information about the fitting of auxiliary switches, [see pages 3/88 to 3/93](#).

Contact reliability

If voltages ≤ 110 V and currents ≤ 100 mA are to be switched, the auxiliary contacts of the 3RT contactors or 3RH contactor relays should be used as they guarantee a high level of contact reliability.

These auxiliary contacts are particularly suitable for solid-state circuits with currents ≥ 1 mA at a voltage ≥ 17 V.

Connection methodsMain circuit

- Sizes S00 and S0: screw or spring-type terminals, spring-type terminals with convenient plug-in design for device connectors
- Sizes S2 and S3: screw terminals with box terminal; direct connection to the connecting bar possible with cable lugs for S3 when the box terminal is removed.
- Sizes S6 to S12: screw terminals with connecting bars that the cables can be connected to using either cable lugs or flexible or rigid busbars. Alternatively, box terminals are available as accessories.

Auxiliary/control circuit

- Sizes S00 to S12: Screw or spring-type terminals

Electromagnetic compatibility (EMC)

The 3RT contactors fulfill the requirements for environment category A.

Note:

When the contactors are used in an environment with frequency converters, the configuration notes in the Manual must be observed, [see "More information" page 3/23](#).

Short-circuit protection

Short-circuit protection of contactors without overload relays, [see "Technical specifications"](#):

- For 3RT2 contactors, [see pages 3/28, 3/34, 3/38 and 3/43](#)
- For 3RT1 contactors, [see page 3/48](#)

Refer to the configuration manuals for details of short-circuit protection of contactors with overload relays or of load feeders, [see "More information" on page 3/23](#).

For fuseless assembly of motor feeders consisting of 3RV2 motor starter protector and 3RT2 contactor, selection guides are available, [see "SIRIUS 3RA2 load feeders" from page 8/4 onwards](#).

Motor protection3RT2 contactors

For protection against overload, 3RU2 thermal overload relays ([see page 7/92 onwards](#)) or 3RB3 electronic overload relays ([see page 7/105 onwards](#)) can be mounted on the 3RT2 contactors.

3RT1 contactors

For protection against overload, 3RB2 electronic overload relays ([see page 7/117 onwards](#)) can be mounted on the 3RT1 contactors.

Plant and application monitoring

For monitoring and measuring in the application, 3RR2 monitoring relays can be mounted on the 3RT2 contactors ([see page 10/62](#)).

Ratings of three-phase motors

The quoted rating (in kW) refers to the output power on the motor shaft (according to the nameplate).

The power rating specifications of the contactors in kW (in accordance with IEC 60947-4-1, Table G) are guide values for 4-pole standard motors at 50 Hz AC and specified voltage (e.g. 400 V). The actual starting and rated data of the motor to be switched must be considered when selecting the units. The motor current, motor protection device and the permissible contactor current according to the utilization category must be aligned with each other.

Surge suppression

3RT contactors supplied without a coil circuit can be retrofitted with RC elements, varistors, diodes or diode assemblies (assembly of diode and Zener diode for short break times) for damping opening surges in the coil, [see from page 3/103 onwards](#).

- Size S00: the surge suppressors are plugged onto the front of the contactors here. Space is provided for them next to a snap-on auxiliary switch block.
- Sizes S0 and S3: the surge suppressors can be plugged onto the front of the devices. In the case of size S3 contactors, surge suppressors can only be used as from product version E03.
- Sizes S6 to S12: Exchangeable operating mechanisms with integrated coil circuit (varistor)

Note:

The OFF-delay of the NO contact and the ON-delay of the NC contact are increased if the contactor coils are attenuated against voltage peaks (for details, [see the relevant manual → "More information" on page 3/23](#)).

Contactors with voltage tap-off3RT2 contactors

The size S00 to S3 contactors with voltage tap-off are special versions for mounting the SIRIUS 3RA27 function modules for connection to the control system via IO-Link or AS-Interface ([see from page 3/80 onwards](#)).

Without a function module, these contactors can be used like the standard versions.

For more information on IO-Link and AS-Interface, [see "Industrial Communication", from page 2/1 onwards](#).

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Operating mechanism types

3RT2 contactors

3RT2 contactors are available as standard versions with AC or DC operating mechanisms or as versions with a wide-range solid-state operating mechanism and a universal actuating voltage (AC or DC operation possible).

DC coupling contactors with reduced power consumption are also ideally suited for connection to the controller.

With an operating range between 0.8 to $1.1 \times U_s$, control takes place via the control supply voltage connection A1 - A2 as is typically the case.

3RT1 contactors

The following control and/or actuator versions are available in sizes S6 to S12:

- Standard operating mechanism with economy circuit for AC and DC operation (switchover from closing coil to holding coil)
- Solid-state operating mechanisms
Overvoltage damping of the operating mechanism coil is already integrated in the electronics for contactors with solid-state operating mechanisms. The operating mechanisms are powered via a supply voltage with an operating range from 0.8 to $1.1 \times U_s$, optionally also controlled depending on the chosen mode of operation. Alternatively, control is via the separate 24 V DC control signal input. Various rated voltage ranges for AC/DC control are available.

The following versions are available:

- With two operating modes: Direct control or via CPU input
- As above, but additionally with remaining lifetime indication (RLT)
- With fail-safe PLC input for simplification of safety applications (without mode of operation selection)

Solenoid coils/drive units

3RT2 contactors

Coil replacement is possible for sizes S0 to S3.

3RT1 contactors

The operating mechanisms for 3RT10...A/-N/-P contactors are removable and can be replaced simply by unlocking and pulling them out.

NOTICE: Removal or changing of the operating mechanism is not permitted for 3RT10...S contactors with fail-safe control.

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Type Size	Contactors							
	3RT1054 S6	3RT1055	3RT1056	3RT1064 S10	3RT1065	3RT1066	3RT1075 S12	3RT1076
Rated data of the main contacts								
Load rating with AC								
Utilization category AC-1								
Switching resistive loads								
• Rated operational currents I_e								
- At 40 °C up to 690 V	A	160	185	215	275	330	430	610
- At 60 °C up to 690 V	A	140	160	185	250	300	400	550
- At 60 °C up to 1 000 V	A	80	90	100		150	200	
• Rated power for AC loads ¹⁾ with p.f. = 0.95 (at 60 °C)								
- At 230 V	kW	53	60	70	94	113	151	208
- At 400 V	kW	92	105	121	164	197	263	362
- At 500 V	kW	115	131	152	205	246	329	452
- At 690 V	kW	159	181	210	283	340	454	624
- At 1 000 V	kW	131	148	165	164	246	329	
• Minimum conductor cross-section for loads with I_e								
- At 40 °C	mm ²	70	95		150	185	2 x 150	2 x 185
- At 60 °C	mm ²	50	70	95	120	185	240	2 x 185
Utilization categories AC-2 and AC-3								
• Rated operational currents I_e								
- Up to 500 V	A	115	150	185	225	265	300	400
- At 690 V	A	115	150	170	225	265	280	400
- At 1 000 V	A	53	65		68	95		180
• Rated power for slipring or squirrel-cage motors at 50 Hz and 60 Hz								
- At 230 V	kW	37	50	61	73	85	97	132
- At 400 V	kW	64	84	104	128	151	171	231
- At 500 V	kW	81	105	132	160	189	215	291
- At 690 V	kW	113	146	167	223	265	280	400
- At 1 000 V	kW	75	90			132		250
Thermal load capacity, 10 s current	A	1 100	1 300	1 480	1 800	2 400		3 200
Power loss per main conducting path At I_e /AC-3/500 V	W	7	9	13	17	18	22	35
Utilization category AC-4 (for $I_a = 6 \times I_e$)								
Maximum values:								
• Rated operational current I_e								
- Up to 400 V	A	97	132	160	195	230	280	350
• Rated power for squirrel-cage motors with 50 Hz and 60 Hz								
- At 400 V	kW	55	75	90	110	132	160	200
The following applies to a contact endurance of about 200 000 operating cycles:								
• Rated operational currents I_e								
- Up to 500 V	A	54	68	81	96	117	125	150
- Up to 690 V	A	48	57	65	85	105	115	135
• Rated power for squirrel-cage motors with 50 Hz and 60 Hz								
- At 230 V	kW	16	20	25	30	37	40	48
- At 400 V	kW	29	38	45	54	66	71	85
- At 500 V	kW	37	47	57	67	82	87	105
- At 690 V	kW	48	55	65	82	102	112	133

¹⁾ Industrial furnaces and electric heaters with resistance heating, etc.
(increased power consumption on heating up has been taken into account).

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

		Contactors							
Type		3RT1054	3RT1055, 3RT1056	3RT1064	3RT1065	3RT1066	3RT1075	3RT1076	
Size		S6		S10			S12		
Rated data of the main contacts (continued)									
Load rating with DC									
Utilization category DC-1, switching resistive loads ($L/R \leq 1$ ms)									
• Rated operational currents I_e (at 60 °C)									
- 1 conducting path	Up to 24 V A	160		200	300		400		
	60 V A	160		200	300		330		
	110 V A	18			33				
	220 V A	3.4			3.8				
	440 V A	0.8			0.9				
	600 V A	0.5			0.6				
	- 2 conducting paths in series	Up to 24 V A	160		200	300		400	
		60 V A	160		200	300		400	
		110 V A	160		200	300		400	
		220 V A	20			300		400	
		440 V A	3.2			4			
	600 V A	1.6			2				
- 3 conducting paths in series	Up to 24 V A	160		200	300		400		
	60 V A	160		200	300		400		
	110 V A	160		200	300		400		
	220 V A	160		200	300		400		
	440 V A	11.5			11				
	600 V A	4			5.2				
Utilization category DC-3/DC-5, shunt-wound and series-wound motors ($L/R \leq 15$ ms)									
• Rated operational currents I_e (at 60 °C)									
- 1 conducting path	Up to 24 V A	160		200	300		400		
	60 V A	7.5			11				
	110 V A	2.5			3				
	220 V A	0.6							
	440 V A	0.17			0.18				
	600 V A	0.12			0.125				
	- 2 conducting paths in series	Up to 24 V A	160		200	300		400	
		60 V A	160		200	300		400	
		110 V A	160		200	300		400	
		220 V A	2.5						
		440 V A	0.65						
		600 V A	0.37						
- 3 conducting paths in series	Up to 24 V A	160		200	300		400		
	60 V A	160		200	300		400		
	110 V A	160		200	300		400		
	220 V A	160		200	300		400		
	440 V A	1.4							
600 V A	0.75								
Switching frequency									
Switching frequency z in operating cycles/hour									
Contactors without overload relays									
• No-load switching frequency									
- Standard operating mechanism	3RT10...-A	1/h	2 000						
- Solid-state operating mechanism	3RT10...-N/-P	1/h	1 000						
	3RT10...-S	1/h	1 000				500		
• Switching frequency z during rated operation ¹⁾									
- 3RT10...-A standard operating mechanism and 3RT10...-N/-P solid-state operating mechanism	$I_e/AC-1$ at 400 V	1/h	800		750	800	750	700	
	$I_e/AC-2$ at 400 V	1/h	400	300	250			200	
	$I_e/AC-3$ at 400 V	1/h	1 000	750	500			420	
	$I_e/AC-4$ at 400 V	1/h	130						
- 3RT10...-S solid-state operating mechanism	$I_e/AC-1$ at 400 V	1/h	750		500			200	
	$I_e/AC-2$ at 400 V	1/h	400	300	250			200	
	$I_e/AC-3$ at 400 V	1/h	750		500			200	
	$I_e/AC-4$ at 400 V	1/h	130						
Contactors with mounted overload relay									
• Mean value	1/h	60							

¹⁾ Dependence of the switching frequency z' on the operational current I' and operational voltage U :
 $z' = z \cdot (I_e/I') \cdot (U_e/U)^{1.5} \cdot 1/h$.

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Type	Contactors			3RT106.	3RT107.
Size	3RT105.			S10	S12
S6					
Conductor cross-sections					
Main conductors (1 or 2 conductors can be connected)					
Screw terminals					
With mounted box terminals		Type	3RT1955-4G (55 kW)	3RT1956-4G	3RT1966-4G
• Terminal screws			M10 (hexagon socket, A/F 4)		M12 (hexagon socket, A/F 5)
- Tightening torque		Nm	10 ... 12		20 ... 22
		lb.in	90 ... 110		180 ... 195
Front clamping point connected					
 NSB0_00479	• Finely stranded with end sleeve (DIN 46228-1)	mm ²	16 ... 70	16 ... 120	70 ... 240
	• Finely stranded without end sleeve	mm ²	16 ... 70	16 ... 120	70 ... 240
	• Stranded	mm ²	16 ... 70	16 ... 120	95 ... 300
	• AWG cables, solid or stranded	AWG	6 ... 2/0	6 ... 250 kcmil	3/0 ... 600 kcmil
	• Ribbon cable conductors (number x width x thickness)	mm	Min. 3 x 9 x 0,8, max. 6 x 15.5 x 0.8	Min. 3 x 9 x 0,8, max. 10 x 15.5 x 0.8	Min. 6 x 9 x 0,8, max. 20 x 24 x 0.5
Rear clamping point connected					
 NSB0_00480	• Finely stranded with end sleeve (DIN 46228-1)	mm ²	16 ... 70	16 ... 120	120 ... 185
	• Finely stranded without end sleeve	mm ²	16 ... 70	16 ... 120	120 ... 185
	• Stranded	mm ²	16 ... 70	16 ... 120	120 ... 240
	• AWG cables, solid or stranded	AWG	6 ... 2/0	6 ... 250 kcmil	250 ... 500 kcmil
	• Ribbon cable conductors (number x width x thickness)	mm	Min. 3 x 9 x 0,8, max. 6 x 15.5 x 0.8	Min. 3 x 9 x 0,8, max. 10 x 15.5 x 0.8	Min. 6 x 9 x 0,8, max. 20 x 24 x 0.5
Both clamping points connected (minimum cross-section 16 mm ²)					
 NSB0_00481	• Finely stranded with end sleeve (DIN 46228-1)	mm ²	Max. 1 x 50, 1 x 70	Max. 1 x 95, 1 x 120	Min. 2 x 50, max. 2 x 185
	• Finely stranded without end sleeve	mm ²	Max. 1 x 50, 1 x 70	Max. 1 x 95, 1 x 120	Min. 2 x 50, max. 2 x 185
	• Stranded	mm ²	Max. 1 x 50, 1 x 70	Max. 1 x 95, 1 x 120	Min. 2 x 70, max. 2 x 240
	• AWG cables, solid or stranded	AWG	Max. 2 x 1/0	Max. 2 x 3/0	Min. 2 x 2/0, max. 2 x 500 kcmil
	• Ribbon cable conductors (number x width x thickness)	mm	Max. 2 x (6 x 15.5 x 0.8)	Max. 2 x (10 x 15.5 x 0.8)	Max. 2 x (20 x 24 x 0.5)
Busbar connections					
Connecting bar (max. width)	mm	17		25	
Cable lug connection					
• Finely stranded with cable lug ¹⁾²⁾	mm ²	16 ... 95		50 ... 240	
	mm ²	25 ... 120		70 ... 240	
	AWG	4 ... 250 kcmil		2/0 ... 500 kcmil	
	• Terminal screws	M8 x 25 (A/F 13)		M10 x 30 (A/F 17)	
	- Tightening torque	Nm	10 ... 14		14 ... 24
	lb.in	90 ... 124		124 ... 210	
Auxiliary conductors (1 or 2 conductors connectable)					
• Solid	mm ²	2 x (0.5 ... 1.5) ³⁾ ; 2 x (0.75 ... 2.5) ³⁾ ; max. 2 x (0.75 ... 4) ³⁾			
	mm ²	2 x (0.5 ... 1.5) ³⁾ ; 2 x (0.75 ... 2.5) ³⁾			
	AWG	2 x (18 ... 14)			
	• Terminal screws	M3 (Pozidriv size 2)			
	- Tightening torque	Nm	0.8 ... 1.2		
	lb.in	7 ... 10.3			
Auxiliary conductors ⁴⁾ (1 or 2 conductors connectable)					
Spring-type terminals					
• Operating devices			3.0 x 0.5; 3.5 x 0.5		
• Solid	mm ²	2 x (0.25 ... 2.5)			
	mm ²	2 x (0.25 ... 1.5)			
	mm ²	2 x (0.25 ... 2.5)			
• AWG cables, solid or stranded	AWG	2 x (24 ... 14)			

¹⁾ 3RT105.: When using cable lugs according to EN 46235, use the 3RT1956-4EA1 terminal cover for conductor cross-sections from 95 mm² to keep the phase clearance, [see page 3/118](#).

²⁾ 3RT106. and 3RT107.: When connecting cable lugs according to DIN 46234 for conductor cross-sections larger than 240 mm² and according to DIN 46235 for conductor cross-sections larger than 185 mm², the 3RT1966-4EA1 terminal cover is required to maintain phase separation, [see page 3/118](#).

³⁾ If two different conductor cross-sections are connected to one clamping point, both cross-sections must lie in one of the ranges specified.

⁴⁾ Max. external diameter of the conductor insulation: 3.6 mm. With conductor cross-sections ≤ 1 mm² an "insulation stop" must be used, [see page 3/121](#).

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

**Rated control supply voltages for 3RT10 contactors,
possible on request (change of the 10th and 11th digits of the Article No.)**

Delivery time on request

Rated control supply voltage	Contactor type	3RT105.-A, 3RT106.-A, 3RT107.-A	Rated control supply voltage	Contactor type	3RT105.-N, 3RT106.-N, 3RT107.-N	3RT105.-P, 3RT105.-S, 3RT106.-P, 3RT106.-S, 3RT107.-P, 3RT107.-S
$U_{s \min} \dots U_{s \max}$	Sizes	S6 to S12	$U_{s \min} \dots U_{s \max}$	Sizes	S6 to S12	

Sizes S6 to S12

AC/DC operation (50/60 Hz AC or DC) and operating range $0.8 \times U_{s \min} \dots 1.1 \times U_{s \max}$

Standard operating mechanism

23 ... 26 V AC/DC	B3
42 ... 48 V AC/DC	D3
110 ... 127 V AC/DC	F3
200 ... 220 V AC/DC	M3
220 ... 240 V AC/DC	P3
240 ... 277 V AC/DC	U3
380 ... 420 V AC/DC	V3
440 ... 480 V AC/DC	R3
500 ... 550 V AC/DC	S3
575 ... 600 V AC/DC	T3

Solid-state operating mechanism

21 ... 27.3 V AC/DC	B3	--
96 ... 127 V AC/DC	F3	F3
200 ... 277 V AC/DC	P3	P3