

High-Performance Charging

Components for high-power and megawatt charging



DC

Our charging product portfolio at a glance



Connectors



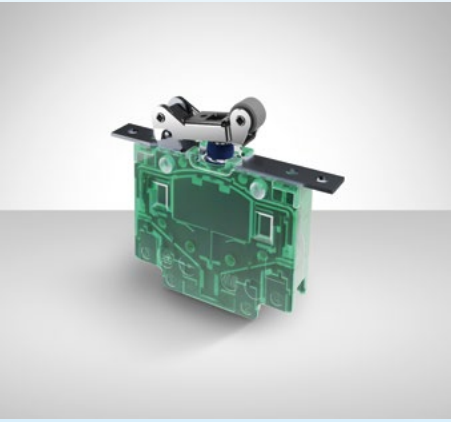
Contactors
up to 500 amps



Contactors
up to 3,000 amps



Snap-action switches



Connectors

	LV500	LV	HV	M
				
				
Contact arrangement	2 main contacts 2 pilot contacts or 1 air tube 2 aux contacts	2 main contacts 2 pilot contacts or 1 air tube 2 aux contacts	2 power contacts + PE 2 + 2 aux. contacts	M1: 4+PE, 6+PE M3: 6+PE, 5+3+PE, 12+PE, 7+7+PE
Rated operating current main contacts, max.	DIN: - UL: 500 A @ AWG 4/0 CSA: 300 A @ AWG 4/0	DIN: 390 A @ 95 mm² max. UL: 440 A @ AWG 4/0 max. CSA: 280 A @ AWG 4/0 max.	I _e = 470 A @ 95mm²	M1: I _e = 7,5 A ... 16 A M3: I _e = 6+PE: 7.5 A ... 35 A; 5+3+PE: 3x 27.5 A ... 50 A, 5x 7.5 A ... 16 A; 12+PE: 7.5 A ... 16 A; 7+7+PE: 7.5 A ... 16 A
Current rating pilot/ aux contacts, max.	20 A @ 2.5 mm²	20 A @ 2.5 mm²	2x I _e = 50 A @ 6 mm² 2x I _e = 27.5 A @ 2.5 mm²	-
Rated voltage, max.	DIN: 150 V UL: 150 V CSA: 150 V	DIN: 150 V UL: 150 V CSA: 150 V	Power contacts U _e = 1,800 V Aux. contacts U _e = 60 V	M1: U _e = 4+PE: 230 V/400 V; 6+PE: 250 V M3: U _e = 6+PE: 230 V/400 V; 5+3+PE: 3x 230 V/400 V + 5x 25 V; 12+PE: 250 V; 7+7+PE: 7x 250 V, 7x 200 V
Main contacts, wire cross section	AWG 4/0	AWG4/0, 95/70/50/25 mm² optionally with reducing bushing	Power contacts 95/70/50/35 mm², PE 50 / 35 mm²	AWG 20 ... 9 (0.5 ... 6 mm²)
Pilot and aux contacts, wire cross section	2.5 mm², 1.5 / 1.0 / 0.5 mm² with reducing bushing	2.5 mm², 1.5 / 1.0 / 0.5 mm² with reducing bushing	2x ø4 mm: 6/4/2.5/1.5/ 0.75...1/ 0.5 mm² 2x ø4 mm: 2.5/1.5/ 0.75...1/0.5 mm²	-
IP rating	IP23	IP23	IP69K: When mated, socket with closed lid, plug in dummy socket	IP67 mated IP69K with protection cap
Mechanical endurance	> 5,000 mating cycles	> 5,000 mating cycles	> 10,000 mating cycles	> 5,000 mating cycles
Temp range	-30° C ... +130° C	-30° C ... +90° C	-40° C ... +85° C	-50° C ... +100° C

Contactors
up to 500 amps

	C300	C303	C310	CF
				
Contact configuration	1x SPST-NO	1x SPST-NO	1x SPST-NO	1 ... 6x / SPST-NO or SPST-NC
Type of Voltage	DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz	DC, uni-/bi-directional AC, f ≤ 400 Hz
Nominal voltage Un / Rated op. voltage Ue	U _e = 1,000 V (1,500 V max. for occasional switching)	U = 1,000 V	U _e = 1,000 V	U _n = 1,500 / 3,000 V
Conv. thermal current	500 A	500 A	500 A	200 / 300 / 400 A
PD Rating	PD3 / OV3	PD3 / OV3	PD3 / OV3	PD3 / OV3
Coil Voltage	12 ... 24 V DC	12 / 12 ... 24 / 24 V DC	12 ... 24 / 48 V DC	24 / 36 / 72 / 110 V DC
Coil suppression	PWM module	PWM module	PWM module	PWM module
Coil Power (Holding)	3.5 W	2 W	2.6 W	10 W
Aux Contact(s)	1x / NO	1x / SPDT S880	2x / SPDT S880	4x max. / SPDT S870
Mechanical	> 200,000 operating cycles	> 200,000 operating cycles	> 2.000,000 operating cycles	> 1,000,000 operating cycles
Temp Range	-40° C ... +70° C	-40° C ... +85° C	-40° C ... +85° C	-40° C ... +70° C
Standards	IEC 60947-1	IEC 60947-1	IEC 60947-1	IEC 60077-2

Contactors

up to 3,000 amps

Snap-action switches

C305	C320	C330	CP	CT
				
1x SPST-NO	1x SPST-NO	1x SPST-NO	1x SPST-NO, SPST-NC or SPDT-DB	1 ... 2x SPST-NO
DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz	DC, bi-directional AC, f ≤ 60 Hz
U _e = 1,500 V	U _e = 1,500 V	U _e = 1,000 V	U _n = 1,500 / 3,000 V	U _n = 1,500 / 3,000 V
1,500 A	1,500 A	2,000 A (3,000 A @ 95° C)	600 / 800 / 1,000 / 1,200 / 1,500 / 2,000 A	400 / 800 / 1,100 A
PD2 / OV2	PD3 / OV3	PD2 / OV2	PD3 / OV3	PD3 / OV2
12 / 24 V DC	24 V DC	24 V DC	24 / 36 ... 60 / 72 ... 110 V DC	24 / 36 / 48 / 72 / 110 V DC
PWM module	PWM module	PWM module	PWM module	Double coil controller
15 W	11 W	14 W	10 W	27 W
1x / NO or NC	4x max. / SPDT S870	1x / SPDT S880	4x max. / SPDT 2x S870 + 2x S826 or 4x S826	4x max. / SPDT 2x S870 + 2x S826 or 4x S826
> 200,000 operating cycles	> 1,000,000 operating cycles	> 200,000 operating cycles	> 1,000,000 operating cycles	> 2,000,000 operating cycles
-40° C ... +85° C	-40° C ... +60° C	-40° C ... +85° C	-40° C ... +70° C	-40° C ... +70° C
IEC 60947-1	IEC 60947-1	IEC 60947-1	IEC 60077-2	IEC 60077-2

	S800	S826	S870	S880
				
Current	$I_{th} = 10\text{ A}$	$I_{th} = 10\text{ A}$	$I_{th} = 6\text{ A}$	$I_{th} = 6\text{ A}$
Voltage	$U_i = 400\text{ V}$	$U_i = 400\text{ V}$	$U_i = 250\text{ V}$	$U_i = 250\text{ V}$
PD rating	PD3	PD3	PD3	PD3
Contact configuration	SPDT-DB: Double break contact with 4 terminals	SPDT-DB: Double break contact with 2 galvanically isolated contact bridges and 4 terminals	SPDT: Single break contact with 3 terminals	SPDT: Single break contact with 3 terminals
Positive opening operation	yes	yes	yes	yes
Mechanical	$\leq 10\text{ million cycles}$	$\leq 10\text{ million cycles}$	IP40/IP60: $\leq 10\text{ million cycles}$ IP67: $\leq 5\text{ million cycles}$	$\leq 1.5\text{ million cycles}$
Temp range	$-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$	S826: $-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$ S926: $-55^{\circ}\text{C} \dots +85^{\circ}\text{C}$	S870: IP40/IP60: $-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$ IP67: up to $-30^{\circ}\text{C} \dots +85^{\circ}\text{C}$ S970: IP40/IP60: $-55^{\circ}\text{C} \dots +150^{\circ}\text{C}$ IP67: up to $-30^{\circ}\text{C} \dots +85^{\circ}\text{C}$	IP40/IP60: $-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$ IP67: $-25^{\circ}\text{C} \dots +85^{\circ}\text{C}$
Standards	IEC 60947-1 IEC60947-5-1, Annex K UL508 IEC60529			

Nearly a fifth of global carbon emissions are produced by road vehicles. That's why e-mobility on the road, and also in off-road applications, is essential for driving the energy transition and protecting the environment. Electric cars, buses, trucks, off-road machinery, and intralogistics vehicles all require high direct currents (DC) to achieve performance comparable to combustion engines. With its Eddicy DC contactors up to 3,000 amps, Schaltbau is not only enabling today's high-power charging but also tomorrow's megawatt charging. They combine low contact resistance and minimal power consumption with high longevity and maximum protection. Our high-power contactors are complemented by high-power connectors and snap-action switches, and for intralogistics e-mobility we also offer a dedicated range of low-power contactors and connectors.