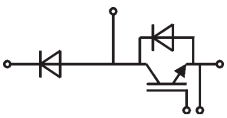
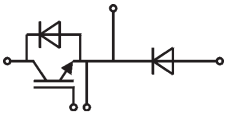
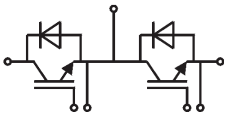
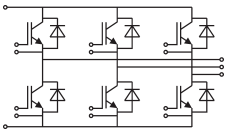
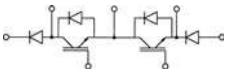
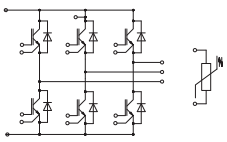
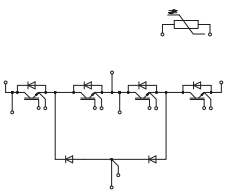
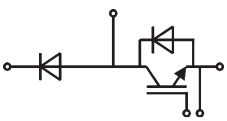
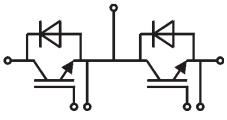
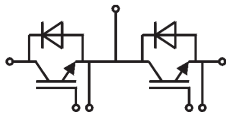
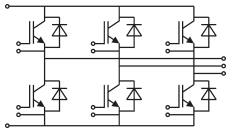
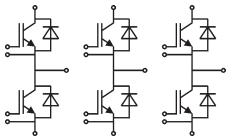
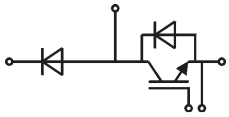
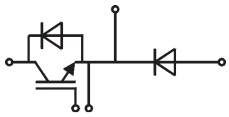
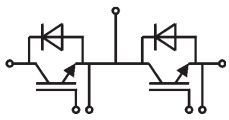
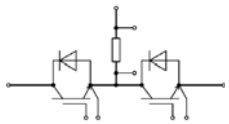
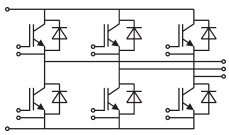
IGBT Modules / SEMiX

Type	IGBT						Diode				Module		
	I_C @ T_C = 25°C	I_{Cnom}	$V_{CE(sat)}$ @ T_j = 25°C typ.	E_{on}	E_{off}	$R_{th(j-c)}$	I_F @ T_c = 25°C	V_F @ T_j = 25°C typ.	E_{rr}	$R_{th(j-c)}$	Case	$R_{th(c-s)}$	Circuit
	A	A	V	mJ	mJ	K/W	A	V	mJ	K/W		K/W	
600V - IGBT3 (Trench)													
SEMiX402GAL066HDs	502	400	1.45	22	24	0.12	543	1.40	10	0.15	2s	0.045	
SEMiX603GAL066HDs	720	600	1.45	12	43	0.087	771	1.40	13	0.11	3s	0.04	
SEMiX402GAR066HDs	502	400	1.45	22	24	0.12	543	1.40	10	0.15	2s	0.045	
SEMiX603GAR066HDs	720	600	1.45	12	43	0.087	771	1.40	13	0.11	3s	0.04	
SEMiX202GB066HDs	272	200	1.45	6	8	0.21	291	1.40	6.5	0.27	2s	0.045	
SEMiX302GB066HDs	379	300	1.45	11.5	15	0.16	419	1.40	7.5	0.19	2s	0.045	
SEMiX402GB066HDs	502	400	1.45	22	24	0.12	543	1.40	10	0.15	2s	0.045	
SEMiX603GB066HDs	720	600	1.45	12	43	0.087	771	1.40	13	0.11	3s	0.04	
SEMiX101GD066HDs	139	100	1.45	3	4	0.41	151	1.40	4.5	0.51	13	0.04	
SEMiX151GD066HDs	200	150	1.45	3.8	6.1	0.29	219	1.40	5.8	0.36	13	0.04	
SEMiX201GD066HDs	258	200	1.45	5	8	0.23	284	1.40	7.5	0.28	13	0.04	
650V - IGBT4 (Trench)													
SEMiX205GARL07E4[8]	222	200	1.55	2.24	7.89	0.28	67	1.37	5.5	1.2	5p	0.009	
SEMiX305GARL07E4[8]	319	300	1.55	3.36	11.8	0.2	67	1.37	8.25	1.2	5p	0.009	
SEMiX405GARL07E4[8]	443	400	1.55	4.49	15.78	0.15	67	1.37	11	1.2	5p	0.009	
SEMiX305GD07E4[8]	310	300	1.55	5.54	20.52	0.21	277	1.40	4.96	0.33	5p	0.009	
SEMiX155MLI07E4[8]	187	150	1.55	1.5	7	0.31	125	1.40	3	0.64	5p	0.009	
SEMiX205MLI07E4[8]	258	200	1.55	2.5	14	0.22	250	1.40	4	0.32	5p	0.009	
SEMiX305MLI07E4[8]	367	300	1.55	2.5	18	0.16	250	1.40	7	0.32	5p	0.009	
SEMiX405MLI07E4[8]	507	400	1.55	4	20	0.12	366	1.40	9	0.22	5p	0.009	
1200V - V-IGBT													
SEMiX151GAL12Vs	231	150	1.75	19.4	17.1	0.19	189	2.14	11.5	0.31	1s	0.075	
SEMiX151GB12Vs	231	150	1.75	19.4	17.1	0.19	189	2.14	11.5	0.31	1s	0.075	
SEMiX202GB12Vs	310	200	1.75	24.9	24.1	0.14	229	2.20	14.5	0.26	2s	0.045	
SEMiX223GB12Vs	323	225	1.85	19.9	27.2	0.14	263	2.17	16.4	0.23	3s	0.04	
SEMiX302GB12Vs	448	300	1.75	37.3	36.1	0.1	356	2.14	21.8	0.17	2s	0.045	
SEMiX303GB12Vs	448	300	1.75	26.5	36.3	0.1	327	2.20	21.4	0.19	3s	0.04	
SEMiX404GB12Vs	596	400	1.75	39.1	52.3	0.075	440	2.20	34.3	0.14	4s	0.03	
SEMiX453GB12Vs	673	450	1.75	39.8	54.4	0.067	516	2.14	32.7	0.12	3s	0.04	
SEMiX603GB12Vs	800	600	1.85	50	83	0.057	516	2.42	40	0.12	3s	0.04	

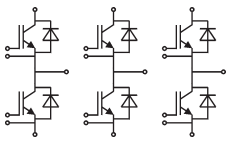
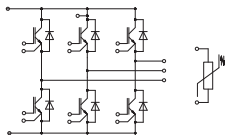
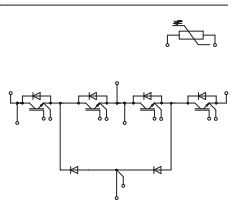
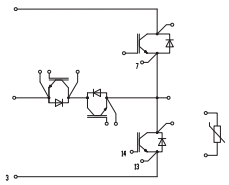
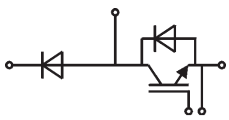
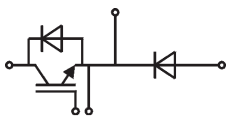
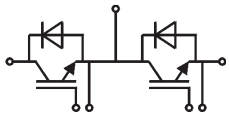
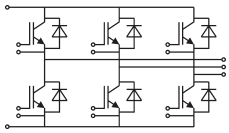
Footnotes: 8) Target data

IGBT Modules / SEMiX

Type	IGBT						Diode				Module		
	I_C @ T_C = 25°C	I_{Cnom}	$V_{CE(sat)}$ @ T_j = 25°C typ.	E_{on}	E_{off}	$R_{th(j-c)}$	I_F @ T_c = 25°C	V_F @ T_j = 25°C typ.	E_{rr}	$R_{th(j-c)}$	Case	$R_{th(c-s)}$	Circuit
	A	A	V	mJ	mJ	K/W	A	V	mJ	K/W		K/W	
1200V - V-IGBT													
SEMiX604GB12Vs	880	600	1.75	58.7	78.5	0.051	707	2.14	49.5	0.086	4s	0.03	
SEMiX101GD12Vs	159	100	1.75	12.9	11.4	0.27	121	2.20	7.7	0.48	13	0.04	
SEMiX151GD12Vs	231	150	1.75	19.4	17.1	0.19	189	2.14	11.5	0.31	13	0.04	
SEMiX223GD12Vc	323	225	1.85	19.9	27.2	0.14	263	2.17	16.4	0.23	33c	0.014	
SEMiX303GD12Vc	448	300	1.75	26.5	36.3	0.1	327	2.20	21.4	0.19	33c	0.014	
SEMiX453GD12Vc	673	450	1.75	39.8	54.4	0.067	516	2.14	32.7	0.12	33c	0.014	
1200V - IGBT4 (Trench)													
SEMiX151GAL12E4s	232	150	1.80	16.6	18.4	0.19	189	2.14	8.9	0.31	1s	0.075	
SEMiX302GAL12E4s	463	300	1.80	30	44	0.096	356	2.14	19	0.17	2s	0.045	
SEMiX453GAL12E4s	683	450	1.80	45	66.5	0.065	544	2.14	28	0.11	3s	0.04	
SEMiX604GAL12E4s	916	600	1.80	35	110	0.049	707	2.14	44	0.086	4s	0.03	
SEMiX151GAR12E4s	232	150	1.80	16.6	18.4	0.19	189	2.14	8.9	0.31	1s	0.075	
SEMiX302GAR12E4s	463	300	1.80	30	44	0.096	356	2.14	19	0.17	2s	0.045	
SEMiX453GAR12E4s	683	450	1.80	45	66.5	0.065	544	2.14	28	0.11	3s	0.04	
SEMiX604GAR12E4s	916	600	1.80	35	110	0.049	707	2.14	44	0.086	4s	0.03	
SEMiX151GB12E4s	232	150	1.80	16.6	18.4	0.19	189	2.14	8.9	0.31	1s	0.075	
SEMiX202GB12E4s	312	200	1.80	22	27.9	0.14	229	2.20	12	0.26	2s	0.045	
SEMiX302GB12E4s	463	300	1.80	30	44	0.096	356	2.14	19	0.17	2s	0.045	
SEMiX303GB12E4s	466	300	1.80	30	41.2	0.095	338	2.20	17.7	0.18	3s	0.04	
SEMiX303GB12E4p	469	300	1.80	23	38	0.094	378	2.20	23	0.15	3p	0.009	
SEMiX404GB12E4s	618	400	1.80	27	59.7	0.072	440	2.20	26.4	0.14	4s	0.03	
SEMiX453GB12E4s	683	450	1.80	45	66.5	0.065	544	2.14	28	0.11	3s	0.04	
SEMiX453GB12E4p	678	450	1.80	25	57	0.066	578	2.14	37	0.1	3p	0.009	
SEMiX604GB12E4s	916	600	1.80	35	110	0.049	707	2.14	44	0.086	4s	0.03	
SEMiX603GB12E4p	1110	600	1.80	69	80	0.037	856	2.08	40	0.065	3p	0.009	
SEMiX453GB12E4Ip	678	450	1.80	33	57	0.066	578	2.14	39	0.1	3Ip	0.009	
SEMiX603GB12E4Ip	1110	600	1.80	63	80	0.037	856	2.08	40	0.065	3Ip	0.009	
SEMiX71GD12E4s	115	75	1.85	7.5	9	0.38	97	2.17	5.3	0.58	13	0.04	
SEMiX101GD12E4s	160	100	1.80	10.8	13.3	0.27	121	2.20	6.5	0.48	13	0.04	
SEMiX151GD12E4s	232	150	1.80	14.1	19.2	0.19	189	2.14	8.9	0.31	13	0.04	

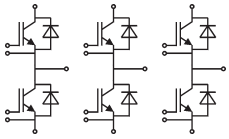
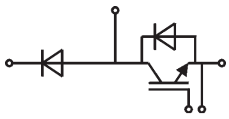
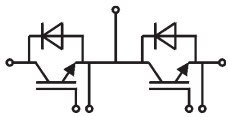
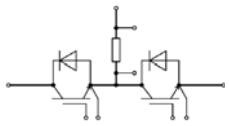
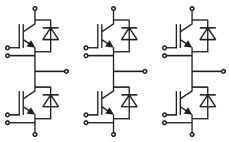
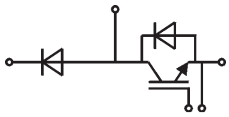
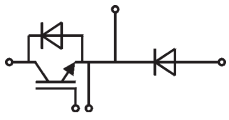
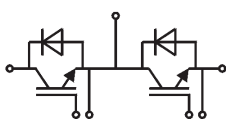
Footnotes: 8) Target data

IGBT Modules / SEMiX

Type	IGBT						Diode				Module		
	I_C @ T_C = 25°C	I_{Cnom}	$V_{CE(sat)}$ @ T_j = 25°C typ.	E_{on}	E_{off}	$R_{th(j-c)}$	I_F @ T_c = 25°C	V_F @ T_j = 25°C typ.	E_{rr}	$R_{th(j-c)}$	Case	$R_{th(c-s)}$	Circuit
	A	A	V	mJ	mJ	K/W	A	V	mJ	K/W		K/W	
1200V - IGBT4 (Trench)													
SEMiX223GD12E4c	333	225	1.85	22	31.4	0.135	270	2.17	17.2	0.22	33c	0.014	
SEMiX303GD12E4c	466	300	1.80	29.4	41.8	0.095	338	2.20	22.9	0.18	33c	0.014	
SEMiX453GD12E4c	683	450	1.80	52	67.8	0.065	544	2.14	28	0.11	33c	0.014	
SEMiX205GD12E4[8)]	326	200	1.80	24.53	38.62	0.14	235	2.20	23.14	0.25	5p	0.009	
SEMiX155MLI12E4[8)]	164	75	1.85	3.5	19.6	0.2	115	2.17	5.6	0.44	5p	0.009	
SEMiX205MLI12E4[8)]	301	200	1.80	5	28	0.15	180	2.20	8	0.38	5p	0.009	
SEMiX205TMLI12E4B[8)]	271	200	1.80	3	11.25	0.18	268	1.75	5.2	0.3	5p	0.009	
SEMiX205TMLI12E4C[8)]	313	200	1.80	8	15	0.14	268	1.75	16	0.3	5p	0.009	
SEMiX305TMLI12E4B[8)]	407	300	1.80	4.5	21	0.12	405	1.98	8.8	0.16	5p	0.009	
SEMiX305TMLI12E4C[8)]	451	300	1.80	10	20	0.1	408	1.72	21	0.2	5p	0.009	
SEMiX405TMLI12E4B[8)]	543	400	1.80	6	28	0.09	422	2.20	11.8	0.15	5p	0.009	
1200V - IGBT3 (Trench)													
SEMiX452GAL126HDs	455	300	1.70	35	45	0.083	394	1.60	33	0.15	2s	0.045	
SEMiX703GAL126HDs	642	450	1.70	32	68	0.061	561	1.60	60	0.11	3s	0.04	
SEMiX703GAR126HDs	642	450	1.70	32	68	0.061	561	1.60	60	0.11	3s	0.04	
SEMiX252GB126HDs	242	150	1.70	20	21	0.15	228	1.60	18	0.24	2s	0.045	
SEMiX302GB126HDs	311	200	1.70	30	26	0.12	292	1.60	22.5	0.19	2s	0.045	
SEMiX353GB126HDs	364	225	1.70	26.5	32.5	0.1	329	1.60	29	0.17	3s	0.04	
SEMiX452GB126HDs	455	300	1.70	35	45	0.083	394	1.60	33	0.15	2s	0.045	
SEMiX503GB126HDs	466	300	1.70	28	44	0.08	431	1.60	32.5	0.13	3s	0.04	
SEMiX604GB126HDs	590	400	1.70	36	60	0.065	533	1.60	46	0.11	4s	0.03	
SEMiX703GB126HDs	642	450	1.70	32	68	0.061	561	1.60	60	0.11	3s	0.04	
SEMiX904GB126HDs	821	600	1.70	60	88	0.05	752	1.60	75	0.081	4s	0.03	
SEMiX101GD126HDs	129	75	1.70	10	11	0.27	117	1.60	9	0.46	13	0.04	
SEMiX151GD126HDs	168	100	1.70	12	14	0.21	152	1.60	11.5	0.36	13	0.04	
SEMiX251GD126HDs	242	150	1.70	19	22	0.15	207	1.60	14.5	0.28	13	0.04	

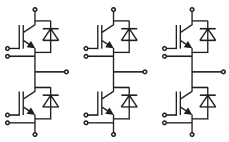
Footnotes: 8) Target data

IGBT Modules / SEMiX

Type	IGBT						Diode				Module		
	I_C @ T_C = 25°C	I_{Cnom}	$V_{CE(sat)}$ @ T_j = 25°C typ.	E_{on}	E_{off}	$R_{th(j-c)}$	I_F @ T_C = 25°C	V_F @ T_j = 25°C typ.	E_{rr}	$R_{th(j-c)}$	Case	$R_{th(c-s)}$	Circuit
	A	A	V	mJ	mJ	K/W	A	V	mJ	K/W		K/W	
1200V - IGBT3 (Trench)													
SEMiX353GD126HDc	364	225	1.70	26.5	32.5	0.1	329	1.60	29	0.17	33c	0.014	
SEMiX503GD126HDc	466	300	1.70	28	44	0.08	412	1.60	32.5	0.14	33c	0.014	
SEMiX703GD126HDc	642	450	1.70	32	68	0.061	561	1.59	60	0.11	33c	0.014	
1700V - IGBT4 (Trench)													
SEMiX302GAL17E4s	516	300	1.90	140	122	0.083	324	1.98	70	0.184	2s	0.045	
SEMiX453GAL17E4s	762	450	1.90	250	190	0.056	482	1.98	100	0.125	3s	0.04	
SEMiX151GB17E4s	260	150	1.90	52	60	0.162	169	1.98	41	0.345	1s	0.075	
SEMiX202GB17E4s	321	200	1.90	75	82	0.122	213	2.00	55	0.276	2s	0.045	
SEMiX302GB17E4s	516	300	1.90	140	122	0.083	324	1.98	70	0.184	2s	0.045	
SEMiX303GB17E4s	477	300	1.90	140	125	0.083	311	2.00	85	0.191	3s	0.04	
SEMiX404GB17E4s	633	400	1.90	190	165	0.062	412	2.00	97	0.145	4s	0.03	
SEMiX453GB17E4s	762	450	1.90	250	190	0.056	482	1.98	100	0.125	3s	0.04	
SEMiX604GB17E4s	1015	600	1.90	255	255	0.042	629	1.98	150	0.095	4s	0.03	
SEMiX453GB17E4Ip	731	450	1.90	153	150	0.06	557	1.98	73	0.1	3Ip	0.009	
SEMiX453GD17E4c	762	450	1.90	186	183	0.056	482	1.98	122	0.125	33c	0.014	
1700V - IGBT3 (Trench)													
SEMiX653GAL176HDs	619	450	2.00	300	180	0.054	545	1.70	73	0.11	3s	0.04	
SEMiX653GAR176HDs	619	450	2.00	300	180	0.054	545	1.70	73	0.11	3s	0.04	
SEMiX252GB176HDs	246	150	2.00	90	55	0.12	288	1.55	32	0.19	2s	0.045	
SEMiX302GB176HDs	308	200	2.00	130	77	0.1	389	1.50	43	0.15	2s	0.045	
SEMiX353GB176HDs	353	225	2.00	155	85	0.086	428	1.55	45	0.13	3s	0.04	
SEMiX452GB176HDs	437	300	2.00	180	110	0.073	389	1.70	46	0.15	2s	0.045	
SEMiX453GB176HDs	444	300	2.00	215	125	0.071	545	1.50	65	0.11	3s	0.04	
SEMiX604GB176HDs	567	400	2.00	215	165	0.058	740	1.50	95	0.081	4s	0.03	
SEMiX653GB176HDs	619	450	2.00	300	180	0.054	545	1.70	73	0.11	3s	0.04	
SEMiX854GB176HDs	779	600	2.00	300	250	0.045	740	1.70	170	0.081	4s	0.03	

Footnotes: 8) Target data

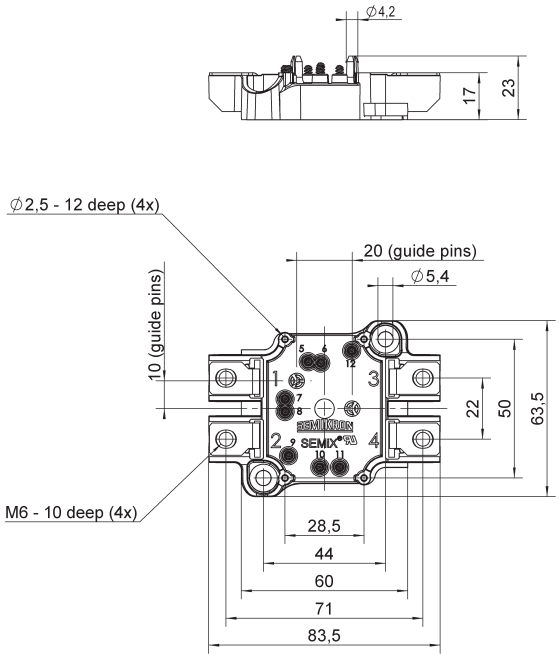
IGBT Modules / SEMiX

Type	IGBT						Diode				Module		
	I_C @ T_C = 25°C	I_{Cnom}	$V_{CE(sat)}$ @ T_j = 25°C typ.	E_{on}	E_{off}	$R_{th(j-c)}$	I_F @ T_C = 25°C	V_F @ T_j = 25°C typ.	E_{rr}	$R_{th(j-c)}$	Case	$R_{th(c-s)}$	Circuit
	A	A	V	mJ	mJ	K/W	A	V	mJ	K/W		K/W	
1700V - IGBT3 (Trench)													
SEMiX353GD176HDc	353	225	2.00	155	85	0.086	428	1.55	45	0.13	33c	0.014	
SEMiX453GD176HDc	444	300	2.00	215	125	0.071	545	1.50	65	0.11	33c	0.014	
SEMiX653GD176HDc	619	450	2.00	300	180	0.054	545	1.70	73	0.11	33c	0.014	

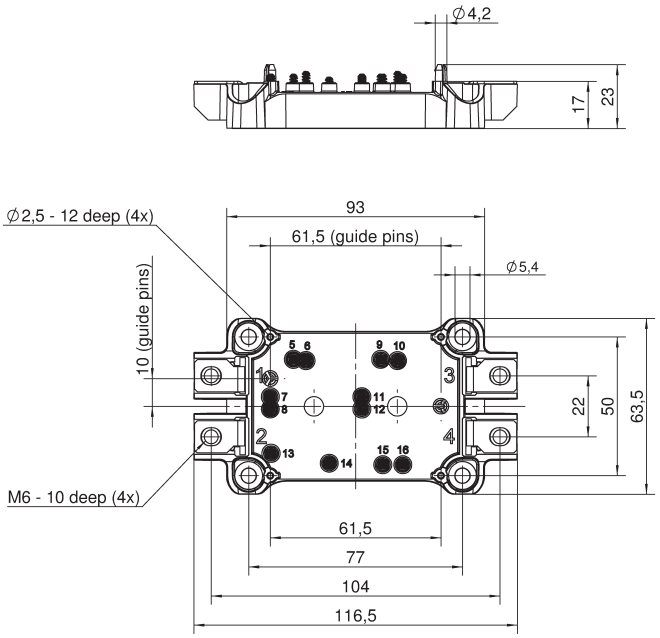
Footnotes: 8) Target data

Cases

SEMiX 1s



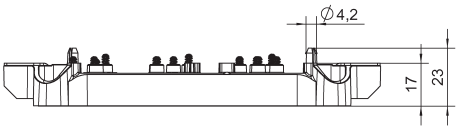
SEMiX 2s

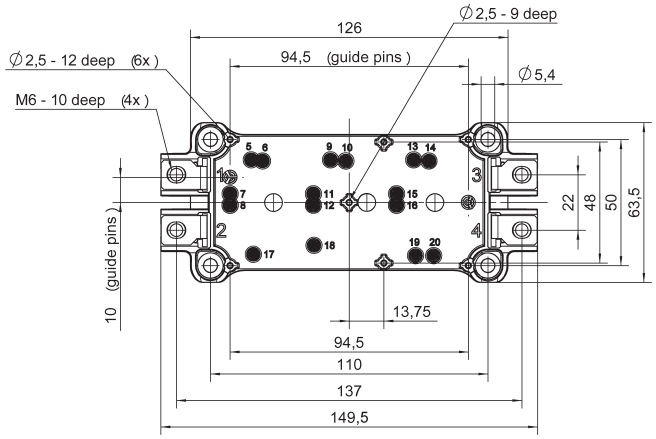


Dimensions in mm

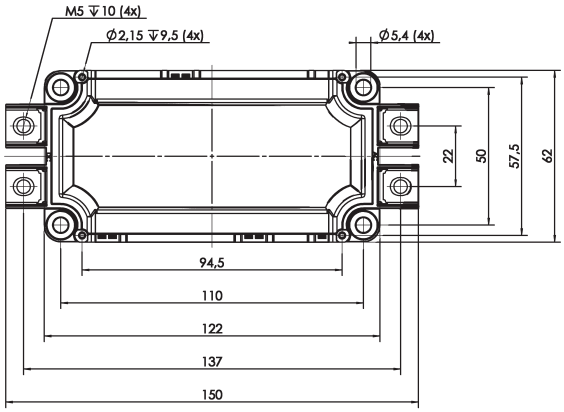
Cases

SEMiX 3s

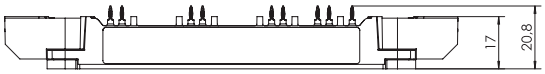


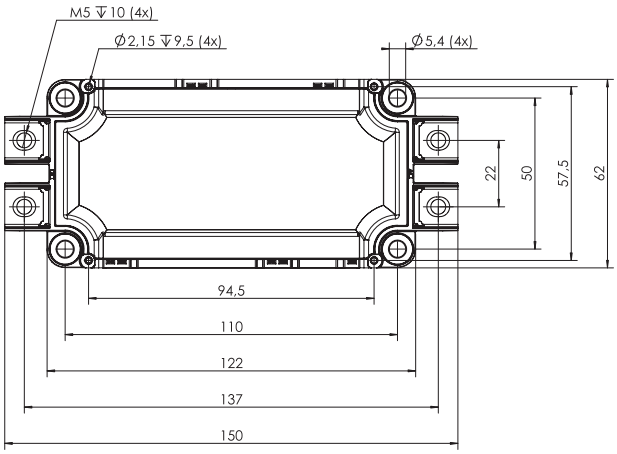


SEMiX 3p

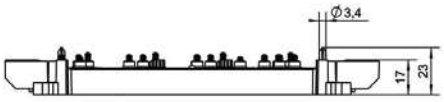


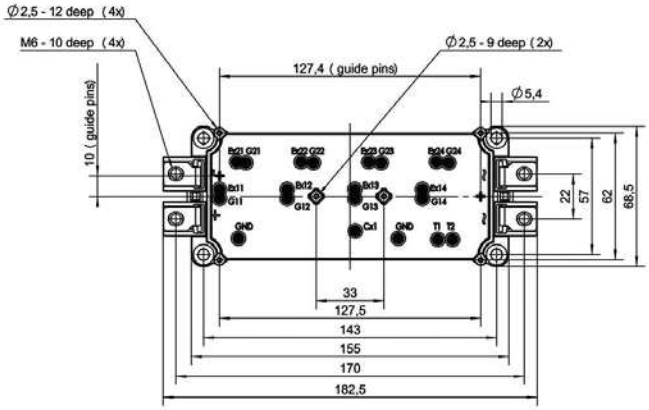
SEMiX 3Ip





SEMiX 4s

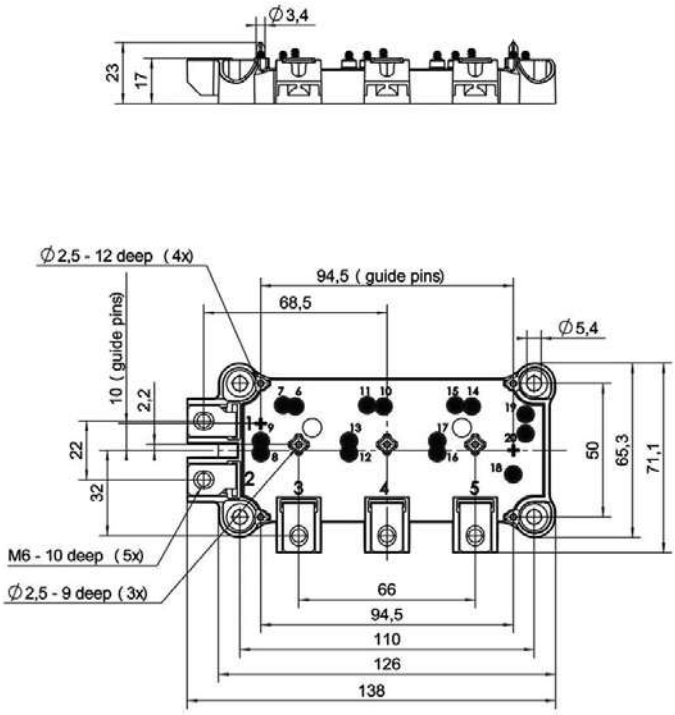




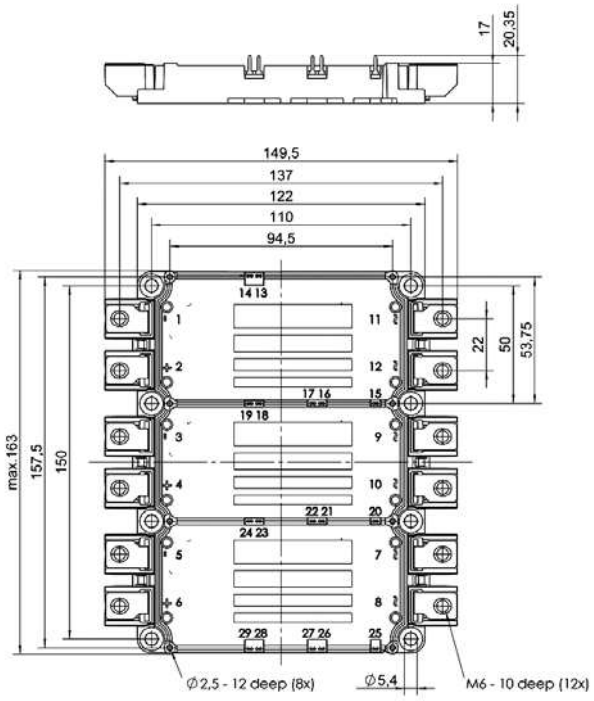
Dimensions in mm

Cases

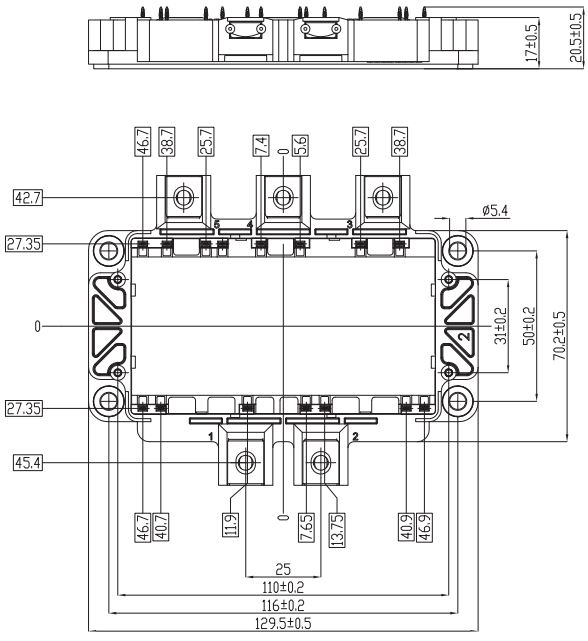
SEMiX 13



SEMiX 33c



SEMiX 5p



Dimensions in mm