Input voltage up to 144 V DC
Single output of 3.3...48 V DC
No input to output isolation

- Efficiency up to 97%
- Low input-output differential voltage
- No derating over temperature

Selection chart

Output $U_{o\,nom}$ [V DC]	Output $I_{o\,nom}$ [A]	Input voltage U_i [V DC]	Rated power $P_{o\,tot}$ [W]	Efficiency η_{typ} [%]	Type	Options
3.3	25	8...40	82.5	82	PSK 3E25-7	-9, E, P, B, B1
5.1	12	8...80	61.2	79	PSS 5A12-7	-9, E, P, C, B, B1
5.1	14	8...40	71.4	83	PSS 5A14-2	B, B1
5.1	16	8...80	81.6	79	PSK 5A16-7	-9, E, P, C, B, B1
5.1	18	8...40	91.8	82	PSK 5A18-2	B, B1
5.1	20	8...80	102	79	PSK 5A20-7	-9, E, P, C, B, B1
5.1	25	8...40	127.5	82	PSK 5A25-7	-9, E, P, C, B, B1
12 (15)	9	18...144	108 (135)	91	PSS 129-7	-9, E, P, C, B, B1
12 (15)	12	15...80	144 (180)	91	PSS 1212-7	-9, E, P, C, B, B1
12 (15)	12	18...144	144 (180)	91	PSK 1212-7	-9, E, P, C, B, B1
12 (15)	14	16...40	168 (210)	90	PSS 1214-2	B, B1
12 (15)	16	15...80	192 (240)	90	PSK 1216-7	-9, E, P, C, B, B1
12 (15)	18	16...40	216 (270)	90	PSK 1218-2	B, B1
12 (15)	20	15...80	240 (300)	90	PSK 1220-7	-9, E, P, C, B, B1
24	9	31...144	216	94	PSS 249-7	-9, E, P, C, B, B1
24	12	29...80	288	94	PSS 2412-7	-9, E, P, C, B, B1
24	12	31...144	288	94	PSK 2412-7	-9, E, P, C, B, B1
24	14	29...60	336	94	PSS 2414-2	B, B1
24	16	29...80	384	94	PSK 2416-7	-9, E, P, C, B, B1
24	18	29...60	432	94	PSK 2418-2	B, B1
24	20	29...80	480	94	PSK 2420-7	-9, E, P, C, B, B1
36	9	44...144	324	96	PSS 369-7	-9, E, P, C, B, B1
36	12	42...80	432	96	PSS 3612-7	-9, E, P, C, B, B1
36	12	44...144	432	96	PSK 3612-7	-9, E, P, C, B, B1
36	16	42...80	576	95	PSK 3616-7	-9, E, P, C, B, B1
36	20	42...80	720	95	PSK 3620-7	-9, E, P, C, B, B1
48	9	58...144	432	97	PSS 489-7	-9, E, P, C, B, B1
48	12	58...144	576	97	PSK 4812-7	-9, E, P, C, B, B1

Input

Input voltage		refer to selection chart
No load input current		≤50 mA

Output

Efficiency	$U_{i\,nom}$, $I_{o\,nom}$	up to 97%
Output voltage setting accuracy	$U_{i\,nom}$, $I_{o\,nom}$	±0.6% $U_{o\,nom}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.2%
Line regulation	$U_{i\,min}$...$U_{i\,max}$, $I_{o\,nom}$	typ. ±0.2%
Load regulation	$U_{i\,nom}$, 0...$I_{o\,nom}$	typ. 0.15%
Minimum load	not required	0 A
Current limitation	rectangular U/I characteristic	typ. 110% $I_{o\,nom}$
Operation in parallel	current sharing feature (CS)	
Hold-up time	$U_{i\,nom}$, $I_{o\,nom}$, with ext. diode in input line, PSS	up to 7 ms

Protection

Input reverse polarity	built-in fuse	
Input undervoltage lockout		typ. 80% $U_{i\,min}$
Input transient protection	suppressor diode	
Output	no-load, overload and short circuit proof	
Output overvoltage	suppressor diode in each output	typ. 150% $U_{o\,nom}$
Overtemperature	switch-off with auto restart	T_C typ. 100°C

Control

Inhibit	TTL input, output enabled if left open	
R control	output voltage adjustment, PSS	0...108% $U_{o\,nom}$
Output voltage indication	LED	
Sense lines	compensation of voltage drop across the load lines, PSS	
Test sockets	test sockets for check of output voltage	

Safety

Approvals	EN 60950, UL 1950, CSA C22.2 No. 950	
Protection degree	units without options	IP 20/30
Electric strength test voltage	I/case and O/case	500/750/1500 V DC

EMC

Electrostatic discharge	IEC/EN 61000-4-2
Electromagnetic field	IEC/EN 61000-4-3
Electr. fast transients/bursts	IEC/EN 61000-4-4
Surge	IEC/EN 61000-4-5
Conducted disturbances	IEC/EN 61000-4-6
Electromagnetic emissions	CISPR 22/EN 55022

Environmental

Operating ambient temperature	-2, $U_{i\,nom}$, $I_{o\,nom}$, convection cooled	–10...50 °C
Operating case temperature T_C	-2, $U_{i\,nom}$, $I_{o\,nom}$	–10...80 °C
Storage temperature	-2, non operational	–25...100 °C
Operating ambient temperature	-7, $U_{i\,nom}$, $I_{o\,nom}$, convection cooled	–25...71 °C
Operating case temperature T_C	-7, $U_{i\,nom}$, $I_{o\,nom}$	–25...95 °C
Storage temperature	-7, non operational	–40...100 °C
Damp heat	IEC/EN 60068-2-3	
Vibration, sinusoidal	IEC/EN 60068-2-6	
Shock	IEC/EN 60068-2-27	
Bump	IEC/EN 60068-2-29	
Random vibration	IEC/EN 60068-2-64	
MTBF	MIL-HDBK-217	

Options

Large and small cooling plate instead of standard heatsink		B/B1
Extended temperature range	–40...71 °C, ambient, operating	-9
Electronic inrush current limitation		E
Output voltage adjustment	±8% $U_{o\,nom}$, excludes feature R and vice versa	P
Thyristor crowbar on output		C

Accessories

Front panels 19" (Schroff/Intermas), 12 und 16 TE
Mating H15 or H15 S4 connectors with screw, solder, fast-on or press-fit terminals
Connector retention facilities
Adapter kit for DIN-rail

Pin allocation

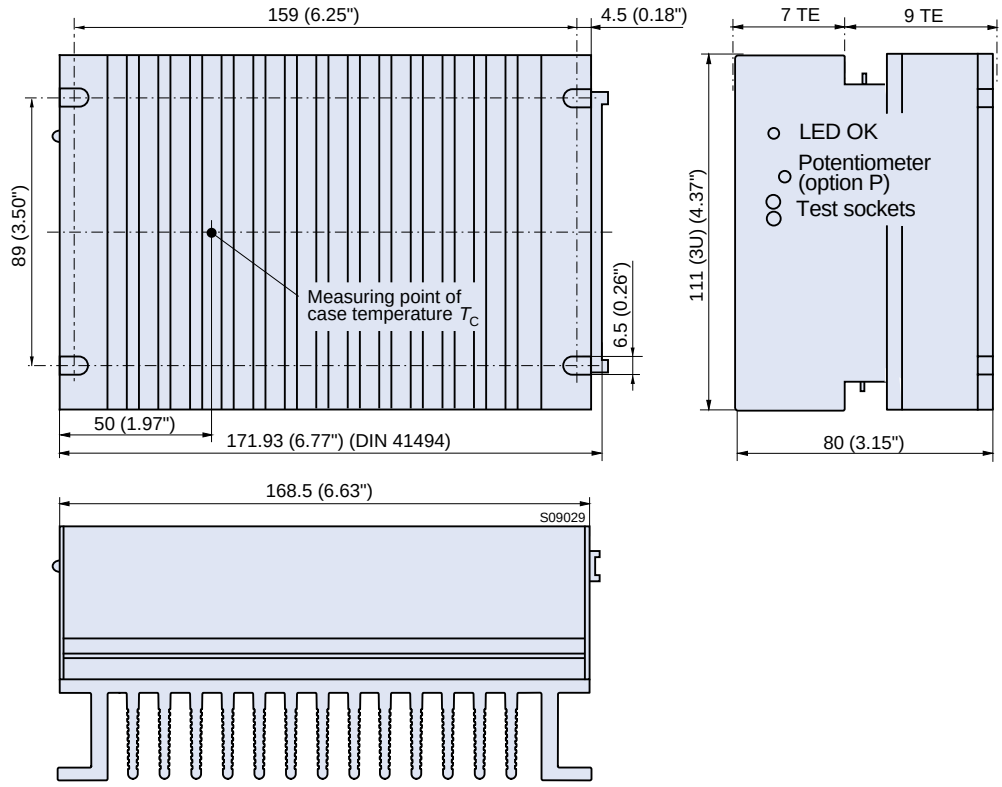
Electrical Determination	Type H15		Type H15 S4	
	Pin No.	Ident.	Pin No.	Ident.
Output voltage (positive)	4	Vo+	4/6	Vo+
Output voltage (positive)	6	Vo+		
Output voltage (negative)	8	Go–	8/10	Go–
Output voltage (negative)	10	Go–		
Crowbar trigger input (option C)	12	C	12	C
Inhibit input	14	i	14	i
R-input (output voltage programming) [1]	16	R	16	R
Sense line (negative)	18	S–	18	S–
Sense line (positive)	20	S+	20	S+
Current sharing control input	22	CS	22	CS
Protective ground (leading pin)	24	⏚	24	⏚
Input voltage (negative)	26	Gi–	26/28	Gi–
Input voltage (negative)	28	Gi–		
Input voltage (positive)	30	Vi+	30/32	Vi+
Input voltage (positive)	32	Vi+		

Mechanical data

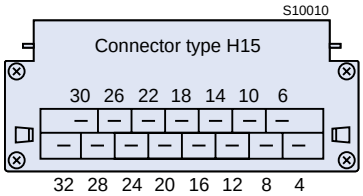
Tolerances ±0.3 mm (0.012") unless otherwise indicated.

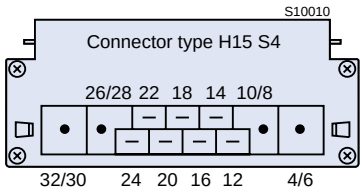
European Projection

PSK



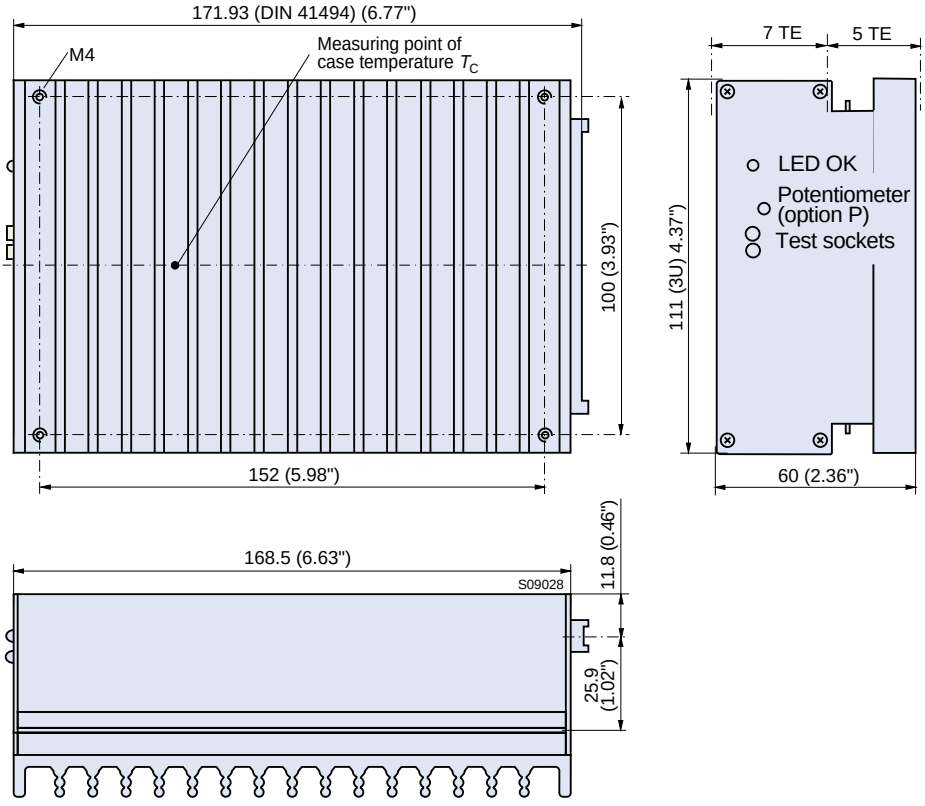
Pin allocation





H15 S4 connectors for 20 and 25 A types

PSS


171.93 (DIN 41494) (6.77")
M4
Measuring point of
case temperature T_C
100 (3.93")
152 (5.98")
7 TE
5 TE
LED OK
Potentiometer
(option P)
Test sockets
111 (3U) 4.37")
60 (2.36")
168.5 (6.63")
S09028
11.8 (0.46")
25.9
(1.02")