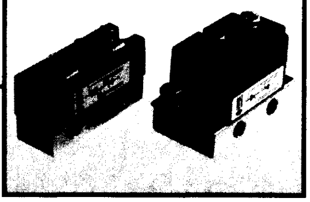
phase control thyristors modules



Air Cooled Thyristor Modules

Part and Ordering Number ** = $V_{DRM}/100$	V_{DRM}/V_{RRM} (V)	I_{DRM}/I_{RRM} @ T_{vj} (mA)	$I_{T(AV)}$ @ T_c = 75°C (Per Arm) (A)	$I_{T(RMS)}$ T_c = 75°C (A)	I_{TSM} @ T_{vj} (kA)	I^2t @ T_{vj} ($A^2s\times10^3$)	$V_{T(TO)}$[1] @ T_{vj} (V)	r_T[1] @ T_{vj} (mΩ)	$R_{th(j-c)}$ (°C/W)	$R_{th(c-hs)}$ (°C/W)	dV/dt (V/µs)	Non-rep. dI/dt (A/µs)	Package	F_m ±10% (Nm)
MP02X190-**	800-1200	30	190	298	5.5	151	0.88	0.7	0.22	0.07	1000	500	MP02	6
MP03X190-**	800-1200	30	190	298	5.5	151	0.88	0.7	0.22	0.05	1000	500	MP03	5
MP03X330-**	800-1200	30	334	524	10.6	560	0.8	0.7	0.12	0.05	1000	500	MP03	5
MP03X360-**	800-1200	30	352	553	10.6	560	0.75	0.7	0.115	0.05	1000	500	MP03	5
MP02X175-**	1000-1600	30	175	275	6.8	231	0.75	0.75	0.22	0.07	1000	500	MP02	6
MP03X175-**	1000-1600	30	175	275	6.8	231	0.75	0.75	0.22	0.05	1000	500	MP03	5
MP03X300-**	1000-1600	30	312	490	10.6	560	0.8	0.7	0.12	0.05	1000	500	MP03	5
MP03X275-**	1200-1800	30	277	367	8.1	330	0.93	0.67	0.13	0.05	1000	500	MP03	5
MP04X590-**	1200-1800	50	595	935	14	975	0.85	0.38	0.056	0.02	1000	500	MP04	6
MP02X130-**	1600-1800	30	134	210	4	80	1.25	1.33	0.22	0.07	1000	500	MP02	6
MP03X130-**	1600-1800	30	134	210	4	80	1.25	1.33	0.22	0.05	1000	500	MP03	6
MP03X360-**	1600-1800	50	355	560	8.1	330	0.78	0.79	0.115	0.05	1000	500	MP03	6
MP04X490-**	1800-2800	50	490	770	11.25	633	0.91	0.65	0.056	0.02	1000	500	MP04	6

Notes:

1. Figures given for power loss calculations only.
2. T_{vj} = 125°C in all cases unless stated otherwise.
3. $V_{DSM}/V_{RSM} = V_{DRM}/V_{RRM}$ + 100V respectively.
4. Isolation voltage for all types is 3kV A.C. RMS.
5. Where X is shown in the part number, substitute the circuit configuration type reference code when ordering, e.g. MP02HBT175-16.
6. Gate and auxiliary cathode leads are not supplied as standard but can be purchased separately.
7. Voltage isolation is provided by alumina based substrates, manufactured by direct copper bonding processes. This is a **non-toxic** material and **all** modules are beryllia free.
8. The products listed are recognised under the Recognised Component Progam of Underwriters Laboratories Inc. USA, UL file No. E151069 or have applications pending.
9. Module mounting recommendations are given on page 46.

Water Cooled Thyristor Modules

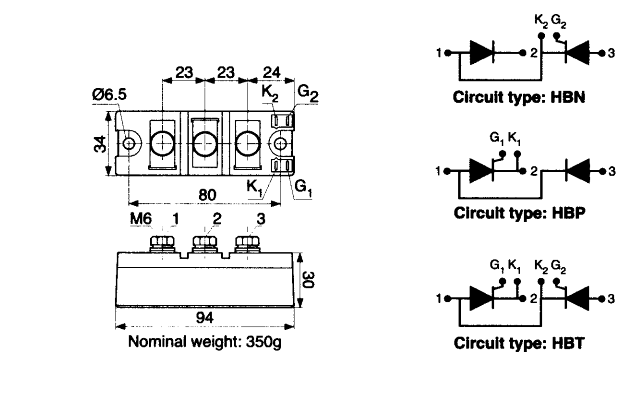
Part and Ordering Number ** = $V_{DRM}/100$	V_{DRM}/V_{RRM} (V)	I_{DRM}/I_{RRM} @ T_{vj} (mA)	$I_{T(AV)}$ @ T_{water} = 40°C @ 4.5 ltrs per min. (Per Arm) (A)	$I_{T(RMS)}$ (A)	I_{TSM} @ T_{vj} (kA)	I^2t ($A^2s\times10^3$)	$V_{T(TO)}$[1] @ T_{vj} (V)	r_T[1] @ T_{vj} (mΩ)	$R_{th(j-w)}$ (°C/W)	dV/dt (V/µs)	Non-rep. dI/dt (A/µs)	Package[2]
MP02TT200-**W12	1600	30	200	318	6.8	231	0.98	0.75	0.3	1000	500	MP02-W12
MP03TT300-**W3A	1800	30	310	490	8.1	330	0.93	0.67	0.175	1000	500	MP03-W3A
MP04TT600-**W3A	1800	50	580	912	14	975	0.85	0.38	0.102	1000	500	MP04-W3A
MP04TT500-**W3A	2800	30	480	753	11.25	633	0.91	0.65	0.102	1000	500	MP04-W3A

Notes:

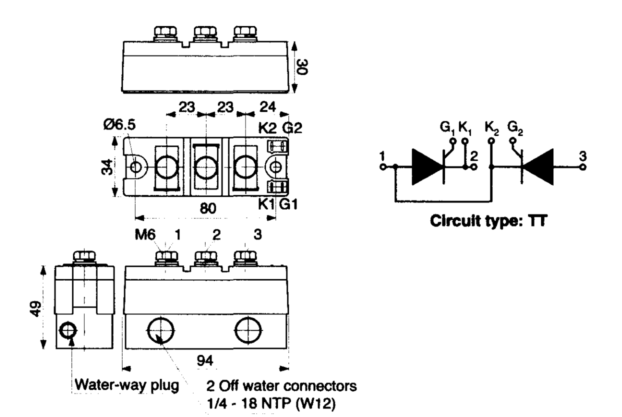
1. Figures given for power loss calculations only.
2. Other heatsinks are available, please contact Customer Services.

Package Outlines and Circuit Configurations

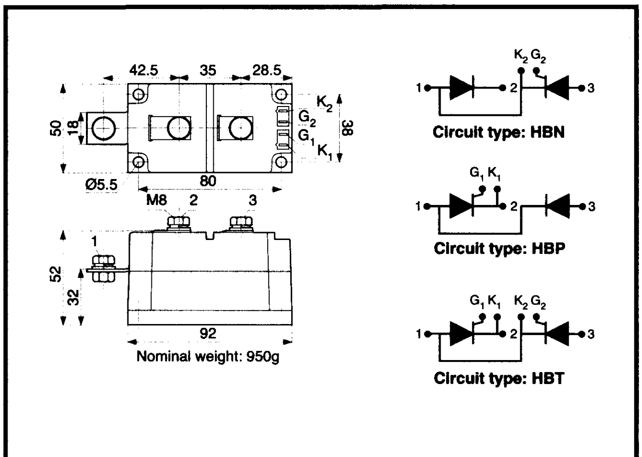
All dimensions shown in mm unless stated otherwise.



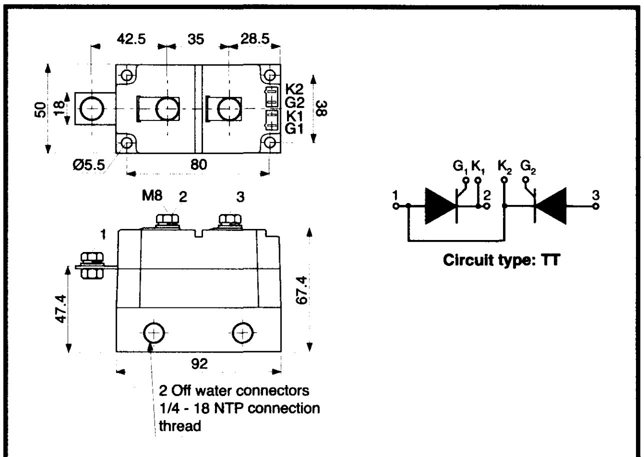
Module type: MP02



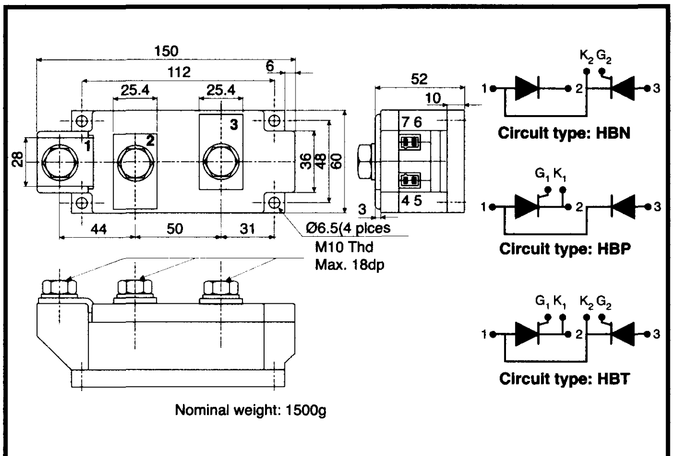
Module type: MP02-W12



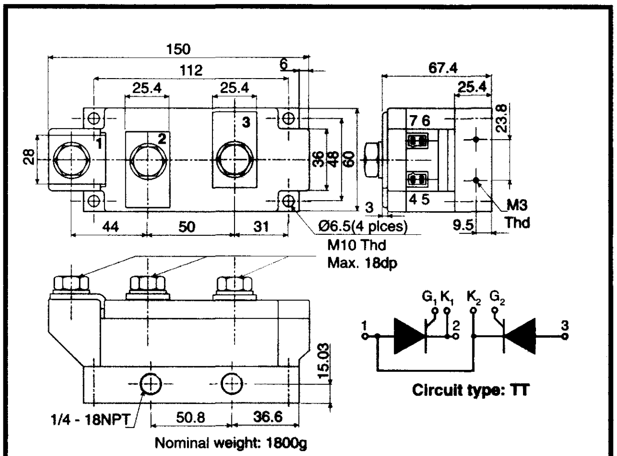
Module type: MP03



Module type: MP03-W3A



Module type: MP04



Module type: MP04-W3A

Note: Auxiliary cathode and trigger leads are not supplied as standard, but can be purchased separately.