

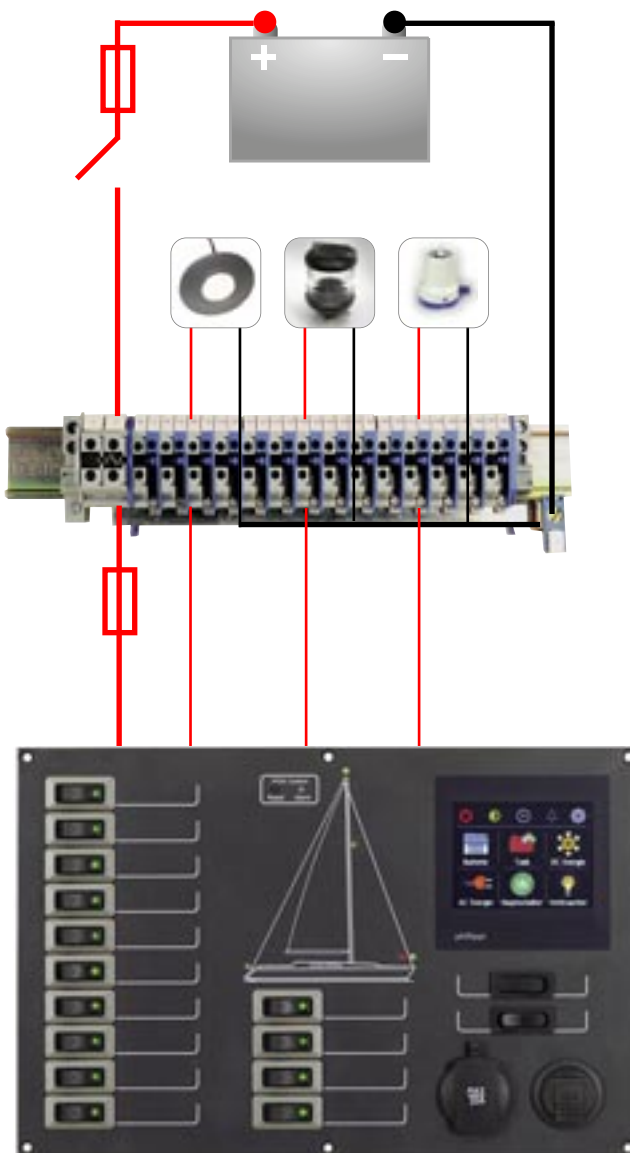


Installation of Distribution Panels

The following points must be observed when planning and installing distribution panels:

1. The positive supply line to the distribution panel must be fused directly at the battery and fitted with a main switch.
2. As a general rule, the circuit breaker must be suitable for the respective conductor cross-section in order to protect the cable against overheating and fire hazard - see table below.
3. The supply line must be dimensioned accordingly for the consumer/load.
4. A minimum cable cross-section of 1 mm² for single wires must be observed, fuse max. 6 A.
5. We recommend the use of 6 mm² cables for the supply of motor loads such as refrigerators or pumps.
6. For cable transitions we offer appropriate collecting points and terminal blocks.
7. Different amperages of circuit breakers: your desired configuration (within the scope of the available circuit breakers) can be taken over with the order - without additional costs!
8. Circuit breakers can also be replaced at a later date and the fuse value increased / decreased.
9. If the cross-section of the supply line is reduced at the terminal bar to the circuit distributor, an additional fuse must be installed there which matches the new conductor cross-section.

See standard: Small craft - Electrical systems - AC and DC equipment DIN EN ISO 13297:2018



Here is an example:

For a luminaire circuit (12V) with 10 luminaires per 10 W (total 100 W), the max. current would be 8.33 A. In this case, a cable with 1.5 mm² must be used for a cable length of up to 10 m, together with a 10 A fuse.

Recommended cross-sections for the consumer supply lines

for a voltage drop of max. 10% with a 12V on-board system

Protection	up to 10 m	> 10 m
2 A	1 mm ²	1 mm ²
6 A	1 mm ²	1,5 mm ²
10 A	1,5 mm ²	2,5 mm ²
16 A	2,5 mm ²	4 mm ²
20 A	4 mm ²	6 mm ²

For longer supply lines (greater than 10 m), the next larger cable cross-section of 2.5 mm² must be used in order to avoid an excessively high voltage drop (>10 %) at the consumer.

However, the fuse can be maintained with 10 A. Should one or more stronger luminaires nevertheless be connected, the fuse protection could be increased to 16 A for a cable with 2.5 mm².

The fuse holders SHM and the multiple fuse holders BS 5045 and BS 5052, see page 89, are suitable for fusing when the cross-section of the panel supply cable has to be reduced.

CIRCUIT BREAKERS

All philippi circuit breakers are equipped with thermal circuit breakers (series 200 and 700 with switching function). Thermal fuses in distribution panels are a thing of the past.

The advantage of circuit breakers is that the circuit can be reactivated at any time after the fault has been rectified without having to change the fuse.

The distribution panels series 200 combine optimum ease of operation through the clearly structured design and the resulting simple operation with high-quality and reliable technology. The individual circuits are switched and fused via thermal circuit breakers of the E-T-A 3130 series. The integrated LED indicator light indicates the operating status of the circuit. The coordinated dimensions of the individual distribution panels allow any combination in horizontal or vertical direction. The panel cut-out for all models can be 10 mm smaller per edge than the panel dimensions.

SERIES 200

The connection is made via 6.3 mm flat connectors on the rear side of the circuit breakers. High-quality busbars made of nickel-plated copper connect the supply side of the circuit breakers. This ensures a safe current transition, especially in maritime environments.



Circuit breakers with a rated current of 10 A are installed ex works, 2 A, 6 A, 16 A or 20 A types can be used on request. The distribution panels can be used for DC 12V and 24V unless otherwise specified.



A set with inscription labels (SKZ) and black fixing screws are supplied.



SAFE FUNCTION EVERYWHERE AND AT ANY TIME

Control panels with thermal circuit breakers enable a very safe and reliable supply of the electrical system, as they do not require electronic components. They are the first choice for applications where maximum safety is essential.

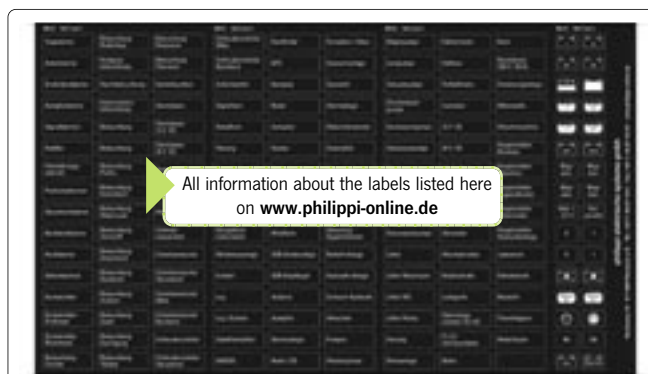
Even in installations that are already equipped with digital switching functions, circuit-breakers represent a safe basic supply for the safety-relevant functions.

POSITION LIGHT CONTROL



The electronic position light monitor detects the failure of the incandescent lamp or light emitting diode (LED) or a cable interruption.

In the event of a fault, the assigned LED on the display indicates the fault.



Circuit labels for panel series 200. Set of self adhesive labels, which can be placed at each circuit breaker on the signed field. Included in delivery.

■ SKZ -D	Order-No.: 0 2900 1600
■ SKZ -Mobil (Automotive)	Order-No.: 0 2900 1606
■ SKZ -GB	Order-No.: 0 2900 1602
■ SKZ -NL	Order-No.: 0 2900 1601
■ SKZ -ES	Order-No.: 0 2900 1603
■ SKZ -DK	Order-No.: 0 2900 1604
■ SKZ -FR	Order-No.: 0 2900 1605
■ SKZ -PL	Order-No.: 0 2900 1611



STV 210 Order-No.: 0 2000 2100
 10 power circuits with thermal circuit breakers 10 A.
Dimensions W 105 x H 210 x D 70 mm
 Suitable terminal blocks type Type RKL 10.



STV 207 Order-No.: 0 2000 2071
 7 power circuits with thermal circuit breakers 10 A, DC - and dual USB charging socket.
Dimensions W 105 x H 210 x D 70 mm
 Suitable terminal blocks type Type RKL 10.



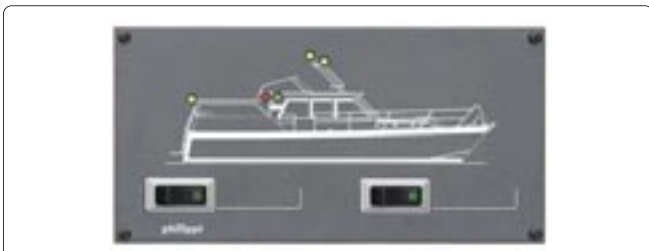
STV 204 SY Order-No.: 0 2002 2041
 4 power circuits with thermal circuit breakers 10A, display sailing yacht incl. electronic navigation lights monitor POS 6 with alarm, for use with LED -lanterns or normal bulbs, for 12V and 24V
Dimensions W 105 x H 210 x D 70 mm



STV 237 (BTM) Order-No.: 0 2000 2370
STV 247 (PSM2) Order-No.: 0 2000 2470
 7 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2 and 2 control switches for individual use. Shunt SHE (BTM) or P-BUS components have to be ordered separately!
Dimensions W 210 x H 157,5 x D 70 mm
 Suitable terminal blocks type RKL 10



STV 216 (TCS) Order-No.: 0 2000 2160
STV 218 (BLS-Set) Order-No.: 0 2000 2180
 7 power circuits with thermal circuit breakers 10 A, monitor TCS or BLS-Set. The shunt SHE 300 is included in the scope of delivery of the STV 218. Further information about the monitors on page 45ff.
Dimensions W 105 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 10



STV 202 MS Order-No.: 0 2002 2026
 2 power circuits with thermal circuit breakers 10 A and display power boat incl. electronic navigation lights monitor POS 6 with alarm, for use with LED -lanterns or normal bulbs, for 12V and 24V
Dimensions W 210 x H 105 x D 70 mm



STV 208 Order-No.: 0 2000 2080
 8 power circuits with thermal circuit breakers 10 A
Dimensions W 210 x H 105 x D 70 mm
 Suitable terminal blocks type RKL 10



■ **STV 220** Order-No.: **0 2000 2200**

20 power circuits with thermal circuit breakers 10 A

Dimensions W 210 x H 210 x D 70 mm
Suitable terminal blocks type RKL 20



■ **STV 214 -12V** Order-No.: **0 2001 2140**
■ **STV 214 -24V** Order-No.: **0 2002 2140**

14 power circuits with thermal circuit breakers 10A, volt- and ammeter (0-40 A), 3 control switches (0-1, 1-0-2, 1-2) for individual use.

Dimensions W 210 x H 210 x D 70 mm
Suitable terminal blocks type RKL 16/4



■ **STV 203** Order-No.: **0 2000 2030**

3 power circuits with thermal circuit breakers 30 A.

Dimensions W 105 x H 105 x D 70 mm
Suitable terminal blocks type RKL 10



■ **STV 204** Order-No.: **0 2000 2040**

4 power circuits with thermal circuit breakers 10 A.

Dimensions W 105 x H 105 x D 70 mm
Suitable terminal blocks type RKL 10



■ **STV 200-5** Order-No.: **0 2000 2005**

5 circuits with rocker switch (31,5x14 mm) and lamp diodes display. Rocker switches can be exchanged to other models, please see page 22.

Dimensions W 105 x H 105 x D 50 mm



■ **MPE 202** Order-No.: **0 2800 2020**

Panel for 2x PSD or USB sockets. Sockets have to be ordered separately, please see page 107.

Dimensions W 105 x H 52,5 x D 70 mm



■ **MPE 203** Order-No.: **0 2990 0203**

Panel for 3 parts: sockets series RTQ and / or push button RDS.

Dimensions W 105 x H 52,5 x D 70 mm

■ **RTQ USB** Order-No.: **6 0002 1002**

USB 2.0 socket with USB-cable 30cm.

■ **RTQ LAN** Order-No.: **6 0002 1008**

Socket with 2x RJ45 sockets (front / rear).

■ **RDS 0-(1)** Order-No.: **6 0002 0010**

Push button 0-(1), Ring is green illuminated, 0,1A

➤ **POWER DISTRIBUTION PANELS SERIES 200**

The circuit distributors STV 232, STV 235, STV 236, STV 238 and STV 244 can optionally be supplied with a battery/tank monitor BTM or the system monitor PSM2. Depending on the model, they enable complete protection and monitoring of a medium-sized sailing yacht or vehicle with one panel.

Freely assignable control switches can be used to switch remotely

controllable main switches, bilge pump automatic, inverter control, loudspeaker switches and any other applications.

The dual USB charging socket is suitable for 12 V and 24 V operating voltages.

The shunt SHE for the monitor BTM and the P-BUS components for the monitors PSM2 and PSL have to be ordered separately, see page 30ff.



■ **STV 235 (BTM)** Order-No.: 0 2002 2350
 ■ **STV 255 (PSM2)** Order-No.: 0 2002 2550

15 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2.
 Shunts /Interfaces have to be ordered separately.

Dimensions B 210 x H 210 x T 70 mm
 Suitable terminal blocks type RKL 16/4



■ **STV 236 (BTM)** Order-No.: 0 2000 2360
 ■ **STV 256 (PSM2)** Order-No.: 0 2000 2560

14 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2, 1 DC- and 1 dual USB charging socket, 2 switches (0-1, 1-0-2) and display sailing yacht incl. navigation lights monitor POS 6 with alarm, Shunt SHE 300 /P-BUS Interfaces have to be ordered separately.

Dimensions W 315 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 16/4



■ **STV 232 (BTM)** Order-No.: 0 2000 2320
 ■ **STV 250 (PSM2)** Order-No.: 0 2002 2500

10 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2, 1 DC- and 1 dual USB charging socket, 2 switches(0-1, 1-0-2).
 Shunts /Interfaces have to be ordered separately.

Dimensions W 210 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 10



■ **STV 244 (BTM)** Order-No.: 0 2002 2440
 ■ **STV 264 (PSM2)** Order-No.: 0 2002 2640

24 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2, 1 DC- and 1 dual USB charging socket, 2 switches (0-1, 1-0-2) and display sailing yacht incl. navigation lights monitor POS 6 with alarm, Shunts /P-BUS Interfaces have to be ordered separately.

Dimensions W 420 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 30



■ **STV 238 (BTM)** Order-No.: 0 2000 2380
 ■ **STV 258 (PSM2)** Order-No.: 0 2000 2580

18 power circuits with thermal circuit breakers 10 A, monitor BTM or PSM2, display sailing yacht incl. navigation lights control POS 6 with alarm, 1 switch 0-1. Shunt SHE 300 /P-BUS Interfaces have to be ordered separately.

Dimensions W 210 x H 315 x D 70 mm
 Suitable terminal blocks type RKL 20

■ **STV 267** Order-No.: 0 2002 2670

7 power circuits with thermal circuit breakers 10 A, philippi system monitor PSL, P-BUS components have to be ordered separately

Dimensions W 210 x H 157,5 x D 70 mm
 Suitable terminal blocks type RKL 10



■ **STV 274** Order-No.: 0 2002 2740

14 power circuits with thermal circuit breakers 10 A, philippi system monitor PSL, DC- and dual USB charging socket. Display sailing yacht incl. navigation lights monitor POS 6 with alarm, Shunt and further P-BUS components have to be ordered separately !

Dimensions W 315 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 16/4



■ **STV 270** Order-No.: 0 2002 2700

10 power circuits with thermal circuit breakers 10 A, philippi system monitor PSL, DC- and dual USB charging socket.

Shunt and further P-BUS components have to be ordered separately !

Dimensions W 210 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 10



■ **STV 284** Order-No.: 0 2002 2840

24 power circuits with thermal circuit breakers 10 A, philippi system monitor PSL, DC- and dual USB charging socket. Display sailing yacht incl. navigation lights monitor POS 6 with alarm, -

Shunt and further P-BUS components have to be ordered separately !

Dimensions W 420 x H 210 x D 70 mm
 Suitable terminal blocks type RKL 30

➤ POWER DISTRIBUTION PANELS DOUBLE POLE

To protect the circuits on aluminium and steel vessels, 2-pole circuit breakers are used for complete galvanic isolation from the ship's hull. The E-T-A 3130 2-pole circuit-breakers fit optically into the 200 series.

The double pole panels series 200 can be combined with the distribution panels of the single pole series 200 as required because they have the same dimensions.

The circuit breakers are available in 6 A, 10 A or 16 A current ratings.

As standard thermal circuit breakers with a current of 10 A are installed.

We recommend the RKL14 terminal blocks (two-pole) for this purpose.



■ STV 203-2p Order-No.: 0 2000 2032

3 power circuits with thermal circuit breakers 10 A, double-pole

Dimensions W 105 x H 105 x D 70 mm



■ STV ISO Order-No.: 0 2000 0200

Panel for hull isolation control. Double pole button with 2 LEDs for testing. Hull will be isolated when both LEDs are on while pressing the button. For 12V / 24V.

Dimensions W 105 x H 52,5 x D 70 mm



■ STV 206-2p Order-No.: 0 2000 2062

6 power circuits with thermal circuit breakers 10 A, double-pole .

Dimensions W 105 x H 210 x D 70 mm
Suitable terminal blocks type RKL 14



■ STV 234-2p (BTM) Order-No.: 0 2000 2342

■ STV 254-2p (PSM2) Order-No.: 0 2000 2542

14 power circuits with thermal circuit breakers 10A double pole, monitor BTM or PSM2, display sailing yacht incl. electronic navigation lights monitor POS 6 with alarm, 1 DC - and 1 dual USB charging socket and hull isolation test. Shunt SHE (BTM) / P-BUS interfaces has to be ordered separately!

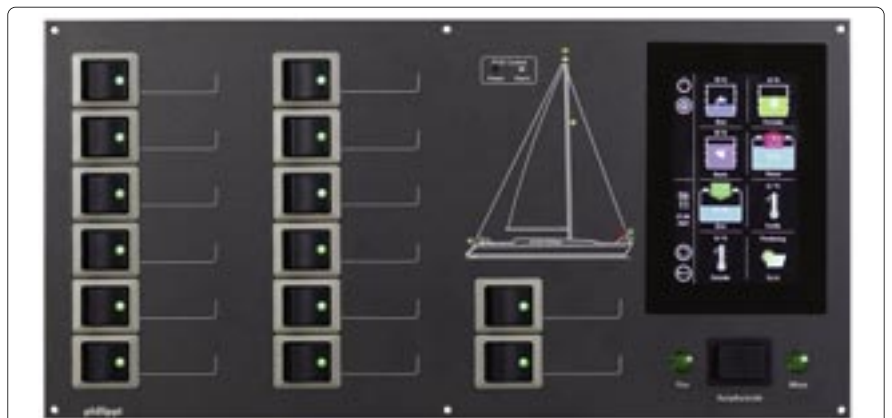
Dimensions W 420 x H 210 x D 70 mm
Suitable terminal blocks type RKL 14



■ STV 212-2p Order-No.: 0 2000 2122

12 power circuits with thermal circuit breakers 10 A, double pole.

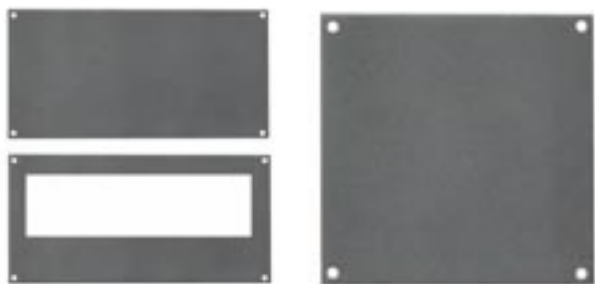
Dimensions W 210 x H 210 x D 70 mm
Suitable terminal blocks type RKL 14



■ STV 254-2p Order-No.: 0 2000 2542

14 power circuits with thermal circuit breakers 10A double -pole, system monitor PSL, display sailing yacht incl. electronic navigation lights monitor POS 6 with alarm, hull isolation test. Shunts and further P-BUS components have to be ordered separately!

Dimensions W 420 x H 210 x D 70 mm
Suitable terminal blocks type RKL 14



Blank panels

■ Blank 200		Order-No.: 0 2900 2001
■ Blank 201		Order-No.: 0 2900 2010
■ Blank 202		Order-No.: 0 2900 2020
■ Blank 204		Order-No.: 0 2900 2040
■ Blank 200 R		Order-No.: 0 2900 2050
■ Blank 200		
■ Blank 201		
■ Blank 202		
■ Blank 204		
■ Blank 200 R		
■ Blank 200	W 105 x H 52,5 x D 2,5 mm	
■ Blank 201	W 105 x H 105 x D 2,5 mm	
■ Blank 202	W 210 x H 105 x D 2,5 mm	
■ Blank 204	W 210 x H 210 x D 2,5 mm	
■ Blank 200 R	Blank panel for car radio with DIN-cut-out (183 x 55 mm)	
■ Blank 200 R	W 210 x H 105 x D 2,5 mm	

Analog precision meter with LED illumination
More models available on request.



Dimensions W 48 x H 48 x D 46 mm
Cut-out W 45,5 x H 45,5 mm

Voltmeter DC

■ SQB 8-16V	Order-No.: 6 0490 0816
■ SQB 16-32V	Order-No.: 6 0490 1632

Tank gauge (DC 10-30V) for TGT/TGW

■ SQB Water (10-180Ω)	No.: 6 0490 9182
■ SQB Fuel (10-180Ω)	No.: 6 0490 9183

Ammeter DC (internal/external shunt)

■ SQB 0-40A (internal)	Order-No.: 6 0491 0040
■ SQB 0-40A/60mV	Order-No.: 6 0492 0040
■ SQB 0-60A/60mV	Order-No.: 6 0492 0060
■ Shunt 40 A/60 mV	Order-No.: 7 3060 0040
■ Shunt 60 A/60 mV	Order-No.: 7 3060 0060

Voltmeter AC (without illumination)

■ SQB 250V (AC)	Order-No.: 6 0495 0250
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➤ **THERMAL CIRCUIT BREAKERS**

E-T-A 3130

Single pole DC: single pole rocker switch/thermal circuit breaker of compact design for snap-in panel mounting. Black with silver frame. Green LED. Cut out dimensions 14,8 x 34,2 mm, Width 18 mm.
Rated voltage DC 30 V, Power consumption of the LED: 0,7 mA at 12 V

Circuit breakers available ex stock

■ 3130-F11B-K7T1-W29AG3-2A	Order-No.: 1 3130 2002
■ 3130-F11B-K7T1-W29AG3-6A	Order-No.: 1 3130 2006
■ 3130-F11B-K7T1-W29AG3-10A	Order-No.: 1 3130 2010
■ 3130-F11B-K7T1-W29AG3-16A	Order-No.: 1 3130 2016
■ 3130-F11B-K7T1-W29AG3-20A	Order-No.: 1 3130 2020

■ 3130-F11B-L7T1-U29AG3-10A (Push button)	Order-No.: 1 3130 4010
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■ 3130-F11B-K7T1-W29AG3-30A	Order-No.: 1 3130 2030
(30 A: width like double pole version!)	

Double pole DC: double pole rocker switch/thermal circuit breaker, green LED. Cut out dimensions 26,3 x 34,2 mm, Width 29,3mm, Rated voltage DC 30V. Current consumption of the LED: 0,7 mA at 12 V.

■ 3130-F12B-S2T1-W29AG3-6A	Order-No.: 1 3131 2006
■ 3130-F12B-S2T1-W29AG3-10A	Order-No.: 1 3131 2010
■ 3130-F12B-S2T1-W29AG3-16A	Order-No.: 1 3131 2016
■ 3130-F12B-S2T1-U29AG3-10A (Push button)	Order-No.: 1 3131 4010

Double pole AC 230 V: double pole rocker switch/thermal cb, red LED.

■ 3130-F12B-S2T1-W24AR7-6A	Order-No.: 1 3130 5006
■ 3130-F12B-S2T1-W24AR7-10A	Order-No.: 1 3130 5010
■ 3130-F12B-S2T1-W24AR7-16A	Order-No.: 1 3130 5016
■ 3130-F15B-L7T1-W24AR7-20A	Order-No.: 1 3130 5020

