Selection Guide 2019/2020

High Power Thyristors & Diodes

www.ifbip-shop.com

Infineon Technologies Bipolar

Infineon Technologies Bipolar

Eco Line

straight, efficient, functional

Modules

Eco Block

Solder Bond

Pressure Contact

Power Line

reliable, powerful, valuable

Modules

Power Block

Diodes

Power Chip

Soft Starters

Power Start

Studs

Power Stud

Discs

Power Disc

Prime Line

unique, optimized, leading

Modules

Prime Block

Solder Bond

Pressure Contact

Diodes

Prime Soft

Discs

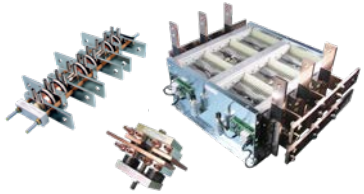
Prime Disc

System Line

specific, complete, versatile

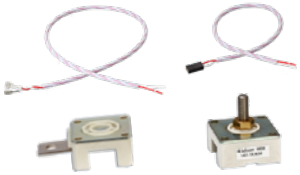
Stacks/Assemblies

Power Stack



Fittings

Power Fit



Eco Line

Reduced to pure function. With proven reliability.

Infineon® Eco Block – Pressure Contact Technology

Complete re-design of 60 mm and 70 mm package

- Proven pressure contact technology with short-on-fail feature
- Best-in-class DC blocking capability
- Best power-to-price ratio
- Reduced failure and system costs

Infineon® Eco Block – Solder Contact Technology

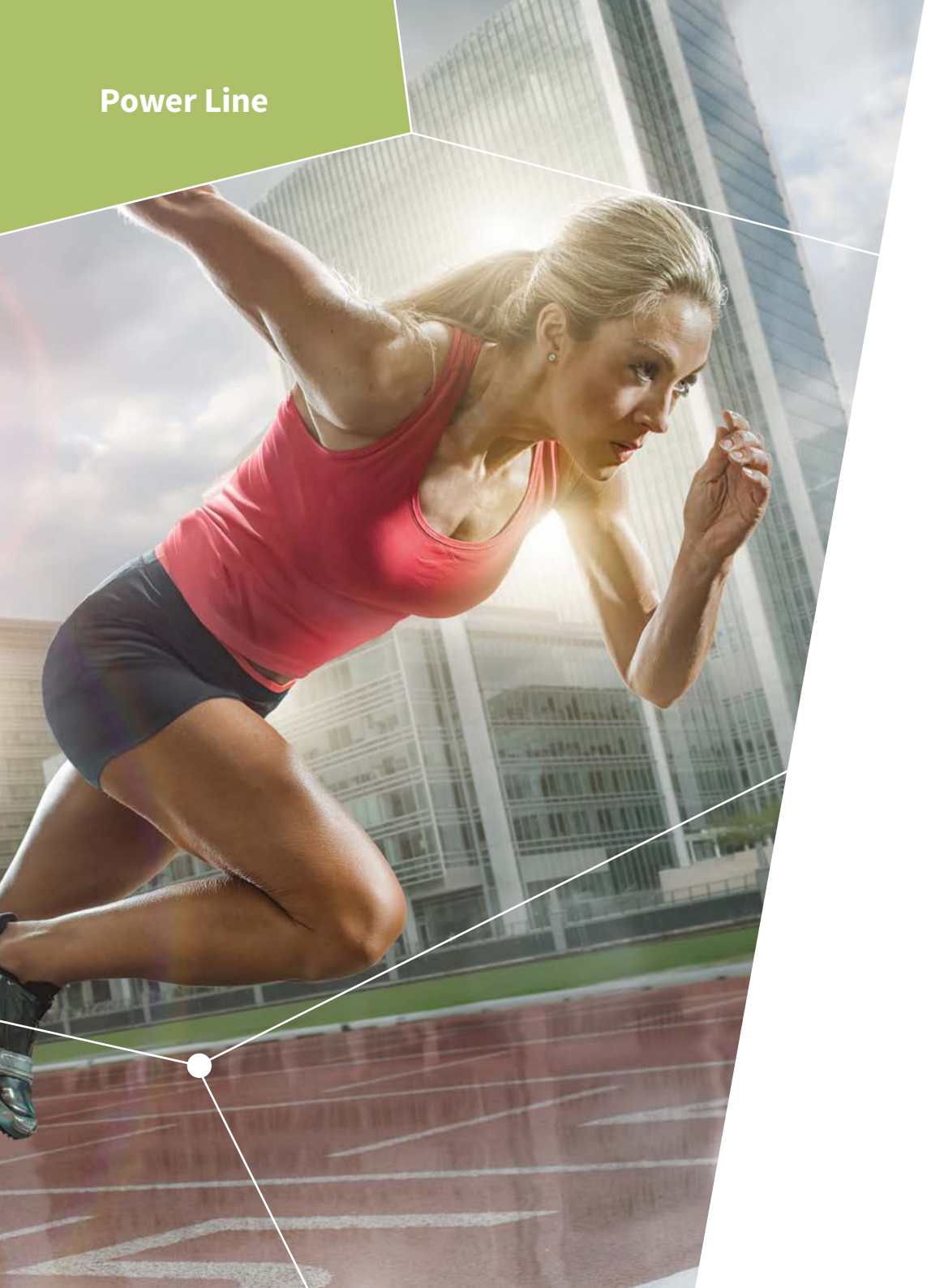
Benefit from

Cost effective solder bond technology for increased competitiveness

- Predictably high performance and lifetime due to 100% x-ray monitoring
- Solid base plate for fast and easy mounting

www.infineon.com/ecoline

Order directly



Power Line

Focus on application

Most complete product portfolio for Low Voltage Soft Starters (<2200V)

Choose from different technologies scaling from 30 kW up to 1 MW to suit your individual design

Infineon® Power Block

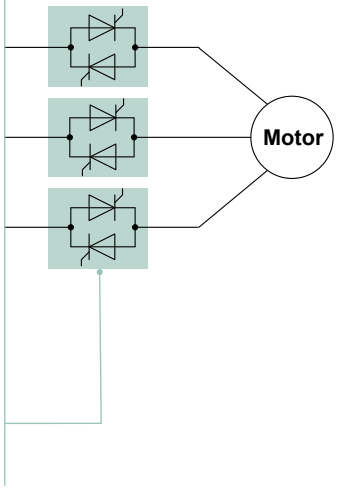
› Pressure Contact
Modules: 20-70mm

Infineon® Power Start

› Soft Starter
Modules: 55 mm

Infineon® Power Disc

› Ceramic Discs
ø 42-111 mm



Order directly

Prime Line

Designed for highest performance

Infineon® Prime Block

Solder Bond Technology

Pressure Contact Technology

Benefit from

- Best-in-class power density in 50 mm & 60 mm housing
- Predictable performance over entire lifetime
- Ready for safety applications
- Easy mounting & Faster time-to-market

Order directly

Prime Line

Hard switching. Soft landing.

Infineon® Prime Soft Family

The new ultra-soft freewheeling diodes for IGBTs built on our existing IGCT freewheeling diode family. A big improvement is the turn-off capability, which has been upgraded to 5 kA/us. These new diodes are the perfect fit for modern IGBT applications such as HVDC voltage source converters and medium voltage drives.

System approach:

- Double-digit percentage reduction in footprint
- Turn-off capability up to 5 kA/µs
- Increased system robustness thanks to extreme overcurrent capability of 80 kA@10 ms

Your benefits:

- Simplified mechanical stack construction with series stacking of press-pack IGBTs and freewheeling diodes
- 50% time savings in stack design
- Fewer safety devices required thanks to high overload capability
- Ideal for building gigawatt HVDC installations with low power losses

www.infineon.com/primesoft

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System Line

In perfect harmony – with Infineon® Power Stacks

Heatsink & mounting concepts for bipolar semiconductors

Infineon® Power Stacks with bipolar power semiconductors are used in most varied applications in a power range from a few kilowatts up to several megawatts. The modular portfolio of our System Line covers solutions with thyristors and diodes and is optimized to the respective requirements.

The Block Design Lines are based on more than 22 heatsink concepts and offer a suitable design variant for every semiconductor package and for each application. Whether natural air cooling, forced air cooling or liquid cooling, all known requirements are supported.

www.infineon.com/powerstacks

Order directly

Ready for Infineon® Power Stacks?

Infineon® Power Stacks with bipolar power semiconductors are used in most varied applications in a power range from a few kilowatts up to several megawatts. The modular portfolio of our System Line covers solutions with thyristors and diodes and is optimized to the respective requirements.

4 steps to your individual Power Stack

We support your requests flexible with building blocks:

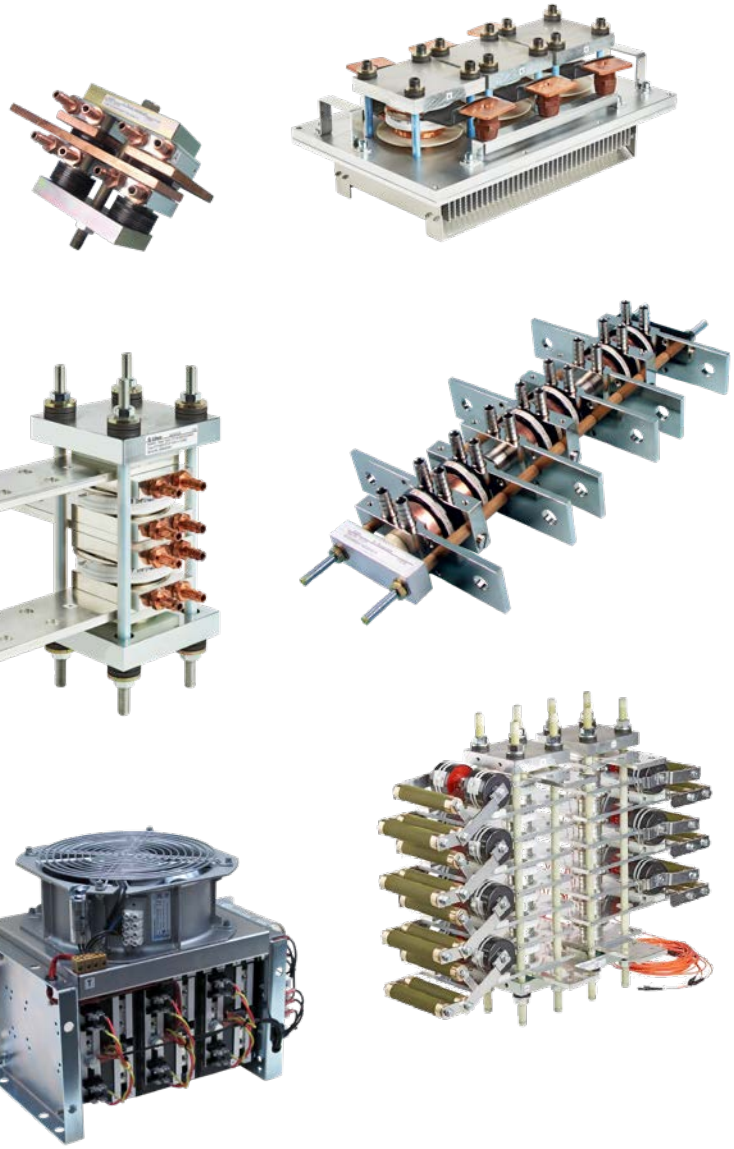
1. Find a module or disc which supports your application needs
2. Choose one of the building blocks for basic circuits
3. Define the stack from blocks according the applications needs
4. Add accessories according the applications needs

Your possible choice

22 heatsink designs	75 block designs
over 8,600 block variants	over 25,700 stack designs

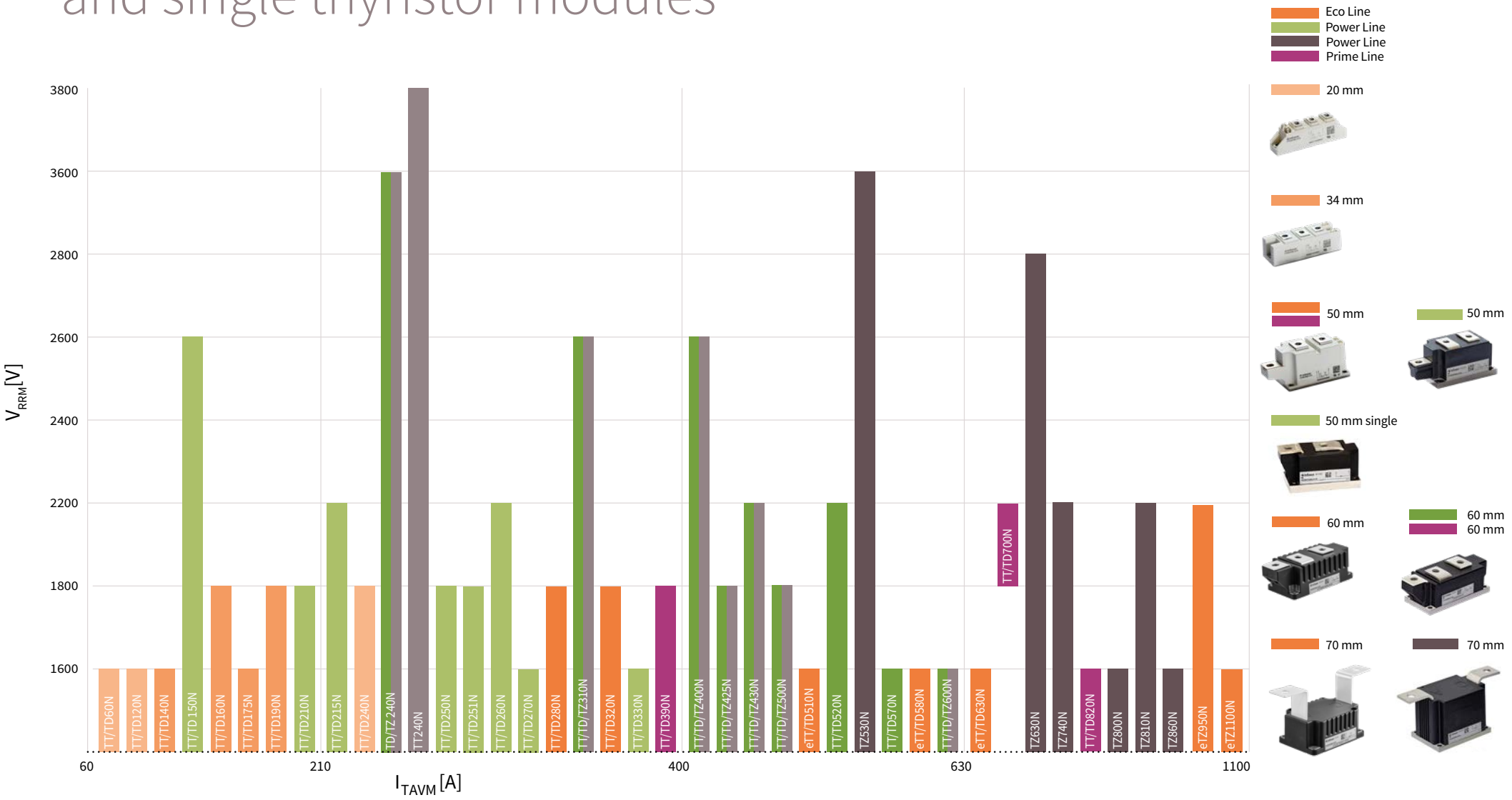
Applications

- Industrial AC and DC drives
- Soft starters, STATS
- Rectifiers and static by-passes in UPS
- Wind energy systems
- Welding, plating
- Electrolysis
- Electric heat
- High voltage direct current (HVDC) transmisson systems
- Flexible AC transmission systems (FACTS)
- TAP changers for transformers
- Controllable transformers
- Pulsed Power, Crowbars
- Freewheeling and clamping circuits
- Exiter devices
- Rectifiers for VSI

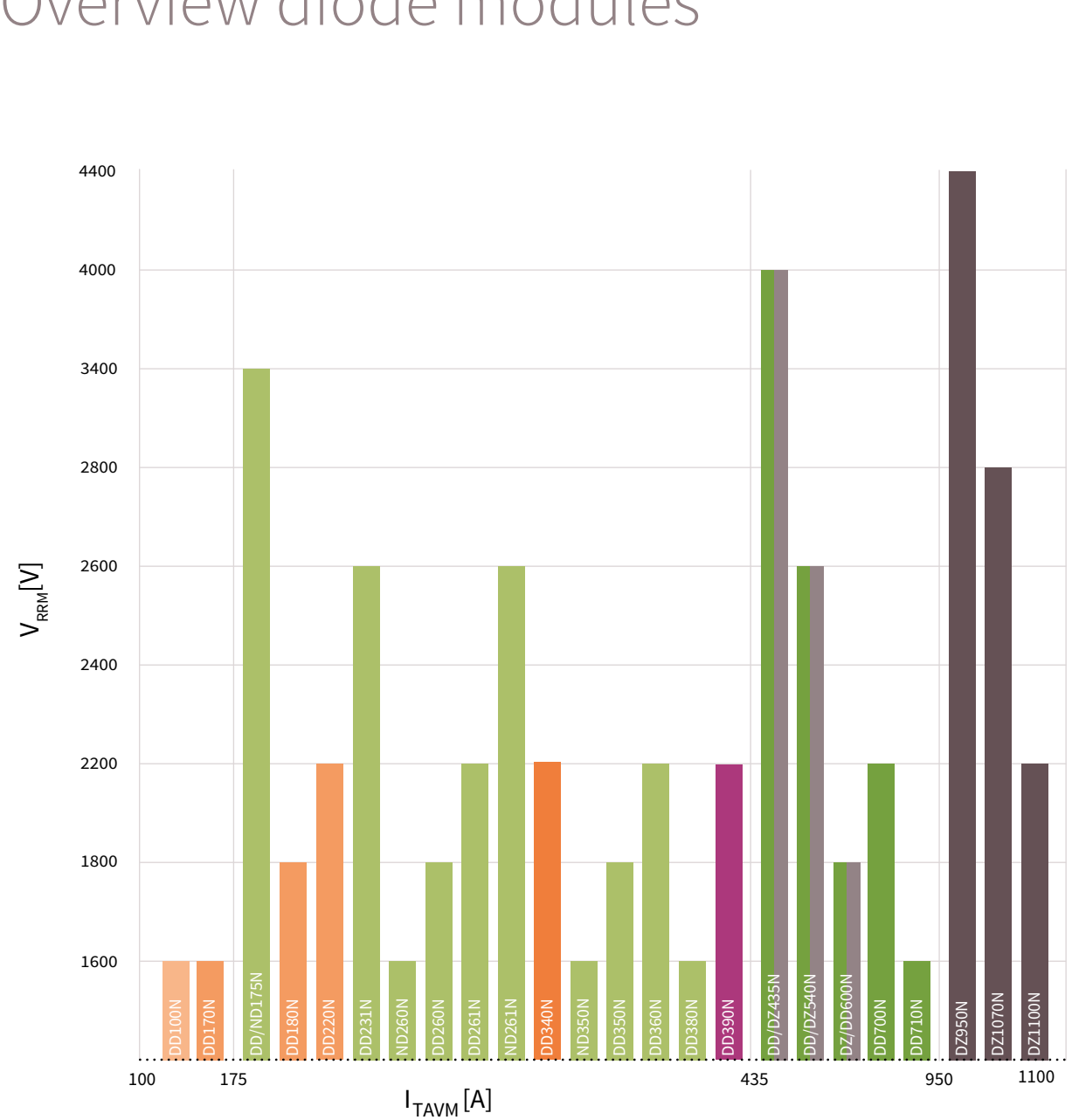


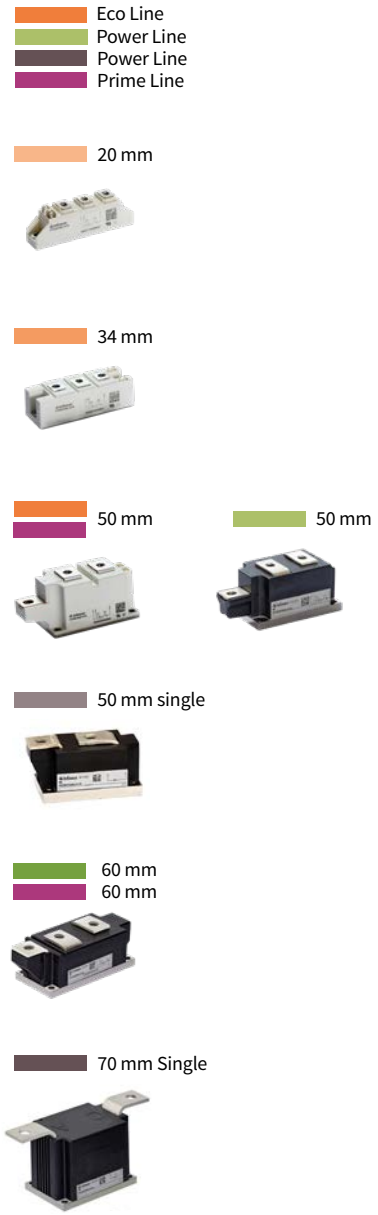
Personal service and support:
support@infineon-bip.com | Phone: +49 2902 9899-1766
www.ifbip-shop.com

Overview thyristor/thyristor, thyristor/diode and single thyristor modules

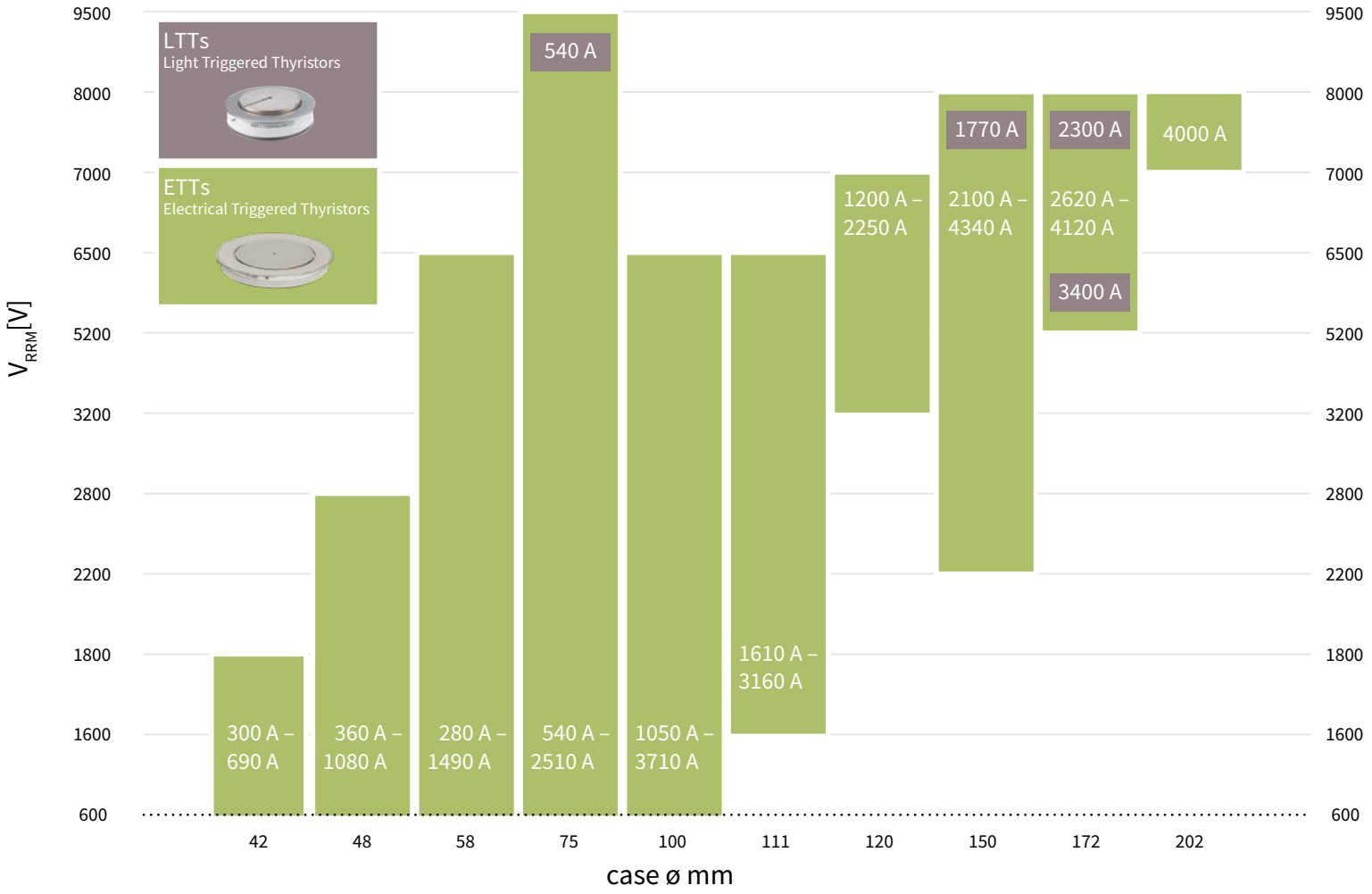


Overview diode modules

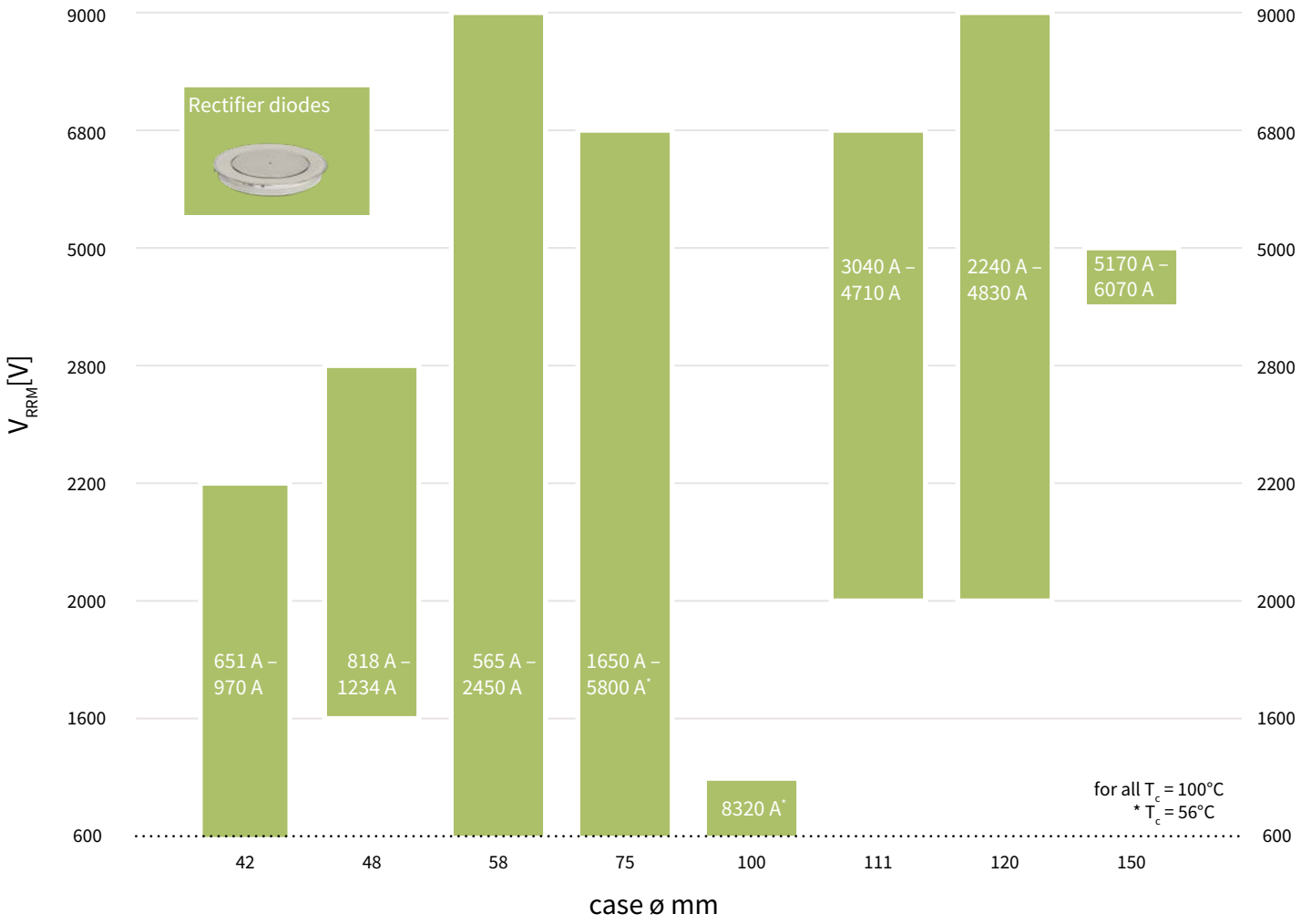




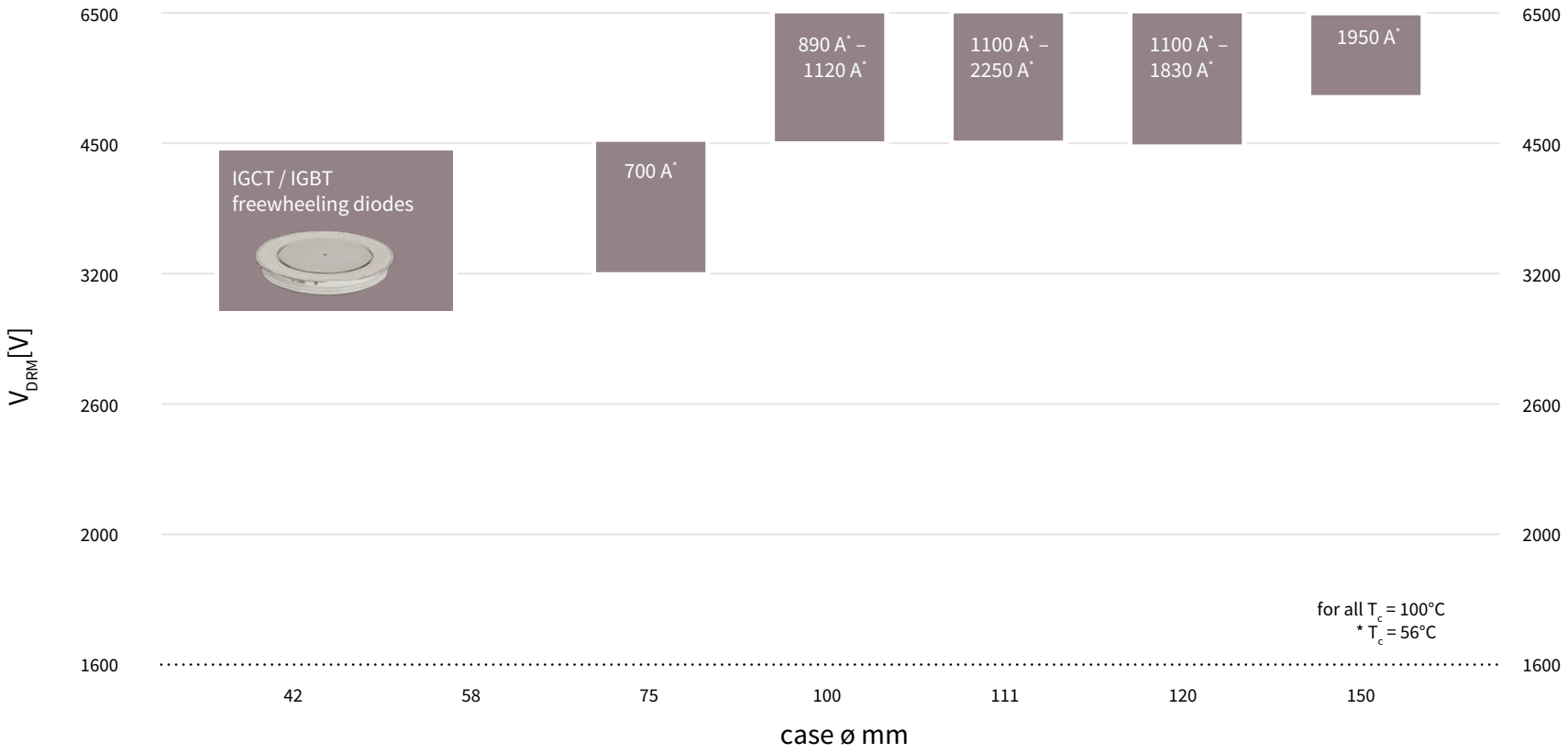
Overview thyristors in disc housings



Overview diodes in disc housings

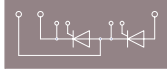


Overview IGCT/IGBT freewheeling diodes in disc housings



Thyristor / Thyristor Modules

CAV Drives Traction UPS Welding Wind

Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor modules - baseplate 20 mm - solder bond										
TT60N16SOF	1600		55/85	1200	7.20	1.00	4.80	0.49	130	TS20 / 39
TT60N16SOFB01	1600		55/85	1200	7.20	1.00	4.80	0.49	130	TS20 / 39
TT120N16SOF	1600		119/85	2250	18.05	0.90	3.35	0.20	130	TS20 / 39
TT120N16SOFB01	1600		119/85	1900	18.05	0.90	3.35	0.20	130	TS20 / 39
Power Line - thyristor modules - baseplate 20 mm - pressure contact										
TT61N16KOF	1600	1400	60/85	1400	9.80	0.80	3.40	0.52	125	TP20 / 39
TT92N16KOF	1600		92/85	1800	16.20	0.85	2.15	0.37	130	TP20 / 39
TT104N14KOF	1400	1200	104/85	1800	16.20	0.85	2.15	0.37	130	TP20 / 39
Eco Line - thyristor modules - baseplate 34 mm - solder bond										
TT140N16SOF	1600		140/85	4000	80.00	1.00	1.60	0.19	125	TS34 / 39
TT160N16SOF	1600		160/85	4500	101.30	1.10	0.99	0.145	125	TS34 2nd Gen / 39
TT175N16SOF	1600		175/85	5400	125.00	0.83	1.30	0.164	125	TS34 / 39
TT190N18SOF	1800	1600	190/85	4500	101.30	0.85	0.90	0.145	125	TS34 2nd Gen / 39
TT240N18SOF	1800	1600	240/85	4400	96.80	0.85	0.90	0.165	140	TS34 2nd Gen / 39
Power Line - thyristor modules - baseplate 34 mm - pressure contact										
TT122N22KOF	2200	1800	122/85	2950	43.50	1.00	2.15	0.20	125	TP34 / 39
TT140N22KOF	2200	1800	140/85	3200	51.20	0.90	1.75	0.06	125	TP34 / 39
TT142N16KOF	1600		142/85	4100	84.00	0.90	1.10	0.22	125	TP34 / 39
TT162N16KOF	1600	1400	162/85	4400	97.00	0.85	0.95	0.20	125	TP34 / 39
TT180N16KOF	1600	1200	180/85	4100	84.00	0.85	0.90	0.20	130	TP34 / 39

Thyristor / Thyristor Modules


CAV | Drives | Traction | UPS | Welding | Wind

Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor modules - baseplate 50 mm - solder bond										
TT280N18SOF	1800	1600	280/85	7800	304.2	1.77	0.82	0.11	130	TS50 / 40
TT320N16SOF TIM	1600		320/85	8200	335.0	0.77	0.58	0.11	130	TS50 / 40
TT320N18SOF	1800	1600	320/85	8200	335.0	0.77	0.58	0.11	130	TS50 / 40
Prime Line - thyristor modules - baseplate 50 mm - solder bond										
TT390N18SOF	1800	1600	380/85	8100	328.0	0.77	0.58	0.11	140	TS50 / 40
Power Line - thyristor modules - baseplate 50 mm - pressure contact										
TT150N26KOF	2600	2200	150/85	4000	80.0	1.20	2.30	0.13	125	TP50 / 40
TT170N18KOF	1800		170/85	4600	106.0	0.95	1.00	0.17	125	TP50A / 40
TT210N18KOF	1800		210/85	5800	168.0	1.00	0.85	0.13	125	TP50A / 40
TT215N22KOF	2200	2000, 1800	215/85	6300	198.0	0.95	0.92	0.13	125	TP50A / 40
TT250N18KOF	1800	1600, 1400	250/85	7000	245.0	0.80	0.70	0.13	125	TP50A / 40
TT250N16KOF TIM	1600		250/85	7000	245.0	0.80	0.70	0.13	125	TP50A / 40
TT251N18KOF	1800	1600, 1400, 1200	250/85	8000	320.0	0.80	0.70	0.13	125	TP50A / 40
TT260N22KOF	2200		260/85	8000	320.0	0.85	0.64	0.12	125	TP50A / 40
TT270N16KOF	1600		270/92	9000	400.0	0.80	0.58	0.12	125	TP50A / 40
TT285N16KOF	1600		285/92	10000	781.0	0.80	0.50	0.112	130	TP50A / 40
TT330N16KOF	1600	1400, 1200	330/85	10000	500.0	0.80	0.50	0.112	130	TP50A / 40
TT330N16KOF TIM	1600		330/85	10000	500.0	0.80	0.50	0.112	130	TP50A / 40

Thyristor / Thyristor Modules



Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor modules - baseplate 60 mm - pressure contact										
ETT420N22P60	2200		420/85	11400	650	0.85	0.548	0.076	135	TE60 / 41
ETT480N22P60	2200		480/85	12000	720	0.85	0.484	0.076	135	TE60 / 41
ETT510N16P60	1600		510/85	12800	819	0.80	0.375	0.076	135	TE60 / 41
ETT540N22P60	2200		540/85	13300	884	0.85	0.425	0.076	135	TE60 / 41
ETT580N16P60	1600		580/85	13600	925	0.80	0.327	0.064	135	TE60 / 41
ETT630N16P60	1600		630/85	14700	1080	0.80	0.289	0.063	135	TE60 / 41
Power Line - thyristor modules - baseplate 60 mm - pressure contact										
TT240N38KOF	3800	3600	240/85	5500	151	1.17	1.70	0.078	125	TP60 / 41
TT310N26KOF	2600	2000	310/85	9000	405	1.00	0.86	0.078	125	TP60 / 41
TT400N26KOF	2600	2400	400/85	11000	605	1.00	0.50	0.065	125	TP60 / 41
TT425N18KOF	1800	1600, 1400, 1200	425/85	12500	1051	0.90	0.35	0.065	125	TP60A / 41
TT430N22KOF	2200		430/85	12000	1051	0.95	0.45	0.065	125	TP60A / 41
TT500N16KOF TIM	1600		500/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TT500N18KOF	1800	1600, 1400, 1200	500/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TT520N22KOF	2200		520/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TT570N16KOF	1600		570/87	14000	1531	0.80	0.23	0.058	125	TP60A / 41
TT600N16KOF	1600		600/85	17500	1531	0.80	0.23	0.058	125	TP60A / 41
TT600N16KOF TIM	1600		600/85	17500	1531	0.80	0.23	0.058	125	TP60A / 41
Prime Line - thyristor modules - baseplate 60 mm - pressure contact										
TT700N22KOF	2200		700/85	20400	1462	0.85	0.35	0.049	135	TP60A / 41
TT820N16KOF	1600		820/85	24800	2020	0.80	0.23	0.048	135	TP60A / 41

Single Thyristor Modules




Product	V_{DRM} / V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Power Line - single thyristor modules - baseplate 50 mm - pressure contact										
TZ150N26KOF	2600		150/85	4000	101	1.20	2.30	0.130	125	TP50.1 / 40
TZ240N36KOF	3600	3400	240/85	5500	151	1.17	1.70	0.078	125	TP50.1 / 40
TZ310N26KOF	2600	2200	310/85	8000	320	1.00	0.86	0.078	125	TP50.1 / 40
TZ400N26KOF	2600	2400	400/85	11000	605	1.00	0.50	0.065	125	TP50.1 / 40
TZ425N18KOF	1800	1600, 1400, 1200	425/85	12500	781	0.90	0.30	0.078	125	TP50.1 / 40
TZ430N22KOF	2200		430/85	12000	720	0.95	0.45	0.065	125	TP50.1 / 40
TZ500N18KOF	1800	1600, 1200	500/85	14500	1051	0.90	0.27	0.065	125	TP50.1 / 40
TZ600N16KOF	1600	1200	600/85	14000	980	0.90	0.27	0.065	125	TP50.1 / 40
Eco Line - single thyristor modules - baseplate 70 mm - pressure contact										
ETZ950N22P70	2200		923/85	25100	3150	0.82	0.22	0.041	135	TE70 / 41
ETZ1100N16P70	1600		1051/85	28200	3976	0.80	0.15	0.040	135	TE70 / 41
Power Line - single thyristor modules - baseplate 70 mm - pressure contact										
TZ530N36KOF	3600		530/85	20000	2000	1.05	0.49	0.045	125	TP70 / 41
TZ630N28KOF	2800	2400, 2200	630/85	23000	2650	0.95	0.37	0.042	125	TP70 / 41
TZ740N22KOF	2200	2000	740/85	26500	3500	0.82	0.17	0.042	125	TP70A / 41
TZ740N22KOF TIM	2200		819/85	26500	3500	0.82	0.17	0.042	125	TP70A / 41
TZ800N16KOF TIM	1600		800/85	30000	4500	0.82	0.17	0.042	125	TP70A / 41
TZ800N18KOF	1800	1600, 1400, 1200	800/85	30000	4500	0.82	0.17	0.042	125	TP70A / 41
TZ800N18KOF TIM	1800		800/85	30000	4500	0.82	0.17	0.042	125	TP70A / 41
TZ810N22KOF	2200		819/85	35000	6125	0.82	0.17	0.042	125	TP70A / 41
TZ810N22KOF TIM	2200		819/85	35000	6125	0.82	0.17	0.042	125	TP70A / 41
TZ860N16KOF	1600		860/85	40000	8000	0.80	0.145	0.042	125	TP70A / 41
TZ860N16KOF TIM	1600		860/85	40000	8000	0.80	0.145	0.042	125	TP70A / 41

Thyristor / Diode Modules

Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor / diode modules - baseplate 20 mm - solder solder										
TD60N16SOF	1600		55/85	1200	7.20	1.00	4.80	0.49	130	TS20 / 39
TD120N16SOF	1600		119/85	2250	18.05	0.90	3.35	0.20	130	TS20 / 39
Power Line - thyristor / diode modules - baseplate 20 mm - pressure contact										
TD61N16KOF	1600	1400	60/85	1400	9.80	0.80	3.40	0.52	125	TP20 / 39
TD92N16KOF	1600		92/85	1800	16.20	0.85	2.15	0.37	130	TP20 / 39
TD104N14KOF	1400	1200	104/85	1800	16.20	0.85	2.15	0.37	130	TP20 / 39
Eco Line - thyristor / diode modules - baseplate 34 mm - solder bond										
TD140N16SOF	1600		140/85	4000	80.00	1.00	1.60	0.19	125	TS34 / 39
TD160N16SOF	1600		160/85	4500	101.30	1.10	0.99	0.145	125	TS34 2nd Gen / 39
TD175N16SOF	1600		175/85	5400	125.00	0.83	1.30	0.164	125	TS34 / 39
TD190N18SOF	1800	1600	190/85	4500	101.30	0.85	0.90	0.145	125	TS34 2nd Gen / 39
TD240N18SOF	1800	1600	240/85	4400	96.80	0.85	0.90	0.165	140	TS34 2nd Gen / 39
Power Line - thyristor / diode modules - baseplate 34 mm - pressure contact										
TD122N22KOF	2200	1800	122/85	2950	43.50	1.00	2.15	0.20	125	TP34 / 39
TT140N22KOF	2200	1800	140/85	3200	51.20	0.90	1.75	0.06	125	TP34 / 39
TD142N16KOF	1600	1800	142/85	4100	84.00	0.90	1.10	0.22	125	TP34 / 39
TD162N16KOF	1600	1400	162/85	4400	97.00	0.85	0.95	0.20	125	TP34 / 39
TD180N16KOF	1600	1200	180/85	4100	84.00	0.85	0.90	0.20	130	TP34 / 39

Thyristor / Diode Modules


CAV Drives Traction UPS Welding Wind

Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor / diode modules - baseplate 50 mm - solder bond										
TD280N18SOF	1800	1600	280/85	7800	304	1.77	0.82	0.11	130	TS50 / 40
TD320N18SOF	1800	1600	320/85	8200	335	0.77	0.58	0.11	130	TS50 / 40
TD320N16SOF TIM	1800	1600	380/85	8100	328	0.77	0.58	0.11	140	TS50 / 40
Prime Line - thyristor / diode modules - baseplate 50 mm - solder bond										
TD390N18SOF	1800	1600	380/85	8100	328	0.77	0.58	0.11	140	TS50 / 40
Power Line - thyristor / diode modules - baseplate 50 mm - pressure contact										
TD150N26KOF	2600	2200	150/85	4000	80	1.20	2.30	0.13	125	TP50 / 40
TD210N18KOF	1800		210/85	5800	168	1.00	0.85	0.13	125	TP50A / 40
TD215N22KOF	2200	2000, 1800	215/85	6300	198	0.95	0.92	0.13	125	TP50A / 40
TD250N18KOF	1800	1600, 1400	250/85	7000	245	0.80	0.70	0.13	125	TP50A / 40
TD250N16KOF TIM	1600		250/85	7000	245	0.80	0.70	0.13	125	TP50A / 40
TD251N18KOF	1800	1600, 1400	250/85	8000	320	0.80	0.70	0.13	125	TP50A / 40
TD260N22KOF	2200		260/85	8000	320	0.85	0.64	0.12	125	TP50A / 40
TD270N16KOF	1600		270/92	9000	400	0.80	0.58	0.12	125	TP50A / 40
TD285N16KOF	1600		285/92	10000	781	0.80	0.50	0.112	130	TP50A / 40
TD330N16KOF	1600	1400, 1200	330/85	10000	500	0.80	0.50	0.112	130	TP50A / 40
TD330N16KOF TIM	1600		330/85	10000	500	0.80	0.50	0.112	130	TP50A / 40

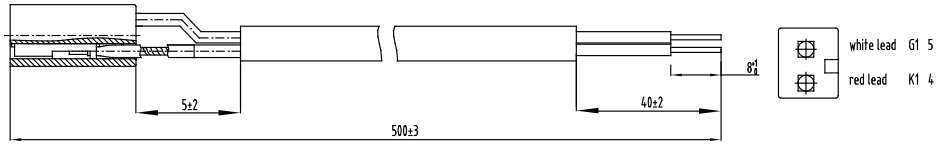
Thyristor / Diode Modules

Product 	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - thyristor / diode modules - baseplate 60 mm - pressure contact										
ETD420N22P60	2200		420/85	11400	650	0.85	0.548	0.076	135	TE60 / 41
ETD480N22P60	2200		480/85	12000	720	0.85	0.484	0.076	135	TE60 / 41
ETD510N16P60	1600		510/85	12800	819	0.80	0.375	0.076	135	TE60 / 41
ETD540N22P60	2200		540/85	13300	884	0.85	0.425	0.076	135	TE60 / 41
ETD580N16P60	1600		580/85	13600	925	0.80	0.327	0.064	135	TE60 / 41
ETD630N16P60	1600		630/85	14700	1080	0.80	0.289	0.063	135	TE60 / 41
Power Line - thyristor / diode modules - baseplate 60 mm - pressure contact										
TD240N38KOF	3800	3600	240/85	5500	151	1.17	1.70	0.078	125	TP60 / 41
TD310N26KOF	2600	2000	310/85	9000	405	1.00	0.86	0.078	125	TP60 / 41
TD400N26KOF	2600	2400	400/85	11000	605	1.00	0.50	0.065	125	TP60 / 41
TD425N18KOF	1800	1600, 1400, 1200	425/85	12500	1051	0.90	0.35	0.065	125	TP60A / 41
TD430N22KOF	2200		430/85	12000	1051	0.95	0.45	0.065	125	TP60A / 41
TD430N22KOF TIM	2200		430/85	12000	1051	0.95	0.45	0.065	125	TP60A / 41
TD500N16KOF TIM	1600		500/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TD500N18KOF	1800	1600, 1400, 1200	500/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TD520N22KOF	2200		520/85	14500	1051	0.85	0.35	0.058	125	TP60A / 41
TD570N16KOF	1600		570/87	14000	1531	0.80	0.23	0.058	125	TP60A / 41
TD600N16KOF	1600		600/85	17500	1531	0.80	0.23	0.058	125	TP60A / 41
TD600N16KOF TIM	1600		600/85	17500	1531	0.80	0.23	0.058	125	TP60A / 41
Prime Line - thyristor / diode modules - baseplate 60 mm - pressure contact										
TD700N22KOF	2200		700/85	20400	1462	0.85	0.35	0.049	135	TP60A / 41
TD820N16KOF	1600		820/85	24800	2020	0.80	0.23	0.048	135	TP60A / 41

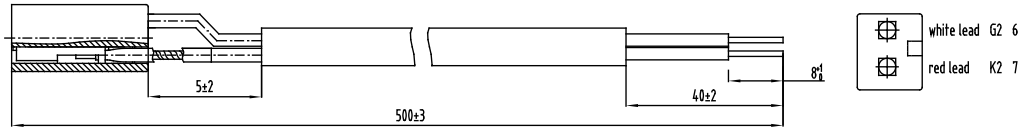
Fittings – Gate Leads for Modules with Baseplate 20 mm

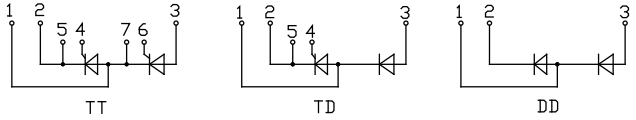
Product	Connection to	Connection to	Color	Length [mm]	Ordering Code
Module with baseplate 20 mm					
GATELEAD L=500 PB20 G1K1	5 / 4	G1/K1	G yellow / HK red	500	SP000983478
GATELEAD L=500 PB20 G2K2	6 / 7	G2/K2	G yellow / HK red	500	SP000983484

Outline G1/K1



Outline G2/K2

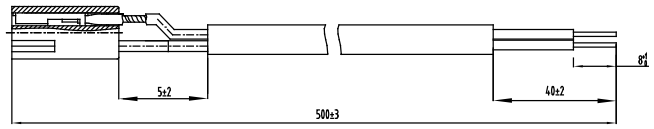




Fittings – Gate Leads for Modules with Baseplates 34-70 mm

Product	Connection to	Connection to	Color	Length [mm]	Outline	Ordering Code
Module with baseplate 34 mm						
GATELEAD L=500 PB34-60_2	4 / 5	G1/HK1	G white / HK red	500	A	SP000983496
GATELEAD L=500 PB34-70_1	6 / 7	G2/HK2	G white / HK red	500	B	SP000983490
Module with baseplate 50, 60 mm						
GATELEAD L=500 PB34-60_2	5 / 4	G1/HK1	G white / HK red	500	A	SP000983496
GATELEAD L=500 PB34-70_1	6 / 7	G1/HK1	G white / HK red	500	B	SP000983490
Module with baseplate 50 mm single						
GATELEAD L=500 PB34-60_2	5 / 4	G1/HK1	G white / HK red	500	A	SP000983496
Module with baseplate 70 mm						
GATELEAD L=500 PB34-70_1	5 / 4	G1/HK1	G white / HK red	500	C	SP000983490

A



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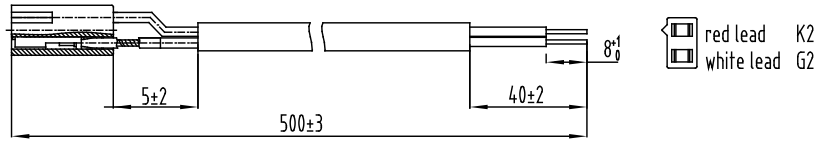
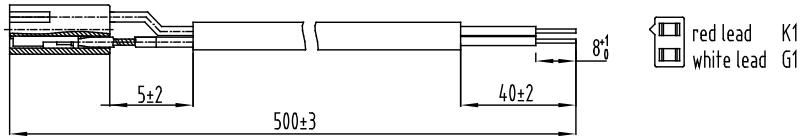
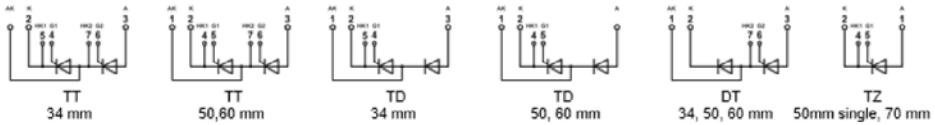


C





Diode / Diode Modules




Product 	V_{DRM} / V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - diode modules - baseplate 20 mm - solder solder										
DD100N16S	1600		134/100	2000	20.00	0.87	2.45	0.20	130	DS20 / 42
Power Line - diode modules - baseplate 20 mm - pressure contact										
DD89N18K	1800	1600, 1400, 1200	89/100	2400	28.80	0.75	2.30	0.45	150	DP20 / 42
DD98N25K	2500	2200	98/100	2000	20.00	0.82	2.00	0.39	150	DP20 / 42
DD104N18K	1800	1600, 1400, 1200	104/100	2500	31.25	0.70	2.10	0.39	150	DP20 / 42
Eco Line- diode modules - baseplate 34 mm - solder bond										
DD170N16S	1600		165/100	5500	151.25	0.75	1.05	0.18	135	DS34 / 42
DD180N22S	2200	1600	174/100	5750	131.60	0.85	0.95	0.14	135	DS34 2nd Gen / 42
DD220N22S	2200	1600	226/100	4800	115.20	0.85	0.95	0.16	150	DS34 2nd Gen / 42
Power Line - diode modules - baseplate 34 mm - pressure contact										
DD160N22K	2200		160/100	4600	105.80	0.80	1.00	0.26	150	DP34 / 42
DD171N18K	1800	1600, 1200	170/100	5600	157.00	0.75	0.80	0.26	150	DP34 / 42

Diode / Diode Modules

CAV | Drives | Traction | UPS | Wind

Product	V_{DRM} / V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Eco Line - diode modules - baseplate 50 mm - solder bond										
DD340N22S	2200	1600	330/100	10000	385	0.81	0.30	0.086	130	DS50 / 43
Power Line - diode modules - baseplate 50 mm - pressure contact										
DD175N34K	3400	3200, 3000	175/100	4000	80	0.90	1.80	0.17	150	DP50 / 43
DD231N26K	2600	2200	231/100	6400	205	0.80	0.84	0.17	150	DP50 / 43
DD260N18K	1800	1600, 1400, 1200	260/100	8300	344	0.70	0.68	0.17	150	DP50A / 43
DD261N22K	2200	2000	260/100	8300	344	0.70	0.68	0.17	150	DP50A / 43
DD285N04K	400	200	285/100	8300	344	0.75	0.40	0.17	150	DP50A / 43
DD350N18K	1800	1600, 1400, 1200	350/100	11000	605	0.75	0.40	0.13	150	DP50A / 43
DD360N22K	2200		360/100	13000	550	0.75	0.40	0.125	150	DP50A / 43
DD380N16K	1600		380/100	11500	660	0.75	0.32	0.125	150	DP50A / 43
Prime Line - diode modules - baseplate 50 mm - solder bond										
DD390N22S	2200	1600	390/113	8400	353	0.81	0.30	0.086	150	DS50 / 43
Power Line - diode modules - baseplate 60 mm - pressure contact										
DD435N40K	4000	3600, 3400, 2800	435/100	12000	720	0.84	0.60	0.078	150	DP60 / 44
DD540N26K	2600	2200	540/100	14000	980	0.78	0.31	0.078	150	DP60 / 44
DD600N18K	1800	1600, 1400, 1200	600/100	19000	1800	0.75	0.215	0.078	150	DP60A / 44
DD700N22K	2200		700/100	21000	1805	0.78	0.19	0.065	150	DP60A / 44
DD710N16K	1600		710/100	26000	2420	0.75	0.15	0.065	150	DP60A / 44

Single Diode Modules



Product	V_{DRM} / V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Power Line - diode modules - baseplate 20 mm - pressure contact										
ND89N16K	1600	1200	89/100	2400	28.80	0.75	2.300	0.450	150	DP20 / 42
ND104N18K	1800	1600, 1200	104/100	2500	31.25	0.70	2.100	0.390	150	DP20 / 42
Power Line - diode modules - baseplate 34 mm - pressure contact										
ND171N18K	1800	1600, 1400, 1200	170/100	5600	157.00	0.75	0.800	0.260	150	DP34 / 42
Power Line - diode modules - baseplate 50 mm - pressure contact										
ND260N16K	1600	1400, 1200	260/100	8300	344.00	0.70	0.680	0.170	150	DP50ND / 43
ND261N26K	2600		260/100	8300	344.00	0.70	0.680	0.170	150	DP50ND / 43
ND350N16K	1600	1200	350/100	11000	605.00	0.75	0.400	0.130	150	DP50ND / 43

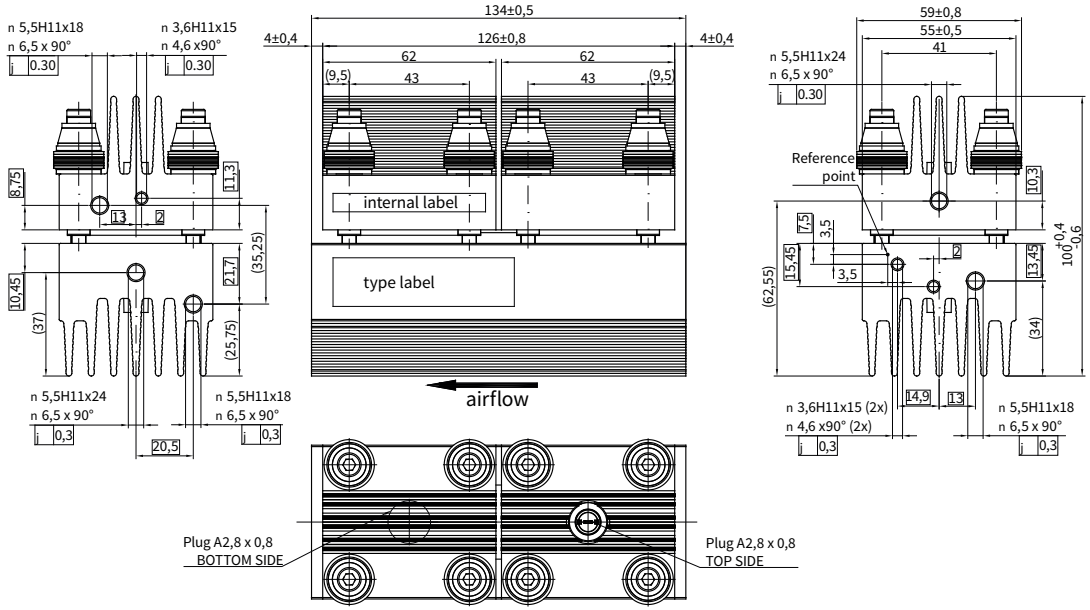
Single Diode Modules


Product	V_{DRM} / V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/C°] @180° el sin	I_{FSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Power Line - single diode modules - baseplate 50 mm - pressure contact										
DZ435N40K	4000	3600	435/100	12000	720	0.84	0.600	0.078	150	DP50.1 / 43
DZ540N26K	2600	2200, 2000	540/100	14000	980	0.78	0.310	0.078	150	DP50.1 / 43
DZ600N18K	1800	1600, 1400, 1200	600/100	19000	1805	0.75	0.220	0.078	150	DP50.1 / 43
Power Line - single diode modules - baseplate 70 mm - pressure contact										
DZ950N44K	4400	3600	950/100	29000	4205	0.85	0.280	0.042	150	DP70 / 44
DZ1070N28K	2800	2600, 2200, 1800	1070/100	35000	6125	0.80	0.170	0.045	160	DP70A / 44
DZ1100N22K	2200		1100/100	40000	8000	0.75	0.073	0.048	150	DP70A / 44
DZ1100N22K TIM	2200		1100/100	40000		0.75	0.073	0.048	150	DP70A / 44

Thyristor Soft Starter Modules

Product	V_{DRM} / V_{RRM} [V]	$I_{overload\ (21s)}$ [A]	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	$R_{thJA\ (21s)}$ [K/W]	T_{vj} [°C] max	Outline
Power Line – thyristor soft starter modules - baseplate 55 mm - pressur contact									
STT800N16P55	1600	800	5400	146	0.90	0.83	0.203	155	P55
STT1400N16P55	1600	1300	9000	405	0.90	0.49	0.123	155	P55
STT1900N16P55	1600	1900	14000	980	0.90	0.28	0.087	155	P55
STT2200N16P55	1600	2180	17500	1531	0.90	0.24	0.084	155	P55

P55



Thyristor Discs

Product	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - thyristor discs up to 800 V											
T690N06TOF	600	400	694/85	6700	225	0.80	0.44	51.0	140	10.5-21.0	T42.14K0 / 46
T920N06TOF	600	400, 200	925/85	12000	720	1.00	0.23	39.0	140	10.5-21.0	T48.14K0 / 46
T1080N06TOF	600	400, 200	1075/85	14500	1050	1.02	0.20	33.0	140	10.5-21.0	T48.14K0 / 46
T1410N06TOF	600	400	1490/85	20000	2000	1.00	0.10	27.0	140	10.5-21.0	T58.14K0 / 46
T2510N06TOF VT	600	400	2509/85	42000	8820	0.75	0.072	18.4	140	10.5-21.0	T75.26K0 / 47
T3710N06TOF VT	600	400	3710/85	60000	18000	0.75	0.048	12.5	140	10.5-21.0	T100.26K0 / 47
Power Line -thyristor discs up to 3000 V											
T360N28TOF	2800	2600, 2200	360/85	4500	101	1.10	1.600	44.0	125	5.0-10.0	T48.14K0 / 46
T460N26TOF	2600	2600, 2200	459/85	9000	405	1.00	0.840	45.5	125	7.5-17.5	T58.26K0 / 46
T4771N28TOF PR	2800	2200	4340/85	91000	41400	0.77	0.107	4.8	125	63.0-91.0	T150.26K0 / 48
T660N26TOF	2600	2200	659/85	11500	660	1.00	0.500	33.0	125	10.5-21.0	T58.26K0 / 46
T700N22TOF	2200		699/85	12200	744	0.95	0.450	32.0	125	10.5-21.0	T58.26K0 / 46
T740N26TOF	2600	2200	727/85	11500	660	1.00	0.500	28.0	125	10.5-21.0	T58.14K0 / 46
T1040N22TOF VT	2200		1039/85	18500	1711	0.90	0.300	23.1	125	16.0-32.0	T75.26K0 / 47
T1220N28TOF VT	2800	2600	1220/85	22500	2531	1.00	0.275	18.4	125	20.0-45.0	T75.26K0 / 47
T1330N22TOF VT	2200		1329/85	23000	2645	0.90	0.234	18.4	125	20.0-45.0	T75.26K0 / 47
T1590N28TOF VT	2800	2600	1590/85	28000	3920	1.10	0.237	12.5	125	30.0-65.0	T100.26K0 / 47
T1960N22TOF VT	2200		1960/85	35000	6125	0.90	0.150	12.5	125	30.0-65.0	T100.26K0 / 47
T2160N28TOF VT	2800	2600, 2500, 2200, 2000	2400/85	40000	8000	1.05	0.154	8.5	125	42.0-95.0	T111.26K0 / 47
T2480N28TOF VT	2800	2600	2480/85	43500	9460	0.95	0.154	8.5	125	42.0-95.0	T111.26K0 / 47
T2810N22TOF VT	2200	1800, 1600	2810/85	50000	12500	0.90	0.112	8.5	125	42.0-95.0	T111.26K0 / 47

Thyristor Discs

Product	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - thyristor discs up to 1800 V											
T300N16TOF	1600	1400	303/85	3400	58	0.90	1.350	69.0	125	2.5-5.0	T42.14K0 / 46
T390N16TOF	1600	1400, 1200	381/85	4250	91	0.85	0.900	62.0	125	3.0-6.0	T42.14K0 / 46
T420N18TOF	1800	1600, 1400	424/85	6400	205	0.90	0.750	56.0	125	5.0-10.0	T48.14K0 / 46
T430N18TOF	1800	1600, 1400	433/85	4600	106	0.85	0.900	51.0	125	4.0-8.0	T42.14K0 / 46
T470N16TOF	1600	1400, 1200	470/85	6350	202	0.80	0.750	51.0	125	4.0-8.0	T42.14K0 / 46
T560N18TOF	1800	1600, 1400	559/85	6900	238	0.80	0.600	44.0	125	5.0-10.0	T48.14K0 / 46
T590N18TOF	1800	1600, 1400, 1200	588/85	8000	320	0.80	0.500	45.0	125	6.0-12.0	T58.26K0 / 46
T640N18TOF	1800	1600, 1400, 1200	644/85	8000	320	0.80	0.500	39.0	125	6.0-12.0	T48.14K0 / 46
T680N14TOF	1400		681/85	9500	451	0.80	0.420	39.0	125	6.0-12.0	T48.14K0 / 46
T720N18TOF	1800	1600, 1400, 1200	718/85	12500	781	0.85	0.350	38.0	125	9.0-18.0	T58.26K0 / 46
T830N18TOF	1800	1600, 1400	844/85	12500	781	0.85	0.300	30.0	125	9.0-18.0	T58.14K0 / 46
T880N18TOF	1800	1600, 1400	879/85	15500	1200	0.85	0.270	32.0	125	10.5-21.0	T58.26K0 / 47
T940N18TOF	1800	1600, 1400	959/85	15500	1200	0.85	0.270	28.0	125	10.5-21.0	T58.14K0 / 47
T1190N18TOF VT	1800	1600, 1400, 1200	1190/85	22500	2530	0.90	0.190	23.0	125	16.0-32.0	T75.26K0 / 47
T1500N18TOF VT	1800	1600, 1400	1500/85	33500	5611	0.90	0.150	18.4	125	24.0-56.0	T75.26K0 / 47
T2180N18TOF VT	1800	1600, 1400, 1200	2180/85	36000	6480	0.90	0.106	12.5	125	30.0-65.0	T100.26K0 / 47
T3160N18TOF VT	1800	1600	3160/85	57000	16245	0.85	0.082	8.5	125	42.0-95.0	T111.26K0 / 47

Thyristor Discs

AC-DC | Drives | Traction | UPS | Wind

Product	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - thyristor discs up to 5500 V											
T730N42TOF VT	4200	3800	730/85	15800	1250	1.20	0.570	21.5	120	18-43	T75.26K0 / 47
T731N44TOH	4400		870/85	16000	1280	1.08	0.650	18.5	125	15-24	T76.26K0 / 47
T860N36TOF VT	3600		860/85	17000	1445	1.08	0.500	21.0	125	20-45	T75.26K0 / 47
T901N36TOF	3600	3500	940/85	17000	1445	1.16	0.494	18.5	125	15-24	T76.26K0 / 47
T930N36TOF VT	3600		930/85	17500	1530	1.00	0.430	21.5	125	20-45	T75.26K0 / 47
T1401N42TOH	4200		1590/85	36000	6480	1.29	0.330	9.7	125	36-52	T120.35K0 / 48
T1451N52TOH	5200		1660/85	43000	9250	0.92	0.370	9.7	125	36-52	T120.35K0 / 48
T1551N52TOH PR	5200		1770/85	43000	9250	0.92	0.370	9.0	125	36-52	T120.26K0 / 47
T1601N36TOF	3600	3500	1900/85	44000	8400	1.00	0.250	9.0	125	36-52	T120.35K0 / 48
T1800N42TOF PR	4200		1800/85	41000	8405	0.85	0.400	8.5	125	36-52	T111.26K0 / 47
T1930N38TOF VT	3800	3600, 3400, 3200	2180/85	37000	6850	1.08	0.200	8.5	125	40-65	T111.26K0 / 47
T2001N36TOF	3600		2060/85	41000	8400	1.00	0.250	8.7	125	36-52	T120.26K0 / 47
T2351N52TOH	5200		2250/85	54000	14600	0.81	0.360	6.5	125	45-65	T120.26K0 / 47
T2851N52TOH	5200	4800	2980/85	79000	31000	0.77	0.235	5.4	125	63-91	T150.35K0 / 48
T3441N52TOH	5200		3200/85	79000	31000	0.77	0.235	4.8	125	63-91	T150.26K0 / 48
T3801N36TOF VT	3600		3830/85	87000	37850	0.82	0.145	4.8	125	63-91	T150.26K0 / 48
T4003N52TOH PR	5200		3400/85	100000	50000	0.93	0.145	4.8	120	90-130	T172.40K0 / 48
T4003NH52TOH	5200		3400/85	100000	50000	0.93	0.145	4.8	120	90-130	T172.40K0 / 48
T4021N52TOH	5200		3880/85	100000	50000	0.93	0.145	4.5	125	90-130	T172.35K0 / 48

Thyristor Discs

Product	Max. V_{DRM} V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - thyristor discs up to 7500 V											
T201N70TOH PR	7000		245/85	4200	88	1.29	4.220	40.0	125	7-12	T58.26K0 / 46
T280N65TOF	6500		280/85	5800	115	1.35	2.800	43.0	125	7-12	T58.27K0 / 46
T501N70TOH	7000		640/85	13000	845	1.30	1.350	17.0	125	15-24	T75.26K0 / 47
T533N80TOH PR	8000		540/85	10500	550	1.26	1.470	20.0	120	15-24	T75.35K0 / 47
T570N65TOF	6500		540/85	10500	442	1.35	1.400	21.0	125	13-23	T75.26K0 / 47
T1060N65TOF PR	6500		1053/85	22500	2530	1.35	0.720	11.0	125	27-45	T100.26K0 / 47
T1081N70TOH	7000	6500	1300/85	34000	5780	1.18	0.759	8.6	125	26-52	T120.26K0 / 47
T1503N80TOH PR	8000		1770/85	55000	15125	1.24	0.440	6.3	120	63-91	T150.40K0 / 48
T1503NH80TOH	8000		1770/85	55000	15125	1.24	0.440	6.3	120	63-91	T150.40K0 / 48
T1620N65TOF PR	6500		1613/85	32000	5120	1.35	0.430	8.1	125	40-65	T111.26K0 / 47
T1851N70TOH	7000		1830/85	48000	11500	1.22	0.490	6.5	125	45-65	T120.26K0 / 48
T1901N80TOH	8000		2100/85	65000	21100	1.24	0.440	5.4	125	63-91	T150.35K0 / 48
T2251N80TOH	8000	7000	2260/85	65000	21100	1.24	0.440	4.8	125	63-91	T150.26K0 / 48
T2563N80TOH PR	8000		2300/85	90000	40500	1.20	0.350	4.8	120	90-130	T172.40K0 / 48
T2563NH80TOH	8000		2300/85	90000	40500	1.20	0.350	4.8	120	90-130	T172.40K0 / 48
T2871N80TOH	8000		2620/85	90000	40500	1.27	0.336	4.5	125	90-130	T172.35K0 / 48

Thyristor Discs

Product	Max. V_{DRM} V_{RRM} [V]	I_{TAVM}/T_C [A/C°] @180° el sin	I_{TSM} [A] @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Prime Line - electrical triggered thyristors up to 8000 V										
T1901N80TOH	8000	2100/85	65000	21100	1.24	0.440	5.4	125	63-91	T150.35K / 48
T2251N80TOH	8000	2260/85	65000	21100	1.24	0.440	4.8	125	63-91	T150.26K / 48
T2871N80TOH	8000	2620/85	90000	40500	1.27	0.336	4.5	125	90-130	T172.35K / 48
T3011N80TOH	8000	2800/85	90000	40500	1.27	0.336	4.0	125	90-130	T172.26K / 48
Prime Line - light triggered thyristors up to 8000 V										
T533N80TOH PR	8000	540/85	10500	550	1.26	1.470	20.0	120	15-24	T76.35L / 49
T533N80TOH PR	8000	540/85	10500	550	1.26	1.470	20.0	120	15-24	T76.35L / 49
T1503NH80TOH	8000	1770/85	55000	15125	1.24	0.440	6.3	120	63-91	T150.40L / 49
T2563N80TOH PR	8000	2300/85	90000	40500	1.20	0.350	4.8	120	90-130	T172.40L / 49
T2563NH80TOH	8000	2300/85	90000	40500	1.20	0.350	4.8	120	90-130	T172.40L / 49
T4003N52TOH PR	5200	3400/85	100000	50000	0.93	0.145	4.8	120	90-130	T172.40L / 49
T4003NH52TOH	5200	3400/85	100000	50000	0.93	0.145	4.8	120	90-130	T172.40L / 49

Fitting – Laser Diode & for Light-Triggered Thyristors

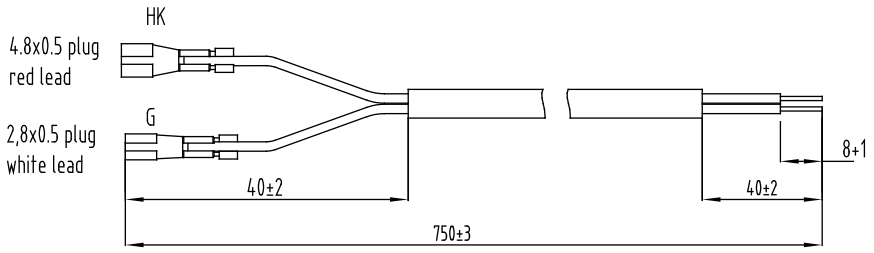
Product	For disc housing	Ordering Code
Laser Diode		
LASER DIODE SPL-PL90 A	T76.35L, T150.40L, T172.40L	SP000091118

Fitting – Light Fiber for Light-Triggered Thyristors

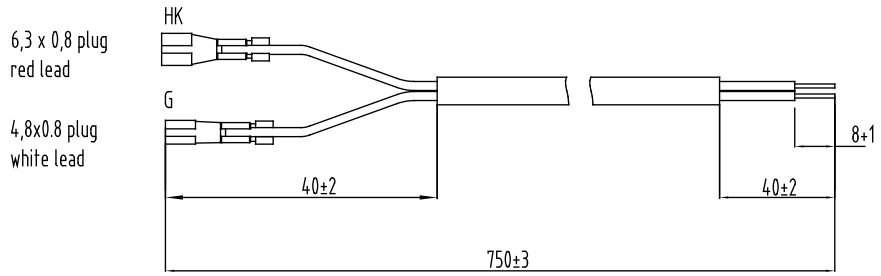
Product	For disc housing	Ordering Code
Light Fiber		
LIGHT FIBER LWL R10-LR50	T76.35L	SP000091120
LIGHT FIBER LWL R10-LR87	T150.40L, T172.40L	SP000091117

Fittings – Gate Leads for Disc Type Devices

Disc outline/page	Type	Color	Connector [mm]	Length [mm]	Ordering Code
Gatelead medium power					
T42.14K0	GATELEAD L=750/0.5 MP	red/white	4.8x0.5/2.8x0.5	750	SP000983448
T48.14K0					
T58.14K0					
T58.26K0					
T75.26K0					
T100.26K0					
T111.26K0					



Gatelead high power					
T120.26K	GATELEAD L=750/0.8 HP	red/white	6.3x0.8/4.8x0.8	750	SP000983442
T120.35K					
T150.26K					
T150.35K					
T172.26K					



Diode Discs

Product	V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/°C] @180° el sin	I_{FSM} @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - rectifier diodes up to 800 V											
D650N06T	600	200	651/100	510	130	0.70	0.51	81.0	180	2.6-4.6	D42.14K0 / 51
D970N06T	600		972/100	8800	387	0.70	0.31	57.0	180	3.9-7.6	D42.14K0 / 51
D2450N07T	700	600, 400, 200	2452/100	4000	4061	0.70	0.10	25.3	180	12.0-24.0	D58.14K0 / 51
D5810N06T VF	600	400	5800/58	70000	24500	0.70	0.04	17.0	180	30.0-60.0	D75.26K0 / 51
D8320N06T VF	600	400	8320/56	95000	45000	0.70	0.02	12.5	180	40.0-80.0	D100.26K0 / 51
Power Line - rectifier diodes up to 1800 V											
D1050N18T	1800		1050/130	18500	1710	0.81	0.17	38.0	180	10.0-24.0	D58.26K0 / 51
D1230N14T	1400	1200	1234/100	11800	696	0.81	0.28	39.0	180	6.0-15.0	D48.14K0 / 51
D1230N18T	1800	1600	1234/100	11800	696	0.81	0.28	39.0	180	6.0-15.0	D48.14K0 / 51
Power Line - rectifier diodes up to 3000 V											
D770N18T	1800	1600	767/100	6000	180	0.81	0.54	57.0	180	3.2-7.6	D42.14K0 / 51
D820N22T	2200		818/100	9000	405	0.83	0.52	39.0	160	6.0-15.0	D48.14K0 / 51
D950N22T	2200	1800	950/100	10250	525	0.70	0.50	45.0	180	6.0-12.0	D42.14K0 / 51
D1030N26T	2600	2200	1030/100	14500	1051	0.82	0.28	38.0	160	10.0-24.0	D58.26K0 / 51
D2200N24T VF	2400	2200, 2000	2200/100	35000	6125	0.83	0.15	17.0	160	24.0-60.0	D75.26K0 / 51
D2520N22T VF	2200		2520/100	35000	6125	0.73	0.10	22.0	175	15.0-24.0	D76.26K0 / 51
D2650N24T VF	2400		3520 / 100	41000	5611	0.82	0.15	16.9	180	24.0-60.0	D75.26K0 / 51
D4201N22T	2200	2000	4830/100	73500	27000	0.67	0.08	9.2	160	36.0-52.0	D120.35K / 48
D4810N28T VF	2800	2200	4810/100	60000	18000	0.83	0.06	8.0	160	42.0-95.0	D111.26K0 / 52

Diode Discs

Product	V_{RRM} [V]	also available V_{DRM} V_{RRM} [V]	I_{FAVM}/T_C [A/°C] @180° el sin	I_{FSM} @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]	Outline / page
Power Line - rectifier diodes up to 5000 V											
D740N48T	4800	4400	750/100	11000	605	0.85	0.650	39.0	160	10-24	D58.26K0 / 51
D850N40T	4000	3600, 3200	850/100	12800	819	0.84	0.490	38.0	160	10-24	D58.26K0 / 51
D1800N48T VF	4800	4600, 4400, 4300, 4000	1800/100	27500	3781	0.85	0.250	16.9	160	24-60	D75.26K0 / 51
D2201N45T	4500		2320/100	38000	7220	0.69	0.206	11.2	140	27-45	D100.26K0 / 52
D3501N40T PR	4000		3690/100	56000	15700	0.73	0.130	9.2	160	36-52	D120.35K / 48
D3501N42T	4200	3600	3690/100	56000	15700	0.73	0.130	9.2	160	36-52	D120.35K / 48
D6001N50T	5000		6070/100	110000	60500	0.80	0.090	4.6	160	63-91	D150.26K / 48
Power Line - rectifier diodes up to 10000 V											
D471N90T	9000		565/100	10000	500	1.04	1.78	31.5	160	10-16	D58.26K0 / 51
D711N68T	6800	6500, 600	790/100	10500	550	0.84	0.87	31.5	160	10-16	D58.26K0 / 51
D1481N68T VF	6800		1650/100	24500	3000	0.75	0.42	15.8	160	15-36	D76.26K / 47
D1721NH90T	9000		1670/85	35000	5780	1.36	0.65	7.5	140	36-52	D120.26K0 / 52
D2601N90T	9000	8500	2240/100	50000	12500	0.94	0.41	8.55	160	36-52	D120.26K0 / 52
D2601NH90T	9000		1440/85	22000	12500	0.94	0.41	8.55	160	36-52	D120.26K0 / 52
D3001N68T	6800		2900/100	53000	14040	0.84	0.22	9.2	160	36-52	D120.35K0 / 52
D3041N60T PR	6000		3040/100	53000	14040	0.84	0.22	8.55	160	36-52	D120.26K0 / 52
D3041N68T	6800	6500	3040/100	53000	14040	0.84	0.22	8.55	160	36-52	D120.35K / 48

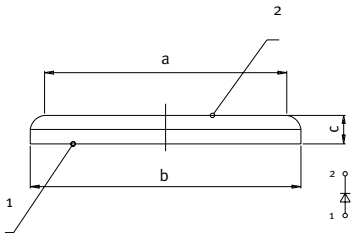
Diode Studs

Product	V_{DRM} / V_{RRM} [V]	I_{FAVM}/T_C [A/°C] @180° el sin	I_{FSM}/ I_{TSM}	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Outline / page
Power Line - diode studs									
D251K18B	1800	250/102	4700	110.5	0.8	0.85	0.236	180	DSW27 M12 / 53
D251N18B	1800	250/130	5300	140.5	0.8	0.85	0.151	180	DSW27 M12 / 53
D400N22B VF	2200	400/130	9800	480.2	0.7	0.62	0.095	180	DSW41 M24 / 53

Welding Diodes

Product	V_{RRM} [V]	I_{FAVM}/T_C [A/°C] @180° el sin	I_{FSM} @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Clamping force [kN]
Power Line – welding and lightning protection diodes									
38DN06	600	3885/120	32300.0	5200	0.66	0.66	12.4	180	20-30
46DN06	600	5100/118	52000.0	13500	0.7	0.7	9.35	180	30-45
56DN06B01	600	8400/110	70000.0	24500	0.66	0.66	5.8	180	40-60
65DN06	600	8470/98	95000.0	45000	0.7	0.7	4.7	180	55-80

Designation	a [mm]	b [mm]	c [mm]
38DN06	Ø 34	Ø 38	4,0
46DN06	Ø 43	Ø 46	4,0
56DN06B01	Ø 50	Ø 56	5,0
65DN06	Ø 58	Ø 65	5,0



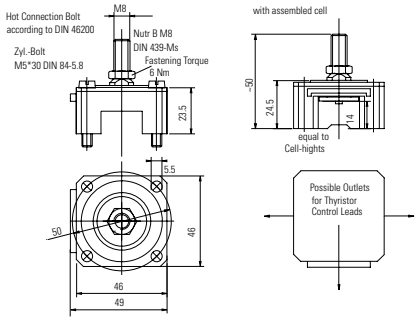
IGCT/IGBT – Freewheeling Diodes

Product 	V_{RRM} [V]	$I_{FAVM/TC}$	I_{FSM} @10ms, $T_{vj\ max}$	$\int I^2dt$ [$A^2S \cdot 10^3$] @10ms, $T_{vj\ max}$	$V_{(T0)}$ [V] @$T_{vj\ max}$	r_T [mΩ] @$T_{vj\ max}$	R_{thJC} [K/kW] @180° el sin	T_{vj} [°C] max	Q_R [mAs] @di/dt = 1000 A/µs I_{FM} = 2.5 kA, $T_{vj\ max}$	I_{RM} [A] @di/dt = 1000 A/µs I_{FM} = 2.5 kA, $T_{vj\ max}$	Clamping force [kN]	Outline / page
Power Line - IGCT/IGBT - freewheeling diodes												
D931SH65T	6500	940/85	16000	1280	1.99	1.440	11.1	140	3.50	1300	27-45	D100.26K / 52
D1031SH45T	4500	1120/85	23000	2645	1.78	0.968	10.0	140	3.50	1500	27-45	D100.26K / 52
D1131SH65T	6500	1100/85	22000	2420	2.19	1.364	7.50	140	3.50	1200	36-52	D120.26K / 52
D1331SH45T	4500	1310/85	28000	3920	1.83	0.948	7.50	140	3.50	1500	36-52	D120.26K / 52
D1961SH45T	4500	1830/85	40000	8000	1.25	0.500	7.50	140	12.00	2250	36-52	D120.26K / 52
Prime Line - IGCT/IGBT - freewheeling diodes												
D1600U45X122	4500	1680/55	28000	3920	1.80	0.994	7.50	140	6.00	3600	36-65	D120.26K / 52
D2700U45X122	4500	2900/55	48000	11500	1.38	0.447	5.60	140	9.50	4200	50-100	D120.26K / 52
D4600U45X172	4500	4780/55	80000	32000	1.25	0.300	3.30	140	13.00	5500	50-130	D172.26K

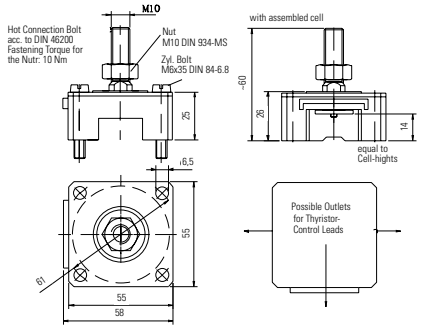
Clamping Units for Discs

Product	For disc diameter [mm]	For disc height [mm]	Clamping force [kN]	Min. creeping distance [mm]	Ordering Code
Clamping Unit					
V50-14.45M	42	14	4.5	11	SP000096563
V50-14.45N	42	14	4.5	11	SP000090625
V50-14.60M	42	14	6	11	SP000096564
V50-14.60N	42	14	6	11	SP000090626
V61-14.80M	48	14	8	11	SP000096565
V61-14.80N	48	14	8	11	SP000090627

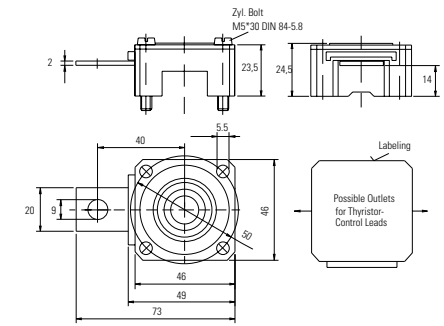
V50..M



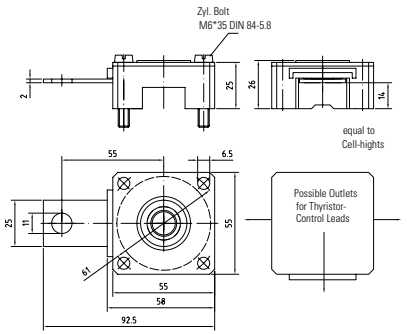
V61..M



V50..N



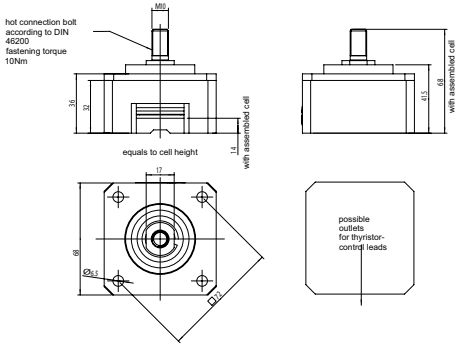
V61..N



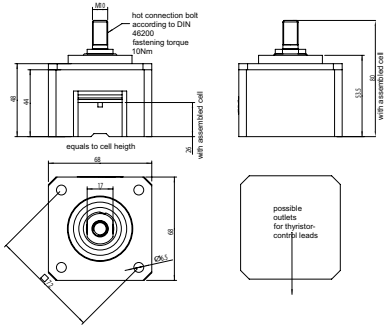
Clamping Units for Discs

Product	For disc diameter [mm]	For disc height [mm]	Clamping force [kN]	Min. creeping distance [mm]	Ordering Code
Clamping Unit					
V72-14.150M	58	14	15	11	SP000096566
V72-26.80M	58	26	8	23	SP000096569
V72-26.120M	58	26	12	23	SP000096567
V72-26.150M	75	26	15	23	SP000096568
V89-26.300N	75	26	30	26	SP000090624
V89-26.400N	75	26	40	26	SP000090662
V100-35.200N	75	26	20	26	SP000090635

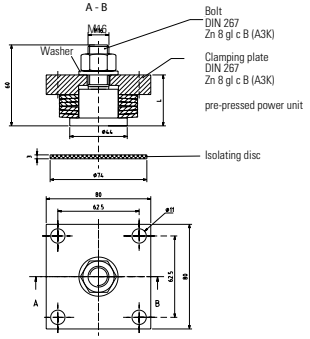
V72-14..M



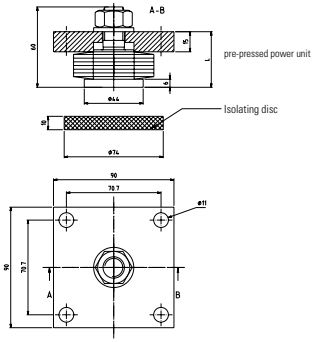
V72-26..M



V 89

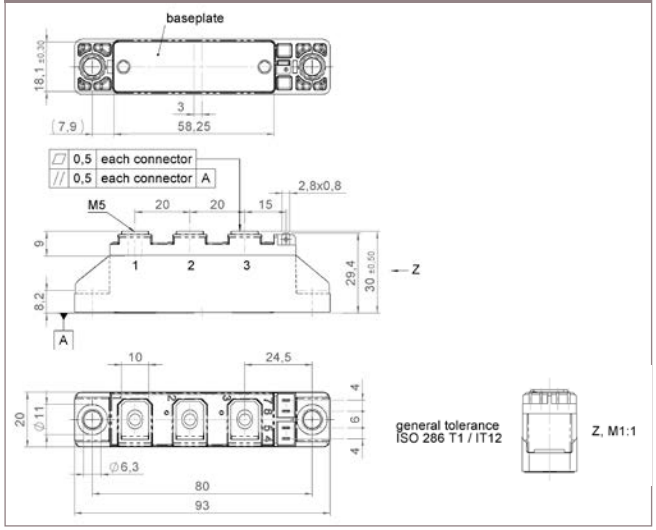


V 100

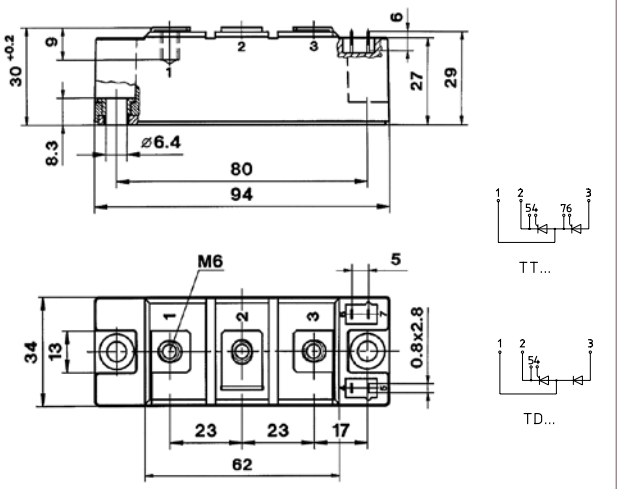


Outlines Thyristor Modules

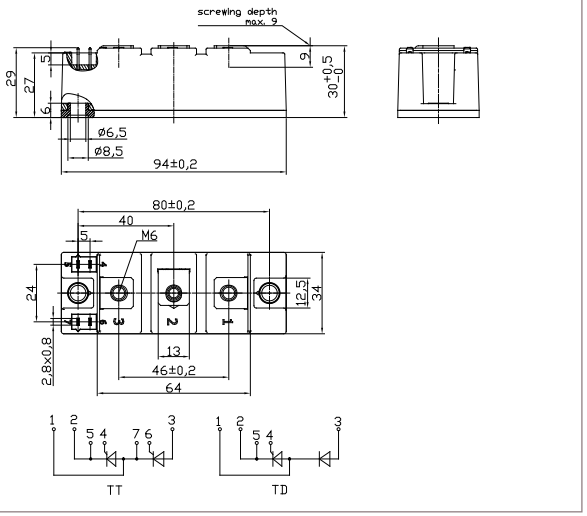
20 mm - TS20



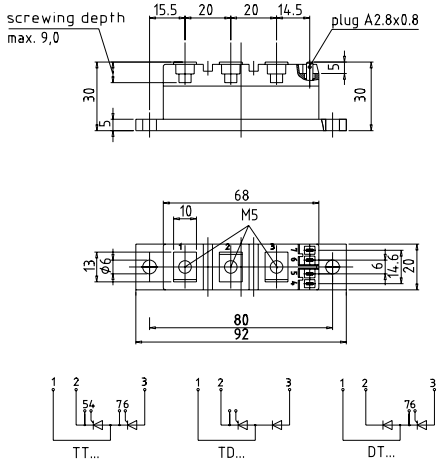
34 mm - TS34



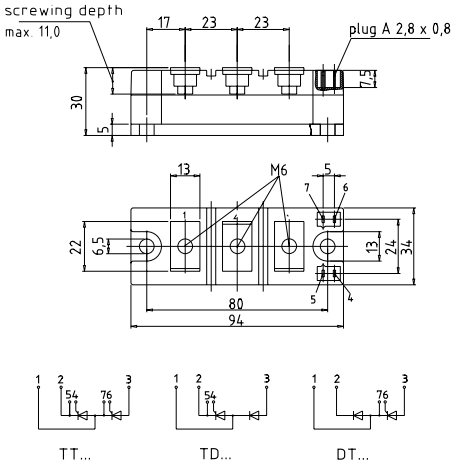
TS34 2nd Gen



20 mm - TP20

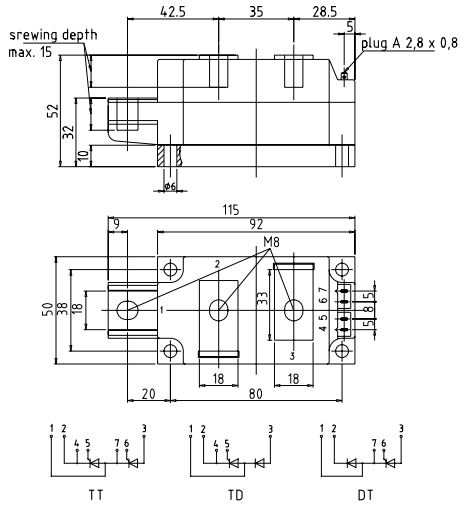


34 mm - TP34

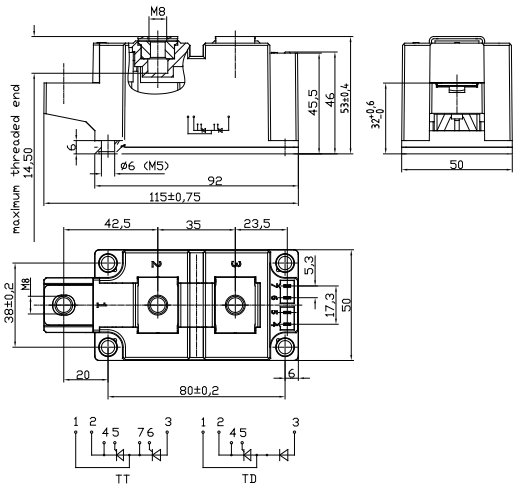


Outlines Thyristor Modules

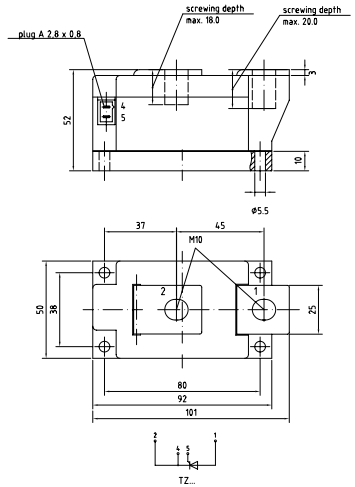
50 mm - TP50



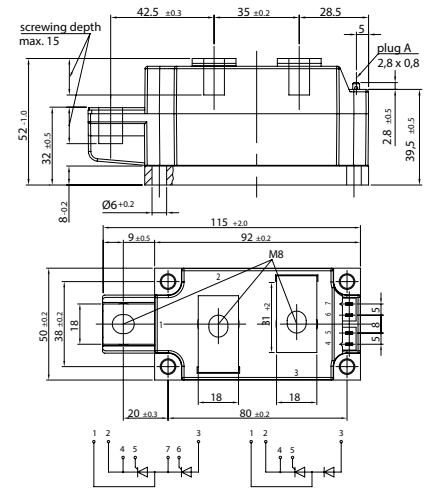
50 mm - TS50



50 mm - TP50.1

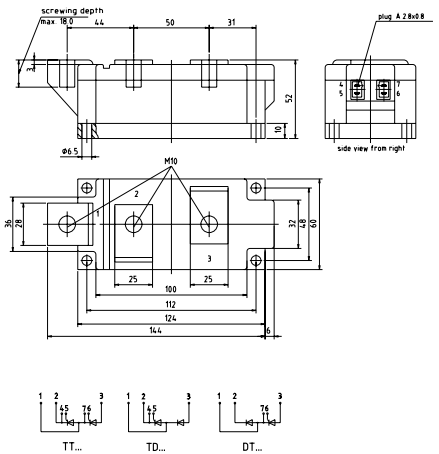


50 mm - TP50A

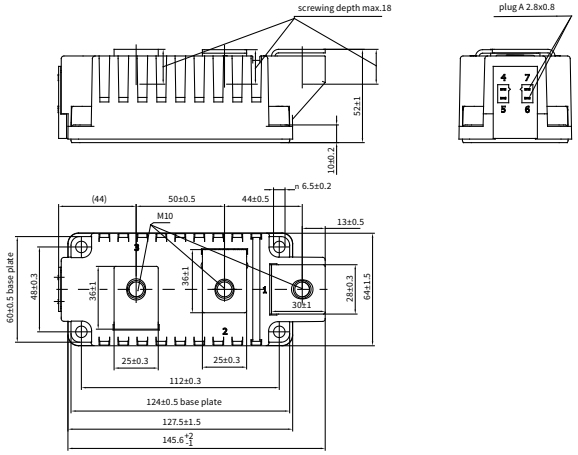


Outlines Thyristor Modules

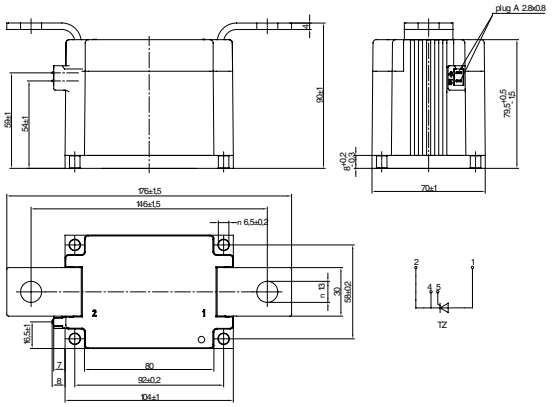
60 mm - TP60



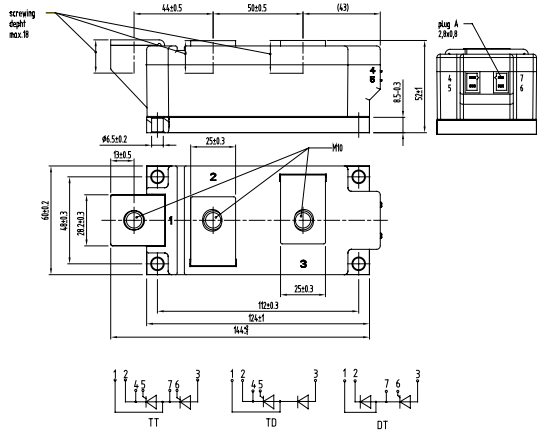
60 mm - TE60



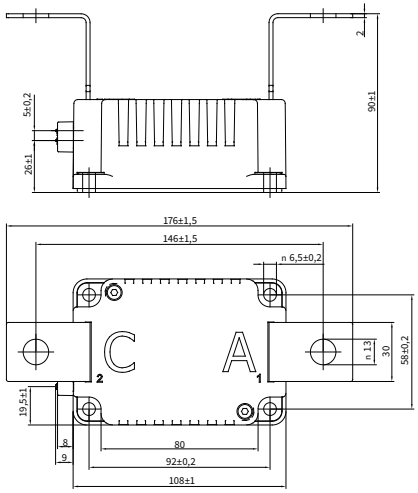
70 mm - TP70A



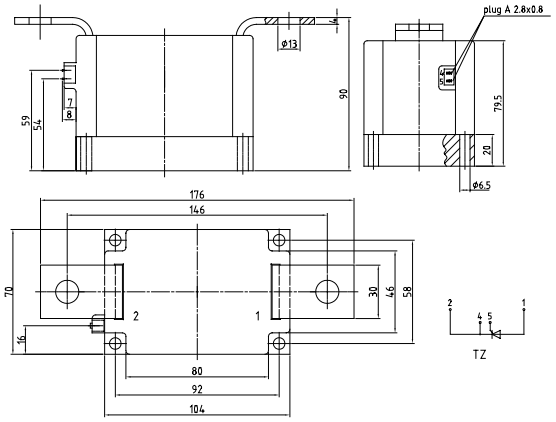
60 mm - TP60A



70 mm - TE70

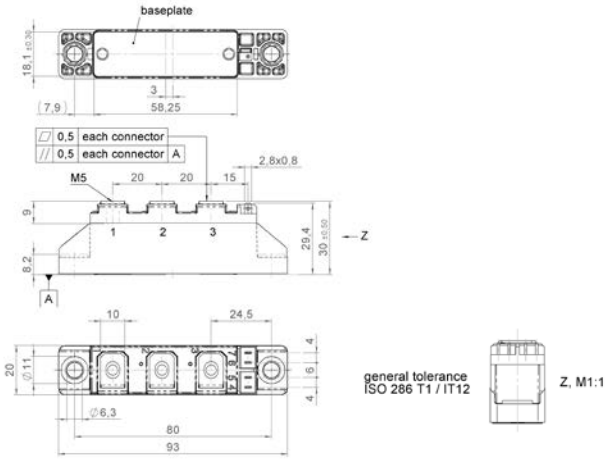


70 mm - TP70

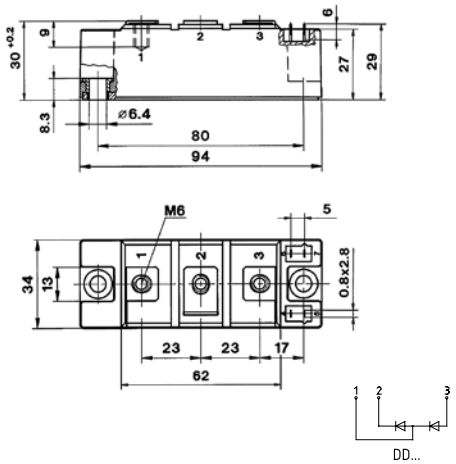


Outlines Thyristor Modules

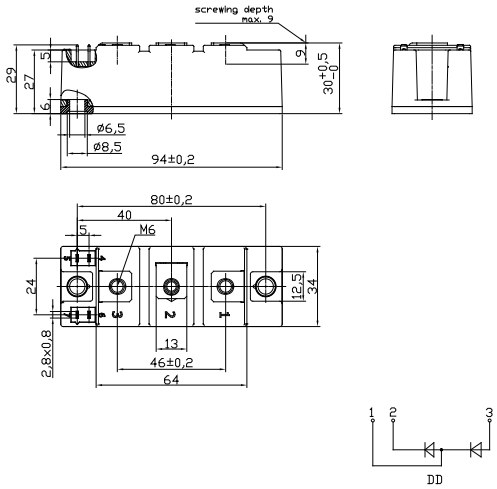
20 mm - DS20



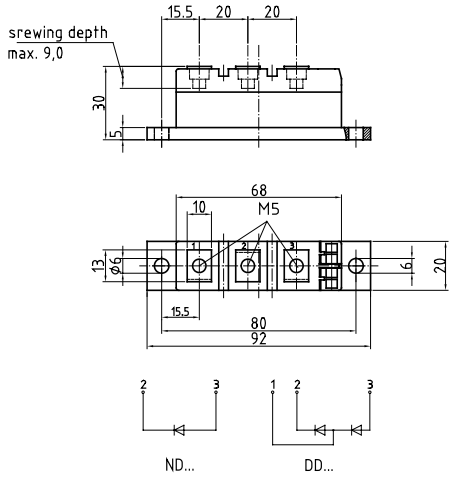
34 mm - DS34



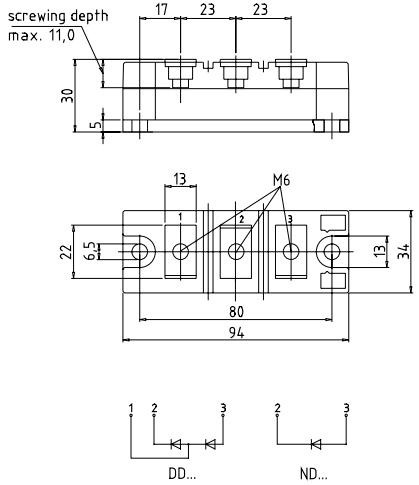
34 mm - DS34 2nd Gen



20 mm - DP20

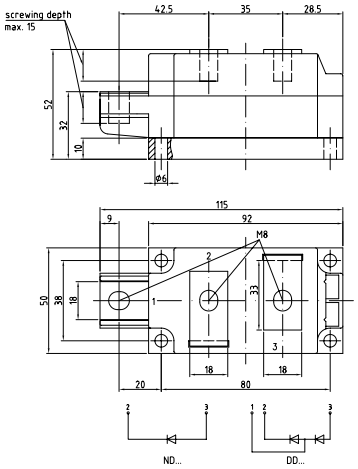


34 mm - DP34

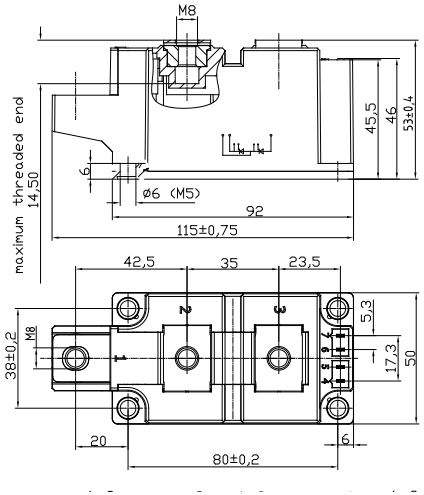


Outlines Thyristor Modules

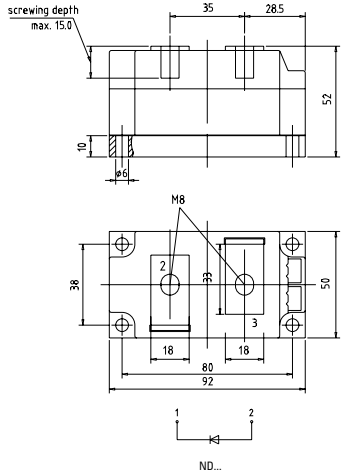
50 mm - DP50



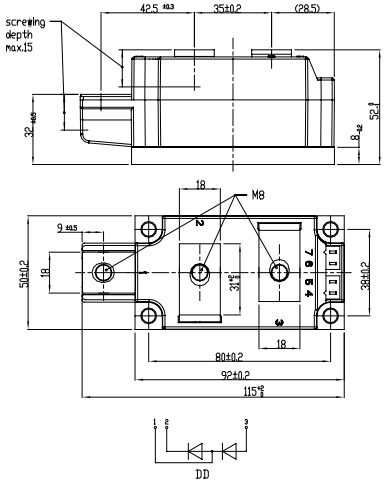
50 mm - DS50



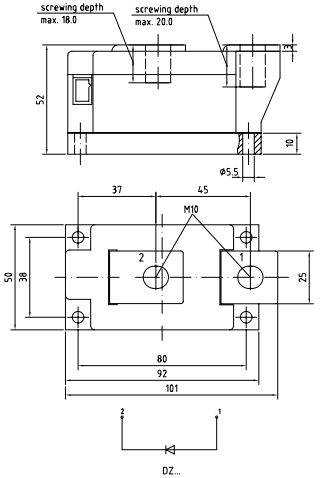
50 mm - DP50ND



50 mm - DP50A

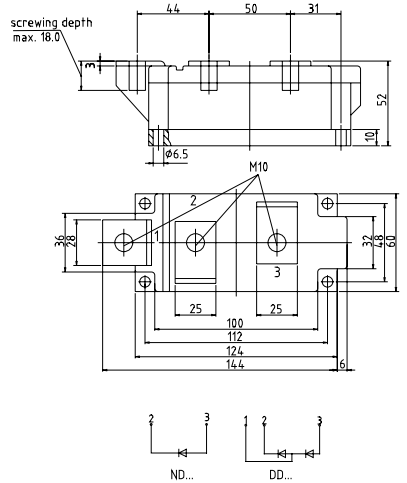


50 mm - DP50.1

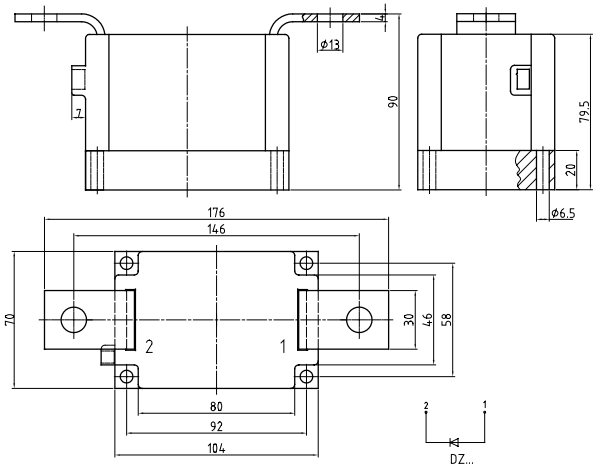


Outlines Thyristor Modules

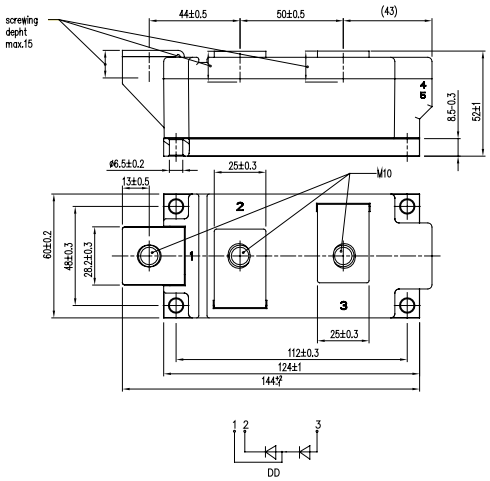
60 mm - DP60



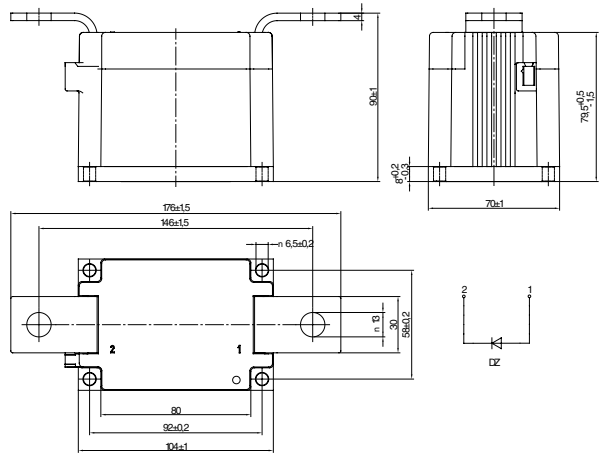
70 mm - DP70



60 mm - DP60A



70 mm - DP70A

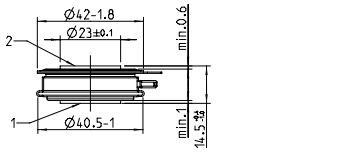


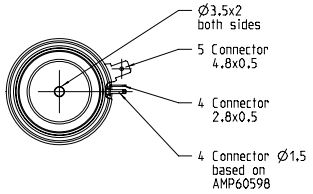
Package Units

Outline	Packiging units
Power block modules	
DP20	15
DS20	12
DP34	8
DS34	10
DP50	3
DP50.1	3
DP50A	3
DP50ND	3
DP60	2
DP60A	2
DP70	1
DP70A	1
TP20	15
TS20	12
TP34	8
TS34	10
TP50	3
TP50.1	3
TP50A	3
TP60	2
TP60A	2
TP70	1
TP70A	1

Outlines Thyristor Discs

T42.14K0

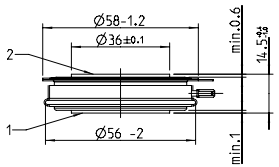


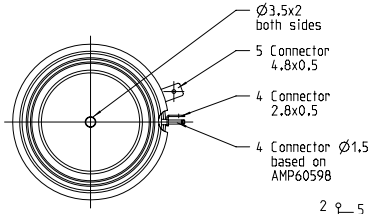


strike distance: 5mm
creepage distance: 6mm

overall height based
on contact pressure

T58.14K0

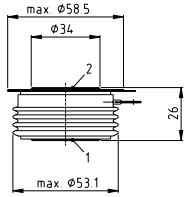


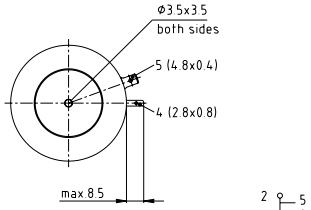


strike distance: 4mm
creepage distance: 5.0mm

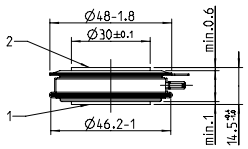
overall height based
on contact pressure

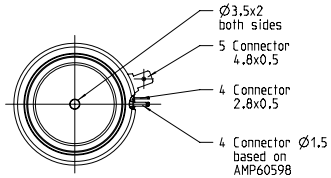
T58.26K





T48.14K0

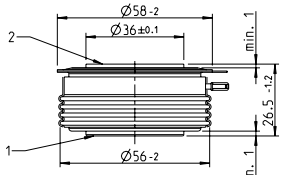


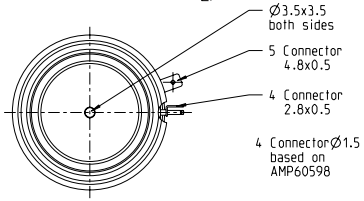


strike distance: 5.0mm
creepage distance: 6.0mm

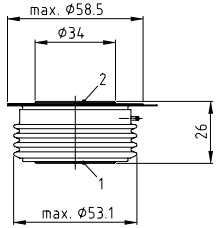
overall height based
on contact pressure

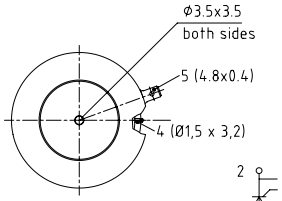
T58.26K0





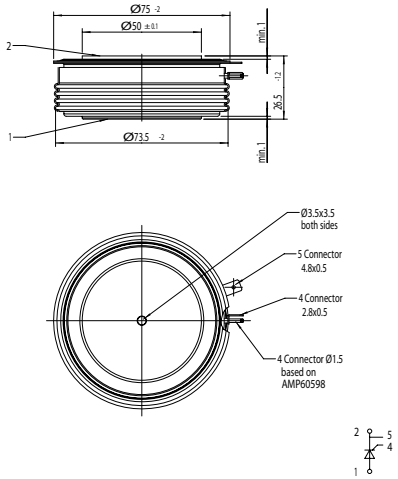
T58.26K1



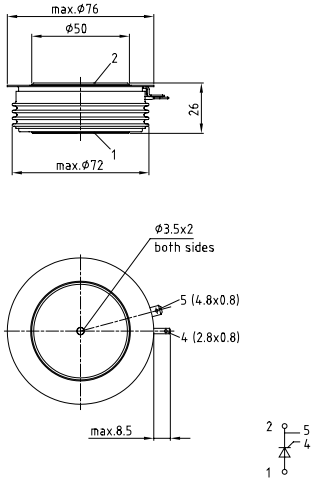


Outlines Thyristor Discs

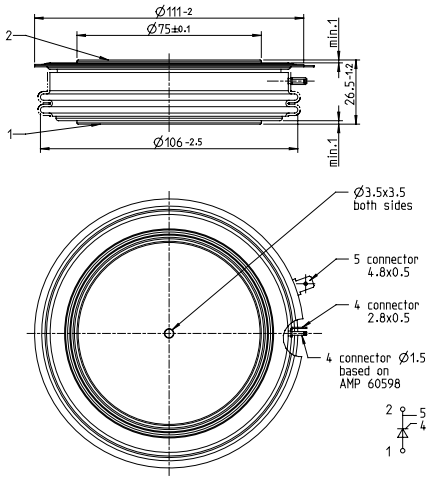
T75.26K0



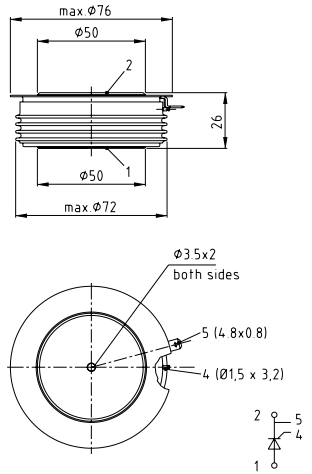
T76.26K



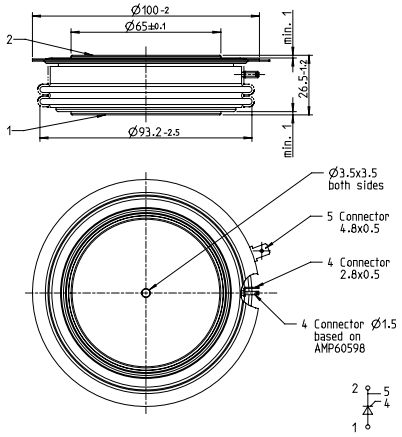
T111.26K0



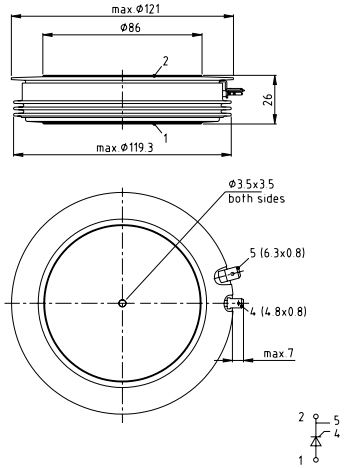
T75.26K1



T100.26K0

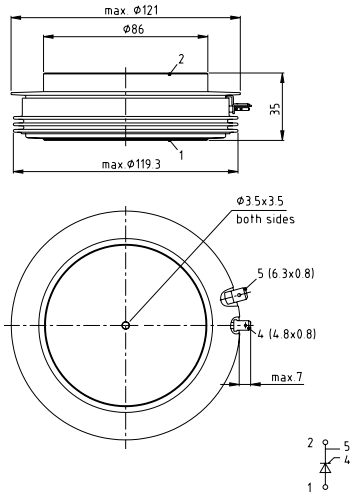


T120.26K

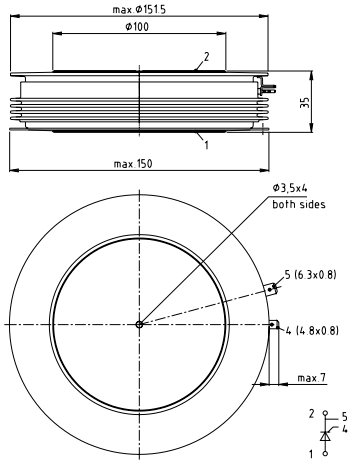


Outlines Thyristor Discs

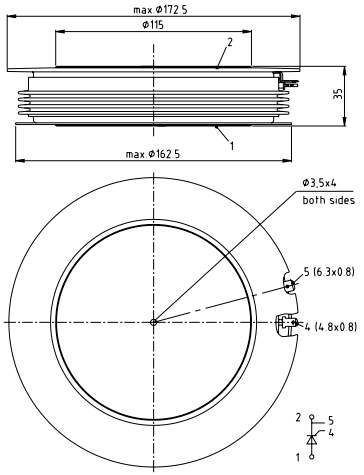
T120.35K



T150.35K



T172.35K



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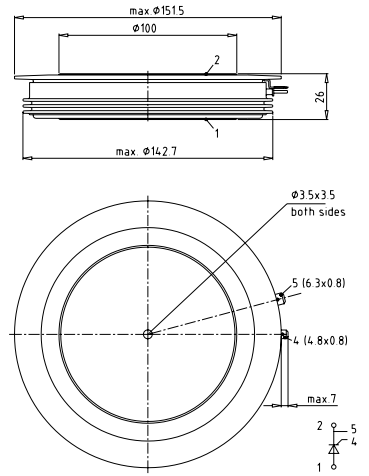

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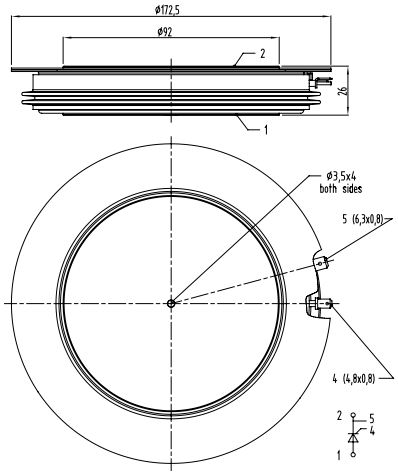
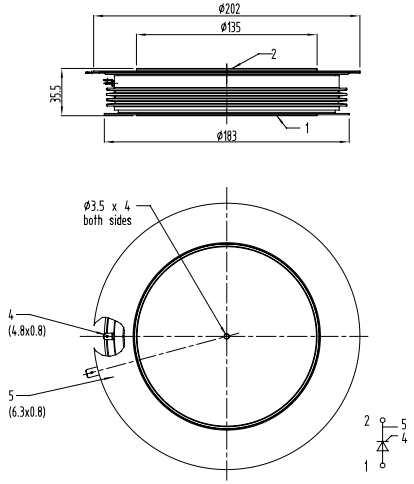
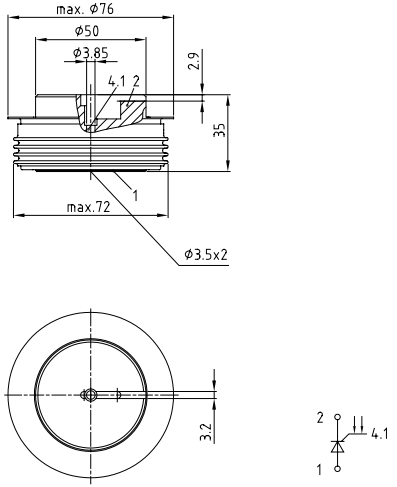


T202.35K

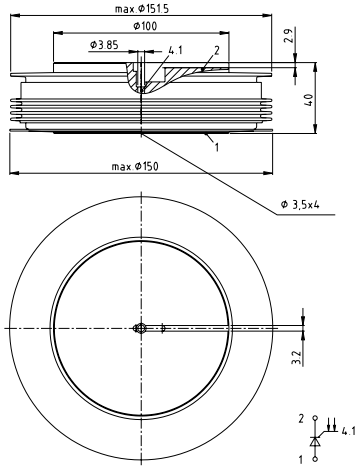


Outlines Light Triggered Thyristors

T76.35L



T172.40L



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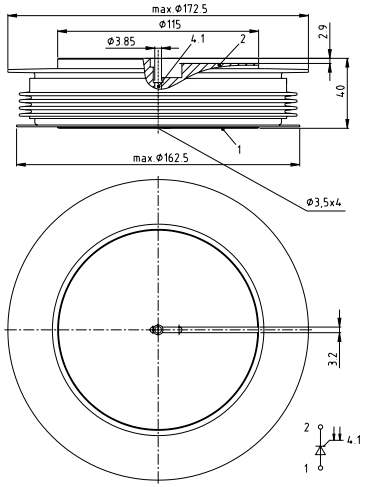
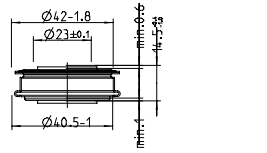


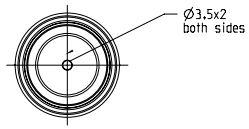
Package Units

Outline	Packiging units
Presspacks	
T42.14K0	18
T48.14K0	12
T58.14K0	9
T58.26K0	6
T75.26K0	4
T76.26K	4
T76.35L	4
T100.26K0	2
T111.26K0	2
T120.26K	2
T120.35K	2
T150.35K	1
T150.40L	1
T172.26K	1
T172.35K	1
T172.40L	1
T202.35K	1

Outlines Diode Discs

D42.14K0

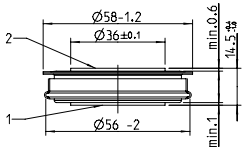


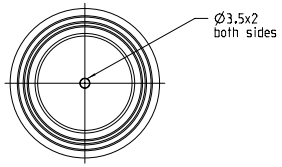


strike distance: 9mm
creepage distance: 10mm

overall height based
on contact pressure

D58.14K0

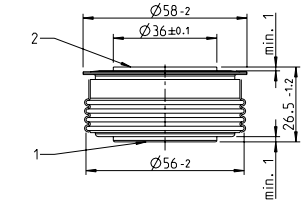


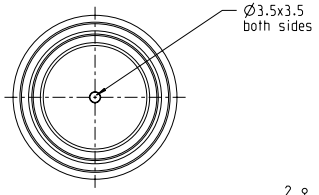


strike distance: 8.0mm
creepage distance: 9.0mm

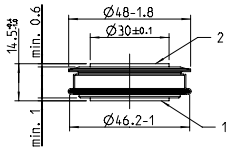
overall height based
on contact pressure

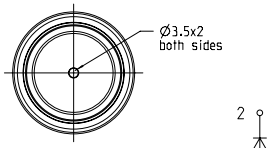
D58.26K0





D48.14K0

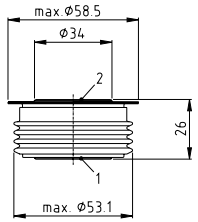


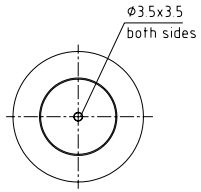


strike distance: 9mm
creepage distance: 10mm

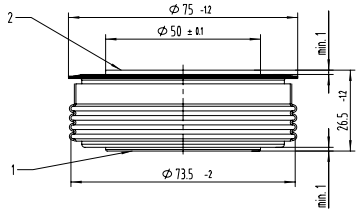
overall height based
on contact pressure

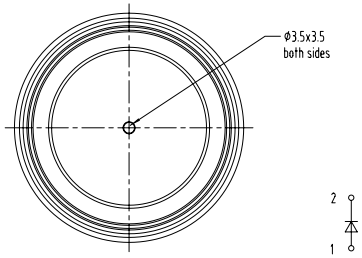
D58.26K





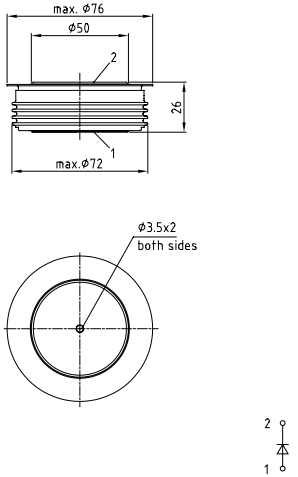
D75.26K0



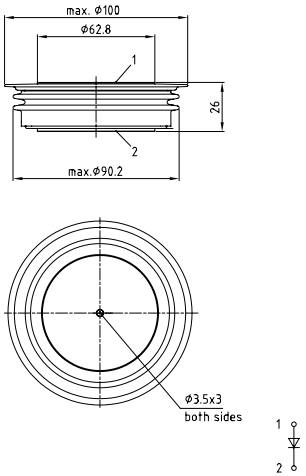


Outlines Diode Discs

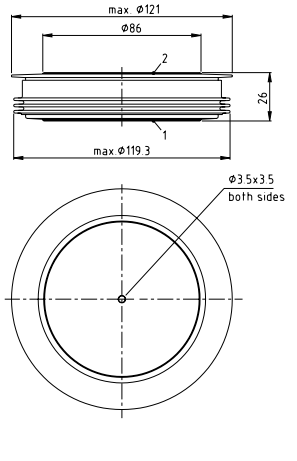
D76.26K



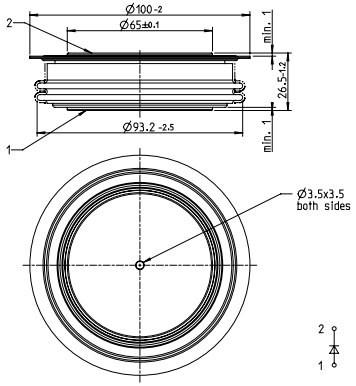
D100.26K



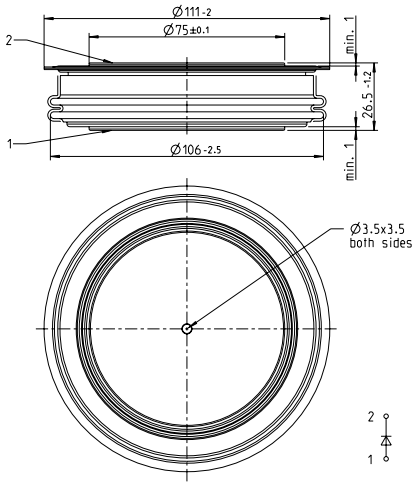
D120.26K



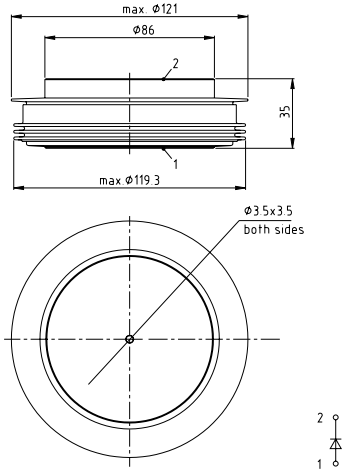
D100.26K0



D111.26K0

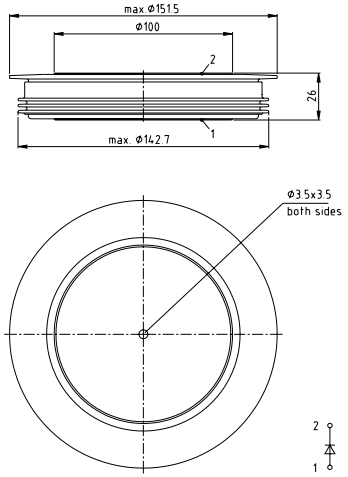


D120.35K



Outlines Diode Discs

D150.26K



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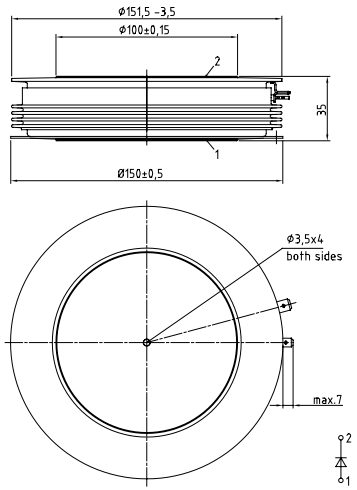
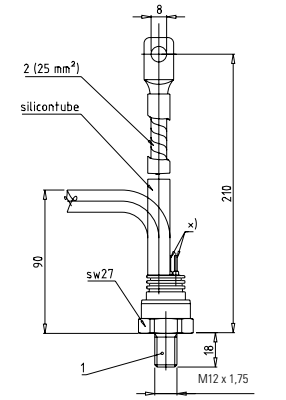


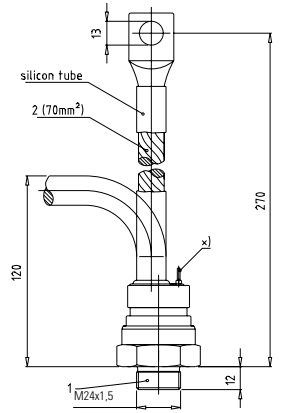
Outlines Diode Studs

DSW27



type	symbol	cathode	anode	prot. flex. tubing
N, S		rope (2)	case (1)	red
K, U		case (1)	rope (2)	blue

DSW41



type	symbol	cathode	anode	prot. flex. tubing
N, S		rope (2)	case (1)	red
K, U		case (1)	rope (2)	blue

Package Units

Outline	Packiging units
Diode Discs	
D42.14K0	18
D48.14K0	12
D58.14K0	9
D58.26K0	6
D75.26K0	4
D76.26K	4
D100.26K0	2
D111.26K0	2
D120.26K	2
D120.35K	2
D150.26K	1
D150.35K	1

Naming system

Type designation thyristor and diode modules

Circuit
- TT = with 2 thyristors
- TD = with 1 thyristor and 1 diode
- DD = with 2 diodes
- ND = with 1 diode
- DZ = with 1 diode
- TZ = with 1 thyristor

Average on-state current
- 500 = ITAV, IFAV

- N = phase control device
- S = fast device

Blocking voltage
- 16 = V_{RRM}, V_{DRM} /100

- _TIM = baseplate with pre-applied Thermal Interface Material (TIM)

- -K = design with common cathode
- -A = design with common anode

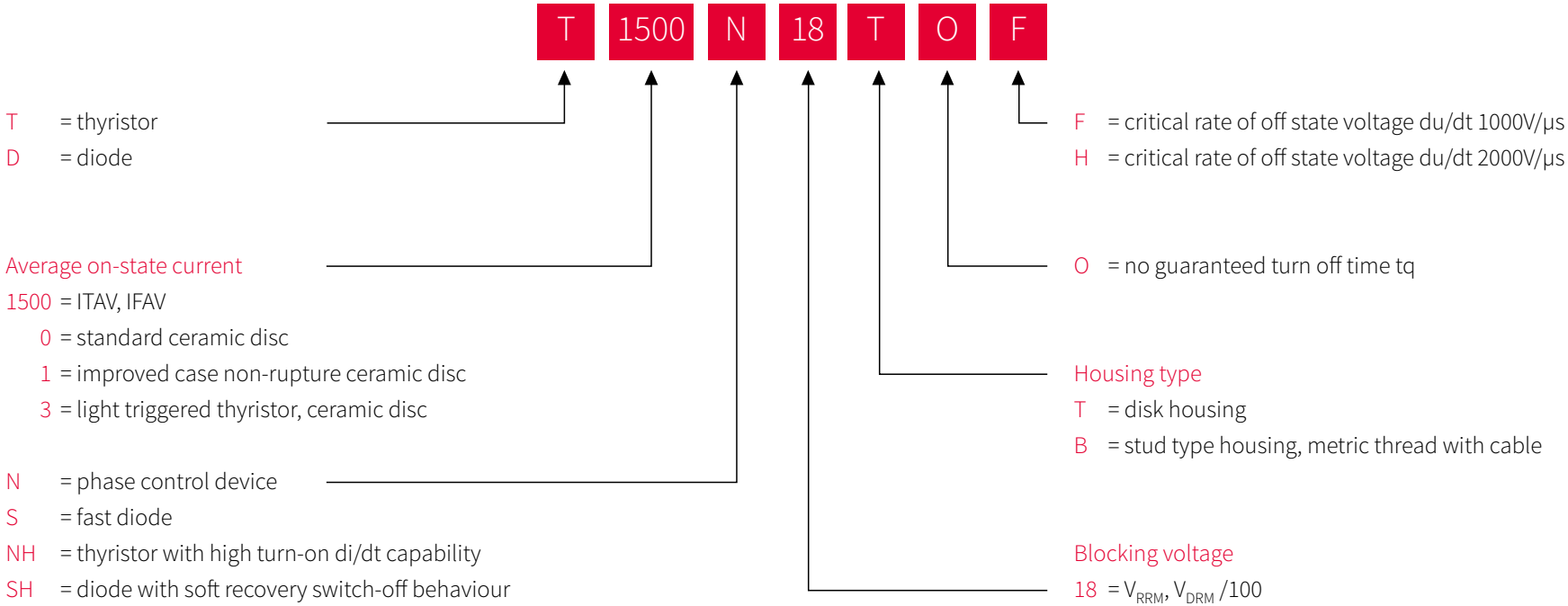
- F = 1000V/µs critical rise of off-state (du/dt)

- O = no guaranteed turn-off time

- K = mechanical construction: pressure contact technology
- S = mechanical construction: solder technology

Naming system

Type designation thyristor and diode discs



Notes

Explanations

F	clamping force
G	weight
i_D	forward off-state current
I_{GD}	gate non trigger current
i_{GM}	peak gate current
I_H	holding current
I_L	latching current
i_R	reverse current
I_{TAV}/I_{FAV}	on-state current (average value)
I_{TAVM}/I_{FAVM}	maximum average on-state current
I_{TM}/I_{FM}	on-state current (peak value)
I_{TRMSM}/I_{FRMSM}	maximum RMS on-state current
I_{TSM}/I_{FSM}	surge non repetitive on-state current
I_F	DC forward current
$\int i^2\,dt$	I^2t value
di_G/dt	rate of rise of gate current
$di_T/dt/di_F/dt$	rate of rise of on-state current
$(di/dt)_{cr}$	critical rate of rise of on-state current
M	mounting torque
r_T	slope resistance
R_{thCK}	thermal resistance, case to heatsink
R_{thJA}	thermal resistance, junction to coolant
R_{thJC}	thermal resistance, junction to case
t_g	trigger pulse duration
t_q	circuit commutated turn-off time
T_{vj}	junction temperature
$T_{vj\,max}$	maximum permissible junction temperature
$T_{vj\,op}$	junction operating temperature
T_{stg}	storage temperature
v_D	forward off-state voltage
V_{DRM}	repetitive peak forward off-state voltage
V_{DSM}	non-repetitive peak forward off-state voltage
V_{GD}	gate non trigger voltage
V_{ISOL}	insulation test voltage
v_R	reverse voltage
V_{RRM}	repetitive reverse voltage
V_{RSM}	non-repetitive peak reverse voltage
v_T/v_F	on-state voltage
$V_{(TO)}$	threshold voltage
$(dv/dt)_{cr}$	critical rate of rise of off-state voltage
Z_{thJC}	transient thermal impedance, junction to case

Notes

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