# COMPACT

SWITCH MODE POWER SUPPLIES – REGULATED POWER SUPPLY

02 | 2012

stay connected

# Evolution<sup>+</sup>

## ANOTHER ADVANCEMENT!

The Evolution+ model is based on Murrelektronik's well-known Evolution series. With the new features, the latest models meet even higher requirements. These developments were made to increase system availability. With a circuit board covered by a protective varnish and a potential-free signal contact, the Evolution+ series easily meets these demanding requirements.



### 4 MODELS BASED ON THE SUCCESSFUL EVOLUTION SERIES

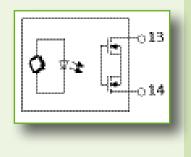
#### Circuit board with protective varnish

- Resistant to constantly changing temperatures
- Higher resistance to dust and dirt
- Less corrosion on the circuit board
- Improved vibration characteristics

#### Potential-free signal contact

- Ensures reliable monitoring
- Indicates overload, overheating and short-circuits





### **YOUR BENEFITS**

#### 🔰 СОМРАСТ

Small design for flexible applications, cooling fins on the side ensure optimum cooling

#### **POWERFUL**

4 seconds of 50 % more power for high capacitive loads or for starting up motors

#### **Sefficient**

Wide input voltage range, extended temperature range and continuous 2-phase operation

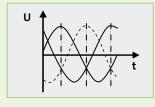
#### NOBUST

Varnished circuit board and potential-free alarm contact

# COMPACT



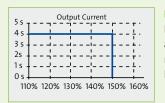




#### Wide Input Voltage Range

With the input voltage ranging from 3 x 360 to 520 V AC or 480 to 745 V DC, Evolution power supplies are ideal for applications worldwide.

**Continuous 2-phase Operation** Evolution power supply units continuously run 2-phase operation so they are always prepared if one phase fails. And of course they are suitable for applications in fuse distribution cabinets that often work with only two phases.



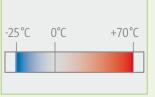


#### **Extra Power Function**

Evolution power supplies provide 50 % additional power for up to 4 seconds. This makes it possible to start up motors or handle high capacitive loads.

#### Compact Design, Good Cooling

With their compact design, Evolution power supplies are suitable for applications in small cabinets. The cooling fins located on the side dissipate heat and provide excellent cooling.



#### **Extended Temperature Range**

Evolution power supply units can handle a wide temperature range, from -25 to +70 °C. The units supply nominal current up to a temperature of 55 °C. Because of this extended temperature range, the units are also suitable for outdoor applications, provided that there is no condensation.



#### Approvals for the Global Market

The Evolution power supply units have all important approvals, for example cCSAus for the US and Canadian markets. Moreover, they meet the SEMI F47 standard requirements: They ensure stable output voltage even during voltage peaks.

Two-/three-phase,	Evolution <sup>+</sup>	Evolution <sup>+</sup>	Evolution <sup>+</sup>	Evolution <sup>+</sup>	
primary switched	Current 5 A / 120 W	Current 10 A / 240 W	Current 20 A / 480 W	Current 40 A / 960 W	
<ul> <li>stabilized output voltage overload and short-circuit protected (Current-Limiter)</li> <li>protected against accidental contact acc. to EN 60529 (IP20)</li> <li>power boost</li> </ul>					
Ordering data	Art. No.	Art. No.	Art. No.	Art. No.	
24 V DC	85640	85641	85642	85644	
Input					
Input voltage	3 x 324572 V AC, 480745 V DC				
Input current	3 x 0.3 A	3 x 0.8 A	3 x 1.3 A	3 x 2.4 A	
Inrush current after 1 ms	≤ 10 A	≤ 15 A	≤ 19 A	-	
Primary fusing	max. 3 x 10 A max. 3 x 20 A				
Output					
Output voltage	24 V DC (SELV) ± 1 %, 2228 V adjustable				
Nominal output current	5 A (+55 °C); 3 A (+70 °C)	10 A (+55 °C); 6.5 A (+70 °C)	20 A (+55 °C); 15.8 A (+70 °C)	40 A +(55 °C); 30 A (+70 °C)	
Power boost	7.5 A (≥ 4 sec.)	15 A (≥ 4 sec.)	30 A (≥ 4 sec.)	60 A (≥ 4 sec.)	
Efficiency	86 % 90 % 91 %		91 %		
Parallel usage/serial usage	max. 5 units/max. 2 units				
General data					
Standards	EN 60950-1, EN 61204-3, EN 55022 B, EN 61000-3-2		EN 60950-1, EN 61204-3, EN 55011 A		
Temperature range	-25+60 °C (stor. temp40+85 °C) -25+70 °C (stor. temp40+85 °C)				
Mounting method	DIN-rail mounting (TH35) acc. to EN 60715				
Dimensions H x W x D	132 x 83 x 98 mm	132 x 93 x 114 mm	132 x 113 x 136 mm	132 x 164 x 142 mm	
Other	Signal contact with circuit board w	Signal contact with circuit board with protectivevarnish			