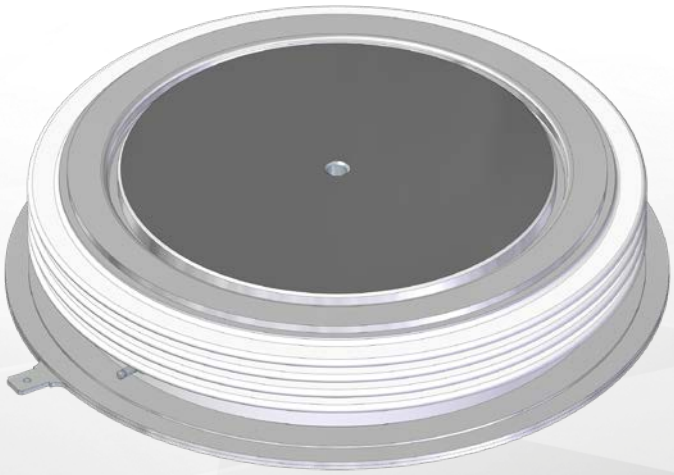
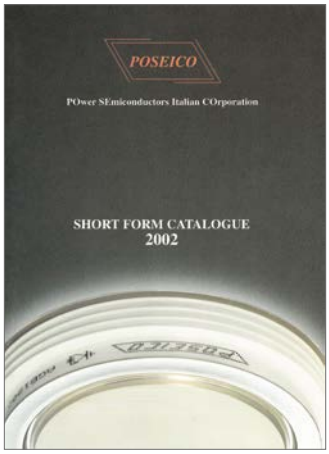
CATALOGUE

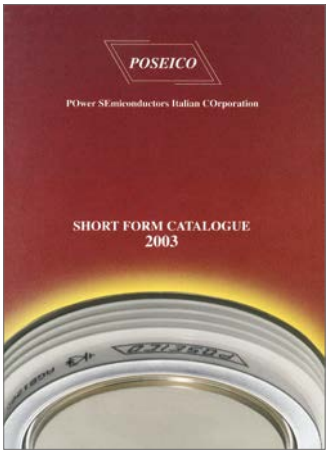
POSEICO
POWER ELECTRONICS

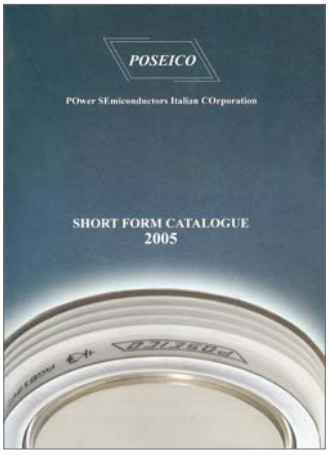


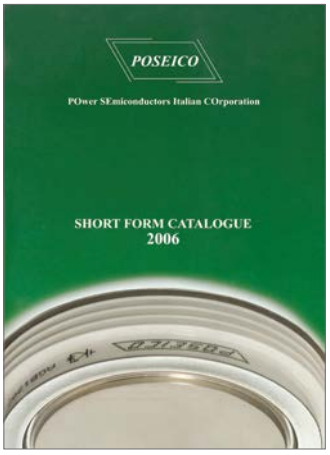
COMPONENTS AND ACCESSORIES

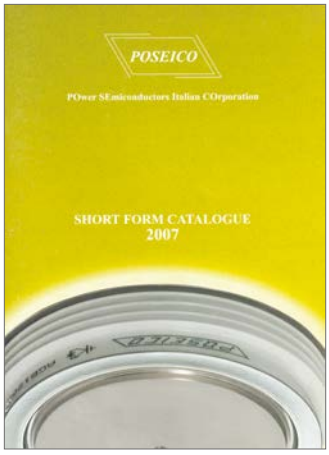
POSEICO
POWER ELECTRONICS

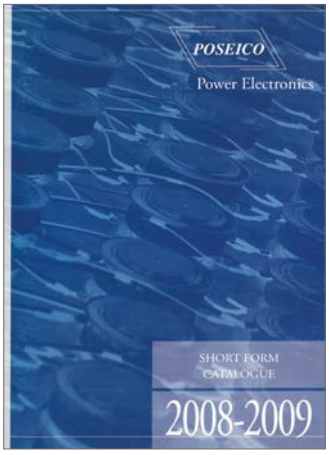


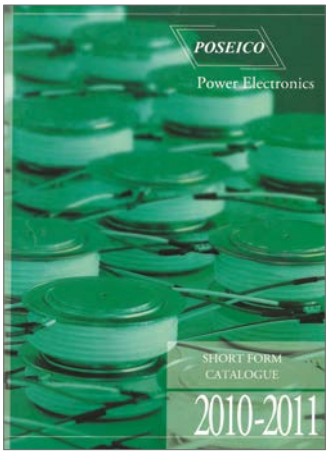


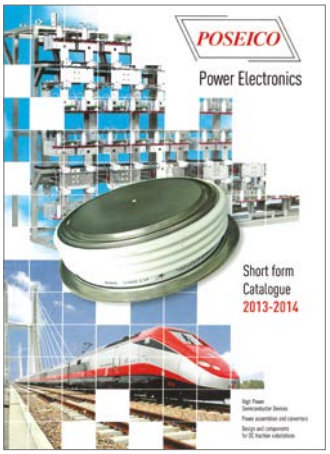












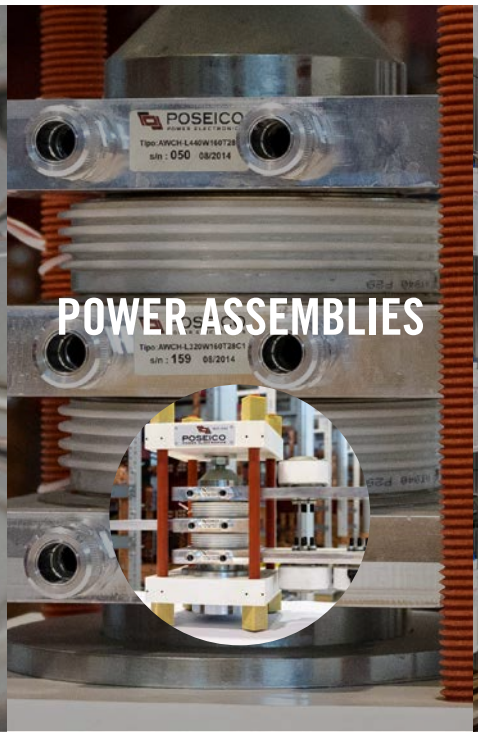
OUR HISTORY, YOUR FUTURE.

WHO WE ARE

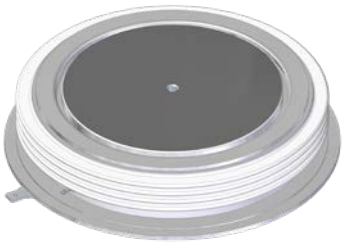
POSEICO IS A LEADER FIRM IN THE POWER ELECTRONICS SECTOR PROVIDING PRODUCTS AND SERVICES

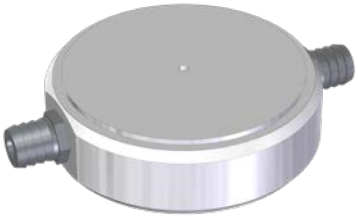
We provide comprehensive services in the high power semiconductor market, including research, design, production, trade and maintenance of semiconductors (like diodes and thyristors) and related accessories.

Our expertise spans from design and manufacturing of high power semiconductors to full power electronic converters with a focus on vertical integration in design and manufacturing.



This catalog is exclusively focused on components and related accessories.
For detailed information regarding power assemblies and power converters, please visit: www.poseico.com





Fake POSEICO devices are disguised to look real.
ASK FOR THE ORIGINAL.

CONTENTS

PRESS-PACK HIGH POWER SEMICONDUCTORS

PRESS-PACK HIGH POWER SEMICONDUCTORS

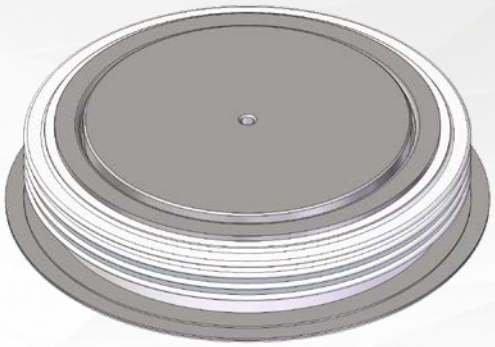
RECTIFIER DIODES

MAIN CHARACTERISTICS

- IEC60747-2 compliant
- Highly reliable device in press-pack case
- Possibility of parallel and series connections
- Low frequency application
- Junction temperature range: 150 - 190 °C

APPLICATIONS

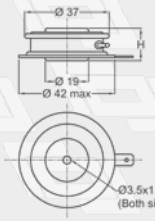
- Rectifier bridge for traction applications
- Input rectifier bridge for industrial applications



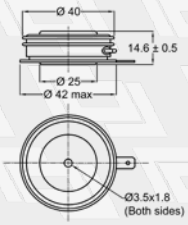
Rectifier Diode	V_{RRM}	$I_{F(AV)}$ sine wave 50 Hz T_h = 55 °C	I_{FSM} sine wave 10 ms VR < 10 V $T_{j\,max}$	I^2t	$V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	$T_{j\,max}$	$R_{th(j-h)}$ double side R_{th} DC = R_{th} 180° sin	$R_{th(j-h)}$ double side R_{th} 120° sin	F min/max suggested range	Outline
	[V]	[A]	[kA]	[A²•s•10³]	[V]	[mΩ]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 1000 V											
AR302	800	1571	16.0	1280	0.75	0.250	190	50.0	55.7	8.0/9.0	B0
AR1101	1000	2247	28.0	3920	0.75	0.125	175	37.0	41.2	11.8/13.2	C0
AR3001	1000	4653	44.8	10035	0.75	0.055	190	21.0	23.4	22.0/24.5	D2
AR609	600	5381	50.4	12701	0.73	0.035	190	21.0	23.4	22.0/24.5	D2
AR709	1000	8709	85.0	36125	0.70	0.033	190	11.0	12.2	46.0/54.0	M0
AR709LT	1000	9594	85.0	36125	0.70	0.033	190	9.5	10.6	46.0/54.0	N0
UP TO 1800 V											
AR320	1800	1315	10.5	551	0.82	0.310	175	50.0	55.7	8.0/9.0	B0
AR420	1800	1754	18.5	1711	0.81	0.240	175	37.0	41.2	11.8/13.2	C1
AR520	1800	2620	31.0	4805	0.79	0.150	175	26.0	28.9	18.0/20.0	D1
UP TO 3000 V											
AR242	2200	831	6.5	211	0.70	0.400	175	95.0	105.9	4.5/5.0	A2
AR904	2900	1232	10.1	510	0.87	0.330	175	52.0	57.9	8.4/9.4	C0
AR340	2900	1264	10.1	510	0.87	0.330	175	50.0	55.7	8.0/9.0	B0
AR1104	2900	1682	17.9	1602	0.85	0.260	175	37.0	41.2	11.8/13.2	C1
AR3007	3000	2298	30.2	4560	0.87	0.127	150	26.0	28.9	18.0/20.0	D1
AR447PC	2400	2395	18.0	1620	0.85	0.260	175	21.0	23.4	11.8/13.2	P2
AR2004	2600	2525	28.0	3920	0.80	0.165	175	26.0	28.9	18.0/20.0	D1
AR3008	3000	2693	30.2	4560	0.87	0.127	175	26.0	28.9	18.0/20.0	D1
AR2004LT	2600	3182	33.6	5645	0.80	0.165	175	18.0	20.1	22.0/24.5	G0
AR3004	2600	3346	35.3	6230	0.80	0.110	175	21.0	23.4	22.0/24.5	D2
AR649	2500	4644	45.0	10125	0.70	0.100	175	14.0	15.6	35.0/40.0	H0
AR749	2500	4757	70.0	24500	0.65	0.140	175	11.0	12.2	46.0/54.0	M0
AR749LT	2500	5179	70.0	24500	0.65	0.140	175	9.5	10.6	46.0/54.0	N0
AR748LT	2600	6544	70.0	24500	0.80	0.070	175	9.5	10.6	46.0/54.0	N0
AR747LT	2600	6909	70.0	24500	0.72	0.065	175	9.5	10.6	46.0/54.0	N0
AR930LT	2400	11186	98.0	48020	0.85	0.029	175	6.5	7.2	80.0/90.0	X0

Rectifier Diode	V_{RRM}	$I_{F(AV)}$ sine wave 50 Hz T_h = 55 °C	I_{FSM} sine wave 10 ms VR < 10 V $T_{j\,max}$	I^2t	$V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	$T_{j\,max}$	$R_{th(j-h)}$ double side R_{th} DC = R_{th} 180° sin	$R_{th(j-h)}$ double side R_{th} 120° sin	F min/max suggested range	Outline
	[V]	[A]	[kA]	[A²•s•10³]	[V]	[mΩ]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 4500 V											
AR372X	4500	586	5.0	125	0.95	1.500	150	52.0	58.0	8.4/9.4	C0
AR372	3200	721	5.6	157	1.00	0.920	150	50.0	55.7	8.0/9.0	B0
AR371X	4500	866	5.6	157	0.70	0.660	150	52.0	58.0	8.4/9.4	C0
AR371	3400	920	5.6	157	0.70	0.660	150	50.0	55.7	8.0/9.0	B0
AR360	3200	1075	10.8	583	0.92	0.390	160	50.0	55.7	8.0/9.0	B0
AR1109	4400	1003	10.3	530	0.89	0.675	150	37.0	41.2	11.8/13.2	C1
AR1107	3600	1213	13.4	898	0.73	0.463	150	37.0	41.2	11.8/13.2	C1
AR2009	4400	1560	18.5	1711	0.83	0.393	150	26.0	28.9	22.0/24.5	D2
AR670	4400	2282	22.0	2420	0.80	0.210	150	21.0	23.4	22.0/24.5	D2
AR3009	3200	2461	30.2	4560	0.87	0.127	160	26.0	28.9	18.0/20.0	D1
AR679HT	4500	2659	30.0	4500	0.79	0.20	150	17.0	18.2	40.0/50.0	L0
AR679	4500	3025	30.0	4500	0.75	0.200	150	14.0	15.6	35.0/40.0	H0
AR770	4500	3869	50.0	12500	0.80	0.150	150	11.0	12.2	46.0/54.0	M0
AR770HT	4500	3869	50.0	12500	0.80	0.150	150	11.0	12.2	46.0/54.0	R0
AR770LT	4500	4228	50.0	12500	0.80	0.150	150	9.5	10.6	46.0/54.0	N0
AR870	4200	4888	60.0	18000	0.90	0.095	160	10.5	11.6	60.0/80.0	M0
AR1270	4600	9660	96.9	46948	0.79	0.070	150	4.0	5.5	90.0/120.0	Y0
UP TO 6000 V											
AR912	5600	645	6.3	198	1.00	1.150	150	52.0	57.9	8.4/9.4	C0
AR480	5000	725	8.0	320	1.00	0.900	125	37.0	41.2	11.8/13.2	C1
AR580	6000	1363	16.0	1280	1.00	0.500	150	26.0	28.9	18.0/20.0	D1
AR680	6000	1483	20.0	2000	1.00	0.400	150	21.0	23.4	22.0/24.5	D2
AR690	6000	2437	18.0	1620	0.98	0.300	150	14.0	15.6	35.0/40.0	H0
AR780	6000	3580	53.0	14045	0.90	0.200	160	11.0	12.2	46.0/54.0	M0
AR771	5000	3683	50.0	12500	0.80	0.170	150	11.0	12.2	46.0/54.0	M0
AR771HT	5000	3683	50.0	12500	0.80	0.170	150	11.0	12.2	46.0/54.0	R0
AR771LT	5000	4020	50.0	12500	0.80	0.170	150	9.5	10.6	46.0/54.0	N0
AR772	5000	4174	45.0	10125	0.76	0.180	175	11.0	12.2	46.0/54.0	M0
AR772HT	5000	4174	45.0	10125	0.76	0.180	175	11.0	12.2	46.0/54.0	R0
AR772LT	5000	4546	45.0	10125	0.76	0.180	175	9.5	10.6	46.0/54.0	N0
AR975LT	5000	6833	107.0	57245	0.80	0.090	150	6.0	6.7	80.0/100.0	X0

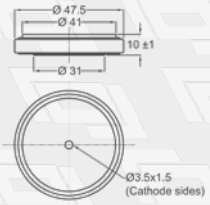
A2 H = 14.5±0.5 W = 55 gr



B0 W = 85 gr

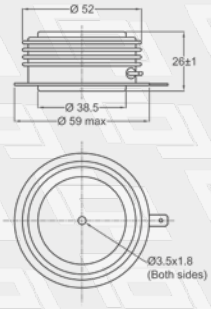


P2 W = 90 gr

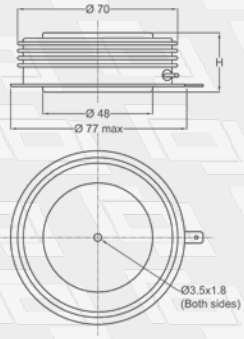


Plastic case

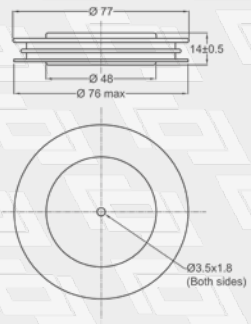
C0 W = 280 gr
C1 W = 300 gr



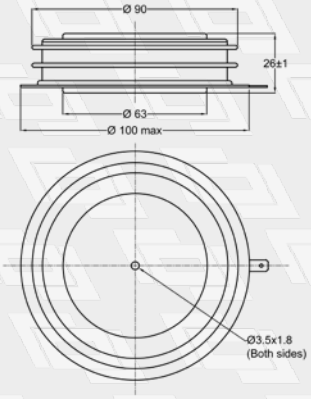
D1 H = 27±1 W = 500 gr
D2 H = 27±1 W = 520 gr



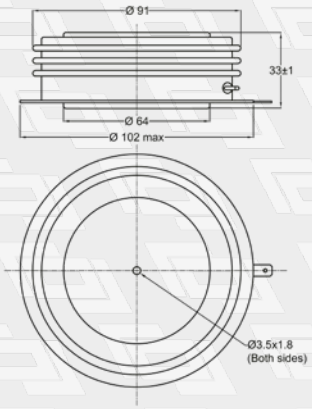
G0 W = 300 gr



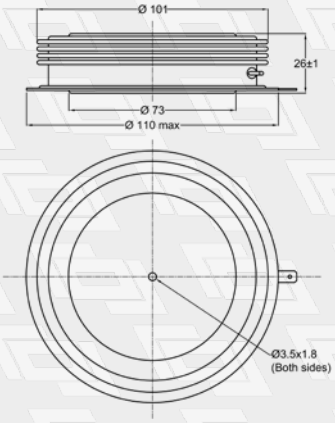
H0 W = 850 gr



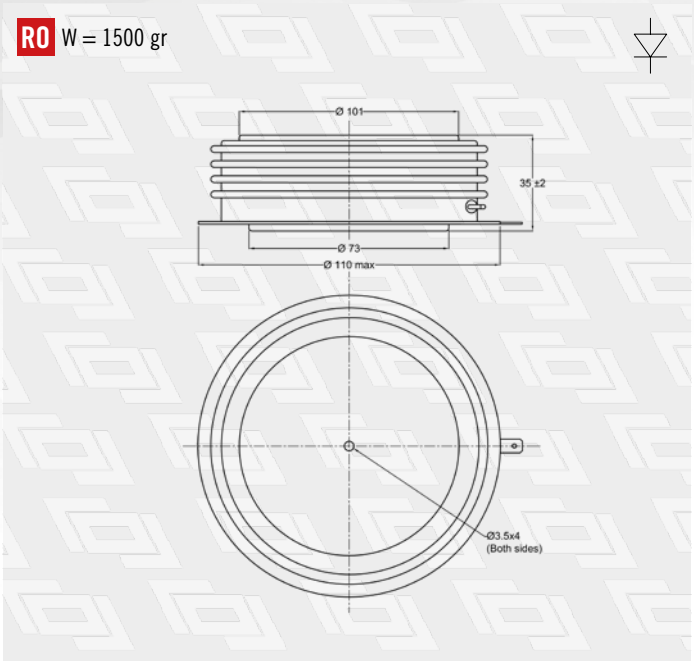
L0 W = 1000 gr



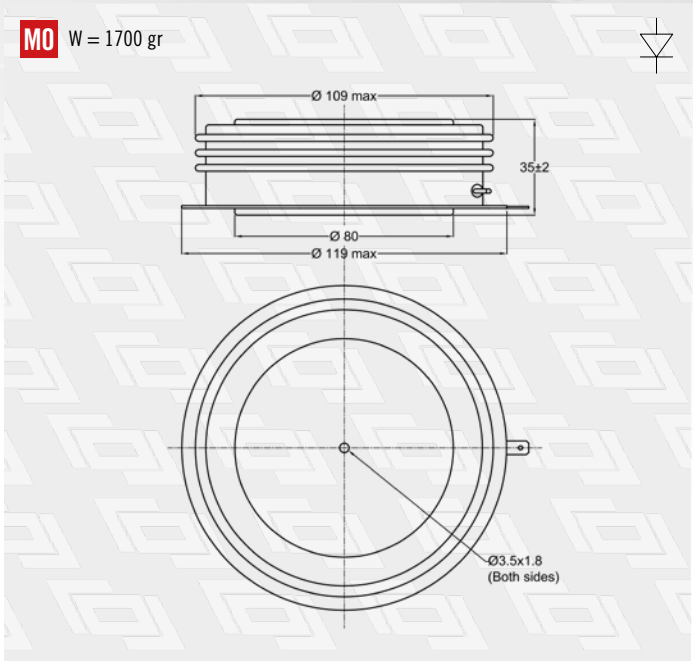
N0 W = 1150 gr



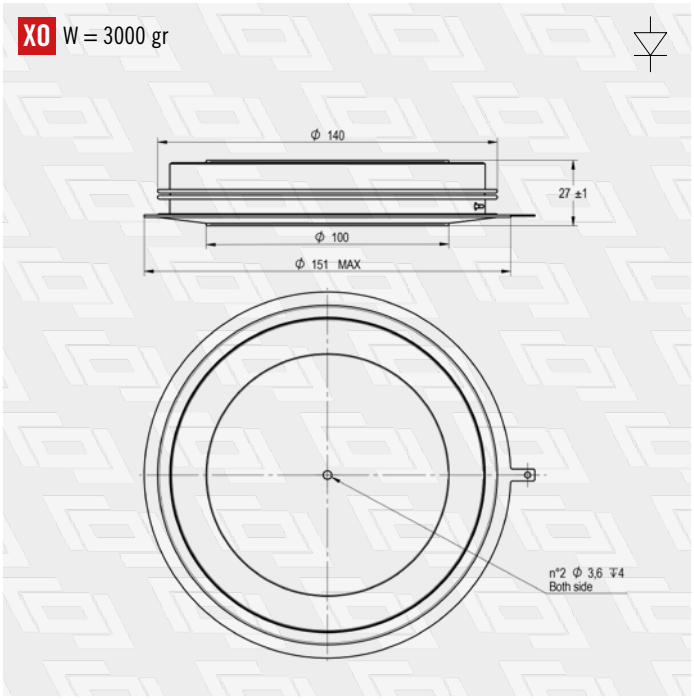
RO W = 1500 gr



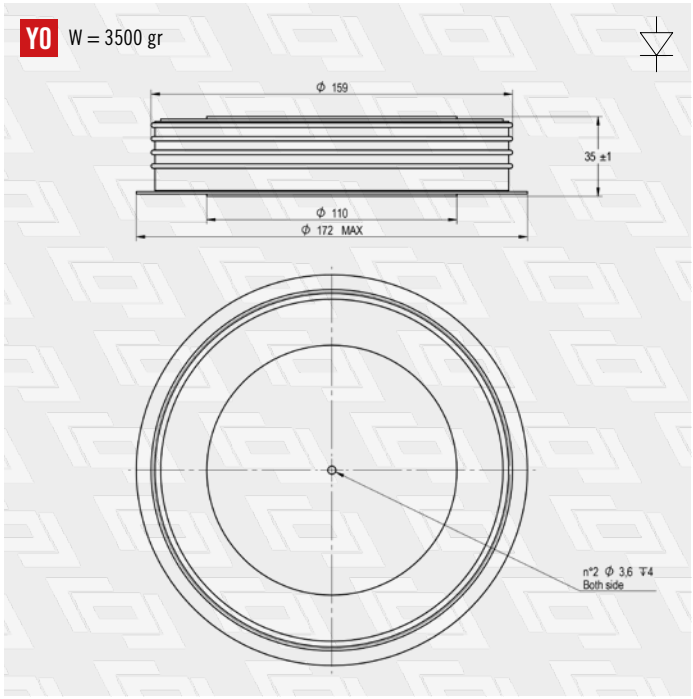
MO W = 1700 gr



XO W = 3000 gr



YO W = 3500 gr



PRESS-PACK HIGH POWER SEMICONDUCTORS

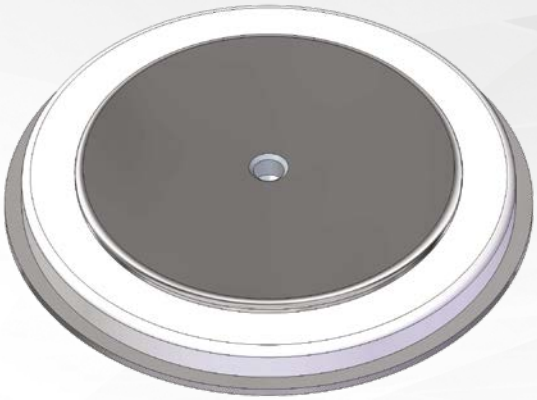
WELDING DIODES

MAIN CHARACTERISTICS

- Low on-state voltage
- Low thermal resistance
- Thin hermetic ceramic housing diodes
- Housing-less ultrathin diodes
- Junction temperature range: 175 - 190 °C

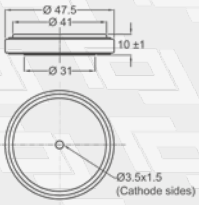
APPLICATIONS

- Medium frequency applications
- Industrial welding systems



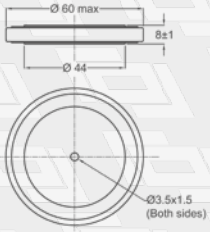
Welding Diode	V_{RRM}	$I_{F(AV)}$ sine wave 50 Hz T_c = 85 °C	I_{FSM} sine wave 10 ms VR < 10 V $T_{j\,max}$	I^2t	$V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	$T_{j\,max}$	$R_{th(j-c)}$ double side R_{th} DC = R_{th} 180° sin	F min/max suggested range	Outline
	[V]	[A]	[kA]	[$A^2 \bullet s \bullet 10^3$]	[V]	[mΩ]	[°C]	[°C/kW]	[kN]	
THIN HERMETIC CERAMIC HOUSING										
AR507LT	600	6798	55.0	15125	0.70	0.035	190	12.0	20.0/22.0	P0
AR509LT	600	5520	50.0	12500	0.70	0.065	190	12.0	20.0/22.0	P0
AR508LT	600	6515	55.0	15125	0.70	0.040	190	12.0	20.0/22.0	P0
AR3001LT	1000	6457	50.4	12701	0.75	0.055	190	10.0	22.0/24.5	F0
AR609LT	600	7582	60.0	18000	0.73	0.035	190	10.0	22.0/24.5	F0
AR608LT	400	14219	80.0	32000	0.74	0.019	175	6.0	25.0/30.0	F1
PLASTIC CASE										
AR409PC	600	3863	30.0	4500	0.75	0.125	190	14.0	11.8/13.2	P2
AR509PC	600	5520	50.0	12500	0.70	0.065	190	12.0	20.0/22.0	P1
AR508PC	600	6515	55.0	15125	0.70	0.040	190	12.0	20.0/22.0	P1
HOUSING-LESS ULTRATHIN DIODES										
AUS401	400	5851	33.0	5445	0.70	0.049	180	8.5	15.0/30.0	S1
AUS501	400	9345	48.0	11520	0.70	0.034	180	6.5	25.0/45.0	S2
AUS602	400	10472	75.0	28125	0.81	0.026	175	5.8	22.0/50.0	S4
AUS603	400	12522	80.0	38720	0.79	0.025	175	4.6	35.0/65.0	S3
AUS605	400	13436	88.0	38720	0.76	0.021	175	4.6	35.0/65.0	S3

P2 W = 90 gr



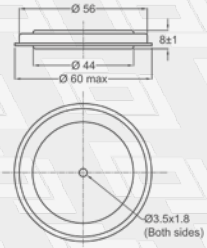
Plastic case

P1 W = 150 gr



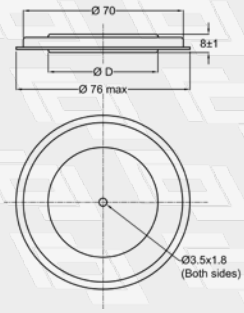
Plastic case

P0 W = 150 gr

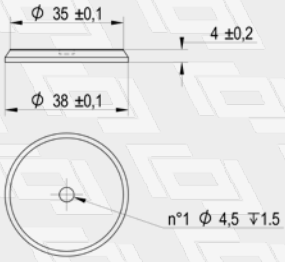


F0 D pole = 48 W = 200 gr

F1 D pole = 57 W = 205 gr

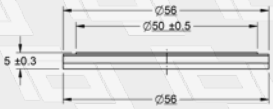


S1 W = 110 gr

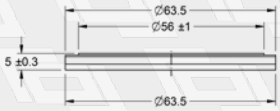


S2 W = 110 gr

S4 W = 110 gr



S3 W = 160 gr



PRESS-PACK HIGH POWER SEMICONDUCTORS

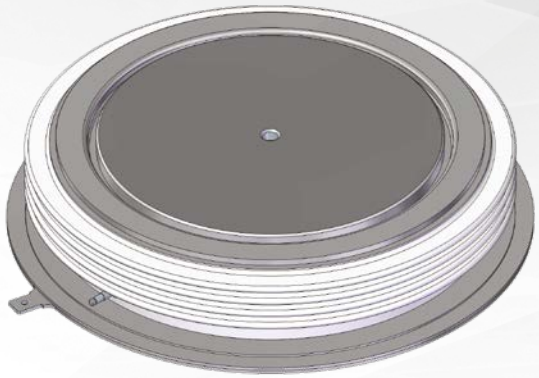
PHASE CONTROL THYRISTORS

MAIN CHARACTERISTICS

- IEC60747-6 compliant
- Highly reliable device in press-pack case
- Possibility of parallel and series connections
- Line frequency application
- Junction temperature range: 120 - 150 °C

APPLICATIONS

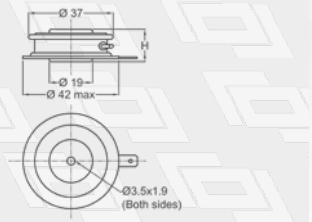
- Industrial controlled rectifiers
- AC switches
- DC motor controls
- UPS systems



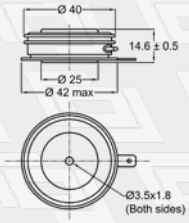
Phase Control Thyristor	V_{RRM} V_{DRM}	$I_{T(AV)}$ sine wave 50 Hz T_h = 55 °C	I_{TSM} sine wave ms VR < 10 V	I^2t $T_{j\,max}$	(di/dt)	(dv/dt)	V_{GT} T_j = 25 °C	IGT T_j = 25 °C	$V_{T(TO)}$ $T_{j\,max}$	r_T $T_{j\,max}$	$T_{j\,max}$	$R_{th(j-h)}$ double side 180°sin	$Rt_{h(j-h)}$ double side 120°sin	F	Outline
	[V]	[A]	[kA]	[A²•s•10³]	[A/µs]	[V/µs]	[V]	[mA]	[V]	[mΩ]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 1000 V															
AT202	800	637	6.0	180	320	500	3.5	200	0.80	0.490	150	95.0	105.9	4.9/5.9	A1
AT302	800	997	11.5	661	200	500	3.5	200	0.80	0.450	150	50.0	55.7	8.0/9.0	B0
AT303	800	1102	12.0	720	200	500	3.5	200	0.80	0.340	150	50.0	55.7	8.0/9.0	B0
AT607	800	2585	36.0	6480	200	500	3.5	200	0.80	0.120	140	21.0	23.4	22.0/24.5	D2
AT706	800	4307	70.0	24500	320	500	3.5	250	0.84	0.060	125	11.0	12.2	40.0/50.0	M0
AT706HT	800	4307	70.0	24500	320	500	3.5	250	0.84	0.060	125	11.0	12.2	40.0/50.0	R0
AT706LT	800	4767	70.0	24500	320	500	3.5	250	0.84	0.060	125	9.5	10.6	40.0/50.0	N0
AT708	800	4925	70.0	24500	320	500	3.5	250	0.84	0.060	140	11.0	12.2	40.0/50.0	M0
AT708HT	800	4925	70.0	24500	320	500	3.5	250	0.84	0.060	140	11.0	12.2	40.0/50.0	R0
AT708LT	800	5439	70.0	24500	320	500	3.5	250	0.84	0.060	140	9.5	10.6	40.0/50.0	N0
AT906	800	5597	95.0	45125	200	1000	3.5	400	0.85	0.045	125	8.5	9.5	80.0/100.0	Z0
AT908	800	5823	95.0	45125	200	1000	3.5	400	0.85	0.045	140	7.5	8.5	80.0/100.0	Z0
UP TO 1800 V															
AT405	1200	304	2.8	39	200	500	3.5	200	1.00	1.900	125	95.0	105.9	4.9/5.9	A1
AT403	1200	400	5.0	125	200	500	3.5	200	1.00	0.850	125	95.0	105.9	4.9/5.9	A1
AT505	1600	429	5.6	157	200	500	3.5	200	1.00	0.680	125	95.0	105.9	4.9/5.9	A1
AT503	1600	447	6.4	205	200	500	3.5	200	0.90	0.680	125	95.0	105.9	4.9/5.9	A1
AT604	1600	604	8.4	353	200	500	3.5	200	1.05	0.850	125	50.0	55.7	8.0/9.0	B0
AT704	1600	639	8.0	320	200	500	3.5	200	0.86	0.790	125	52.0	57.9	8.0/9.0	C0
AT603	1600	721	8.8	387	200	500	3.5	200	0.91	0.580	125	50.0	55.7	8.0/9.0	B0
AT804	1600	984	12.5	781	200	500	3.5	250	1.00	0.380	125	37.0	41.2	11.8/13.2	C1
AT803	1600	1058	15.0	1125	200	500	3.5	150	0.90	0.340	125	37.0	41.2	11.8/13.2	C1
AT1005	1800	1453	22.4	2509	200	500	3.5	300	0.92	0.260	125	26.0	28.9	18.0/22.0	D1
AT1004	1600	1545	24.6	3026	200	500	3.5	300	0.92	0.216	125	26.0	28.9	18.0/22.0	D1
AT1003	1600	1648	26.9	3618	200	500	3.5	300	0.82	0.200	125	26.0	28.9	18.0/22.0	D1
AT636	1800	1968	36.0	6480	200	500	3.5	300	0.82	0.180	125	21.0	23.4	22.0/24.5	D2
AT620	1400	2100	36.0	6480	200	500	3.5	300	0.81	0.150	125	21.0	23.4	22.0/24.5	D2
AT726	1600	2398	38.0	7220	200	500	3.5	200	0.77	0.160	125	17.0	18.9	40.0/50.0	L0
AT726LT	1800	2855	47.0	11045	630	1000	3.5	300	0.90	0.140	125	13.0	14.5	40.0/50.0	L1
AT720HT	1400	3950	60.0	18000	200	1000	3.5	350	0.88	0.075	125	11.0	12.2	40.0/50.0	R0
AT720LT	1400	4366	60.0	18000	200	1000	3.5	350	0.88	0.075	125	9.5	10.6	40.0/50.0	N0

Phase Control Thyristor	V_{RRM} V_{DRM}	$I_{T(AV)}$ sine wave 50 Hz T_h = 55 °C	I_{TSM} sine wave ms VR < 10 V	I^2t $T_{j\,max}$	(di/dt)	(dv/dt)	V_{GT} T_j = 25 °C	IGT T_j = 25 °C	$V_{T(TO)}$ $T_{j\,max}$	r_T $T_{j\,max}$	$T_{j\,max}$	$R_{th(j-h)}$ double side 180°sin	$Rt_{h(j-h)}$ double side 120°sin	F	Outline
	[V]	[A]	[kA]	[A²•s•10³]	[A/µs]	[V/µs]	[V]	[mA]	[V]	[mΩ]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 1800 V															
AT724LT	1800	3955	60.0	18000	200	1000	3.0	300	0.84	0.090	125	10.3	11.4	40.0/50.0	N0
AT631LT	1800	4477	65.0	21125	400	1000	3.0	300	0.99	0.068	125	9.0	10.0	40.0/50.0	L2
AT935LT	1800	7107	81.0	32805	200	1000	2.5	250	0.83	0.065	125	6.5	7.5	80.0/100.0	Z1
UP TO 2800 V															
AT333	2400	660	7.5	281	200	500	3.5	300	0.95	0.720	125	50.0	55.7	8.0/9.0	B0
AT807	2400	837	10.0	500	200	500	3.5	250	1.12	0.552	125	37.0	41.2	11.8/13.2	C1
AT1007	2600	1272	19.0	1805	200	500	3.5	300	1.15	0.308	125	26.0	28.9	18.0/22.0	D1
AT655	2800	1546	30.0	4500	200	500	3.5	300	1.05	0.290	125	21.0	23.4	22.0/24.5	D2
AT646	2200	1731	36.0	6480	200	500	3.5	300	0.90	0.240	125	21.0	23.4	22.0/24.5	D2
AT746	2600	1794	25.0	3125	200	500	3.5	300	1.10	0.270	125	17.0	18.9	40.0/50.0	L0
AT846LT	2800	2862	39.2	7683	200	1000	3.5	400	0.95	0.230	125	9.5	10.6	40.0/50.0	N0
AT847	2800	2979	39.2	7683	800	1000	3.5	400	0.85	0.175	125	11.0	12.2	40.0/50.0	M0
AT847HT	2800	2979	39.2	7683	800	1000	3.5	400	0.85	0.175	125	11.0	12.2	40.0/50.0	R0
AT737	2000	3239	50.4	12701	200	500	3.5	350	0.95	0.127	125	11.0	12.2	40.0/50.0	M0
AT737HT	2000	3239	50.4	12701	200	500	3.5	350	0.95	0.127	125	11.0	12.2	40.0/50.0	R0
AT847LT	2800	3262	39.2	7683	800	1000	3.5	400	0.85	0.175	125	9.5	10.6	40.0/50.0	N0
AT737LT	2000	3565	50.4	12701	200	500	3.5	350	0.95	0.127	125	9.5	10.6	40.0/50.0	N0
AT738	2200	3669	60.0	18000	200	500	3.5	350	0.92	0.090	125	11.0	12.2	40.0/50.0	M0
AT738HT	2200	3669	60.0	18000	200	500	3.5	350	0.92	0.090	125	11.0	12.2	40.0/50.0	R0
AT738LT	2200	4050	60.0	18000	200	500	3.5	350	0.92	0.090	125	9.5	10.6	40.0/50.0	N0
AT850LT	2800	3946	62.0	19220	630	1000	3.5	400	1.00	0.125	125	8.0	8.9	60.0/80.0	N1
AT940	2900	4687	75.0	28125	200	1000	3.5	400	1.00	0.070	125	7.5	8.5	80.0/100.0	Z0
UP TO 4500 V															
AT818	4000	580	5.9	174	200	500	3.5	200	1.35	1.335	125	37.0	41.2	11.8/13.2	C1
AT671	4500	1085	13.0	845	400	1000	3.5	400	1.20	0.700	125	21.0	23.4	22.0/24.5	D2
AT1228	3600	1275	20.0	2000	200	1000	3.5	300	1.20	0.450	125	21.0	23.4	22.0/24.5	D2
AT875	4400	2003	25.2	3175	200	1000	3.5	400	1.30	0.334	120	11.0	12.2	40.0/50.0	M0
AT875HT	4400	2003	25.2	3175	200	1000	3.5	400	1.30	0.334	120	11.0	12.2	40.0/50.0	R0
AT866	3600	2166	29.1	4234	200	1000	3.5	400	1.20	0.325	125	11.0	12.2	40.0/50.0	M0
AT866HT	3600	2166	29.1	4234	200	1000	3.5	400	1.20	0.325	125	11.0	12.2	40.0/50.0	R0
AT875LT	4400	2199	25.2	3175	200	1000	3.5	400	1.30	0.334	120	9.5	10.6	40.0/50.0	N0
AT876LT	4400	2800	25.2	3175	200	1000	3.5	400	1.25	0.200	120	9.5	10.6	40.0/50.0	N0
AT866LT	3600	2374	32.0	5120	200	1000	3.5	400	1.20	0.325	125	9.5	10.6	40.0/50.0	N0
AT870	4200	2969	50.0	12500	200	1000	3.5	400	1.00	0.170	125	10.5	11.7	60.0/80.0	M0
AT870LT	4200	3276	50.0	12500	200	1000	3.5	400	1.00	0.170	125	9.0	10.0	60.0/80.0	N1
AT960	3200	7270	100.0	50000	200	1000	3.5	300	0.88	0.070	125	7.5	8.5	80.0/100.0	Z0
AT970	3400	3872	68.0	23120	200	1000	3.5	250	1.12	0.112	125	7.5	8.5	80.0/100.0	Z0
AT971	4200	3977	68.0	23120	200	1000	3.5	250	1.12	0.125	125	7.5	8.5	80.0/100.0	Z0
UP TO 6000 V															
AT480	5800	527	4.5	101	200	500	3.5	250	1.30	1.760	125	37.0	41.2	11.8/13.2	C1
AT681	6000	840	10.0	500	100	500	3.5	400	1.30	1.150	120	21.0	23.4	22.0/24.0	D2
AT880	5200	2571	40.0	8000	200	1000	3.5	400	1.07	0.240	125	10.5	11.7	60.0/80.0	M0
AT880LT	5200	2774	48.0	11520	800	1000	3.5	400	1.10	0.30	125	8.0	8.9	60.0/80.0	N1
AT980	6000	2680	50.0	12500	200	1000	3.5	400	1.30	0.235	120	8.5	9.5	80.0/100.0	Z0
AT975	5200	3263	60.0	18000	200	1000	3.5	250	1.07	0.190	125	7.5	8.5	80.0/100.0	Z0

A1 H = 14.3±0.5 W = 55 gr

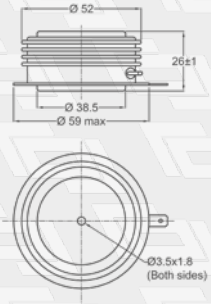


B0 W = 85 gr



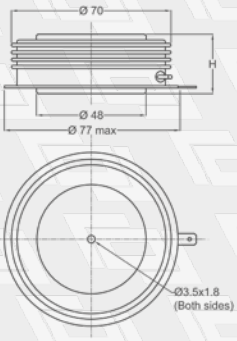
C0 W = 280 gr

C1 W = 300 gr

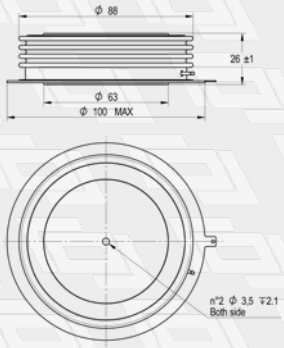


D1 H = 27±1 W = 500 gr

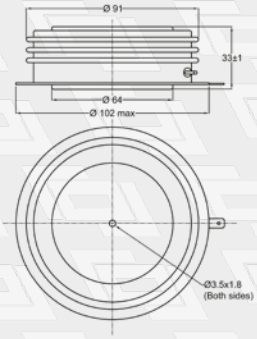
D2 H = 27±1 W = 520 gr



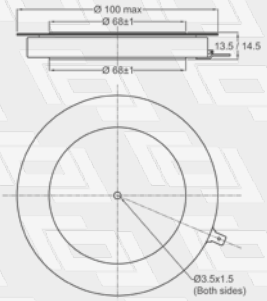
L1 W = 1000 gr



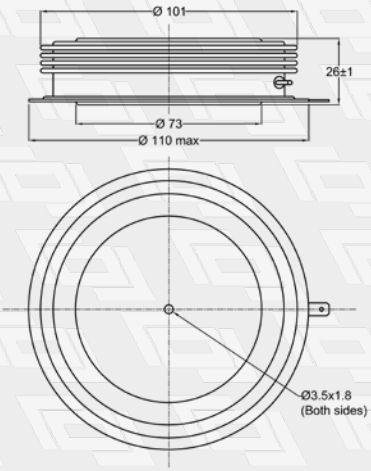
L0 W = 1100 gr



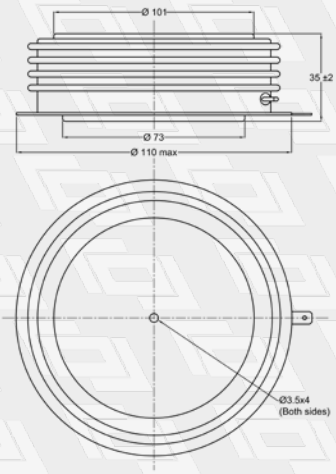
L2 W = 550 gr



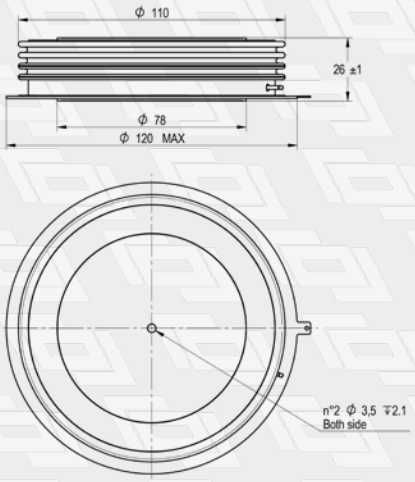
N0 W = 1150 gr



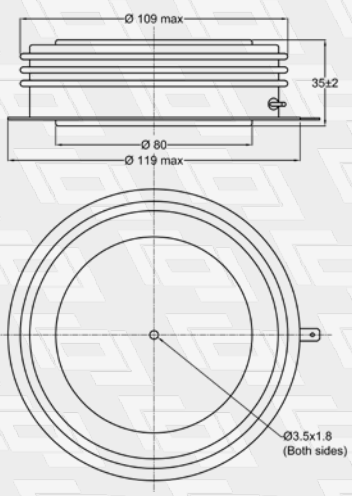
R0 W = 1500 gr



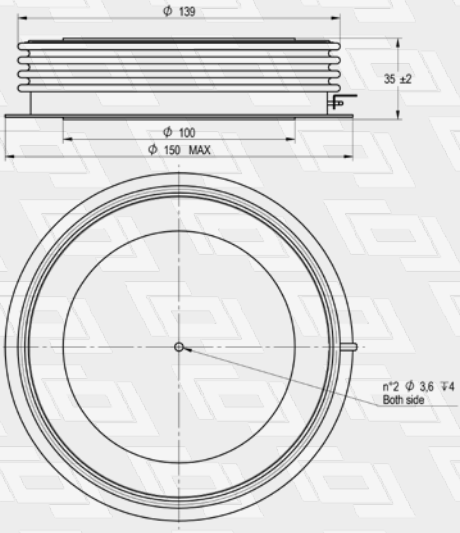
N1 W = 1700 gr



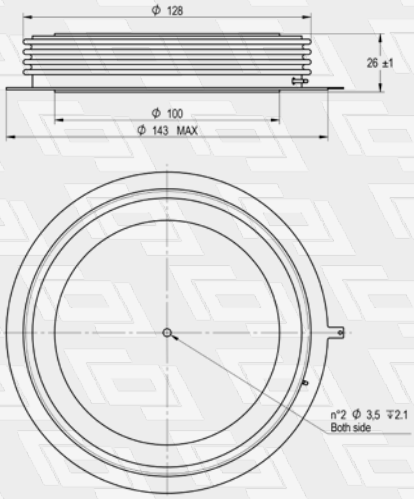
M0 W = 1700 gr



Z0 W = 3000 gr



Z1 W = 1900 gr



PRESS-PACK HIGH POWER SEMICONDUCTORS

FAST RECOVERY DIODES

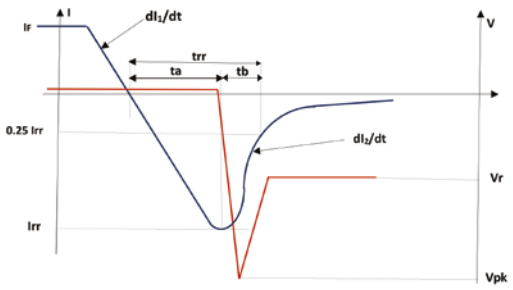
MAIN CHARACTERISTICS

- IEC60747-2 compliant
- Highly reliable device in press-pack case
- Possibility of parallel and series connections
- High frequency application
- Junction temperature range: 125 - 150 °C

APPLICATIONS

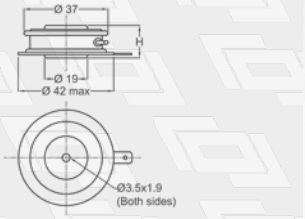
- Chopper and inverter circuits
- Power converter for traction applications

Fast Recovery Diode	V_{RRM}	$I_{F(AV)}$ sine wave 50 Hz $T_h = 55$ °C	I_{FSM} sine wave 10 ms VR < 10 V	I^2t $T_{j\,max}$	$V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	Recovery Parameters Q_{rr} $T_{j\,max}$	Recovery Parameters t_{rr} $T_{j\,max}$	Recovery Parameters I_F	Recovery Parameters (di_F/dt)	$T_{j\,max}$	$R_{th(j-h)}$ double side 180° sin	$R_{th(j-h)}$ double side 120° sin	F min/max suggested range	Outline
	[V]	[A]	[kA]	[$A^2 \cdot s \cdot 10^3$]	[V]	[mΩ]	[μC]	[μs]	[A]	[A/μs]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 1800 V															
ARF422	1600	940	14.0	980	1.20	0.350	200	3.5	1000	60	125	37.0	41.2	11.8/13.2	C1
UP TO 3300 V															
ARF261	3300	124	3.0	45	2.30	12.000	45	1.0	200	100	125	95.0	105.9	4.5/5.0	A2
ARF260	3300	189	3.0	45	1.95	4.200	79	1.6	500	100	125	95.0	105.9	4.5/5.0	A2
ARF241	2500	255	3.0	45	1.75	3.200	50	1.4	200	80	150	95.0	105.9	4.5/5.0	A2
ARF240	2500	280	3.0	45	1.50	3.000	90	2.0	200	80	150	95.0	105.9	4.5/5.0	A2
ARF912	2600	754	6.4	205	1.15	0.685	260	4.0	350	80	150	52.0	57.9	8.4/9.4	C0
ARF340	2600	773	6.4	205	1.15	0.685	260	4.0	350	80	150	50.0	55.7	8.0/9.0	B0
ARF435	2600	955	12.0	720	1.10	0.675	360	4.0	500	80	150	37.0	41.2	11.8/13.2	C1
ARF2012	2600	1527	16.0	1280	1.03	0.362	800	4.6	1000	100	150	26.0	28.9	18.0/20.0	D1
ARF648	2500	2508	30.0	4500	0.85	0.300	1000	5.0	1000	250	150	14.0	15.6	35.0/40.0	H0
ARF744	2500	3723	48.0	11520	0.85	0.160	500	5.0	1000	60	150	11.0	12.2	46.0/54.0	M0
UP TO 4500 V															
ARF370	4500	484	4.0	80	1.74	1.700	700	5.0	1000	100	150	52.0	57.9	8.4/9.4	C0
ARF463	4500	732	10.0	500	1.70	1.000	650	5.2	600	80	150	37.0	41.2	11.8/13.2	C1
ARF674	4500	944	15.0	1125	1.90	0.700	600	8.0	500	30	125	21.0	23.4	22.0/24.5	D0
ARF675	4500	1087	15.0	1125	1.70	0.700	1700	5.6	1000	250	125	18.0	20.0	22.0/24.5	G0
ARF677	4500	1374	18.0	1620	1.25	0.500	1150	7.0	500	80	140	21.0	23.4	22.0/24.5	D0
ARF676	4800	1514	18.0	1620	1.25	0.500	2000	6.0	1000	250	140	18.0	20.0	22.0/24.5	G0
ARF678	4500	1691	27.0	2880	1.30	0.650	1350	4.2	1000	250	150	14.0	15.6	35.0/40.0	H0
ARF774	4500	2327	26.0	3380	1.30	0.250	1500	8.6	1000	60	125	11.0	12.2	46.0/54.0	M0
UP TO 5600 V															
ARF490	5600	652	9.5	451	1.50	0.870	1400	4.8	1000	200	125	37.0	41.2	11.8/13.2	C1

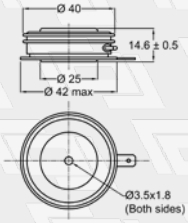


Fast Recovery Diodes dynamic characteristics definition

A2 H = 14.5±0.5 W = 55 gr

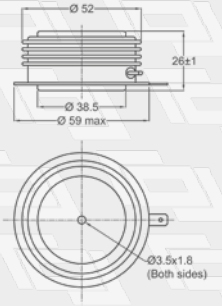


B0 W = 85 gr



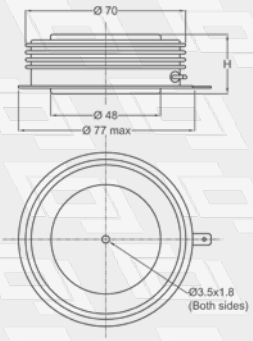
C0 W = 280 gr

C1 W = 300 gr

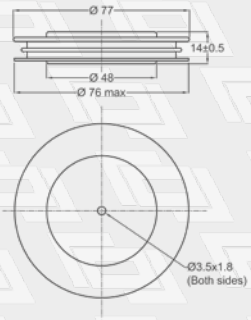


D0 H = 26±1 W = 500 gr

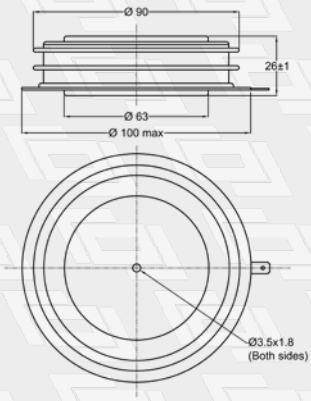
D1 H = 27±1 W = 500 gr



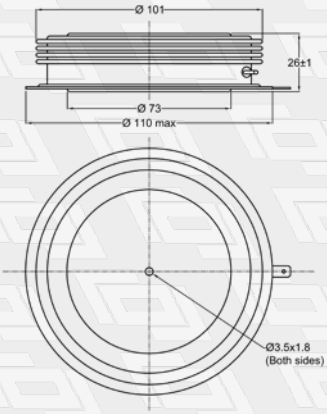
G0 W = 300 gr



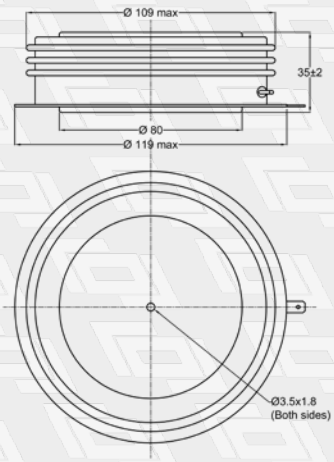
H0 W = 850 gr



N0 W = 1150 gr



M0 W = 1700 gr

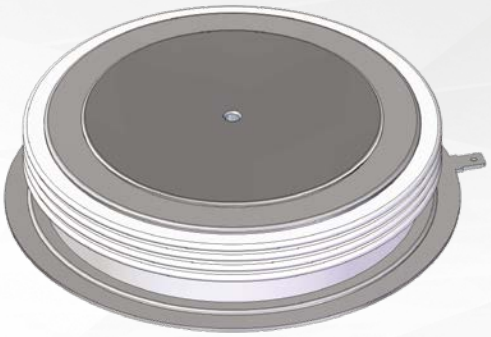


PRESS-PACK HIGH POWER SEMICONDUCTORS

FAST RECOVERY DIODES FOR IGBT, IEGT AND IGCT APPLICATIONS

MAIN CHARACTERISTICS

- IEC60747-2 compliant
- Highly reliable device in press-pack case
- Possibility of parallel and series connections
- Low losses
- High di/dt capability
- High frequency application
- Snubberless operation
- Junction temperature range: 125 - 150 °C
- Improved recovery softness

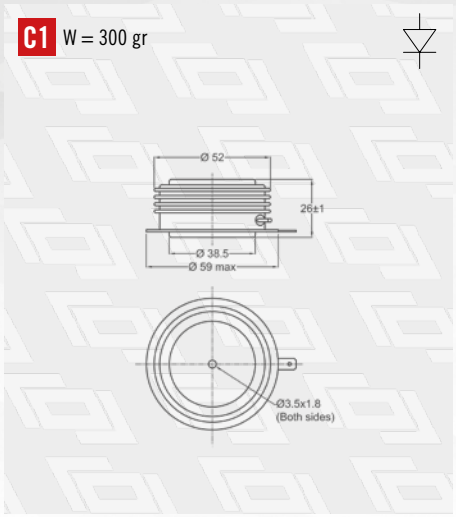


APPLICATIONS

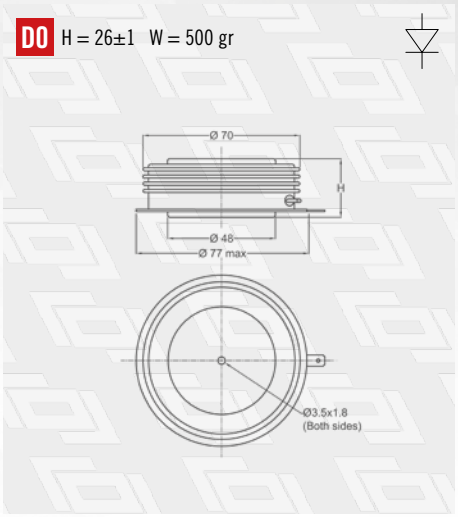
- Suitable as freewheeling, snubber and clamp diode in IGCT and IGBT circuits

Fast Recovery Diode	V_{RRM}	$I_{F(AV)}$ sine wave 50 Hz T_h = 55 °C	I_{FSM} sine wave 10 ms VR < 10 V	I^2t $T_{j\,max}$	$V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	Recovery Parameters Q_{rr} $T_{j\,max}$	t_{rr} $T_{j\,max}$	I_F	(di_r/dt)	$T_{j\,max}$	$R_{th(j-h)}$ double side 180° sin	$R_{th(j-h)}$ double side 120° sin	F min/max suggested range	Outline
	[V]	[A]	[kA]	[A²·s·10³]	[V]	[mΩ]	[µC]	[µs]	[A]	[A/µs]	[°C]	[°C/kW]	[°C/kW]	[kN]	
UP TO 3300 V															
ARF664	3300	935	18.0	1620	1.80	0.700	2000	3.6	2100	1100	125	21.0	23.4	22.0/24.5	D0
UP TO 4500 V															
ARF462	4500	435	10.0	500	2.70	1.400	1150	2.6	1000	1000	125	37.0	41.2	11.8/13.2	C1
ARF671	4500	790	15.0	1125	1.90	1.100	2500	3.6	2100	1000	125	21.0	23.4	22.0/24.5	D0
ARF672	4500	935	15.0	1125	1.80	0.950	1600	2.9	2100	1100	125	18.0	20.0	22.0/24.5	G0
ARF673	4500	990	15.0	1125	1.70	0.850	2300	3.5	2100	1100	125	18.0	20.0	22.0/24.5	G0
ARF681	4500	1140	25.0	3125	1.95	0.800	2200	3.8	2100	1000	125	14.0	15.6	35.0/40.0	H0
ARF670	4500	1315	15.0	1125	1.50	0.600	2050	3.9	1000	500	140	18.0	20.0	22.0/24.5	G0
ARF771LT	4500	1730	28.0	3920	1.95	0.800	3500	4.7	2500	1000	140	9.5	10.6	46.0/54.0	N0
UP TO 6000 V															
ARF694	6000	645	10.0	500	2.10	1.800	2000	3.5	2100	1000	125	21.0	23.4	22.0/24.5	D0
ARF695	6000	880	18.0	1620	2.10	1.550	3000	5.0	2100	1000	125	14.0	15.6	35.0/40.0	H0
ARF794HT	6000	1060	20.0	2000	2.10	1.400	4000	5.0	2500	1000	125	11.0	12.2	46.0/54.0	R0
ARF794LT	6000	1190	20.0	2000	2.10	1.400	4000	5.0	2500	1000	125	9.5	10.6	46.0/54.0	N0

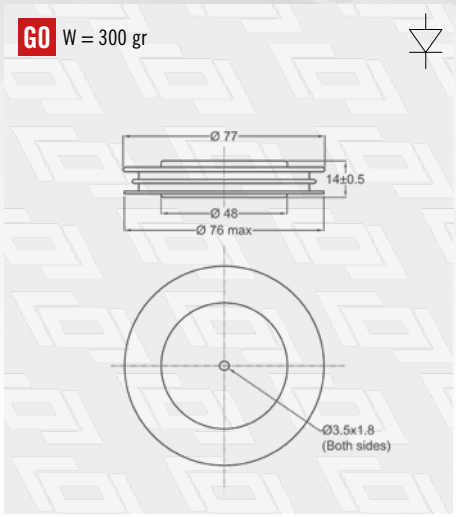
C1 W = 300 gr



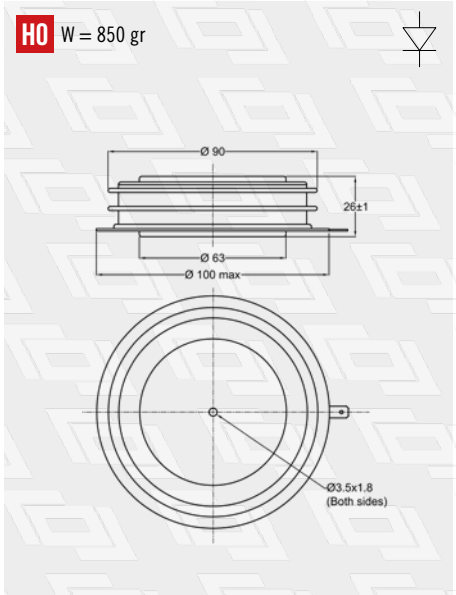
DO H = 26±1 W = 500 gr



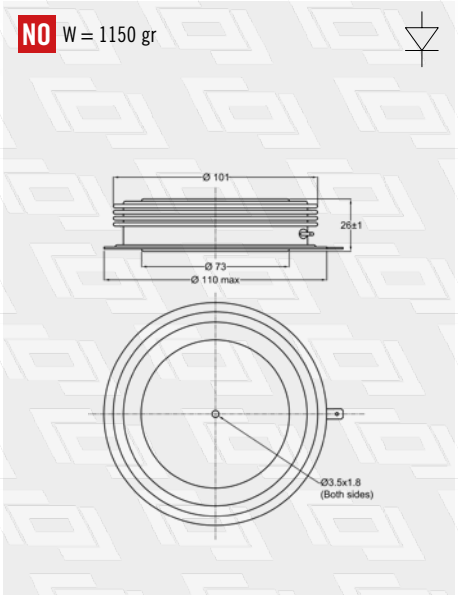
GO W = 300 gr



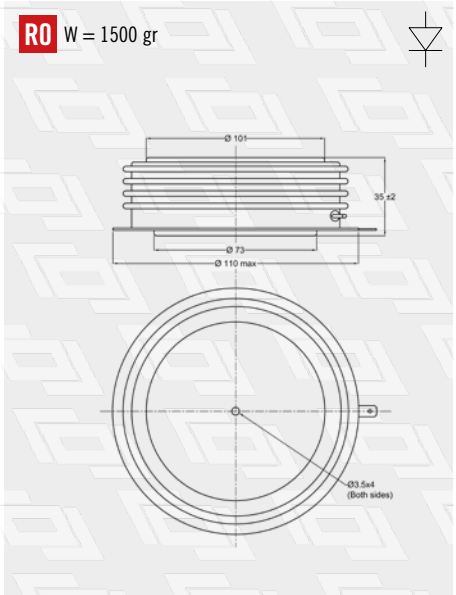
HO W = 850 gr



NO W = 1150 gr



RO W = 1500 gr

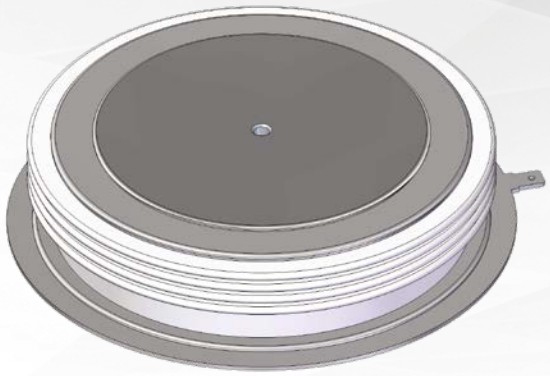


PRESS-PACK HIGH POWER SEMICONDUCTORS

FAST SWITCHING THYRISTORS

MAIN CHARACTERISTICS

- IEC60747-6 compliant
- Highly reliable device in press-pack case
- Low switching losses
- High frequency application
- Precise control of V_T, t_q and Q_{rr} by electron irradiation
- Junction temperature range: 120 - 125 °C



APPLICATIONS

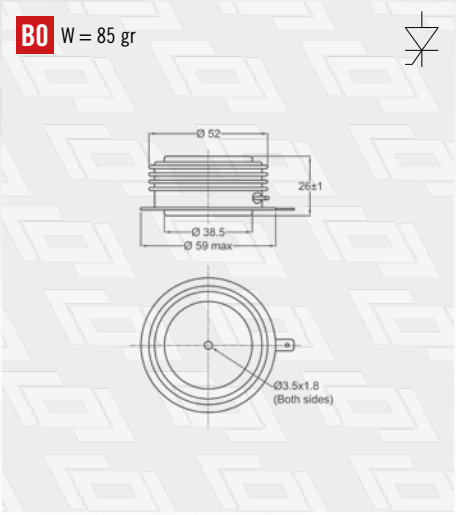
- Induction melting
- Induction heating
- Medium frequency industrial drivers
- Resonant power supplies
- UPS and pulse power systems
- Choppers, inverters and auxiliary system for traction applications

FAST SWITCHING THYRISTORS

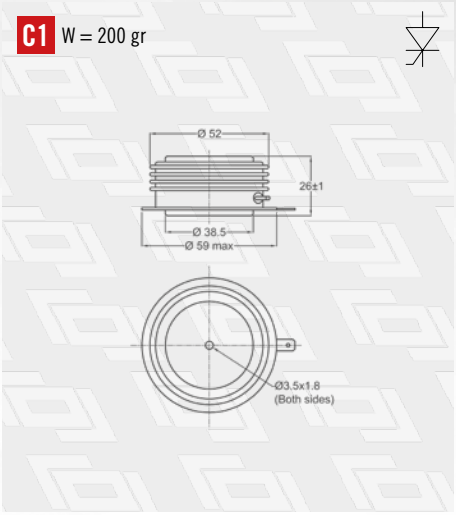
Fast Switching Thyristor	V_{RRM} V_{DRM}	$I_{T(AV)}$ sine wave 50 Hz T_h = 55 °C	ITSM sine wave 10 ms VR < 10V	$(di/dt)_{crit}$ $T_{j\,max}$	$(dv/dt)_{crit}$ $T_{j\,max}$	V_{GT} T_j = 25 °C	I_{GT} T_j = 25 °C	$V_{T(TO)}$ $T_{j\,max}$	r_T $T_{j\,max}$	t_d	t_q	Q_{rr} max dI_T/dt = 60 A/µs IT = 1000 A*	$T_{j\,max}$	$Rth_{(j-h)}$ double side 180°/120° sin	F	Outline
	[V]	[A]	[kA]	[A/µs]	[V/µs]	[V]	[mA]	[V]	[mΩ]	[µs]	[µs]	[µC]	[°C]	[°C/kW]	[kN]	
PRESS-PACK UP TO 1200 V																
ATF586	1200	550	7.0	1600	1000	2.5	250	1.43	0.820	0.40	20	100	125	95.0/105.9	4.5/5.0	B0
ATF401	1200	587	5.0	200	250	2.5	250	1.55	0.880	0.85	8	50	125	37.0/41.2	11.0/13.0	C1
ATF411	1200	711	9.0	1200	1000	2.5	250	1.36	0.530	0.85	12	460	125	37.0/41.2	11.0/13.0	C1
ATF857	1200	830	8.5	400	500	3.5	350	1.38	0.435	0.40	25	300	125	37.0/41.2	11.0/13.0	C1
ATF415	1200	920	10.0	500	600	3.5	350	1.38	0.300	0.85	20	200	125	37.0/41.2	11.0/13.0	C1
ATF515	1200	1330	16.0	500	600	3.5	350	1.20	0.250	0.85	25	160	125	24.0/26.6	14.0/17.0	D1
ATF615	1200	1625	20.0	800	600	3.5	350	1.25	0.200	0.85	25	230	125	21.0/23.4	17.0/21.0	D2
ATF511	1200	2078	29.0	1200	1000	3.5	300	1.39	0.167	1.00	15	300	125	20.0/22.2	20.0/24.0	D2
PRESS PACK UP TO 1600 V																
ATF427	1400	846	10.0	400	500	3.5	350	1.40	0.400	0.60	30	330	125	37.0/41.2	11.0/13.0	C1
ATF828	1600	845	10.0	400	600	3.5	350	1.30	0.450	0.60	35	360	125	37.0/41.2	11.0/13.0	C1
ATF827	1400	900	10.0	400	600	3.5	350	1.32	0.350	0.60	25	330	125	37.0/41.2	11.0/13.0	C1
ATF524	1600	1055	15.0	500	600	3.5	350	1.45	0.425	0.85	35	320	125	26.0/28.9	14.0/17.0	D1
ATF527	1400	1230	14.6	800	500	3.5	350	1.40	0.260	1.50	25	650	125	26.0/28.9	14.0/17.0	D1
ATF1047	1400	1305	16.0	500	600	3.5	350	1.32	0.230	0.60	30	650	125	26.0/28.9	14.0/17.0	D1
PRESS PACK UP TO 2000 V																
ATF820	2000	725	9.0	400	600	3.5	350	1.53	0.600	0.60	50	550	125	37.0/41.2	11.0/13.0	C1
ATF420	2000	800	8.2	800	500	3.5	350	1.20	0.590	1.50	55	550	125	37.0/41.2	11.0/13.0	C1
ATF1040	2000	1075	14.0	500	500	3.5	350	1.40	0.414	0.60	50	620	125	26.0/28.9	14.0/17.0	D1
ATF530	2000	1100	15.0	800	500	3.0	150	1.30	0.410	1.50	50	620	125	26.0/28.9	14.0/17.0	D1
ATF571	2000	1744	20.0	1200	1000	3.5	300	1.60	0.250	1.00	50	1500	125	21.0/23.4	21.0/30.0	D2
ATF744	2000	2248	43.0	1500	1000	3.5	350	1.42	0.145	1.50	50	600	125	11.0/12.2	40.0/50.0	M0
ATF743	2000	2595	36.0	500	600	3.5	350	1.30	0.180	0.80	70	800	125	11.0/12.2	40.0/50.0	M0
ATF751	1800	2915	36.0	1200	1000	3.5	350	1.25	0.160	2.00	40	1400	125	13.0/14.1	35.0/45.0	R0
PRESS PACK UP TO 4000 V																
ATF633	2100	1390	17.0	400	600	3.5	350	1.30	0.320	0.80	60	450	125	21.0/23.4	17.0/21.0	D2
ATF545	2500	1070	10.0	500	500	3.5	350	1.50	0.611	1.70	70	770	125	21.0/23.4	17.0/21.0	D2
ATF771	4000	1554	33.0	2000	1000	3.0	300	1.52	0.275	2.00	40	1400	125	13.0/14.1	35.0/45.0	R0

*The measurement condition of the Qrr characteristic may change. Request the datasheet for more information

B0 W = 85 gr

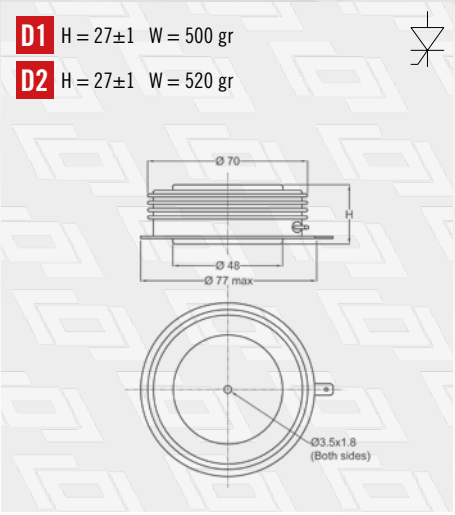


C1 W = 200 gr

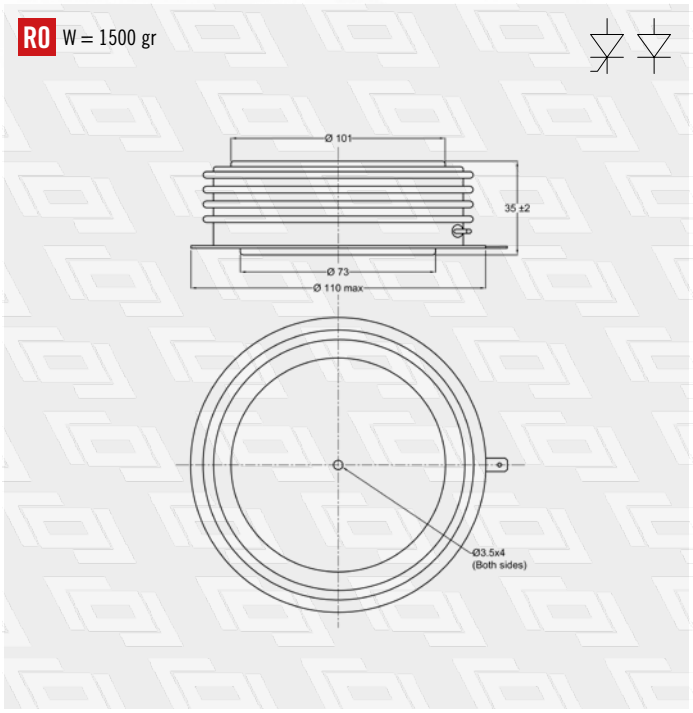


D1 H = 27±1 W = 500 gr

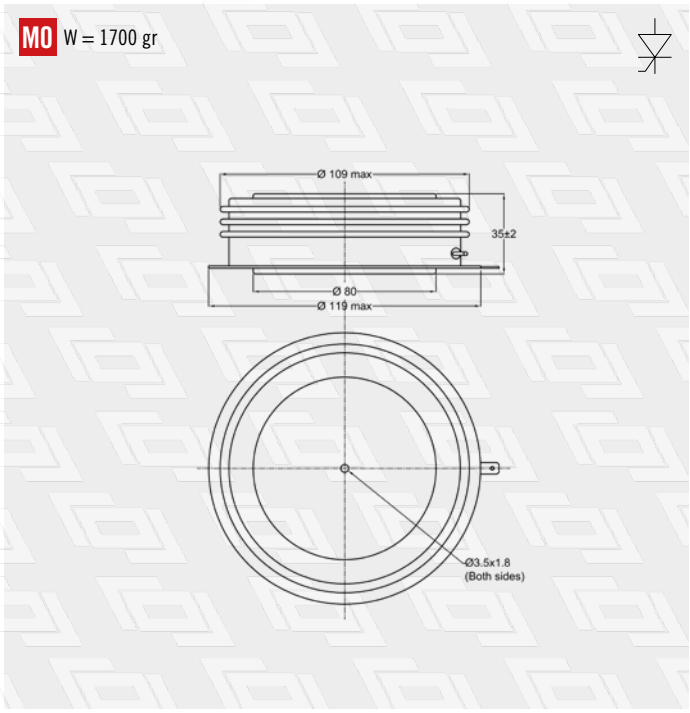
D2 H = 27±1 W = 520 gr



R0 W = 1500 gr



M0 W = 1700 gr



PRESS-PACK HIGH POWER SEMICONDUCTORS

GTO (GATE TURN OFF THYRISTORS)

MAIN CHARACTERISTICS

- High reliable device in press-pack case
- Very good trade off between conduction and switching losses
- Possibility of series connection
- Medium frequency applications
- Junction temperature range: -30 ÷ 125 °C

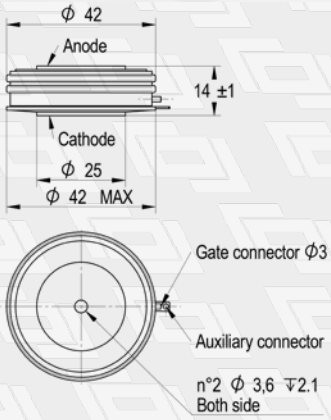
APPLICATIONS

- Inverter for traction converters
- Converter for auxiliary systems
- Spare parts

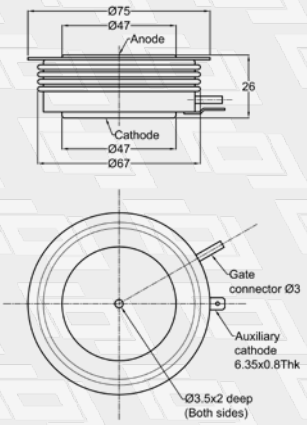
GTO (GATE TURN OFF THYRISTORS) CHARACTERISTICS

Gate Turn Off Thyristor	V_{DRM}	V_{RRM}	I_{DRM}	I_{RRM}	I_{TCM} @ C_s		$I_{T(AV)}/T_h$ 50 Hz	I_{TSM}	dV/dt_{crit}	V_{GT} T_j = 25 °C	I_{GT} T_j = 25 °C	V_T/I_T T_j = 125 °C	t_{gt}	t_{gq}	$T_{j\,max}$	$R_{th(j-h)}$ double side	Contact Diameter	Weight	F	Outline
	[V]	[V]	[mA]	[mA]	[A]	[µF]	[A/°C]	[kA]	[V/µs]	[V]	[A]	[V/A]	[µs]	[µs]	[°C]	[°C/kW]	[mm]	[g]	[kN]	
UP TO 2500 V																				
ATG335	2500	16	50	50	600	1.0	225/80	3.5	1000	0.9	1.0	2.75/600	4.5	12.9	125	75	25	80	5.0/6.0	J0
ATG635	2500	15	100	50	1500	3.0	550/75	10.0	1000	1.5	2.0	3.2/1400	10	22	125	30	48	530	14.0/17.0	E0
ATG646	2500	17	50	50	2000	4.0	800/75	16.0	1000	1.0	3.0	2.0/2000	5	24	125	22	63	800	17.0/24.0	I0
UP TO 4500V																				
ATG675	4500	17	100	10	1000	0.7	413/75	7.0	1000	1.5	2.5	4.0/1000	10	19	125	30	48	530	14.0/17.0	E0
ATG677	4500	17	150	10	2000	4.0	685/70	13.0	1000	1.5	2.5	3.6/2000	10	25	125	22	63	800	17.0/24.0	I0
ATG777	4500	16	100	10	2400	4.0	890/75	17.0	1000	1.5	3.0	3.1/3000	10	30	125	16	75	1300	31.0/35.0	Q0
ATG778	4500	16	100	10	3000	4.0	760/75	17.0	1000	1.5	3.0	3.8/2500	10	30	125	16	75	1300	31.0/35.0	Q0
ATG875	4500	17	150	10	4000	6.0	1100/75	25.0	1000	1.5	3.0	3.5/2500	7	34	125	11	85	1600	32.0/44.0	Z2

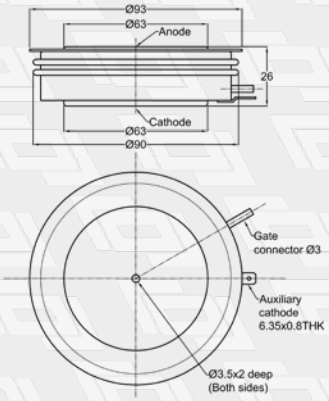
JO W = 80 gr



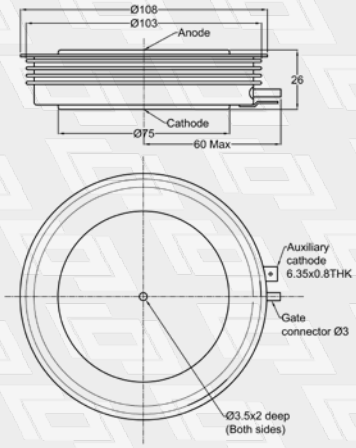
EO W = 530 gr



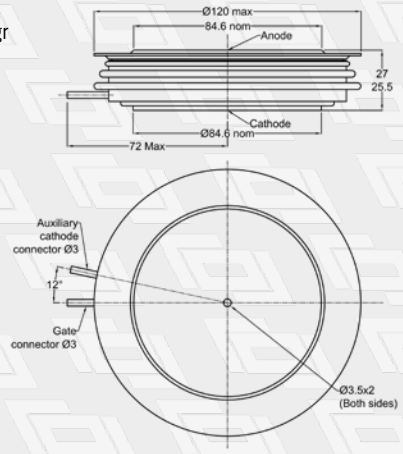
IO W = 800 gr



QO W = 1300 gr



Z2 W = 1600 gr



PRESS-PACK HIGH POWER SEMICONDUCTORS IDENTIFICATION SYSTEM

A T F	1 0 4 0	S	2 0	T	x x x
Type of device	Silicon code	Operations	Voltage code	tq Selection	Customer code

Type of device

AR = rectifier diodes; welding diodes
AUS = less ultrathin welding diodes
AT = phase control thyristors
ARF = fast switching diodes
ATF = fast switching thyristors
ATA = asymmetrical thyristors
ATG = gate turn off thyristors
ACB = IGBTs

Silicon code

Silicon device code

Operations

S = single
P = for parallel
X = Special selection

Voltage code

$V_{RRM}/100$	diodes diodes modules
V_{DRM}&$V_{RRM}/10$	SCR SCR Module
$V_{DRM}/100$	ASCR GTO
$V_{CES}/100$	IGBT

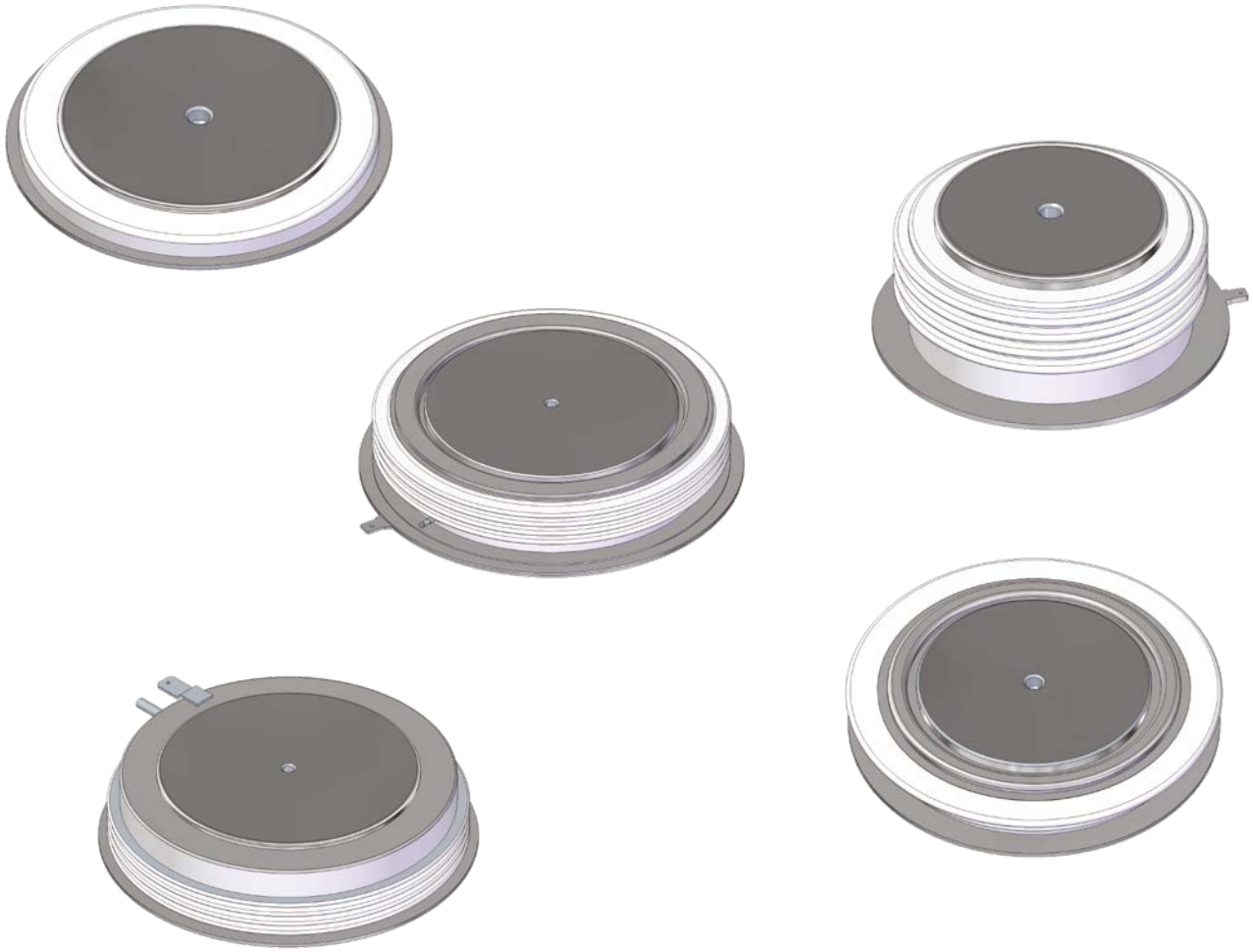
tq Selection

ts (µs)	code
10	D
12	C
15	B
20	A
25	L
30	M
35	N
40	P
45	R
50	S
60	T
70	U
80	W
100	X
150	Y
200	Z

only for ATF devices

Customer code

Customer code



FOR SPECIAL SELECTIONS PLEASE CONTACT OUR SALES DEPARTMENT

HIGH POWER INSULATED MODULES

HIGH POWER INSULATED MODULES

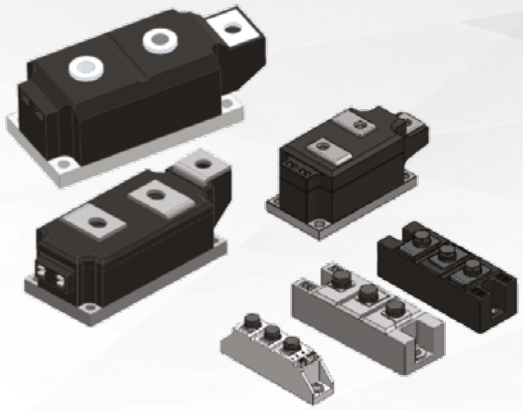
RECTIFIER DIODE AND PHASE CONTROL THYRISTOR INSULATED MODULES

MAIN CHARACTERISTICS

- Different class of insulation voltage (RMS) from 2.5 kV to 6.0 kV
- Full hermetic packaging for 4.5 kV and 6.0 kV insulated modules
- Base plate insulation using Al_2O_3 or AIN substrate for thermal management optimization
- Industrial compatible packaging

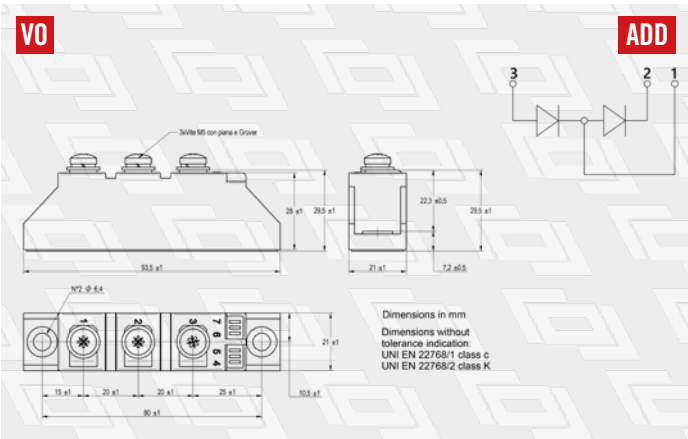
APPLICATIONS

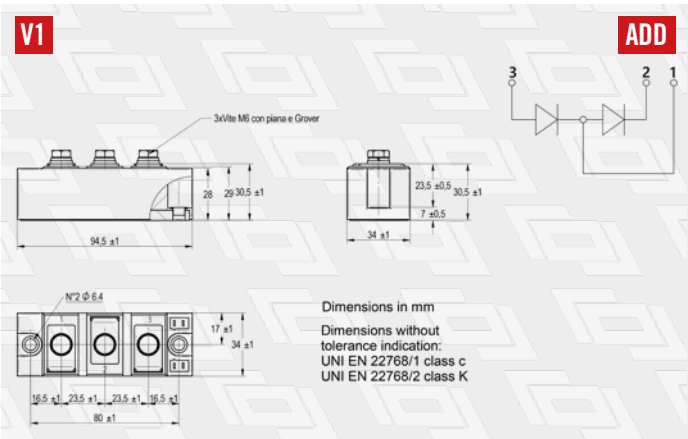
- Controlled and not controlled rectifier bridges for industrial applications
- UPS systems
- Battery chargers



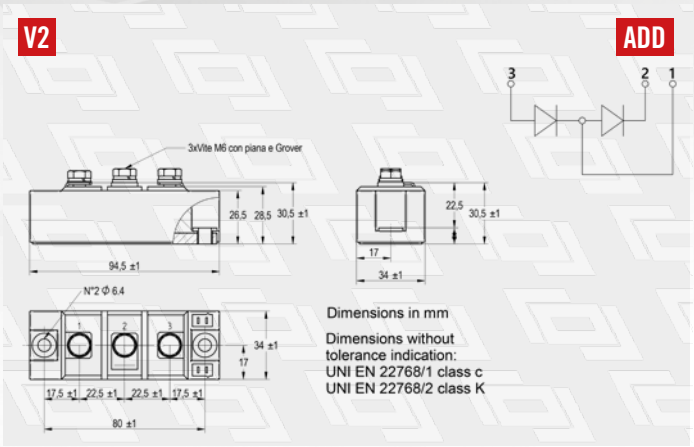
Rectifier Diode and Phase Control Thyristor Insulated Module	V_{DRM} V_{RRM}	$I_{T(AV)}/T_c$ $I_{F(AV)}/T_c$	I_{TSM} I_{FSM} 10 ms, $T_{j\,max}$	$V_{T(TO)}$ $V_{F(TO)}$ $T_{j\,max}$	r_F	$R_{th(j-c)}$ for element	$T_{j\,max}$	$V_{ins\,(RMS)}$ 1 min; T_j = 25 °C	Weight	Outline
	[V]	[A/°C]	[A]	[V]	[mΩ]	[°C/kW]	[°C]	[V]	[g]	
INSULATION VOLTAGE VINS = 2500 - 3000 V										
ADD105	1800	106/100	2800	0.82	0.200	350	150	3000	120	V0
ADD165	1800	162/100	6000	0.90	1.800	190	150	3000	250	V1
ADD175	2800	175/100	6000	0.85	1.500	190	150	3000	250	V1
ADD205	1800	201/100	7500	0.75	0.880	210	150	3000	250	V2
ADD265	2200	266/100	8300	0.70	0.680	164	150	3000	800	V3
ADD335	1800	272/100	10000	0.75	0.550	164	150	3000	800	V3
ADD465	4000	471/100	12000	0.82	0.600	70	150	3000	1500	V4
ADD605	3200	691/85	15000	0.85	0.290	70	150	3000	1500	V4
ADD705	2600	718/85	20000	0.85	0.250	70	150	3000	1500	V4
ADD805	2200	819/85	19000	0.77	0.180	70	150	3000	1500	V4
ADD905	1200	837/85	24000	0.80	0.150	70	150	3000	1500	V4
ATT105	1800	103/85	2200	0.80	2.290	280	125	3000	100	V7
ATT115	3600	116/85	2500	0.95	3.000	190	125	3000	350	V8
ATT135	2800	133/85	5000	0.90	1.700	180	120	3000	250	V8
ATT165	2200	163/85	5000	0.80	1.400	180	125	3000	250	V9
ATT175	1800	179/85	5400	0.79	1.379	180	130	3000	180	V9
ATT215	1800	218/80	5400	0.70	1.200	170	130	3000	180	V9
ATT265	2200	267/85	9100	0.79	0.700	120	125	3000	820	V10
ATT335	1800	336/75	9100	0.80	0.530	120	125	3000	820	V10
ATT255	4400	271/85	6000	1.30	1.800	50	125	3000	1500	V11
ATT355	3600	348/93	9000	1.15	0.800	50	125	3000	1500	V11
ATT405	2800	399/85	9000	1.02	0.420	70	125	3000	1500	V11
ATT465	2400	462/85	12000	1.10	0.552	50	125	3000	1500	V11
ATT575	1800	573/85	14500	1.00	0.380	50	135	3000	1500	V11
ATT605	1200	649/85	17000	0.81	0.250	50	140	3000	1500	V11
ATT805	1800	798/75	28000	0.85	0.230	50	125	3000	1500	V13
ATD115	3600	116/85	1500	0.95	3.000	190	125	3000	350	V8
ATD135	2800	133/85	5000	0.90	1.700	180	120	3000	250	V8
ATD165	2200	163/85	5000	0.80	1.400	180	125	3000	250	V9
ATD175	1800	179/85	5400	0.79	1.370	180	130	3000	180	V9
ATD245	3400	240/90	7500	0.80	0.700	120	125	3000	820	V10

Rectifier Diode and Phase Control Thyristor Insulated Module	V_{DRM} V_{RRM}	$I_{T(AV)}/T_c$ $I_{F(AV)}/T_c$	I_{TSM} I_{FSM} 10 ms, $T_{j\,max}$	$V_{T(TO)}$ $V_{F(TO)}$ $T_{j\,max}$	r_F	$R_{th(j-c)}$ for element	$T_{j\,max}$	$V_{ins\,(RMS)}$ 1 min; T_j = 25 °C	Weight	Outline
	[V]	[A/°C]	[A]	[V]	[mΩ]	[°C/kW]	[°C]	[V]	[g]	
INSULATION VOLTAGE VINS = 2500 - 3000 V										
ATD285	2200	282/75	7500	0.90	0.750	125	125	3000	600	V11
ATD335	1800	336/75	9100	0.80	0.530	120	125	3000	820	V11
ATD255	3800	262/93	7000	1.29	1.780	50	125	3000	1500	V11
ATD575	1800	570/95	16000	0.72	0.320	60	135	3000	1500	V11
ATD745	2400	746/77	24500	0.90	0.210	50	125	3000	3500	V13
INSULATION VOLTAGE VINS = 4500 V										
ADD480	4500	572/85	4500	1.00	0.920	50	150	4500	1500	V5
ADD500	3300	552/100	10300	0.89	0.675	50	150	4500	1500	V5
ADD700	2800	751/100	17900	0.85	0.260	50	150	4500	1500	V5
ADD1000	1000	957/100	23000	0.75	0.125	50	150	4500	1500	V5
ADS1000	1000	957/100	23000	0.75	0.125	50	150	4500	1500	V6
ADT461	2400	462/85	12000	1.10	0.552	50	125	4500	1500	V12
ADT571	1600	573/91	14500	1.00	0.380	50	135	4500	1500	V12
ATD461	2400	462/85	12000	1.10	0.552	50	125	4500	1500	V12
ATD571	1600	573/91	14500	1.00	0.380	50	135	4500	1500	V12
ATT250	4000	256/85	5900	1.35	1.400	70	125	4500	1500	V12
ATT461	2400	462/85	12000	1.10	0.552	50	125	4500	1500	V12
ATT571	1600	573/91	14500	1.00	0.380	50	135	4500	1500	V12
ATT621	1600	620/91	15000	0.90	0.340	50	135	4500	1500	V12
INSULATION VOLTAGE VINS = 6000 V										
ADD360HVI	4500	385/85	5600	1.00	0.920	90	150	6000	1500	V5
ADD460HVI	5600	460/85	8000	1.00	0.920	70	150	6000	1500	V5
ADD480HVI	4500	493/85	9000	0.89	0.815	70	150	6000	1500	V5
ADD500HVI	3300	526/85	10300	0.89	0.675	70	150	6000	1500	V5
ADD700HVI	2800	711/85	17900	0.85	0.260	70	150	6000	1500	V5
ATT200HVI	5800	200/85	4500	1.45	2.850	70	125	6000	1500	V12
ATD200HVI	5800	200/85	4500	1.45	2.850	70	125	6000	1500	V12
ADT200HVI	5800	200/85	4500	1.45	2.850	70	125	6000	1500	V12
ATT250HVI	4500	259/85	5900	1.35	1.335	90	125	6000	1500	V12
ATD250HVI	4500	259/85	5900	1.35	1.335	90	125	6000	1500	V12
ADT250HVI	4500	259/85	5900	1.35	1.335	90	125	6000	1500	V12
INSULATION VOLTAGE VINS = 7000 V										
ADD340HHVIK	4500	340/85	5600	1.40	0.990	90	125	7000	1500	V5

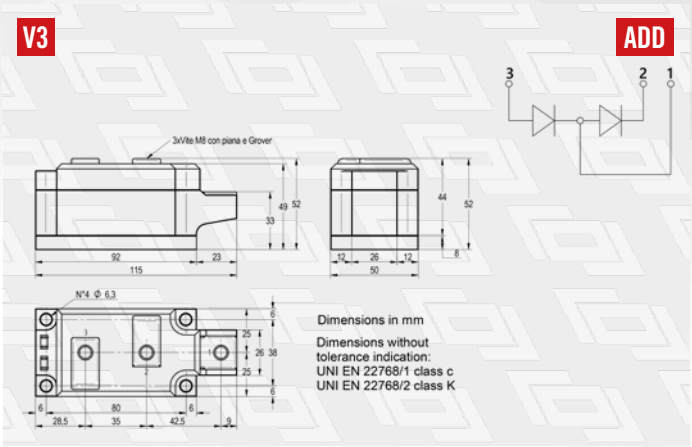




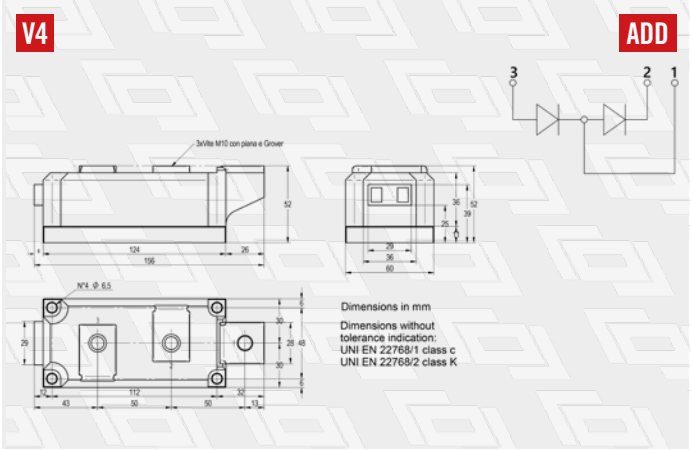
V2 — ADD



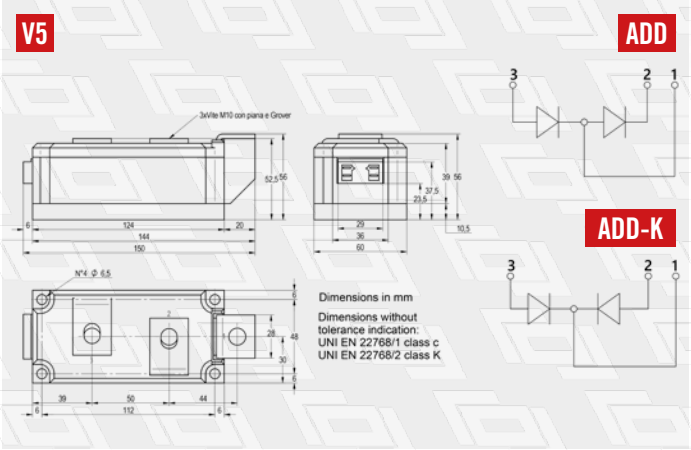
V3 — ADD



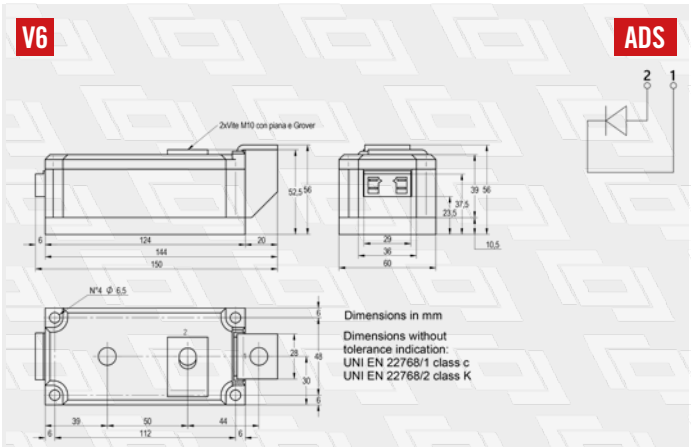
V4 — ADD



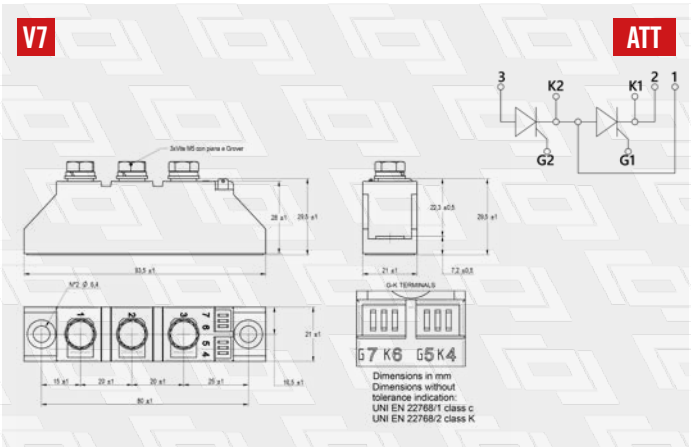
V5 — ADD / ADD-K



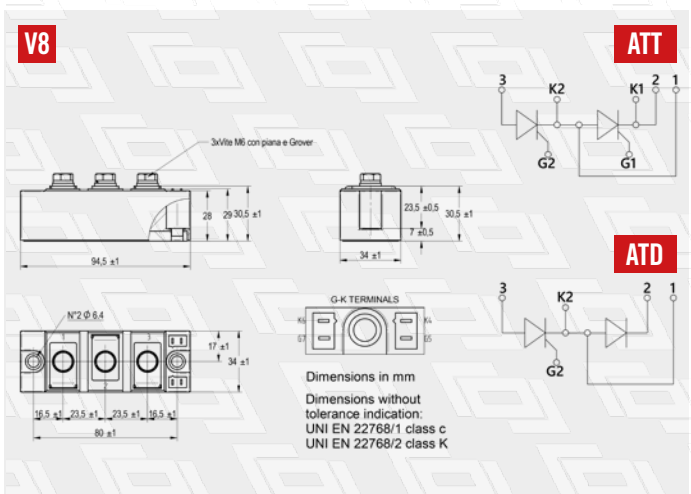
V6 — ADS



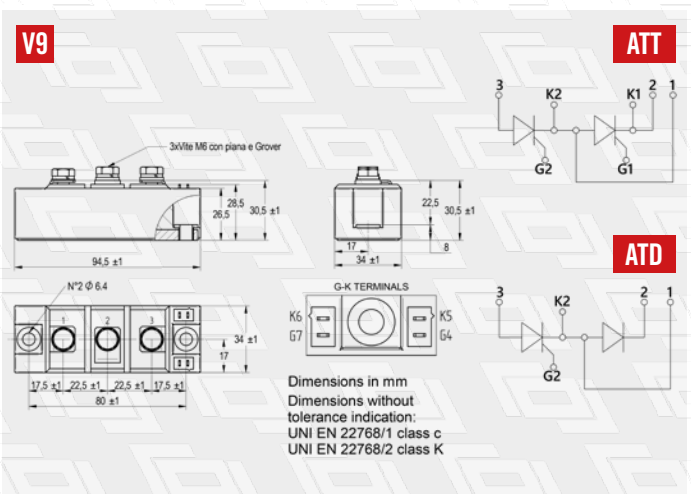
V7 — ATT



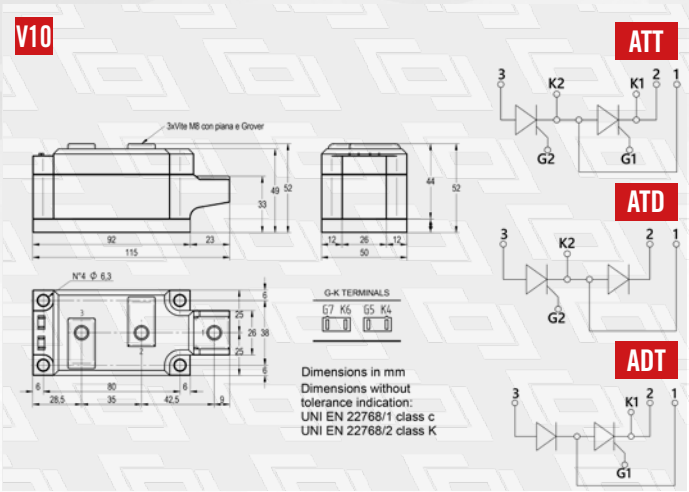
V8 — ATT / ATD



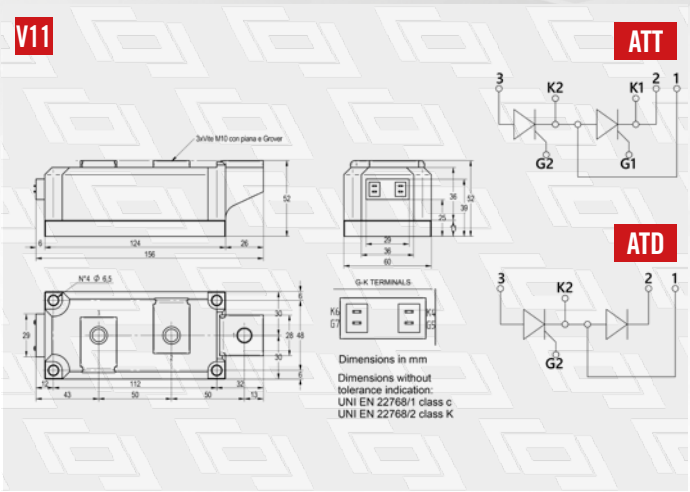
V9 — ATT / ATD



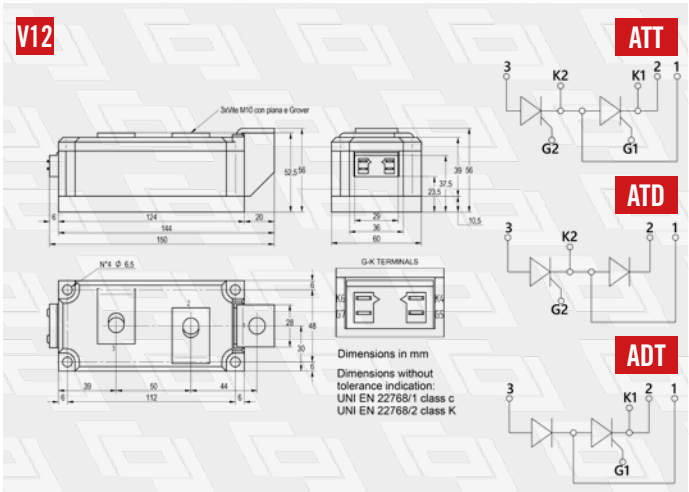
V10



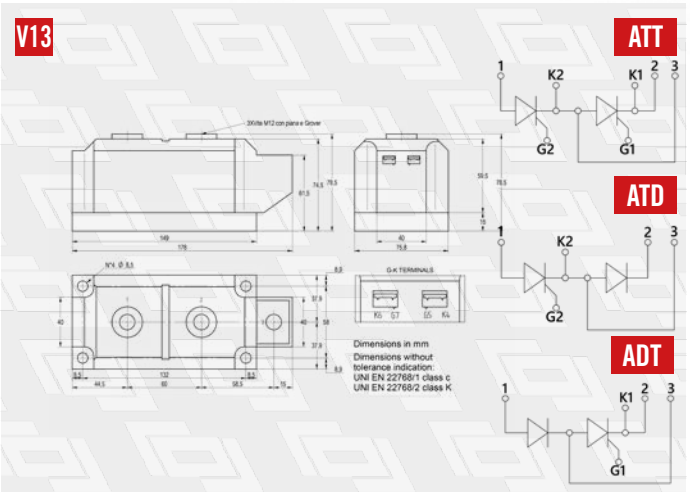
V11



V12



V13



HIGH POWER INSULATED MODULES

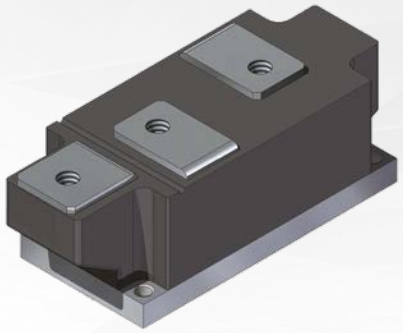
FAST RECOVERY DIODES INSULATED MODULES

MAIN CHARACTERISTICS

- Insulation voltage (RMS) from 4.5 kV to 6 kV
- Full hermetic package
- Base plate insulation using AIN substrate
- Industrial compatible package
- Improved recovery softness

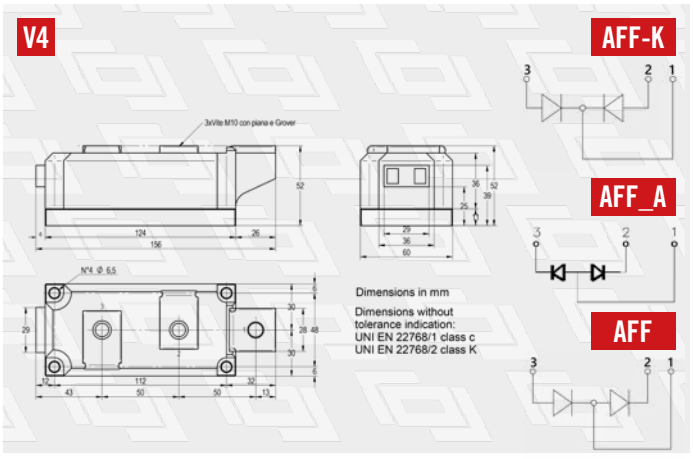
APPLICATIONS

- Auxiliary system for traction applications



Fast Recovery Diode Insulated Module	V_{RRM}	$I_{F(AV)}/T_c$	I_{FSM} 10 ms. $T_{j\,max}$	$V_{F(TO)}$ $T_{j\,max}$	r_F	Q_{rr} (1)	$R_{th(j-c)}$ for element	$T_{j\,max}$	$V_{ins\,(RMS)}$ 1 min; T_j = 25 °C	Weight	Outline
	[V]	[A/°C]	[A]	[V]	[mΩ]	[µC]	[°C/kW]	[°C]	[V]	[g]	
AFF150	3300	150/55	2500	1.70	7.400	175	105	125	4500	1500	V4
AFF150A	3300	150/55	2500	1.70	7.400	175	105	125	4500	1500	V4
AFF150K	3300	150/55	2500	1.70	7.400	175	105	125	4500	1500	V4
AFF230	2600	208/100	5000	1.15	1.500	185	125	150	4500	1500	V4
AFF230A	2600	208/100	5000	1.15	1.500	185	125	150	4500	1500	V4
AFF230K	2600	208/100	5000	1.15	1.500	185	125	150	4500	1500	V4
AFF300	2600	252/70	5000	1.15	0.685	120	105	125	4500	1500	V4
AFF300A	2600	252/70	5000	1.15	0.685	120	105	125	4500	1500	V4
AFF300K	2600	252/70	5000	1.15	0.685	120	105	125	4500	1500	V4
AFF350	4500	356/55	9000	2.70	1.400	900	50	125	4500	1500	V4
AFF350A	4500	356/55	9000	2.70	1.400	900	50	125	4500	1500	V4
AFF350K	4500	356/55	9000	2.70	1.400	900	50	125	4500	1500	V4
AFF450	4500	448/100	10000	1.40	0.750	1600	50	150	4500	1500	V4
AFF450A	4500	448/100	10000	1.40	0.750	1600	50	150	4500	1500	V4
AFF450K	4500	448/100	10000	1.40	0.750	1600	50	150	4500	1500	V4
AFF450HVI	4500	450/80	10000	1.40	0.750	1600	50	150	6000	1500	V4
AFF450AHVI	4500	450/80	10000	1.40	0.750	1600	50	150	6000	1500	V4
AFF450KHVI	4500	450/80	10000	1.40	0.750	1600	50	150	6000	1500	V4

(1) Recovery condition IF = 200 A; dIF/dt = 1000 A/µs; VR = 50 V

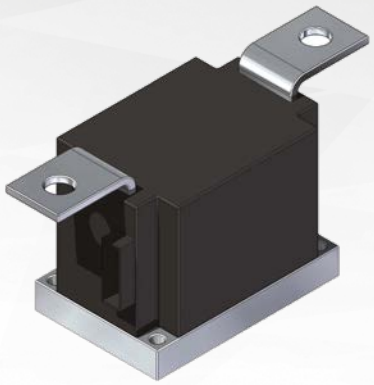


HIGH POWER INSULATED MODULES

HIGH CURRENT RECTIFIER DIODE AND PHASE CONTROL THYRISTOR INSULATED MODULES

MAIN CHARACTERISTICS

- Insulation voltage (RMS) from 3.0 kV to 6.0 kV
- Full hermetic packaging
- Base plate insulation using AIN substrate
- Industrial compatible packaging

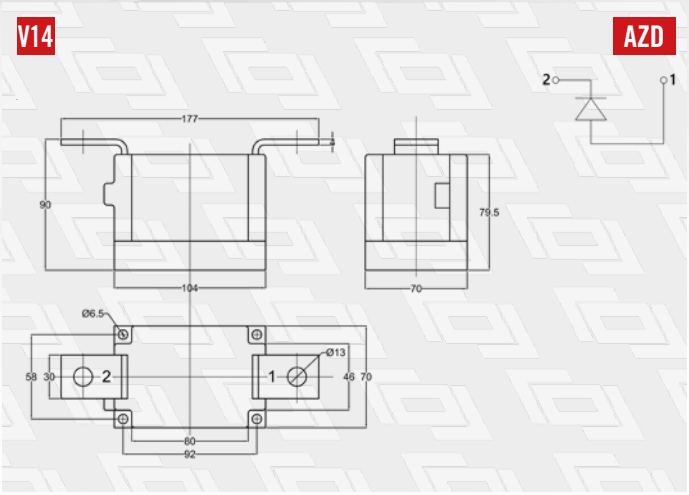


APPLICATIONS

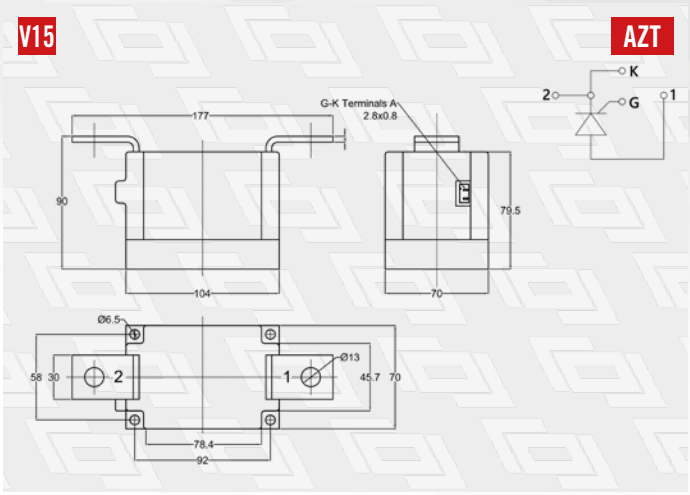
- Controlled and not controlled rectifier bridges for industrial applications
- UPS systems
- Battery chargers

High Current Rectifier Diode and Phase Control Thyristor Insulated Modules	V_{DRM} V_{RRM}	$I_{T(AV)}/T_c$ $I_{F(AV)}/T_c$	I_{TSM} I_{FSM} 10 ms, $T_{j\,max}$	$V_{T(TO)}$ $V_{F(TO)}$ $T_{j\,max}$	r_F $T_{j\,max}$	$R_{th(j-c)}$ for element	$T_{j\,max}$	$V_{ins\,(RMS)}$ 1 min; T_j = 25 °C	Weight	Outline
	[V]	[A/°C]	[kA]	[V]	[mΩ]	[°C/kW]	[°C]	[V]	[g]	
INSULATION VOLTAGE VINS = 3000 V										
AZT805	1800	819/85	30.0	0.83	0.190	42	125	3000	2500	V15
AZT745	2200	783/85	30.0	0.85	0.190	42	125	3000	2500	V15
AZD935	4400	949/90	29.0	0.85	0.280	42	150	3000	2800	V14
AZD1085	2800	1095/100	30.0	0.79	0.110	42	150	3000	2800	V14
AZD1285	2200	1284/100	30.0	0.78	0.105	42	160	3000	2800	V14
AZD1385	1800	1303/95	30.0	0.78	0.070	42	150	3000	2800	V14
AZDD1005	2800	1461/55	32.0	0.90	0.180	41	150	3000	4500	V13
INSULATION VOLTAGE VINS = 4500 V										
AZD1280	1000	1287/100	38.0	0.75	0.055	42	150	4500	2800	V14
AZD1600	1000	1600/95	44.8	0.75	0.055	42	150	4500	2800	V14
AZD1080	2800	1087/100	30.0	0.80	0.110	42	150	4500	2800	V14
AZD930	4500	929/100	19.0	0.80	0.210	42	150	4500	2800	V14
AZT1150	800	1149/85	30.0	0.80	0.120	42	140	4500	2800	V15
AZT800	1800	808/85	30.0	0.82	0.180	42	125	4500	2800	V15
AZT740	2200	719/85	30.0	0.90	0.240	42	125	4500	2800	V15
AZT630	2800	634/85	26.0	1.05	0.290	42	125	4500	2800	V15
AZT530	3600	532/85	17.0	1.22	0.450	42	125	4500	2800	V15
AZT460	4500	452/85	11.0	1.20	0.700	42	125	4500	2800	V15
HIGH INSULATION VOLTAGE VINS = 6000 V										
AZD780HVI	4500	805/100	19.0	0.80	0.210	51	150	6000	2800	V14
AZD610HVI	5800	611/100	20.0	1.00	0.400	51	150	6000	2800	V14
AZT400HVI	4500	411/85	11.0	1.20	0.700	51	125	6000	2800	V15
AZT310HVI	5800	313/85	10.0	1.30	1.150	51	120	6000	2800	V15
AZTT400HVI	4500	411/85	11.0	1.20	0.700	51	125	6000	5800	V16
AZTT310HVI	5800	313/85	10.0	1.30	1.150	51	120	6000	5800	V16

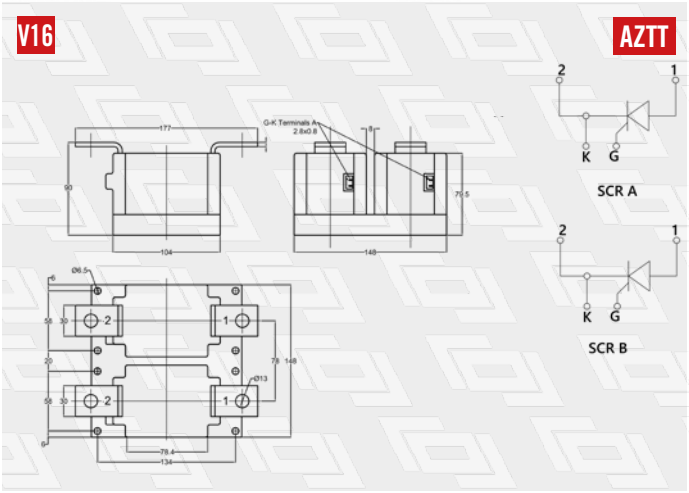
V14 AZD



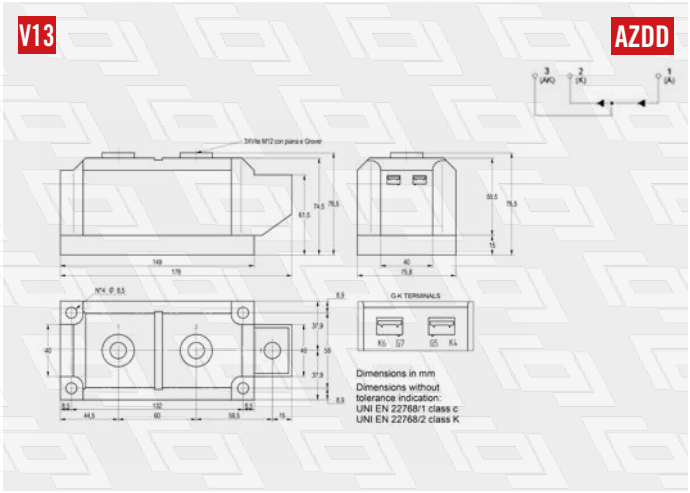
V15 AZT



V16 AZTT

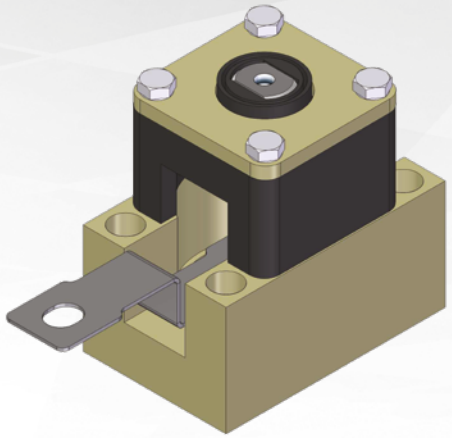


V13 AZDD



HIGH POWER INSULATED MODULES

INSULATED POWER MODULE - ABI SERIES



MAIN CHARACTERISTICS

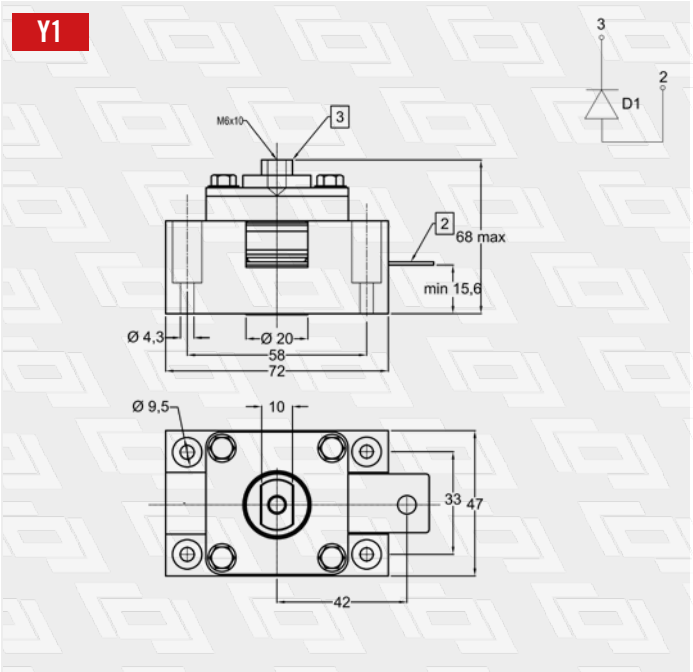
- Insulation voltage (RMS) up to 9.5 kV
- Custom design to optimize circuit layout
- The materials used are compliant with UL94-V0 standard and ROHS requirements
- Base plate insulation using AIN substrates

APPLICATIONS

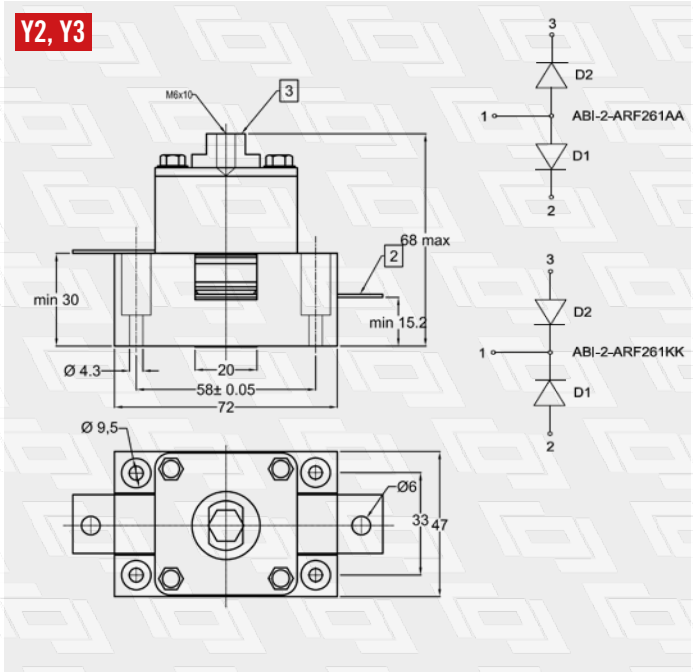
- Auxiliary circuits for traction
- Medium voltage industrial inverters

Insulated Power Module type ABI	Voltage class	Devices number	V_{RRM}	I_{FAV} T_h = 55 °C	Recovery parameters Q_{rr} $T_{j\,max}$	Recovery parameters t_{rr} $T_{j\,max}$	Test condition dI_F/dt	V_{ins} rms, 1 min	$T_{j\,max}$	Outline
			[V]	[A]	[µC]	[µs]	[A/µs]	[V]	[°C]	
STANDARD INSULATION VOLTAGE VINS = 6000 V										
ABI-1-ARF261	S33	1	3300	67	45	1.0	100	6000	125	Y1
ABI-2-ARF261AA	S33	2	3300	D1 = 43 D2 = 24	45	1.0	100	6000	125	Y2
ABI-2-ARF261KK	S33	2	3300	D1 = 43 D2 = 24	45	1.0	100	6000	125	Y3
ABI-1-AR409PC	S02	1	200	825	-	-	-	6000	125	Y4
HIGH INSULATION VOLTAGE VINS = 9500 V										
ABI-1-ARF261HVI-A	S33	1	3300	59	45	1.0	100	9500	125	Y5
ABI-1-ARF261HVI-K	S33	1	3300	59	45	1.0	100	9500	125	Y6
ABI-2-ARF261HVIAA	S33	2	3300	D1 = 40.5 D2 = 20.0	45	1.0	100	9500	125	Y7
ABI-2-ARF261HVIKK	S33	2	3300	D1 = 40.5 D2 = 20.0	45	1.0	100	9500	125	Y8
ABI-1-ARF372HVI-A	S45	1	4500	64	100	1.7	100	9500	125	Y9
ABI-1-ARF372HVI-K	S45	1	4500	64	100	1.7	100	9500	125	Y10
ABI-2-AR372X2HVI	S45	2	4500	191	450 (typ)	-	-	9500	150	Y11

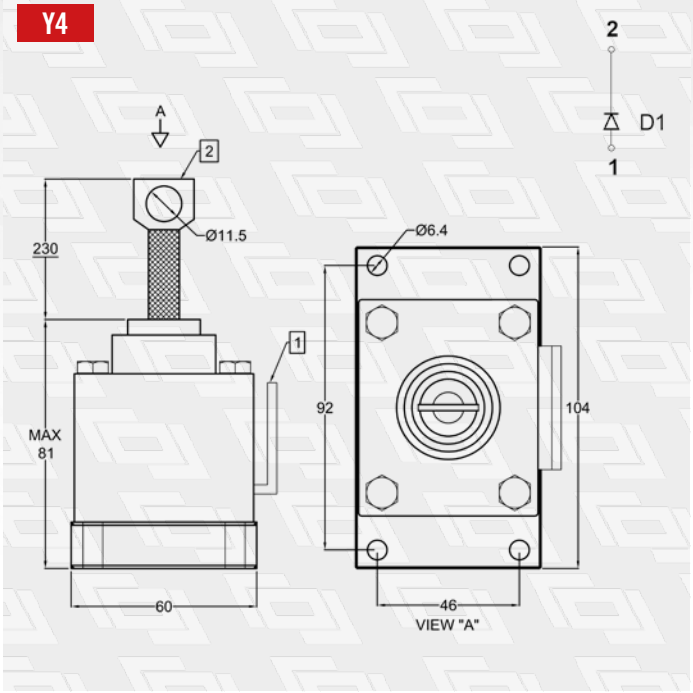
Y1



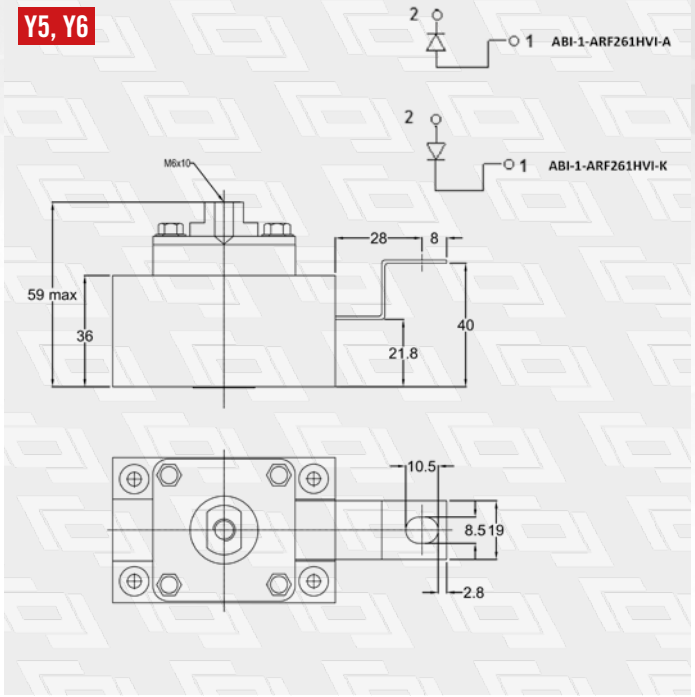
Y2, Y3



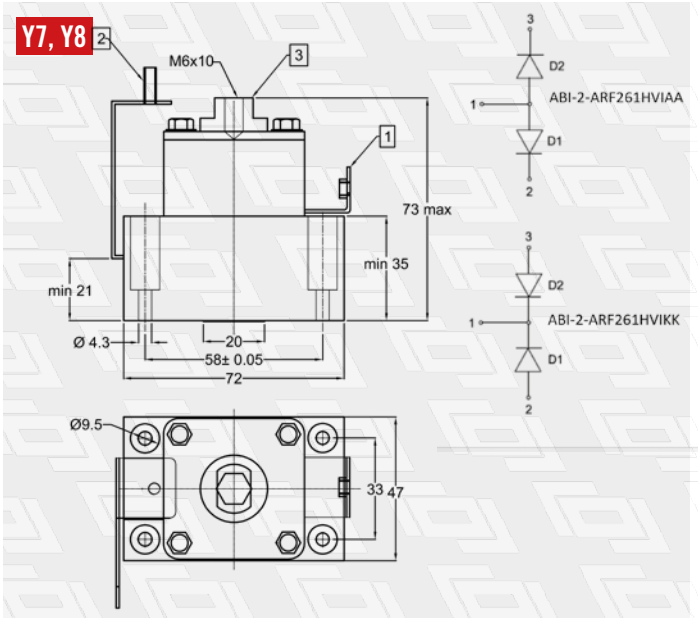
Y4



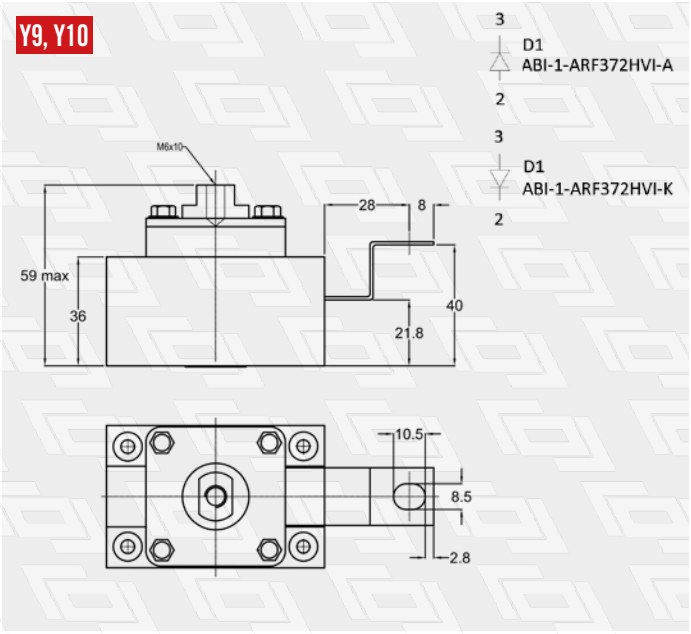
Y5, Y6



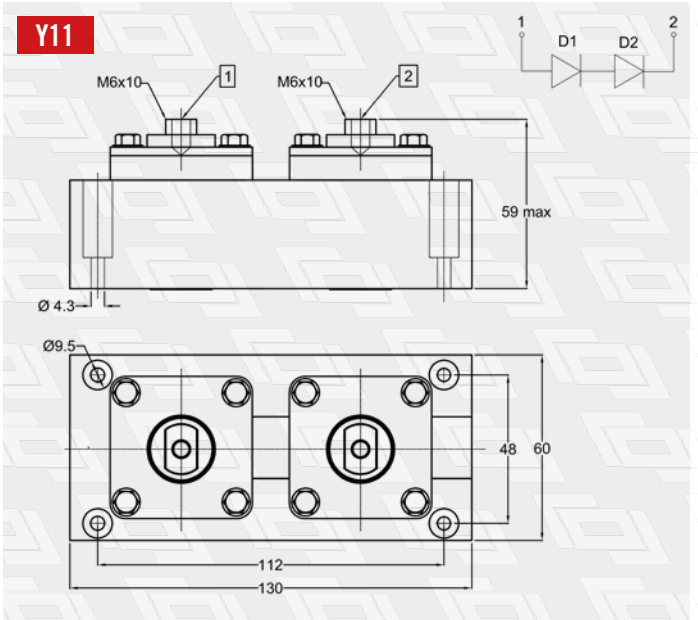
Y7, Y8



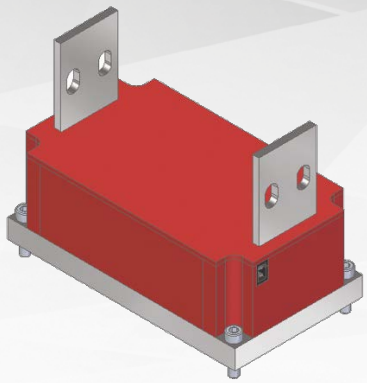
Y9, Y10



Y11



HIGH POWER INSULATED MODULES



ADVANCED POWER MODULE - APM SERIES

MAIN CHARACTERISTICS

- Insulated module with press-pack device inside
- Different configurations:
  - GTO - Fast Recovery Diode/Dual Fast Recovery Diode/Dual Thyristor / Dual Rectifier Diode/Thyristor - Rectifier Diode
- Insulation system with high efficiency thermoconductive material
- Devices electrically and mechanically compatible with POW-R-BRIK module
- High durability and reliability
- Precise control of V_T, t_q and Q_{rr} by electronic irradiation

A POWERFUL INSULATED MODULE TECHNOLOGY

- High insulation and high thermal conductivity is obtained by using AlN disc or thermoconductive elastomer
- High reliability based on press-pack hermetic technology
- Customized control plan with 100% test of request characteristics
- Test report

APPLICATIONS

- For industrial medium frequency applications
- Inverters for traction (Tramway, Metro)
- Input rectifier bridge for industrial applications

MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

THYRISTOR AND DIODES ADVANCED POWER MODULES

Advanced Power Module	ELEMENT 1	ELEMENT 2	ELEMENT 1		ELEMENT 2		ELEMENT 1	ELEMENT 2	ELEMENT 1		ELEMENT 2			
	V_{DRM} V_{RRM}	V_{DRM} V_{RRM}	I_{TAV} I_{FAV}	@T_C	I_{TAV} I_{FAV}	@T_C	I_{TSM} I_{FSM}	I_{TSM} I_{FSM}	$V_{T(TO)}$ $V_{F(TO)}$	r_T r_F	$V_{T(TO)}$ $V_{F(TO)}$	r_T r_F	(dV_D/dt)	t_q t_{rr}
	[V]	[V]	[A]	[°C]	[A]	[°C]	[kA]	[kA]	[V]	[mΩ]	[V]	[mΩ]	[V/µs]	[µs]
APM1500T	1800	-	1526	86	-		60.0	-	0.92	0.095	-	-	500	320.0
APM530T	3000	-	459	85	-	-	13.0	-	1.20	0.450	-	-	500	400.0
APM240FF	2200	2200	239	85	239	85	6.5	6.5	1.20	0.800	1.20	0.800	-	4.0
APM230FF	2500	2500	224	100	224	100	5.0	5.0	1.40	1.500	1.40	1.500	-	1.5
APM530DD	3000	3000	839	100	839	100	14.0	14.0	0.90	0.130	0.90	0.130	-	25.0
APM800DDK	2500	2500	882	100	882	100	16.0	16.0	0.85	0.120	0.85	0.120	-	25.0
APM800FFA	2500	2500	801	80	801	80	16.0	16.0	1.10	0.310	1.10	0.310	-	2.3
APM800FF	2500	2500	801	80	801	80	16.0	16.0	1.10	0.310	1.10	0.310	-	2.3
APM540DT	2400	2400	780	85	780	85	16.0	16.0	0.90	0.120	0.90	0.120	300	-
APM590TT	1400	1400	593	85	593	85	27.0	27.0	0.82	0.180	0.82	0.180	1000	-
APM1200DD	2500	2500	1192	85	1192	85	33.0	33.0	0.76	0.105	0.76	0.105	-	-
APM310TTHVI	5600	5600	313	85	313	85	10.0	10.0	1.30	1.150	1.30	1.150	500	-
APM310TDHVI	5600	5600	313	85	469	85	10.0	10.0	1.30	1.150	1.30	1.150	500	-
APM800TT	1800	1800	808	85	808	85	25.0	25.0	0.82	0.820	0.82	0.820	500	250.0
APM740DDHVI	5600	5600	738	85	738	85	20.0	20.0	1.00	0.400	1.00	0.400	-	-
APM1100DDHVI	2800	2800	1085	85	1085	85	28.0	28.0	0.80	0.140	0.80	0.140	-	-

GTO AND FAST RECOVERY DIODES ADVANCED POWER MODULES

Advanced Power Module	GTO	DIODE	GTO	GTO	DIODE	GTO	DIODE	GTO		DIODE		GTO
	V_{DRM}/V_{RRM}	V_{RRM}	I_{TCM}	IT_{AV} T_C = 55 °C	I_{FAV} T_C = 55 °C	I_{TSM} T_j = 125 °C	I_{FSM} T_j = 140 °C	$V_{T(TO)}$	r_T	$V_{F(TO)}$	r_F	(dV_D/dt)
	[V]	[V]	[A]	[A]	[A]	[kA]	[kA]	[V]	[mΩ]	[V]	[mΩ]	[V/µs]
APM1800GFF	2500/16	2500	1800	435	421	11	11	1.30	0.650	1.25	0.500	1000
APM2000GFF	2500/16	2500	2000	435	400	11	11	1.30	0.650	1.15	0.730	1000

GATE, THERMAL AND MECHANICAL CHARACTERISTICS

Thyristor and Diodes Advanced Power Modules

Advanced Power Module	ELEMENT 1		ELEMENT 2					Mounting tourque		Base plate dimension		Outline		
	V_{GT}	I_{GT}	V_{GT}	I_{GT}	$R_{th(j-c)}$ for element	Tj_{max}	$V_{ins(RMS)}$ 1 min	Case to heatsink	Busbar to terminal	A	B	Case	Scheme	Ref (*)
	[V]	[mA]	[V]	[mA]	[°C/kW]	[°C]	[V]	[Nm]	[Nm]	[mm]	[mm]			
APM1500T	3.5	350	-	-	20	125	4000	12	-	178	100	K6PM	T	Yes
APM530T	3	200	-	-	51	125	4500	27	14	135.0	94	K1PM	T	Yes
APM240FF	-	-	-	-	100	125	4500	14	14	159.0	77	K2PN	FF	Z7A
APM230FF	-	-	-	-	100	150	4500	14	14	159.0	77	K2PN	FF	Z7A
APM530DD	-	-	-	-	51	150	4500	27	14	190.5	94	K3PM	DD	Z9A
APM800DDK	-	-	-	-	51	150	4500	27	14	190.5	94	K3PM	DDK	Z9A
APM800FFA	-	-	-	-	51	150	4500	27	14	190.5	94	K3PM	FFA	Z9A
APM800FF	-	-	-	-	51	150	4500	27	14	190.5	94	K3PM	FF	Z9A
APM540DT	-	-	3.0	200	51	130	4500	27	14	190.5	94	K3PM	DT	Z9A
APM590TT	3.5	350	3.5	350	70	130	4500	5	14	190.5	94	K3PM-X	TT	Z9A
APM1200DD	-	-			51	150	4500	5	15	203.0	110	K4PM	DDF	Z5AA
APM310TTHVI	3.5	400	3.5	400	51	120	6000	4	14	160.0	90	K5PM	TTX	-
APM310TDHVI	3.5	400	-	-	51	120	6000	4	14	160.0	90	K5PM	TDX	-
APM800TT	3.5	300	3.5	300	42	125	4500	4	14	160.0	90	K5PM	TTX	-
APM740DDHVI	-	-	-	-	51	150	6000	4	14	160.0	90	K5PM	DDX	-
APM1100DDHVI	-	-	-	-	51	150	6000	4	14	160.0	90	K5PM	DDX	-

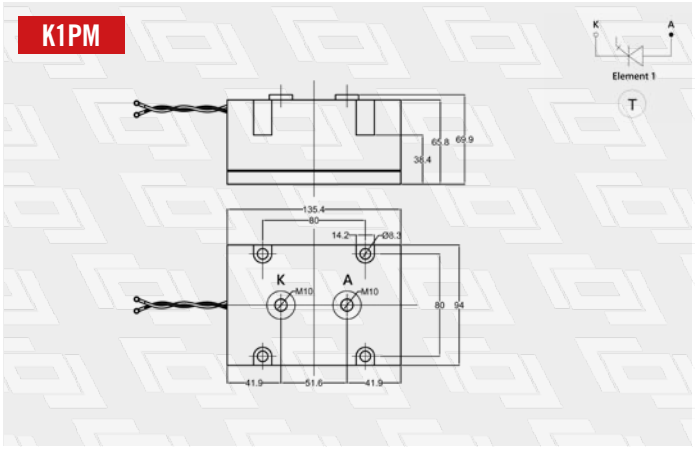
GTO AND FAST RECOVERY DIODES ADVANCED POWER MODULES

APM1800GFF	1.0	3000	-	-	80	125	3500	5	15	203	110	K4PM	GFF	Z5AA
APM2000GFF	1.0	3000	-	-	80	125	3500	5	15	203	110	K4PM	GFF	Z5AA

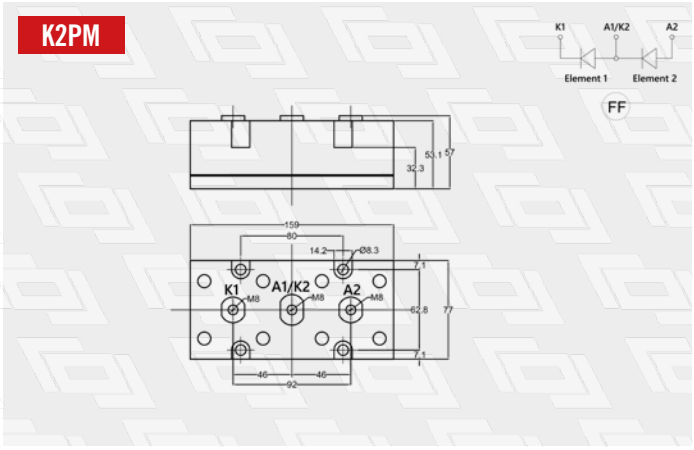
(*) Case compatible with POW-R_BRICK outline

FOR CUSTOMIZED SOLUTIONS PLEASE CONTACT OUR SALES DEPARTMENT

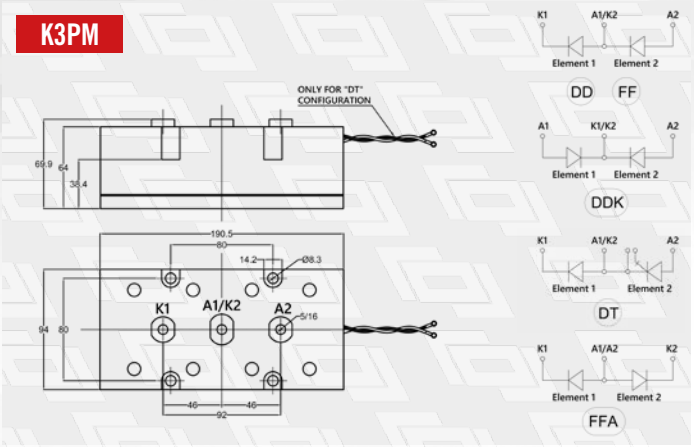
K1PM



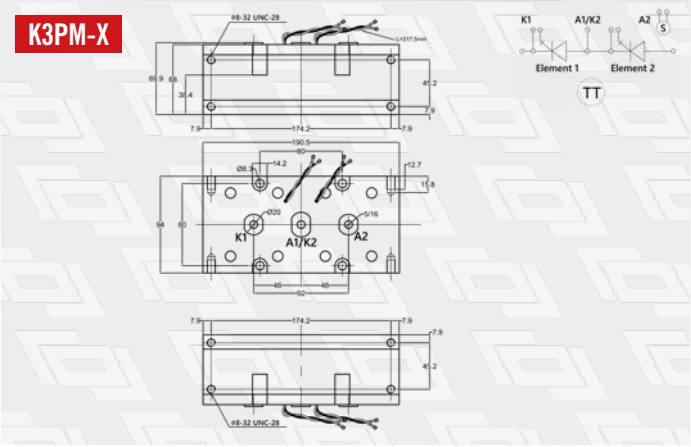
K2PM



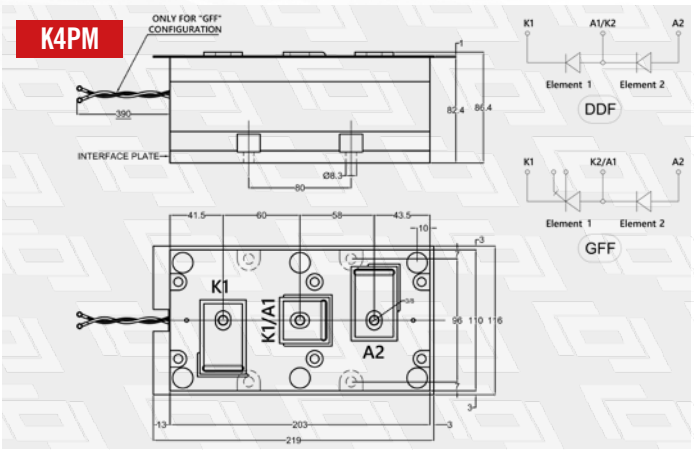
K3PM



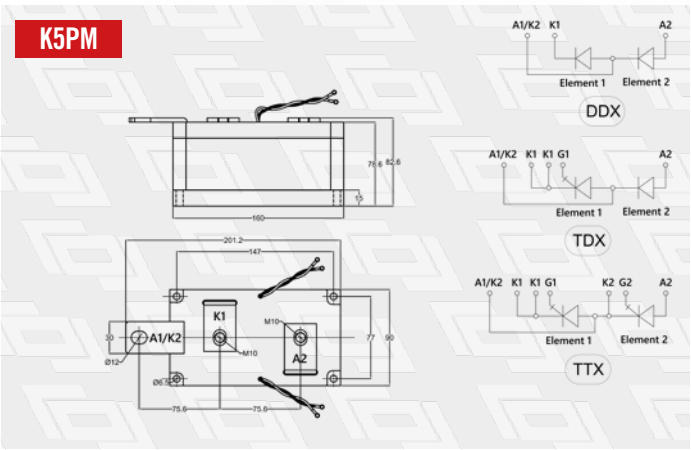
K3PM-X



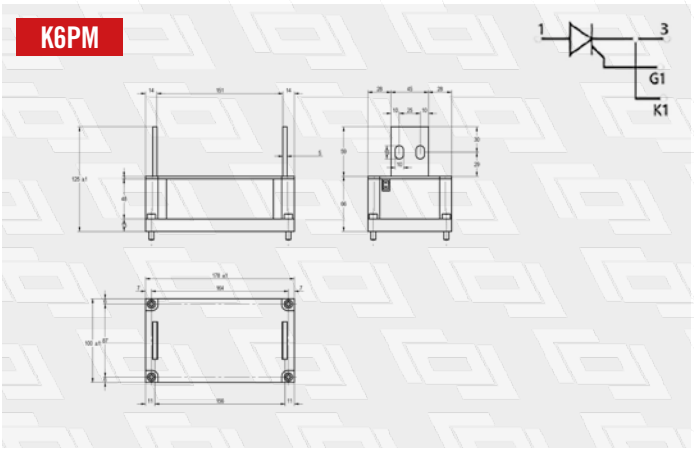
K4PM



K5PM



K6PM



ADVANCED POWER MODULES IDENTIFICATION SYSTEM

A	P	M	2	0	0	0	G	F	S	2	5	L

- **A P M** — Advanced Power Module
- **2 0 0 0** — Current Range
- **G F** — Devices scheme

TT, TTX	Dual phase control thyristor
DD, DDK, DDA, DDX	Dual rectifier diode
FF	Dual fast recovery diode
TD, DT, TDX	Thyristor - Diode
GF, GFF	GTO - Fast Recovery Diode
T	Single Phase Control Thyristor
D	Single Rectifier Diode

- **S 2 5** — S + VRRM/100
- **L** — tq code

[µs]	code	[µs]	code
15	B	45	R
20	A	50	S
25	L	60	T
30	M	70	U
35	N	80	W
40	P	100	X

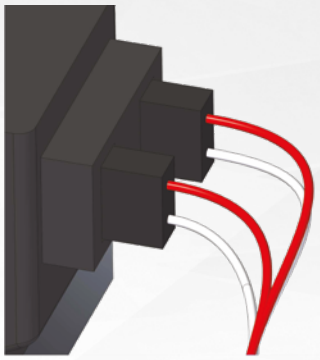
MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

NOTE

ACCESSORIES

ACCESSORIES

GATE LEAD FOR PRESS-PACK DEVICES AND INSULATED MODULES



MAIN CHARACTERISTICS

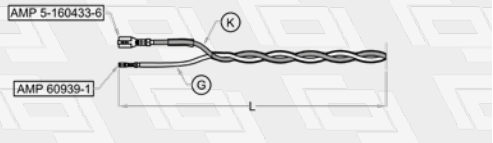
- Custom special gates are available on request
- All products are manufactured using material compliant with UL94-V0

APPLICATIONS

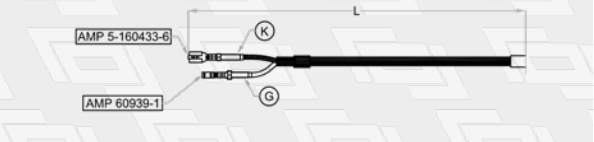
- Connection of press-pack Thyristors to gate board
- Connection of press-pack GTO to gate board
- Connection of insulated modules to gate board

GL1

GL2



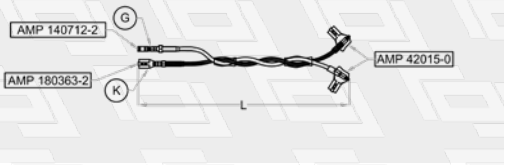
GL3



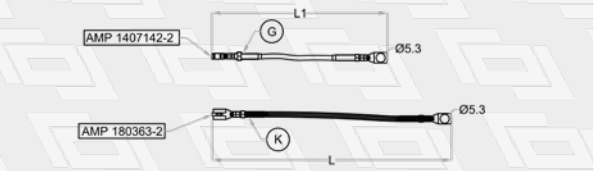
GL4

GL5

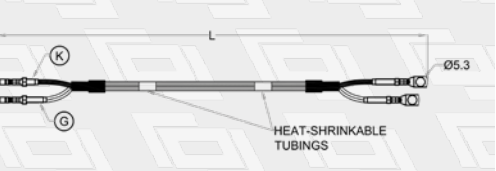
GL6



GL7



GL8



Gate Lead	Application	Lead type	Color		Lenght	Conductor construction	Insulating material	Operating temperature	Outline
			K	G	L/L1				
					[mm]			[°C]	
AGL250	Thyristors	bipolar	red	white	305	19/0.160 mm	FEP	-55/+135	GL1
AGL255	Thyristors	twisted bipolar	red	white	305	19/0.203 mm	FEP	-55/+125	GL2
AGL260	Thyristors	bipolar	red	white	500	19/0.160 mm	FEP	-55/+135	GL1
AGL270	Thyristors	bipolar	red	white	1000	19/0.203 mm	FEP	-55/+135	GL1
AGL275	Thyristors	twisted bipolar	red	white	620	19/0.160 mm	FEP	-55/+125	GL2
AGL276	Thyristors	twisted bipolar	red	white	1020	19/0.160 mm	FEP	-55/+125	GL2
AGL277	Thyristors	twisted bipolar	red	white	1520	19/0.160 mm	FEP	-55/+125	GL2
AGL251	Modules	bipolar	red	white	305	19/0.203 mm	FEP	-55/+125	GL4
AGL300	Asymm. thyristor	coaxial	black	white	1000	19/0.203 mm	FEP	-55/+105	GL3
AGL791	GTO	coaxial	black	white	400	3.5 mmq	ETFE	-55/+105	GL5
AGL795	GTO	bipolar	black	white	103/86	42 mmq	FEP	-55/+125	GL7
AGL796	GTO	twisted bipolar	black	white	150	42 mmq	FEP	-55/+105	GL6
AGL793	GTO	double coaxial	black	white	670	2 x 3.5 mmq	ETFE	-55/+105	GL8

ACCESSORIES

THERMOCONDUCTIVE INSULATOR DISCS

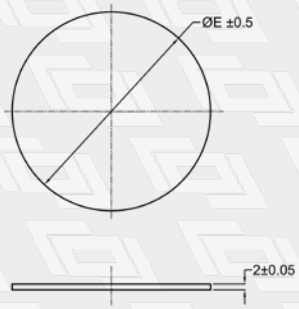
MAIN CHARACTERISTICS

- Thermoconductive insulator discs based on aluminum nitride materials
- Suitable for power assemblies used inside press-pack power stacks

APPLICATIONS

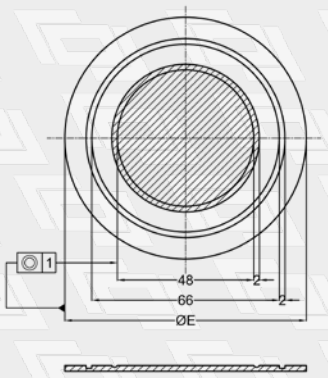
- Insulation system for press-pack device circuits

ID1

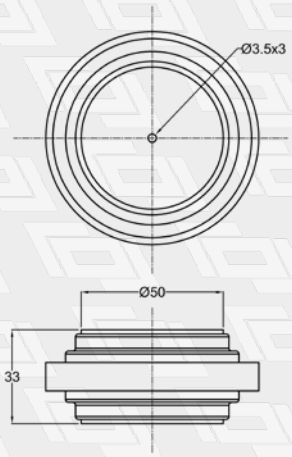


ID2

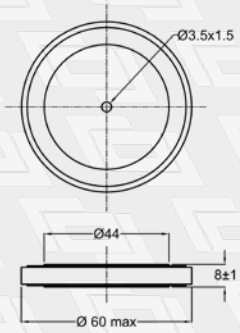
	ALN085W03M	ALN115W03M
ϕE	85.0	118.0
ϕ1	48.0	78.0
ϕ2	66.0	96.0



ID3



ID4



Thermoconductive Insulator Disc	Description	Insulator thermoconductive material	Insulator disc thickness	Insulating Disc External Diameter ϕE	Material of external housing	Outline
			[mm]	[mm]		
ALN039W02	Aluminum nitride disc	AIN	2.00	39.0	-	ID1
ALN056W02	Aluminum nitride disc	AIN	2.00	56.0	-	ID1
ALN070W02	Aluminum nitride disc	AIN	2.00	70.0	-	ID1
ALN085W03M	Metalized Aluminum nitride disc	AIN	3.00	85.0	-	ID2
ALN115W03M	Metalized Aluminum nitride disc	AIN	3.00	118.0	-	ID2
ALN070W02PC	Aluminum nitride disc in plastic case housing	AIN	2.00	70.0	Epoxy resin	ID3
ALN0039W02PC	Aluminum nitride disc in plastic case housing	AIN	2.00	39.0	LCP	ID4

NOTE

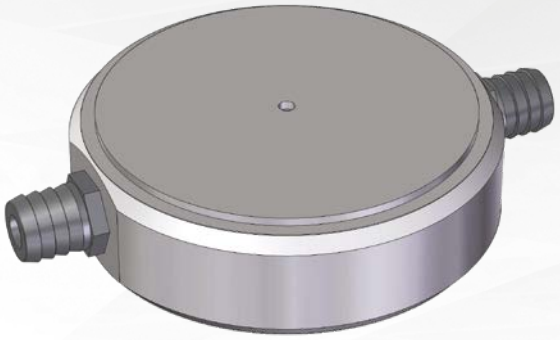
HEATSINKS AND COOLING SYSTEMS

HEATSINKS AND COOLING SYSTEMS

WATER COOLING HEATSINKS

MAIN CHARACTERISTICS

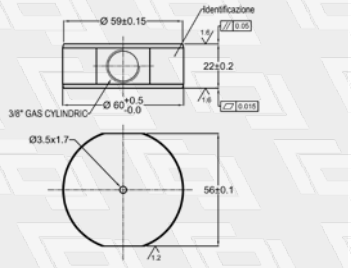
- High temperature brazed aluminum
- Internal surfaces are mantained clean and suitable for deionized water cooling
- Design assisted by FEM simulation to optimize thermal efficiency and uniformity
- Fully tested by Poseico using special dedicated equipments
- Custom connections available on request



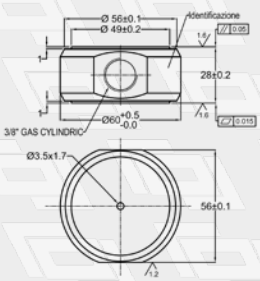
APPLICATIONS

- Bilateral cooling of press-pack devices
- Single side cooling of insulated modules

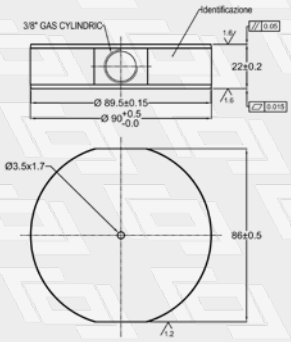
WH1



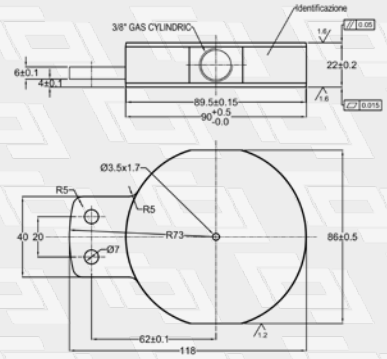
WH2



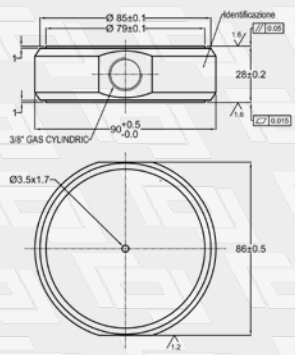
WH3



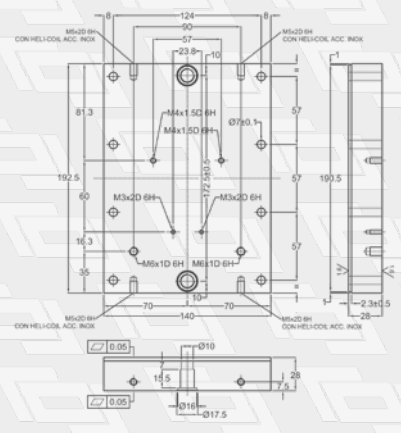
WH4



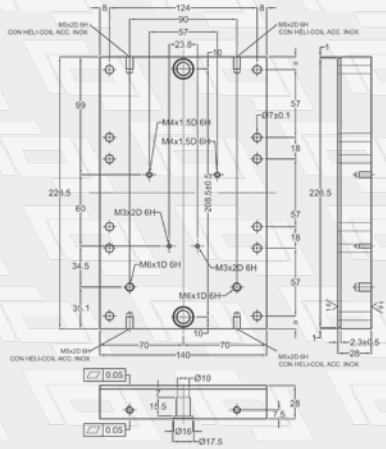
WH5



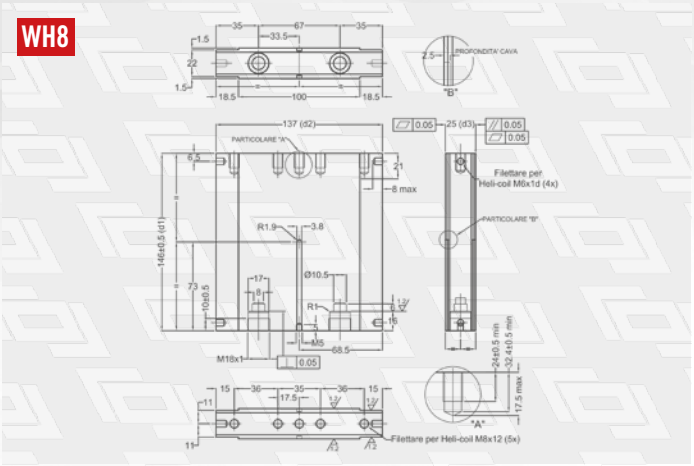
WH6



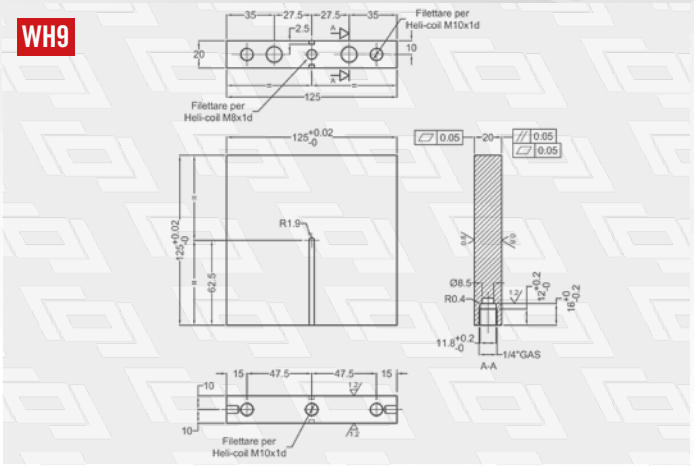
WH7



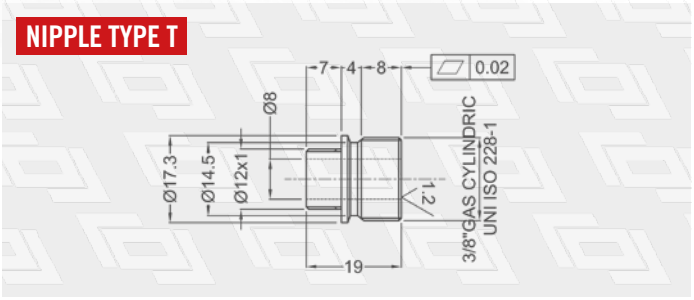
WH8



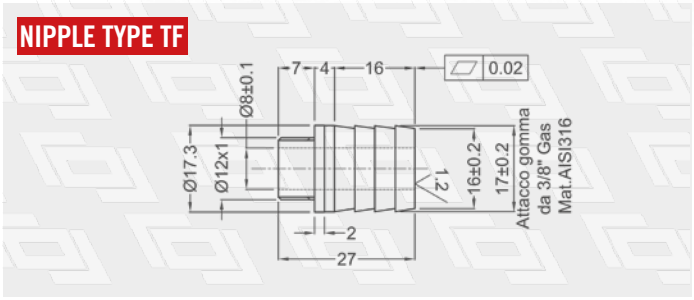
WH9



NIPPLE TYPE T



NIPPLE TYPE TF



WATER COOLED HEATSINK IDENTIFICATION SYSTEM

ROUND SHAPE

A	W	C	H	P	P	C	D	6	C	H	2	2	C	T
				For press-pack devices			Diameter (mm)			Height (mm)			Additional electrical connession (if present)	Nipple type (X=no nipple)

SQUARE

A	W	C	H	L	1	3	7	W	1	2	5	H	2	2	H	2	2	T
				Length (mm)				Diameter (mm)				Width (mm)			Height (mm)			Nipple type (X=no nipple)

Type Water Cooling Heatsink	Q range minimum/maximum	R_{th} at Q		ΔP max at Q		Weight	Nipple Type	Outline
	[l/m]	[°C/kW]	[l/m]	[mbar]	[l/m]	[g]		
AWCH-PPC-D60H22T	3/9	10.5*	6.0	200	6.0	160	T	WH1
AWCH-PPC-D60H22TF	3/9	10.5*	6.0	200	6.0	160	TF	WH1
AWCH-PPC-D60H28T	3/9	10.5*	6.0	500	6.0	160	T	WH2
AWCH-PPC-D60H28TF	3/9	10.5*	6.0	500	6.0	160	TF	WH2
AWCH-PPC-D90H22T	3/9	5.5*	6.0	300	6.0	330	T	WH3
AWCH-PPC-D90H22TF	3/9	5.5*	6.0	300	6.0	330	TF	WH3
AWCH-PPC-D90H22CT	3/9	6.0*	6.0	300	6.0	330	T	WH4
AWCH-PPC-D90H28T	3/9	7.0*	6.0	500	6.0	330	T	WH5
AWCH-PPC-D90H28TF	3/9	7.0*	6.0	500	6.0	330	TF	WH5
AWCH-L125W125T20X	2/8	5.6*	5.0	500	5.0	850	-	WH9
AWCH-L137W146T25X	2/10	5.0*	5.0	250	5.0	1800	-	WH8
AWCH-L192W140T28T	3/9	5.5*	6.0	300	6.0	2100	T	WH6
AWCH-L228W140T28T	3/9	5.0*	6.0	200	6.0	1800	T	WH7

HEATSINKS AND COOLING SYSTEMS

ICP - INTEGRATED COLD PLATE

MAIN CHARACTERISTICS

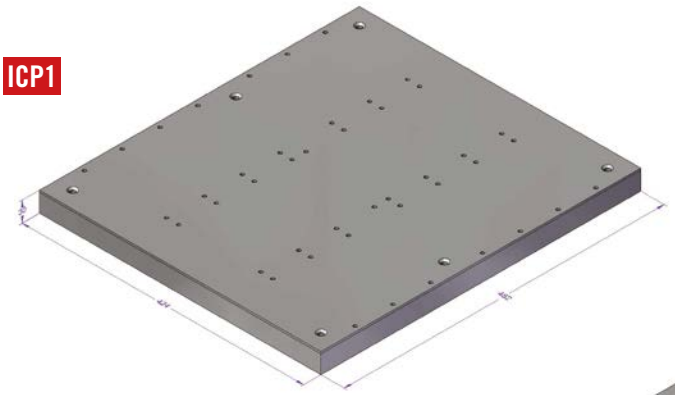
- Up to 30 kW of power dissipation capability
- Very uniform temperature at cold plate surface level
- All IGBT and diode chips have uniform temperature distribution
- Each device has an individual cooling optimization
- Basic material: aluminum
- Suitable for deionaized water use
- Possibility of mounting the devices on both sides
- The power, the gate drives, the busbar connection and cooling system can be integrated in a single compact assembly
- Each device has its optimized cooling performance
- Strong reduction of connections in the cooling circuit

APPLICATIONS

- Liquid cooling of power device circuits

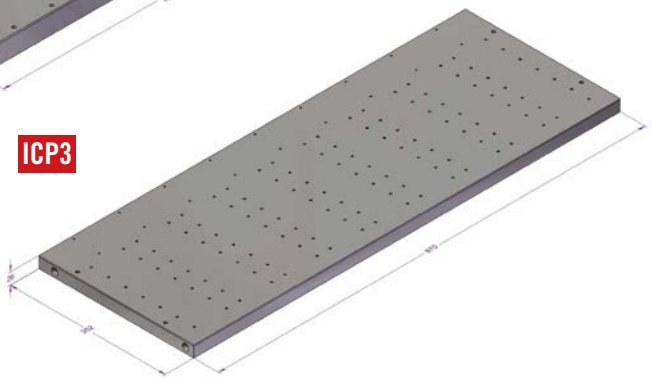
EXAMPLE OF COLD PLATE REALIZED

ICP1



ICP2

ICP3



Integrated Cold Plate	Dimension	Number of active side	Number and dimension of power insulated modules	Total power losses	Outline
	[mm]		N° - dimension in mm	[KW]	
AWCH-L424W482T30	424x482x30	1	4 - IGBT 190x140/2 - Diode 130x140	8.8	ICP1
AWCH-L640W420T24	640x420x24	2	8 - IGBT 140x190/4 - resistor 60x60	16.2	ICP2
AWCH-L505W355T15-35	505x355x15	2	13 - IGBT 122x62/4 - resistor	7.7	-
AWCH-L780W290T23-L2	780x290x23	1	6 - IGBT 140x190	15.0	-
AWCH-L780W290T23-L3	780x290x23	1	4 - IGBT 140x190/2 - IGBT 140x130	15.0	-
AWCH-L750W144T16	750x144x16	2	4 - IGBT 140x190	10.0	-
AWCH-L970W352T26	970x352x26	1	9 - IGBT 89x250	13.5	ICP3

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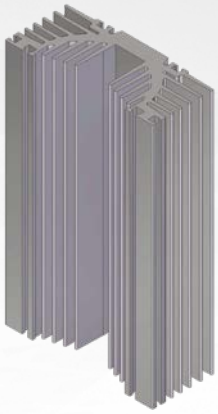
HEATSINKS AND COOLING SYSTEMS

NATURAL AIR HEATSINKS



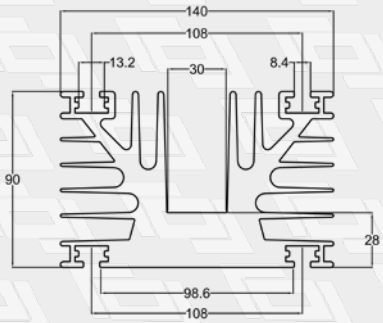
MAIN CHARACTERISTICS

- Extruded aluminum heatsink type EN AW 6063 T6
- Finishing with silver of black anodization on request
- Customized design
- High quality level of contact surface

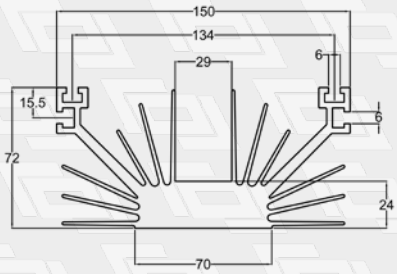
APPLICATIONS

- Natural air cooling of press-pack and insulated module devices

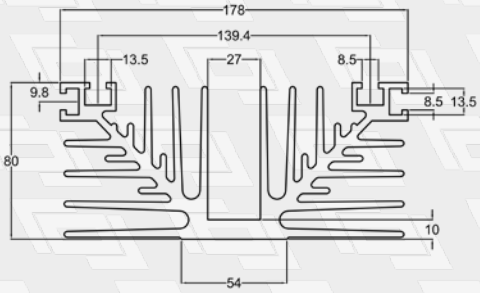
N8 14.40 Kg/m



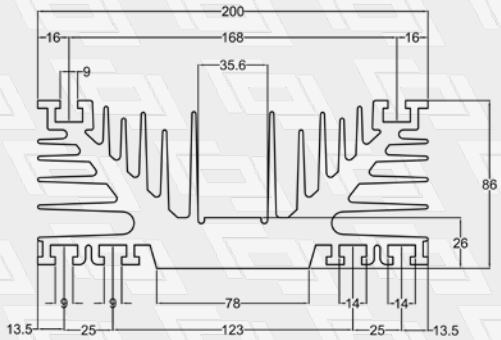
N6 8.70 Kg/m



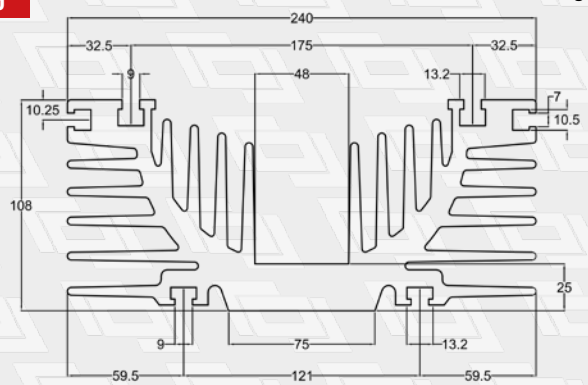
W180 12.5 Kg/m



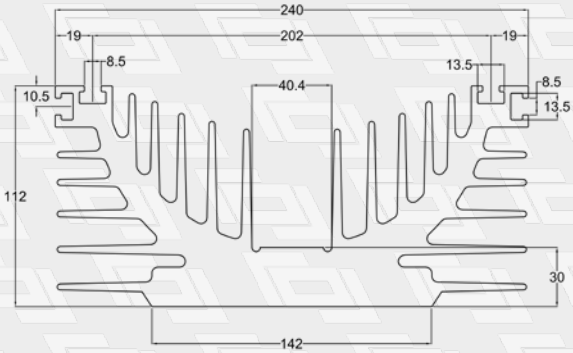
N5 19.40 Kg/m



N9 26.10 Kg/m

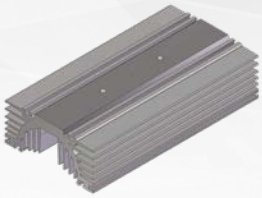


N10 30 Kg/m



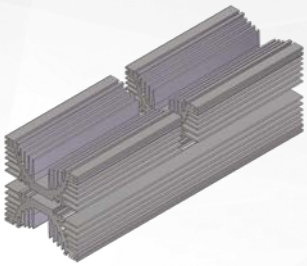
NATURAL AIR HEATSINKS IDENTIFICATION SYSTEM

A



B

C



D

A	2	2

Shape code (see table)

N	3	0	0

"N" and length of heatsink element

P	8	9

"P" and center distance of clamp system

H	2

"-" and number of elements

B

"B" (optional) for anodized black

FOR CUSTOMIZED SOLUTIONS PLEASE CONTACT OUR SALES DEPARTMENT

CLAMPING SYSTEMS

CLAMPING SYSTEMS

BAR CLAMPS

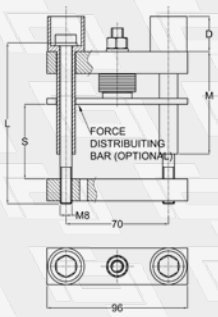
MAIN CHARACTERISTICS

- They can be used to clamp in a reliable way press-pack devices up to 100 mm diameter of contact pole
- Mounting force calibration included
- Customized design on request
- Disc springs (Belleville Spring) or torsion bars technologies

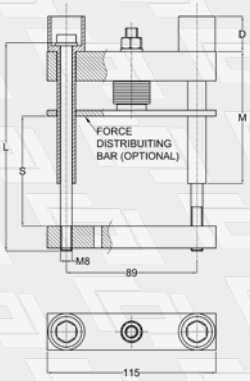
APPLICATIONS

- Clamping of press-pack devices

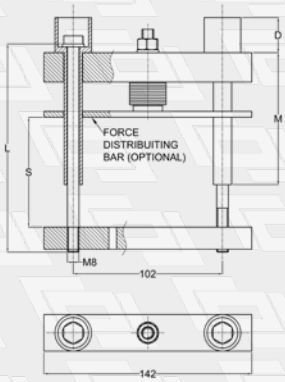
K70



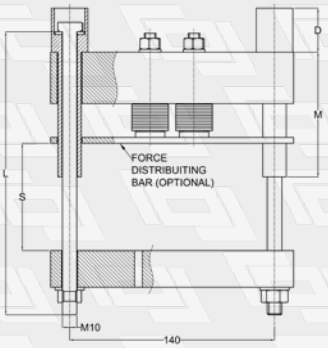
K89



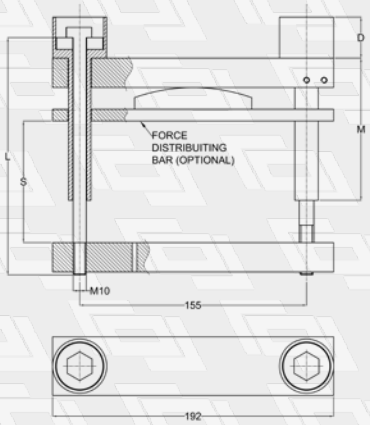
K102



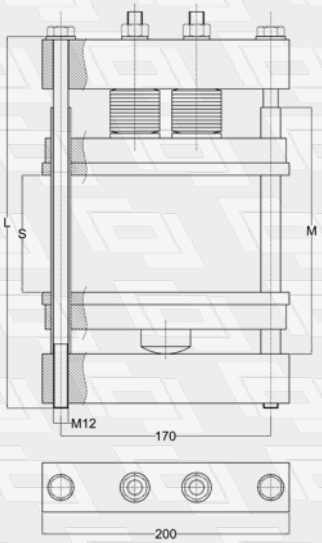
K140



K155



K170



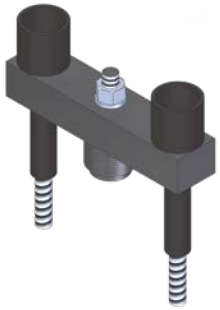
BAR CLAMPS IDENTIFICATION SYSTEM

A	C	L	8	9	D	1	2	L	1	5	0	B
Ber clamp family			Center distance		Configuration	Mounting force		"L" and tie rod lenght				Force-distributing bar (optional)

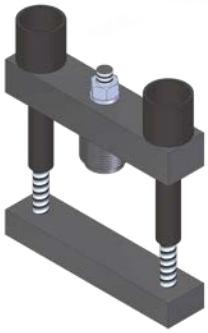
A

B

C



D



Bar Clamp	Center distance I	Configuration	Housing type	Typical natural hair outline	Mounting force F	Tie rod lenght L	Internal free space min S	Internal free space max S	Insulator length M	Insulator cap length D	Force distribution bar	Outline
	[mm]				[kN]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
ACL STANDARD FAMILY: DISC SPRING TECHNOLOGY												
ACL70D05L130	70	D - Direct on bar	A0 - A1 - A2	NH1/N8	5	130	68	71	70	24	optional	K70
ACL70D09L130	70	D - Direct on bar	B0	NH1/N8	9	130	68	71	70	24	optional	K70
ACL890D09L150	89	D - Direct on bar	C0	NH1/N8	9	150	80	83	80	24	optional	K89
ACL890D12L140	89	D - Direct on bar	C1	NH5/N9	12	140	72	75	80	24	optional	K89
ACL89D18L110	89	D - Direct on bar	D1	NH3/W180	18	110	45	48	70	24	optional	K89
ACL89D18L140	89	D - Direct on bar	D1	NH2/N6	18	140	73	76	80	24	optional	K89
ACL89D19L150	89	D - Direct on bar	D0 - D2	NH5/N9 NH4/N5	23	150	72	80	90	24	optional	K89
ACL102D18L150	102	D - Direct on bar	D1	NH2/N6	18	140	73	76	80	24	optional	K102
ACL102D23L150	102	D - Direct on bar	D0 - D2	NH5/N9 NH4/N5	23	150	72	80	90	24	optional	K102
AK2 DOUBLE SPRING PACK TECHNOLOGY												
AK2140D40L200	140	D - Direct on bar	L0	NH1/N8	40	200	83	98	140	30	optional	K140
AK2140D45L200	140	D - Direct on bar	R0 - N0	NH1/N8	45	200	83	98	140	30	optional	K140
AK2140D50L200	140	D - Direct on bar	R0 - N0	NH1/N8	50	200	83	98	140	30	optional	K140
ACB HIGH PRESSURE FAMILY: TORSION BAR TECHNOLOGY												
ACB155D45L160	155	D - Direct on bar	N0 - H0	NH5/N9	45	160	72	85	88	34	yes	K155
ACB155D45L160	155	D - Direct on bar	M0 - R0	NH5/N9	45	160	80	85	97	34	yes	K155
AKI HIGH PRESSURE, INSULATED BAR, DOUBLE SPRING PACK TECHNOLOGY												
AKI170D90L300	170	D - Direct on bar	Z0	NH6/N10	90	300	92	97	200	no	yes	K170

FOR CUSTOMIZED SOLUTIONS PLEASE CONTACT OUR SALES DEPARTMENT

CLAMPING SYSTEMS

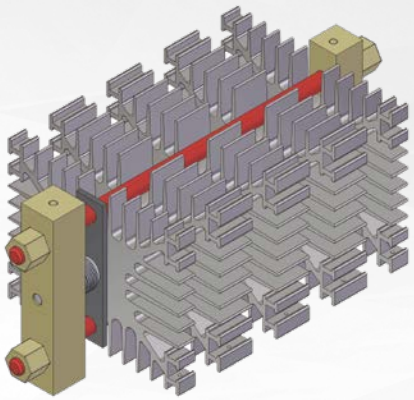
INSULATED SOLUTIONS FOR CLAMPING SYSTEMS

MAIN CHARACTERISTICS

- Full insulated clamp system with high mechanical performance and high reliability
- Custom design on request with different rod lenght, mounting force and center distance

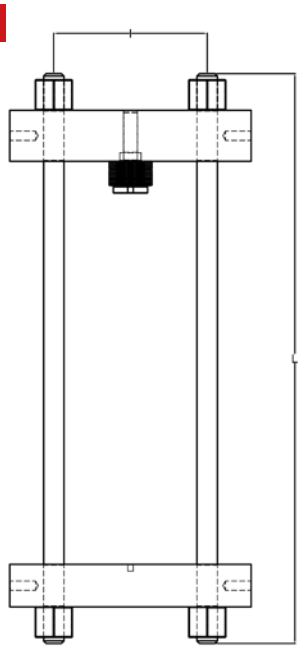
APPLICATIONS

- Insulated clamping system for press-pack devices



FULL INSULATED CLAMP SYSTEM

ICS1

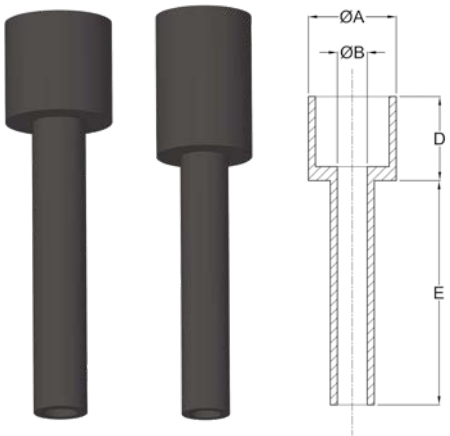


Full insulated clamp system	Centers distance I	Mounting F	Tie rod L	Outline
	[mm]	[kN]	[mm]	
AIC89F12L330B	89	12	330	ICS1

A I C	8 9	F 1 2	L 3 3 0	B
Insulator Bar clamp family	Center distance	"F" and Mounting force (kN)	Mounting force	Force-distributing bar (optional)

INSULATORS FOR CLAMP ROD TIES

ICS2



Insulators for clamp rod ties	Rod type	Ø A	Ø B	D	E	Outline
		[mm]	[mm]	[mm]	[mm]	
AIR2524M08	M8	25	8.5	24	80	ICS2
AIR2538M08	M8	25	8.5	38	80	ICS2
AIR2530M10	M10	25	10.5	30	80	ICS2
AIR3734M10	M10	37	10.5	34	80	ICS2
extention rod M8	M8	-	8.5	-	80	-
extention rod M10	M10	-	10.5	-	80	-

CLAMPING SYSTEMS

BOX CLAMPS

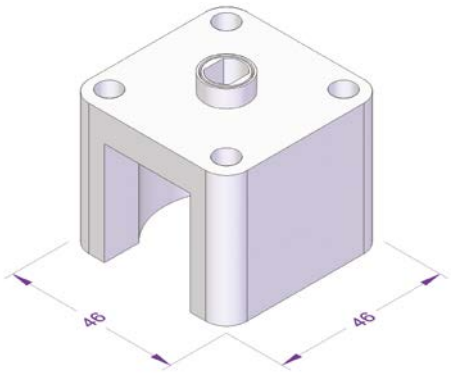
MAIN CHARACTERISTICS

- Easy to assembly box clamping system
- Custom design
- Variable clamping force from 5 kN to 12 kN

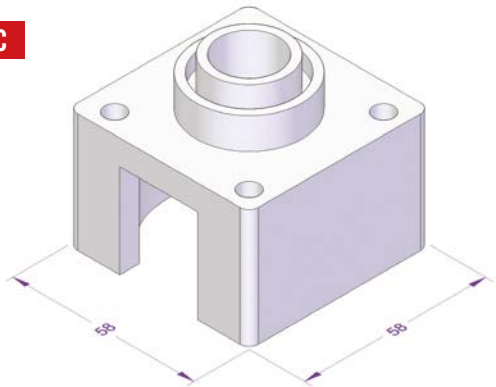
APPLICATIONS

- Clamping of press-pack devices

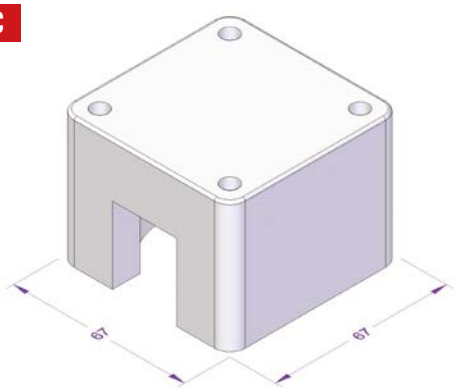
ABC



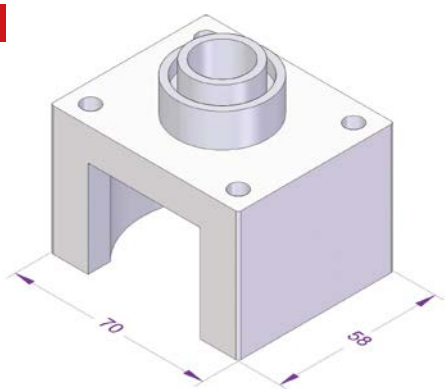
BBC



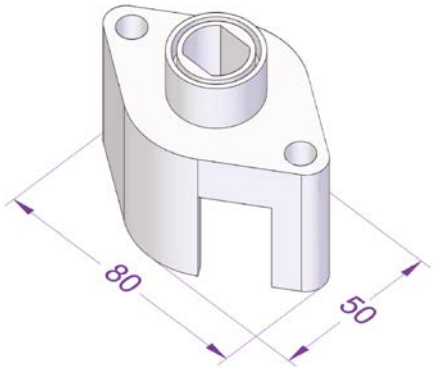
GBC



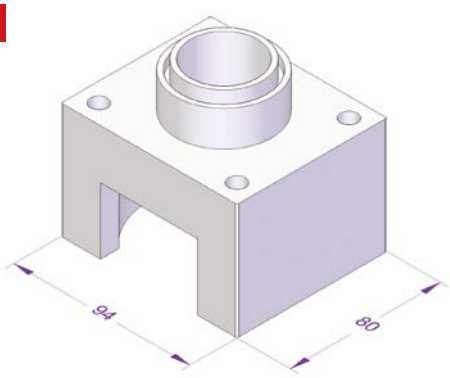
CBC



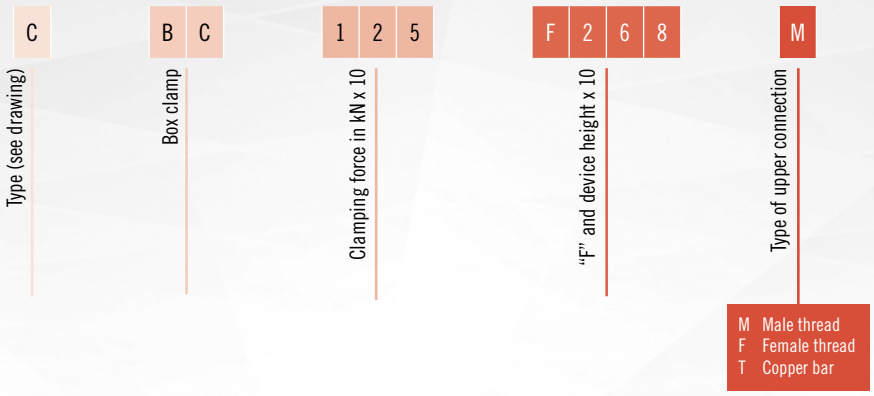
DBC



EBC



BOX CLAMPS IDENTIFICATION SYSTEM



Box clamp code	Length L	Width W	Insulator Heigth H	Maximum Internal Diameter Φ	Mounting Force F	Device Height S	Poseico Device Outline Housing	Upper connection	Outline Type
	[mm]	[mm]	[mm]	[mm]	[kN]	[mm]			
ABC045F140	46	46	32.0	42	4.5	14.0	A0	M, F, T	ABC
ABC045F143	46	46	32.0	42	4.5	14.3	A1	M, F, T	ABC
ABC045F145	46	46	32.0	42	4.5	14.5	A2	M, F, T	ABC
ABC090F140	46	46	32.0	42	8.0	14.0	B0	M, F, T	ABC
ABC090F146	46	46	32.0	42	8.0	14.6	B0	M, F, T	ABC
BBC080F146	58	58	49.5	51	8.0	14.6	B0	M, F, T	BBC
GBC090F260	67	67	51.0	61	9.0	26.0	C0	T	GBC
GBC125F260	67	67	51.0	61	12.5	26.0	C1	T	GBC
CBC090F268	58	70	65.5	60	9.0	26.8	C0	M, F, T	CBC
CBC125F268	58	70	65.5	60	12.5	26.8	C1	M, F, T	CBC
CBC125F221	58	70	65.5	60	12.5	22.1	C0	M, F, T	CBC
DBC230F268	50	80	39.3	54	8.0	14.6	B0	M, F, T	DBC
EBC230F260	80	94	74.0	80	23.5	26.0	D0	M, F, T	EBC
EBC200F270	80	94	74.0	80	20.0	27.0	D1	M, F, T	EBC
EBC230F270	80	94	74.0	80	23.5	27.0	D2	M, F, T	EBC

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TESTING SERVICES

TESTING SERVICES

TESTING AND FAILURE ANALYSIS SERVICES

MAIN CHARACTERISTICS

- A complete set of know how, methods, equipment and testers for:
  - high power semiconductors characterization
  - natural air, forced air and liquid cooled heatsink characterization
  - contact surfaces quality evaluation
- ISO9001:2015 and IRIS rev.3 certification

APPLICATIONS

- Routine tests
- Type tests
- Reliability tests
- Failure analyses
- Authenticity checks

ROUTINE AND TYPE TESTS OF POWER SEMICONDUCTORS

Devices	Type of test	Capability	Temperature range
Press-pack Diodes Press-pack Thyristors Press-pack GTOs Insulated Module Diodes Insulated Module Thyristors	Repetitive and non repetitive on-state and reverse voltage	up to 7 kV; 400 mA;	-70 °C ÷ +190 °C
	On state voltage	up to 10 V; 10 kA	+25 °C ÷ +190 °C
	Recovery characteristics	I = 10 ÷ 4000 A; dil/dt = 0.4 ÷ 1000 A/µs; VR = 10 ÷ 100 V;	+25 °C ÷ +190 °C
Press-pack Thyristors Insulated Module Thyristors	Trigger characteristics		-70 °C ÷ +190 °C
	Turn off dv/dt	I = 10 ÷ 4000 A; di/dt = 0.4 ÷ 300 A/µs; VR = 10 ÷ 100 V; VD = 200 ÷ 3000 V; dv/dt = 20 ÷ 2000 V/µs;	+25 °C ÷ +140 °C
Press-pack GTOs	Dynamic characteristics	up to IT=3500 A; VD = 4500 V	+25 °C ÷ +120 °C
Press-pack IGBTs Insulated Module IGBTs	Static characteristics	up to 7 kV; up to 6 kA	+25 °C ÷ +150 °C
Press-pack Diodes Press-pack Thyristors Press-pack GTOs Press-pack IGBTs	Sealing tests	Mass spectrometer, Tracer gas: He	+25 °C
Press-pack Diodes Press-pack Thyristors Press-pack GTOs Insulated Module Diodes Insulated Module Thyristors	Surge tests	1 kA - 70 kA with or without reverse voltage reapplied	+25 °C ÷ +175 °C
Press-pack Devices and Insulated Modules	High temperature blocking life test	up to 6 kV	+80 °C ÷ +150 °C
Press-pack Devices	Thermal resistance junction - heatsink tests		

MECHANICHAL TESTS OF POWER SEMICONDUCTORS

Type of test	Equipment	Capability
Dimensional	Micrometer	0,001 mm
Visual inspection	Optic microscope	1000 x
Rugosity	Roughness tester	up to Ra = 0,4
Flatness	Flatness tester	0,001 mm
Thickness of plating layer	Fischerscope X-rays	Different plating layers and substrates

RELIABILITY TESTS OF POWER SEMICONDUCTORS

	Test condition	Typycal test duration
Thermal power cycling tests	Sine wave current 50 Hz Δ T = 70 – 80 °C I conduction (A) = up to 3000 A Cooled by water flow t cycle (s) = from 1 sec to 10 mins	Higher than 1000 cycles
High temperature blocking life test	Sine wave voltage 50 Hz $T_j = T_{j\,max}$ V = 0.8 V_{DRM} (V_{RRM})	T = 4 - 168 h
High temperature storage test	T (°C) = high value of storage Temperature (up to 200 °C)	T = 168 h
Low temperature store test	T (°C) = low value of storage Temperature (down to -70 °C)	T = 168 h
Passive cycling test	T_{hi} = 150 °C T_{lo} = -70 °C	10 cycles

FAILURE ANALYSIS ON HIGH POWER SEMICONDUCTORS

Poseico may perform a failure analysis on failed devices (press-pack or insulated module devices) in order to evaluate the potential failure causes occurred during the device operation on field. Thanks to its own database, Poseico may provide a quick and deep evaluation of failure conditions and perform specific laboratory tests (mechanical and electrical) to help the Customer to mitigate potential wrong working conditions of the final application.

AUTHENTICITY CHECKS

Counterfeit goods span across multiple industries including the Power Electronics one. Poseico is fighting against this unpolite competition and it offers a complete service in order to analyze if semiconductors, branded Poseico or other, are original or fake.

LIST OF SYMBOLS

SYMBOL	UNIT	DESCRIPTION
V_{RRM}	[V]	Repetitive peak reverse voltage
V_{DRM}	[V]	Repetitive peak off-state voltage
I_{RRM}	[mA]	Repetitive peak reverse current
I_{DMR}	[mA]	Repetitive peak off-state current
$I_{F(AV)}$	[A]	Mean Forward current (diodes)
$I_{T(AV)}$	[A]	Mean on-state current (thyristors)
I_{RMS}	[A]	RMS Current
I_{FSM}	[kA]	Surge, non-repetitive, forward current (diodes)
I_{TSM}	[kA]	Surge, non-repetitive, on-state current (thyristors)
I^2t	[$A^2 \cdot s \cdot 10^3$]	Value for fusing coordination
$V_{F(TO)}$	[V]	Forward threshold voltage (diodes)
$V_{T(TO)}$	[V]	On-state threshold voltage (thyristors; GTOs)
r_F	[mΩ]	Forward slope resistance (diodes)
r_T	[mΩ]	On-state slope resistance (thyristors; GTOs)
V_{GT}	[V]	Gate trigger voltage
I_{GT}	[mA]	Gate trigger current
(di/dt) crit	[A/µs]	Critical rate of rise of on-state current (repetitive)
(dv/dt) crit	[V/µs]	Critical rate of rise of on-state voltage (repetitive)
Q_{rr}	[µC]	Reverse recovery charge
t_{rr}	[µs]	Reserve recovery time
I_F	[A]	Current before recovery phenomena
(di_F/dt)	[A/µs]	Slope of recovery current (diodes)
(di_T/dt)	[A/µs]	Slope of recovery current (thyristors)
I_{rr}	[A]	Peak reverse recovery current
t_d	[µs]	Delay time
t_q	[µs]	Circuit commutation turn-off time
t_{gt}	[µs]	Gate controlled turn-on time
t_{gq}	[µs]	Gate controlled turn-off time
I_{TCM}	[A]	Controllable peak-on state current
V_{DSP}	[V]	Spike turn-off voltage
$R_{th\ (j-h)}$	[°C/kW)	Thermal resistance junction to heatsink
$R_{th\ (j-c)}$	[°C/kW)	Thermal resistance junction to case
$R_{th\ (c-h)}$	[°C/kW)	Thermal resistance case to heatsink
$R_{th\ (j-w)}$	[°C/kW)	Thermal resistance junction to water
$V_{ins(RMS)}$	[V]	Insulation voltage
F	[kN]	Mounting force
V_{FM}	[V]	Forward voltage
V_{DCLINK}	[V]	DC Link Voltage
V_{CES}	[V]	Collector-emitter voltage
I_{CES}	[mA]	Collector cut-off current
I_C	[A]	Collector current
I_{CM}	[A]	Repetitive peak collector current
$V_{CES\ (sat)}$	[V]	Collector-emitter saturation voltage
t_{on}	[µs]	Turn-on time
t_{off}	[µs]	Turn-off time
V_{GEth}	[V]	Gate-emitter threshold voltage
V_{GES}	[V]	Gate-emitter peak voltage
C_{IES}	[nF]	Input capacitance
T_j	[°C]	Virtual Junction temperature
T_{STG}	[°C]	Storage temperature
T_C	[°C]	Case temperature
T_h	[°C]	Heatsink temperature

MOUNTING RECOMMENDATIONS

In order to ensure effective cooling, good current conduction and reliability, in the assembly of Power Semiconductors, it's important to observe some recommendations with a particular focus on heatsink preparation and clamping system. The recommended procedure is reported below:

USING BAR CLAMPING SYSTEM

- clean the mounting area (a) of both heatsinks before with "abrasive rubber" and than with alcohol.
- clean the mounting surfaces of the semiconductor with alcohol.
- apply a thin film of mounting grease (b) on both mounting surfaces of the heatsinks.
- put the semiconductor between the two heatsinks and rotate it to spread the contact grease.

CAUTION: each guide pin should be located in the center hole.

- pre-assemble the clamp housing if necessary
- place the pre-assembled portion of the clamp through the heatsink and the semiconductor assembly.
- place over the upper heatsink the second part of the clamp, equipped with its spring system and hardware parts.
- tighten by "fingers" the screws and put all the assembly in position.

CAUTION: all the surfaces must be parallel before tightening.

- tighten the screws half a turn until the pressure indicating system shows that the required pressure has been achieved.

USING BOX CLAMPING SYSTEM

- clean the mounting area (a) of both heatsinks before with "abrasive rubber" and than with alcohol.
- clean the mounting surfaces of the semiconductor with alcohol.
- apply a thin firm of mounting grease (b) on the surfaces of the device.
- put the box clamp over the device ensuring that the pins are correctly located.
- put the square steel plate over the central rod, putting bolts through the clamp whilst holding it firmly in place.
- screw the bolts "finger tight" then alternatively, clockwise, half a turn until the box touches the heatsink all the way round.

CAUTION: use a torque wrench to apply the right clamping force.

(a) recommended tolerances over the device mounting area: flatness 30 micron, roughness 2 micron

(b) recommended mounting grease: contactal hpg

Note: before mounting the assembly, a leakage test must be performed to verify the electrical integrity.

Maximum allowable average current

In this catalogue the average current ratings are mostly specified for temperatures of: $T_h = 55°C$. $T_c = 85°C$ at 180° sine wave.
For other temperatures, the current can be calculated using the following formulas applicable up to 400 Hz:

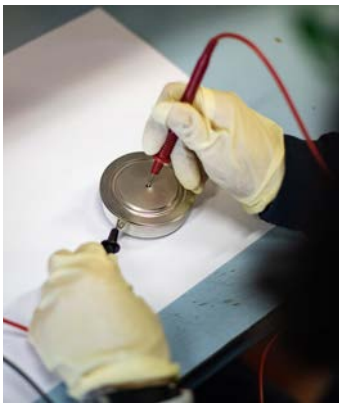
$$I_{(AV)} = \frac{-V_0 + \sqrt{V_{0^2} + 4K^2\,rP}}{2K^2\,r}$$

$$\text{where} \quad P = \frac{Tj\,max - T}{R_{th}}$$

$I_{(AV)}$ = $I_{T(AV)}$ for thyristors, $I_{F(AV)}$ for diodes
Vo = $V_{T(TO)}$ for thyristors, $V_{F(TO)}$ for diodes
T = T_c or T_h
R_{th} = $R_{th(j-c)}$ or $R_{th(j-h)}$
r = r_T for thyristors, r_F for diodes
K = 1 for direct current
K = (π /2) for 180° sine wave
K = $\sqrt{3}$ for 120° rectangular wave
K = $\sqrt{2}$ for 160° rectangular wave

POSEICO
POWER ELECTRONICS

A EUROPEAN POWER SEMICONDUCTORS FACTORY



Headquarters, Research and Development Department and Manufacturing Lines are located in Genoa, Italy

FULL COMPLIANCE WITH STANDARDS

Poseico S.p.A. is certified ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and IRIS Certification rules:2017 (ISO / TS 22163:2017).

CERTIFIED ISO 9001:2015 COMPANY

IRIS Certification ISO / TS 22163

CERTIFIED ISO 14001:2015 COMPANY

Poseico S.p.A. devices are fully compliant with the High Power Semiconductor standards (IEC60747-01; IEC60747-02; IEC60747-06).

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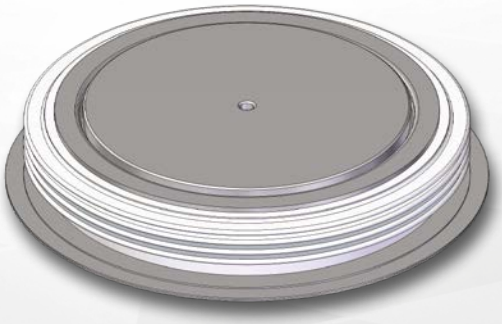

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