



MANUAL

Solar & energy technology

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1. ORDER DATA

The following table shows the products intended for the photovoltaic industry.

Table 1: Order numbers

Buffered power supply units			
Variant	Input voltage	Output current	Buffer time
PEL-4124-013-01	24 Vdc	1,3 A	1 A (5 Sek.)
PCC-4124-040-01	24 Vdc	4 A	4 A (7 Sek.)

Capacitive UPSs			
Variant	Input voltage	Output current	Buffer time
PEL-0424-050-01	24 Vdc	5 A	5 A (4,5 Sek.)
PMC-0424-050-01	24 Vdc	5 A	5 A (4,5 Sek.)
PMC-0424-050-02	24 Vdc	5 A	5 A (9 Sek.)
PMC-0424-050-03	24 Vdc	5 A	5 A (18 Sek.)

2. GENERAL NOTES

2.1 Safety instructions

Please read these warnings and safety instructions carefully before operating the appliance. The appliance may only be installed by skilled and qualified personnel. In the event of malfunctions or damage, switch off the supply voltage immediately and send the device to BLOCK Transformatoren-Elektronik GmbH for inspection. The device does not contain any service parts. If an internal fuse blows, there is most likely an internal defect in the appliance. The data provided is for product description purposes only and should not be construed as guaranteed characteristics in the legal sense.

2.2 Qualified personnel

The product associated with this documentation may only be handled by qualified personnel in compliance with the documentation associated with the respective task, in particular the safety instructions and warnings contained therein. Qualified personnel can ensure, based on their training and experience, that the use of the described product complies with all safety requirements and the applicable provisions, regulations, standards and laws.

2.3 Intended use

This device is designed for installation in a housing and is suitable for use in general electronic devices such as industrial control systems, office equipment, communication devices or measuring devices. Do not use this device in control systems of airplanes, trains or nuclear facilities where a malfunction could result in serious injury or danger to life.

2.4 Disclaimer

The content of this publication has been checked with the utmost care to ensure that it corresponds to the hardware and software described. Nevertheless, there may be discrepancies between the product and the documentation. Deviations may also occur due to the continuous further development of the product. For this reason, we cannot guarantee complete conformity. Should this documentation contain errors, we reserve the right to make any necessary corrections without prior notice.



ATTENTION

Switch off the input voltage before carrying out installation, maintenance or modification work and secure it against unintentional reconnection.



ATTENTION

Do not make any changes or attempts to repair the device. Do not open the device!



ATTENTION

Prevent the ingress of foreign objects such as paper clips and metal parts.



ATTENTION

Do not operate the appliance in a damp environment or in an environment where condensation or condensation is to be expected.

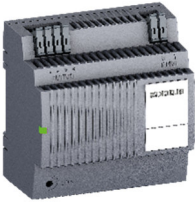


ATTENTION

Do not touch the housing during operation or shortly after switching off. Hot surfaces can cause injuries.

3. Product description

3.1 Technical data (buffered power supply)

Buffered power supply, 24 Vdc		
		
Input	24 Vdc	24 Vdc
Output	24 Vdc, 1,3 A	24 Vdc, 4 A
W x H x D in mm	90 x 89 x 59	59 x 127 x 125
Interface	-	-
Item number	PEL-4124-013-01	PCC-4124-040-01

Technical data	PEL-4124-013-01	PCC-4124-040-01
Nominal input voltage	24 Vdc	
Rated output voltage	24 Vdc	
Output current	1,3 A	4 A
Parallel switchable	✓	-
Series switchable	✓	-
PBuffer time (28V...18V)	5 Sek. (1A)	7 Sek. (4A)
Efficiency	Typ. 82%	
Ambient temperature	-25°C ... +55°C	-25°C ... +70°C

3.2 Technical data (capacitive UPSs)

Capacitive UPSs, 24 Vdc				
				
Input	24 Vdc	24 Vdc	24 Vdc	24 Vdc
Output	24 Vdc 5 A / 120 W	24 Vdc 5 A / 120 W	24 Vdc 5 A / 120 W	24 Vdc 5 A / 120 W
W x H x D in mm	72 x 89 x 55	45 x 90 x 98	52 x 90 x 111	72 x 90 x 111
Item number	PEL-0424-050-01	PMC-0424-050-01	PMC-0424-050-02	PMC-0424-050-03

Technical data	PEL-0424-050-01	PMC-0424-050-01	PMC-0424-050-02	PMC-0424-050-03
Nominal input voltage	24 Vdc			
Rated output voltage	24 Vdc			
Rated output current	typ. $U_{in} - 0,25 \text{ Vdc}$ (18 Vdc ... 30 Vdc)			
Power Boost	12 A (2s)	12 A (4s)	12 A (4s)	12 A (6s)
Buffer threshold	< 22 Vdc			
Buffer time (28V...18V)	4,5 s (5A)	9 s (5A)	9 s (5A)	18s (5A)
Loading time on restart	< 600s	< 1200s	< 1200s	2400s
Efficiency	typ. 97,6%			
Ambient temperature	(Start-up from -40°C) -25°C ... +70°C			
Installation height	up to 4,000 m above sea level			
Dimensions (WxHxD) in mm	72 x 89 x 55	45 x 90 x 98	52 x 90 x 111	72 x 90 x 111

3.3 Technical data (charging and control unit / combined UPS)

Charging and control unit / combined UPS, 24 Vdc				
				
Input	24 Vdc	24 Vdc	24 Vdc	24 Vdc
Output	24 Vdc 10 A / 240 W	24 Vdc 10 A / 240 W	24 Vdc 10 A / 240 W	24 Vdc 10 A / 240 W
W x H x D in mm	30 x 127 x 117	30 x 127 x 117	63 x 127 x 166	63 x 127 x 136
Item number	PCC-0524-100-00	PCC-0524-100-0U	PCC-1024-100-2U	PCC-1024-100-20

Technical data	PCC-0524-100-00	PCC-0524-100-0U	PCC-1024-100-2U	PCC-1024-100-20
Nominal input voltage	24 Vdc			
Rated output voltage	24 Vdc			
Rated output current	10 A			
Power Boost	15 A (5Sek.) / 25 A (55 ms.)		15 A (5Sek.)	
Regenerative strength	Max. 35 Vdc			
Efficiency	typ. 99%		typ. 93%	
Ambient temperature	(start-up from -40°C) -25°C ... +70°C			
Installation height	up to 4,000 m above sea level			
Dimensions (WxHxD) in mm	30 x 127 x 117	30 x 127 x 117	63 x 127 x 166	63 x 127 x 136

4. Application

4.1 EZA controller

In photovoltaic systems with grid feed-in via the medium or high-voltage grid, the use of an EZA controller is mandatory. This controls and monitors central grid parameters such as active power, reactive power, voltage and frequency - in accordance with the applicable technical connection rules. While the VDE application rules (e.g. VDE-AR-N 4110 / 4120) are used in Germany, the **TOR Erzeuger** regulations are applicable in Austria. Both sets of regulations require the system to be controllable at all times - even in the event of a power failure.

This is exactly where our solutions come into play. With the PCC-1024-100-20/2U or the PCC-0524-100-00/0U in combination with the modular PST-0124-120-00/10, we ensure that the EZA controller can continue to operate reliably even during power failures - **for up to 8 hours**. This means that the feed-in system remains controllable in line with the grid at all times, even under critical conditions.

Our UPS systems are specially designed for demanding environments in energy and PV technology.



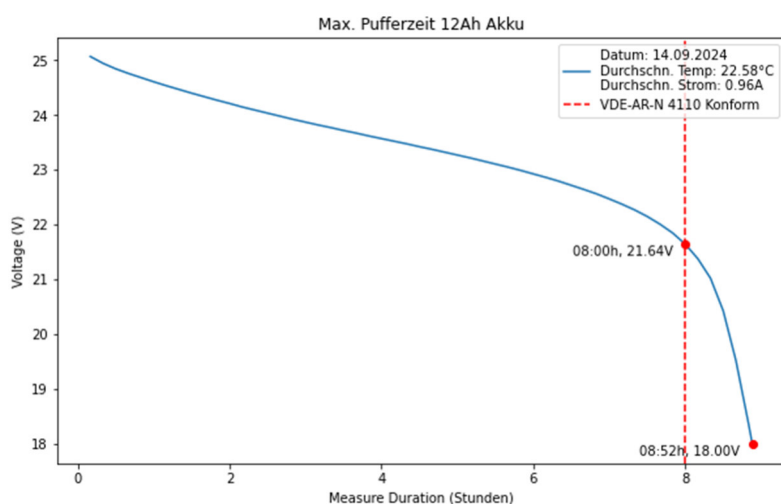
PCC-1024-100-2U



PCC-0524-100-0U



PST-0124-120-10

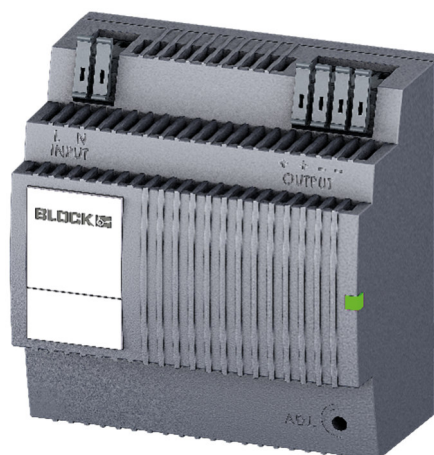


4.2 NA protection

Power failure protection ensures reliable system availability by buffering for at least 5 seconds.

Our reliable power supply **PEL-4124-013-01** combines a power supply unit with buffering in one housing. This integrated UPS offers additional safety and system availability in the event of short-term power failures. Thanks to the maintenance-free and long-lasting ultracapacitors, the power supply unit meets all the requirements of the **VDE-AR-N 4105** directive with regard to grid stability for central NA protection.

- **24 V FRT-capable**
- **Meets requirements for TOR generators**



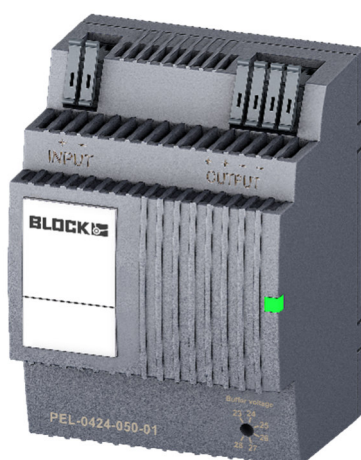
PEL-4124-013-01

UPS functionality & NA protection

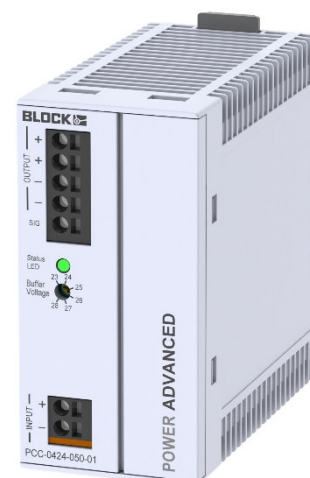
The inrush currents in a system can vary greatly at the tie switch or undervoltage release. In the event of exceptionally high inrush currents, the use of the capacitive buffer module **PEL-0424-050-01** or the **PMC-0424-050-01** with its compact design solves this challenge. The devices can be combined with a switching power supply from the PEL or PCC series for the respective application. The combination thus covers every individual application. It is also possible to control miniature circuit breakers with up to 1,600 A.

The devices therefore meet the technical requirements for generation systems and storage systems, as specified in VDE-AR-N 4105/4110. The connection of customer systems to the low-voltage grid and their operation (TAR low voltage) is subject to certain regulations that are covered by the use of the **PEL-0424-050-01** in your storage system.

- **24 V FRT-capable**
- **Meets requirements for TOR generators**



PEL-0424-050-01



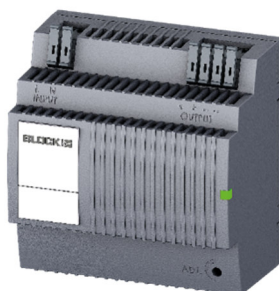
PMC-0424-050-01

4.3 Possible combinations

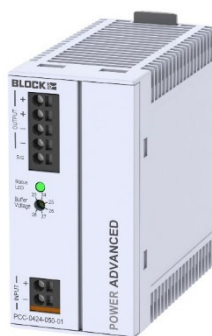
For the following undervoltage releases (chapter 5) and the power contactors, as well as the installation contactors (chapters 6 - 10), there are several combinations of BLOCK devices that guarantee safe operation. To make these combinations better known, they are listed below.

4.3.1 Undervoltage release

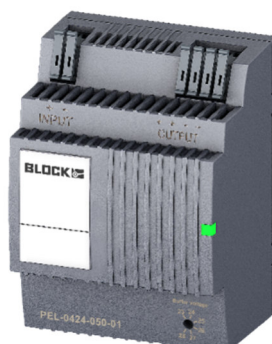
Individual solution: PEL-4124-013-01



Combination solution: PCC-0124-050-2 + PMC-0424-050-01

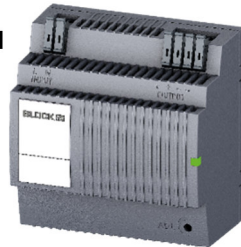


Combination solution: PEL 230/24-4 + PEL-0424-050-01



4.3.2 Power contactor

Individual solution: PEL-4124-013-01



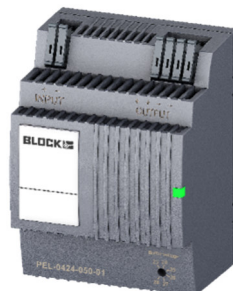
Combination solution: PCC-0124-050-2 + PMC-0424-050-01



Combined solution: PCC-0124-100-2 + PMC-0424-050-01



Combination solution: PEL 230/24-4 + PEL-0424-050-01



5. Circuit-breaker/undervoltage release -> Product solution

Manufacturer	Designation	Current	US trigger	Block article number
ABB	Power Switch 4pol T4S	250A	UVR-C T4... T6	PEL-4124-013-01
ABB	Power Switch 4pol T4S	320A	UVR-C T4... T6	PEL-4124-013-01
ABB	Power Switch 4pol T5S	400A	UVR-C T4... T6	PEL-4124-013-01
ABB	Power Switch 4pol T5S	630A	UVR-C T4... T6	PEL-4124-013-01
ABB	Power Switch 4pol XT4S	250A	UVR-C XT4 F/P	PEL-4124-013-01
ABB	Power Switch 4pol XT5S	400A	YU-C XT5-XT6 F/P	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power Switch 4pol XT5S	630A	YU-C XT5-XT6 F/P	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Hager	Power Switch 4pol h3+P250	250A	HXA011H	PEL-4124-013-01
Hager	Power Switch 4pol h3+P400	400A	HXA011H	PEL-4124-013-01
Hager	Power Switch 4pol h3+P630	630A	HXA011H	PEL-4124-013-01
Hager	Power Switch 4pol h800	800A	HXE011H	PEL-4124-013-01
Hager	Power Switch 4pol h1000	1000A	HXE011H	PEL-4124-013-01
Hager	Power Switch 4pol h1600	1600A	HXE011H	PEL-4124-013-01
Hager	Power Switch 4pol HW1	1600A	HWX030H	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Hager	Power Switch 4pol HW2	2500A	HWX030H	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Hager	Power Switch 4pol HW3	4000A	HWX030H	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch 4pol NSX250	250A	LV429410	PEL-4124-013-01
Schneider	Power Switch 4pol NSX400	400A	LV429410	PEL-4124-013-01
Schneider	Power Switch 4pol NSX630	630A	LV429410	PEL-4124-013-01
Schneider	Power Switch 4pol NS800	800A	33668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch 4pol NS1000	1000A	33668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch 4pol NS1600	1600A	33668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch MTZ1	1600A	LV833668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch MTZ2	4000A	LV833668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Schneider	Power Switch MTZ3	6000A	LV833668	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power Switch NZM2	250A	NZM2/3-XU2A4DC	PEL-4124-013-01
Eaton	Power Switch NZM3	500A	NZM2/3-XU2A4DC	PEL-4124-013-01

Manufacturer	Designation	Current	US trigger	BLOCK article number
Siemens	Power Switch 3WL10	630A	3VW9011-0AE01	PEL-4124-013-01
Siemens	Power Switch 3WL10	800A	3VW9011-0AE01	PEL-4124-013-01
Siemens	Power Switch 3WL10	1000A	3VW9011-0AE01	PEL-4124-013-01
Siemens	Power Switch 3WL10	1250A	3VW9011-0AE01	PEL-4124-013-01
Siemens	Power Switch 3VA27	1600A	3VW9011-0AE01	PEL-4124-013-01
Siemens	Power Switch 3VA20	100A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA21	160A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA22	250A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA23	400A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA24	630A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA25	1000A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3VA26	1250A	3VA9908-0BB11	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	630A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	800A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	1000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	1250A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	1600A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	2000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA11 / 3WA31	2500A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA12 / 3WA32	2000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA12 / 3WA32	2500A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA12 / 3WA32	3200A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA12 / 3WA32	4000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA13 / 3WA33	4000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA13 / 3WA33	5000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3WA13 / 3WA33	6000A	3WA9111-0AE02	PEL-4124-013-01
Siemens	Power Switch 3VA10	100A	3VA9988-0BL30	PEL-4124-013-01
Siemens	Power Switch 3VA11	160A	3VA9988-0BL30	PEL-4124-013-01
Siemens	Power Switch 3VA12	250A	3VA9988-0BL30	PEL-4124-013-01
Siemens	Power Switch 3VA13	400A	3VA9988-0BL30	PEL-4124-013-01
Siemens	Power Switch 3VA14	630A	3VA9988-0BL30	PEL-4124-013-01
Siemens	Power Switch 3VA15	1000A	3VA9988-0BL30	PEL-4124-013-01

6. 3-pole power contactor -> Product solution

Manufacturer	Designation	Current	BLOCK article number
Eaton	Power contactor DILM 40	40A	PEL-4124-013-01
Eaton	Power contactor DILM 50	50A	PEL-4124-013-01
Eaton	Power contactor DILM 65	65A	PEL-4124-013-01
Eaton	Power contactor DILM 80	80A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILM 95	95A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILM 115	115A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILM 150	150A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILM 170	170A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF09	9A	PEL-4124-013-01
ABB	Power contactor AF12	12A	PEL-4124-013-01
ABB	Power contactor AF16	18A	PEL-4124-013-01
ABB	Power contactor AF26	26A	PEL-4124-013-01
ABB	Power contactor AF30	32A	PEL-4124-013-01
ABB	Power contactor AF38	38A	PEL-4124-013-01
ABB	Power contactor AF52	53A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF65	65A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF80	80A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF96	96A	PCC-0124-050-2 + PEL-0424-050-01 PCC-0124-050-2 + PMC-0424-050-01
ABB	Power contactor AF116	116A	PCC-0124-050-2 + PEL-0424-050-01 PCC-0124-050-2 + PMC-0424-050-01
ABB	Power contactor AF140	140A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF146	146A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF190	190A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF205	205A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF265	265A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF305	305A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF370	370A	-
Siemens	Power contactor 3RT2015	11,5A	PEL-4124-013-01
Siemens	Power contactor 3RT2017	15,5A	PEL-4124-013-01
Siemens	Power contactor 3RT2018	22A	PEL-4124-013-01
Siemens	Power contactor 3RT2026	29A	PEL-4124-013-01
Siemens	Power contactor 3RT2027	41A	PEL-4124-013-01
Siemens	Power contactor 3RT2035	66A	PEL-4124-013-01
Siemens	Power contactor 3RT2036	80A	PEL-4124-013-01
Siemens	Power contactor 3RT2037	97A	PEL-4124-013-01

7. 4-pole contactor -> Product solution

Manufacturer	Designation	Current	BLOCK article number
Eaton	Power contactor DILMP 32	32A	PEL-4124-013-01
Eaton	Power contactor DILMP 45	45A	PEL-4124-013-01
Eaton	Power contactor DILMP 63	63A	PEL-4124-013-01
Eaton	Power contactor DILMP 80	80A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILMP 125	125A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILMP 160	160A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Eaton	Power contactor DILMP 200	200A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF09	9A	PEL-4124-013-01
ABB	Power contactor AF16	18A	PEL-4124-013-01
ABB	Power contactor AF26	26A	PEL-4124-013-01
ABB	Power contactor AF38	38A	PEL-4124-013-01
ABB	Power contactor AF40	40A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF52	52A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF80	80A	PCC-0124-050-2 + PMC-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
ABB	Power contactor AF116	116A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF140	140A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF190	190A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF205	205A	PCC-0124-100-2 + PEL-0424-050-01 PCC-0124-100-2 + PMC-0424-050-01
ABB	Power contactor AF265	165A	-
ABB	Power contactor AF305	305A	-
ABB	Power contactor AF370	370A	-

8. 3-pole power contactor -> Product solutions

Manufacturer	Designation	Current	BLOCK article number
Benedikt & Jäger	K3-10ND10_24VDC	10A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-14ND10_24VDC	14A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-18ND10_24VDC	18A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-22ND10_24VDC	22A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-24A00_24VDC	24A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-32A00_24VDC	32A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-40A00_24VDC	40A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-50A00_24VDC	50A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-63A00_24VDC	62A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-74A00_24VDC	74A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-90A00_24VDC	90A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-115A00_24VDC	115A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-151A00_24VDC	150A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-176A00_24VDC	175A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-210A00_24VDC	210A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-260A00_24VDC	260A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-316A00_24VDC	315A	PCC-0124-050-2 + PCM-0424-050-01 PEL-230/24-4 + PEL-0424-050-01

9. 4-pole contactor -> Product solutions

Manufacturer	Designation	Current	BLOCK article number
Benedikt & Jäger	K3-10NA00-40_24VDC	10A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-14NA00-40_24VDC	14A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-18NA00-40_24VDC	18A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-22NA00-40_24VDC	22A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-24A00-40_24VDC	24A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-32A00-40_24VDC	32A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-40A00-40_24VDC	40A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-50A00-40_24VDC	50A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-62A00-40_24VDC	62A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-74A00-40_24VDC	74A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-96A00-40_24VDC	95A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-116A00-40_24VDC	115A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-151A00-40_24VDC	150A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-176A00-40_24VDC	175A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-210A00-40_24VDC	210A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01
Benedikt & Jäger	K3-260A00-40_24VDC	260A	PCC-0124-050-2 + PMC-0424-050-01 PEL 230/24-4 + PEL-0424-050-01

10. Installation contactor -> Product solutions

Manufacturer	Designation	Current	BLOCK article number
ABB	Installation contactor ESB 25	25A	PEL-4124-013-01
ABB	Installation contactor ESB 40	40A	PEL-4124-013-01
ABB	Installation contactor ESB 63	63A	PEL-4124-013-01
ABB	Installation contactor ESB 100	100A	PEL-4124-013-01