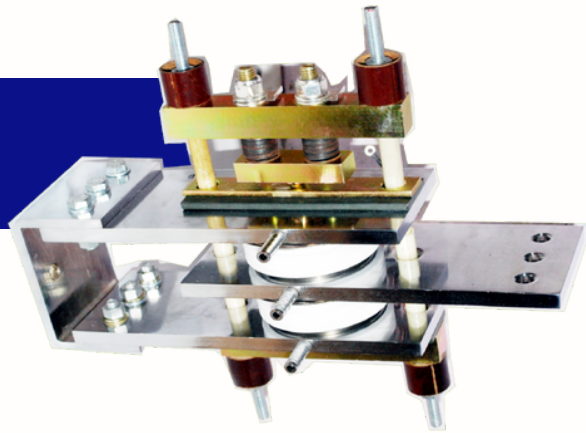


## AC SWITCH (WATER COOLED)

### 2XDCR1474SY



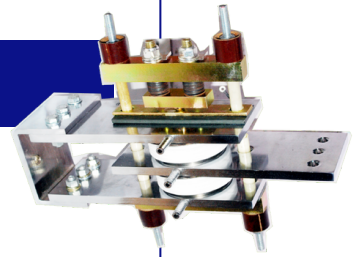
## FEATURES

- 👉 **Non-Isolated water cooled blocks**
- 👉 **Provided with thermostat & M.O.V.**
- 👉 **Two thyristors connected in anti-parallel configuration**

## TYPICAL APPLICATIONS

- 👉 **Resistance welding equipment**
- 👉 **Electroplating equipment**
- 👉 **Induction heating equipment**

**AC SWITCH**  
**(WATER COOLED)**  
**2XDCR1474SY**



TECHNICAL DATA

**DEVICE TYPE**

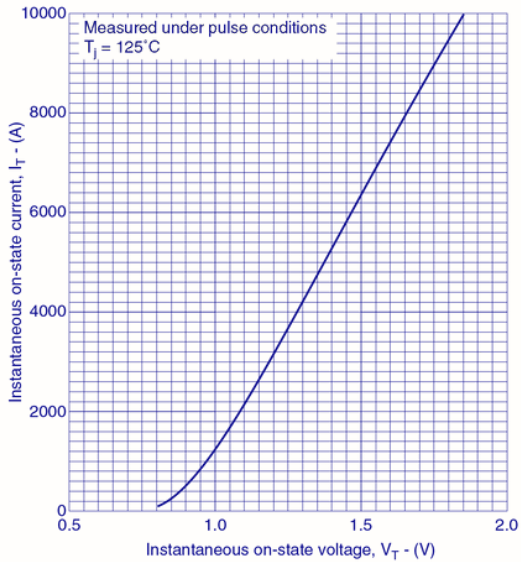
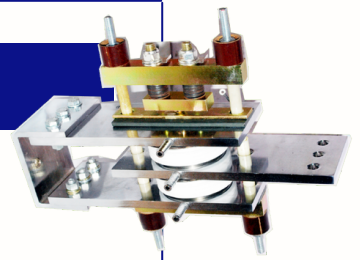
**V<sub>DRM</sub> / V<sub>RRM</sub>**  
**(V)**

**V<sub>RSM</sub>**  
**(V)**

<b>2XDCR1474SY1515</b>	<b>1500</b>	<b>1600</b>
<b>2XDCR1474SY1717</b>	<b>1700</b>	<b>1800</b>

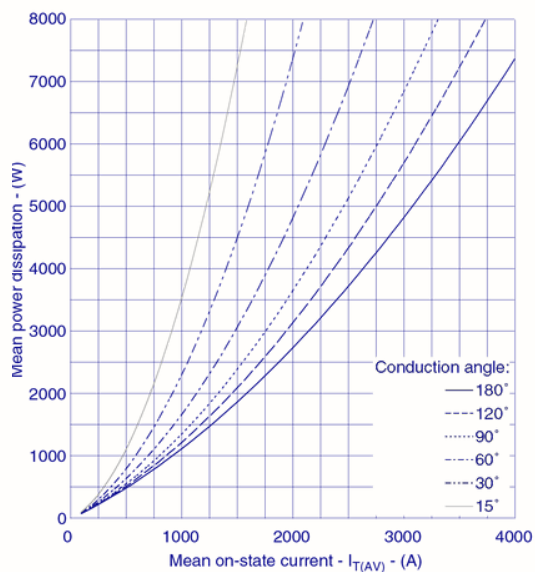
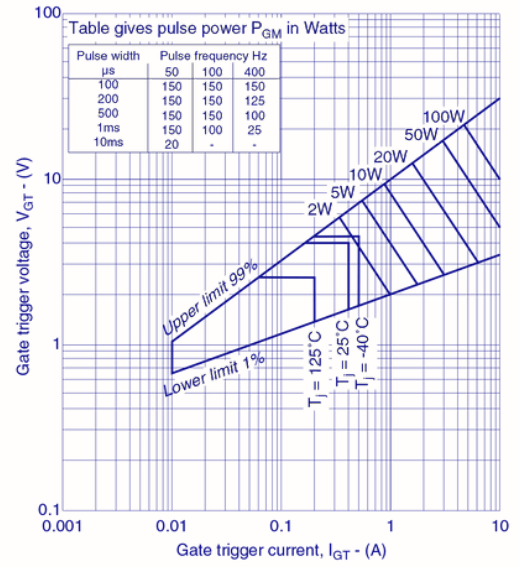
<b>SYMBOL</b>	<b>CONDITIONS</b>	<b>VALUES</b>
<b>I<sub>RMS</sub></b>	50 Hz, water flow -4L/min, Water temp = 60°C	5655 amp.
<b>V<sub>TM</sub></b>	Maximum peak forward Voltage drop @ 2900AP	1.30 V
<b>I<sub>TSM</sub></b>	Maximum peak one cycle (non-rep.) surge current 10 msec	49 KA
<b>I<sup>2</sup>t</b>	Max. I <sup>2</sup> t rating (non-rep.) for 10 msec	12000 x 10 <sup>3</sup> A <sup>2</sup> s
<b>I<sub>RRM</sub>/I<sub>DRM</sub></b>	Peak reverse current at T <sub>vj</sub> = 125°C	250 mA
<b>I<sub>GT</sub></b> <b>V<sub>GT</sub></b> <b>di/dt</b> <b>dv/dt</b>		400 mA 4.0 V 150 A/us 1000 V/us
<b>V<sub>0</sub></b> <b>R<sub>0</sub></b>	T <sub>vj</sub> =max T <sub>vj</sub> =max	0.92V 0.09 mΩ
<b>R<sub>th(w)</sub></b> <b>T<sub>vj</sub></b> <b>T<sub>stg</sub></b>	Junction temperature Storage temperature	0.09°C/W 125 °C 125 °C
Mounting force		45 KN
Weight	Approx.	8 Kg
Package Outline		IR-40

**AC SWITCH  
(WATER COOLED)  
2XDCR1474SY**



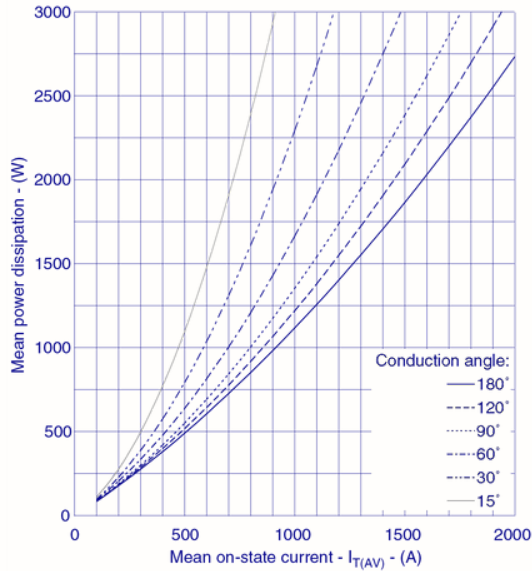
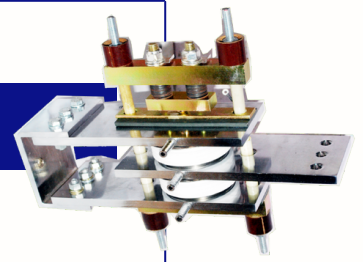
**FIG. 1** maximum (limit) on-state characteristics

**FIG. 2** gate characteristics



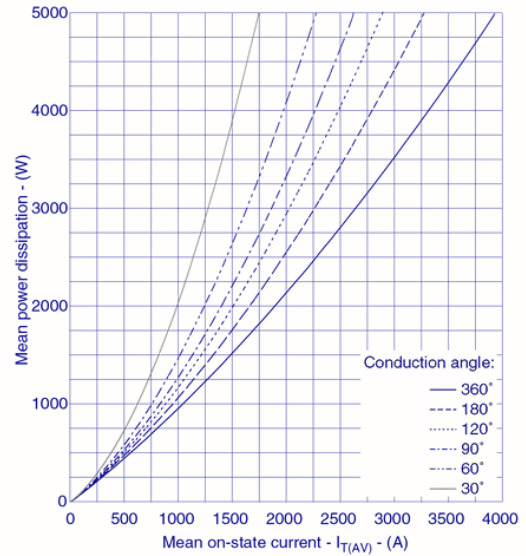
**FIG. 3** dissipation curves-sine wave

**AC SWITCH  
(WATER COOLED)  
2XDCR1474SY**

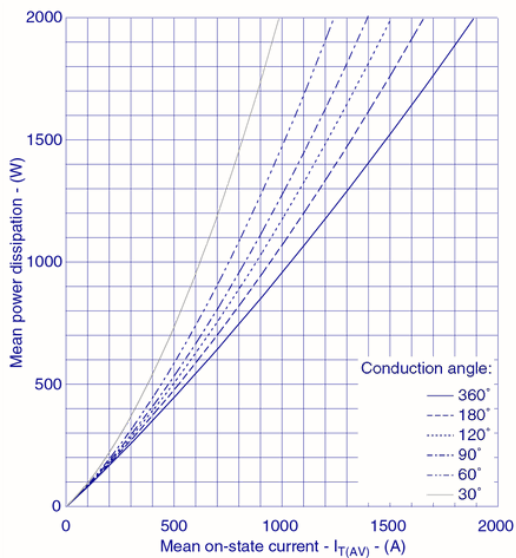


**FIG. 4** dissipation curves-sine wave

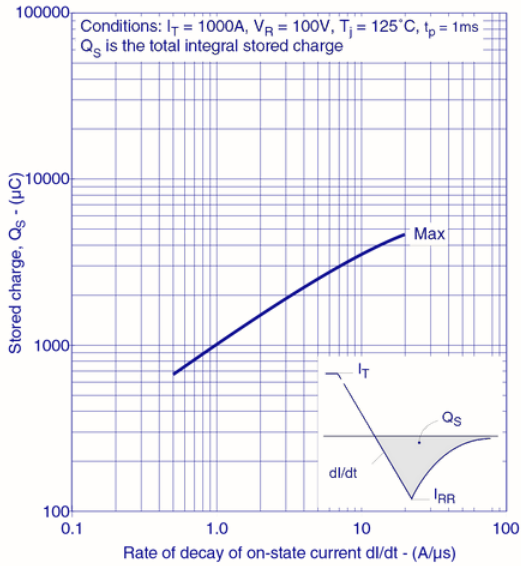
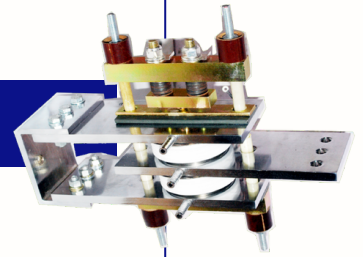
**FIG. 5** dissipation curves - square wave



**FIG. 6** dissipation curves - square wave

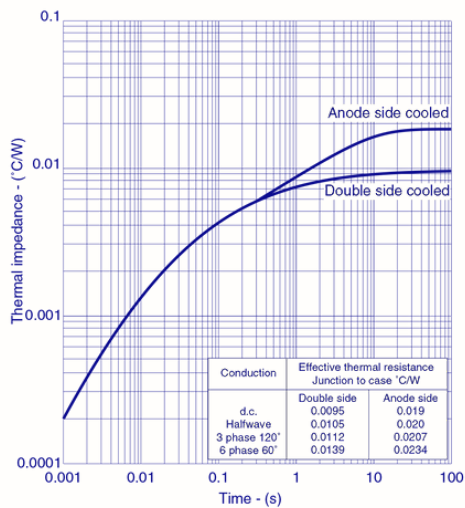
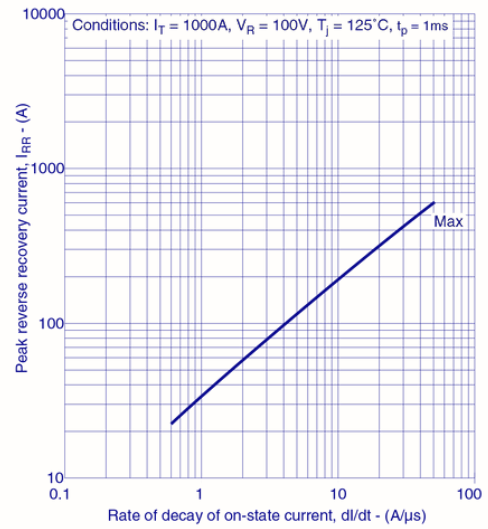


**AC SWITCH**  
**(WATER COOLED)**  
**2XDCR1474SY**



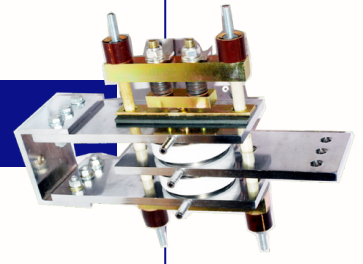
**FIG. 7** stored charge

**FIG. 8** reverse recovery current

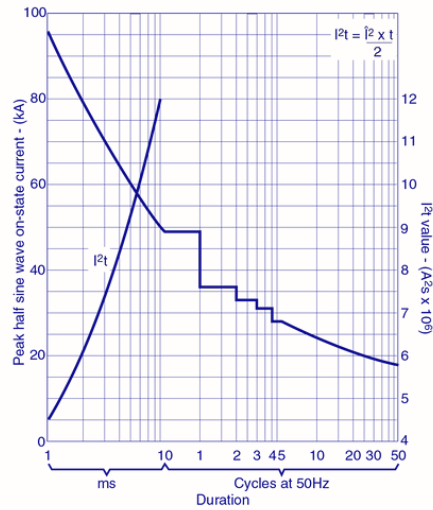


**FIG. 9** transient thermal impedance - junction to case

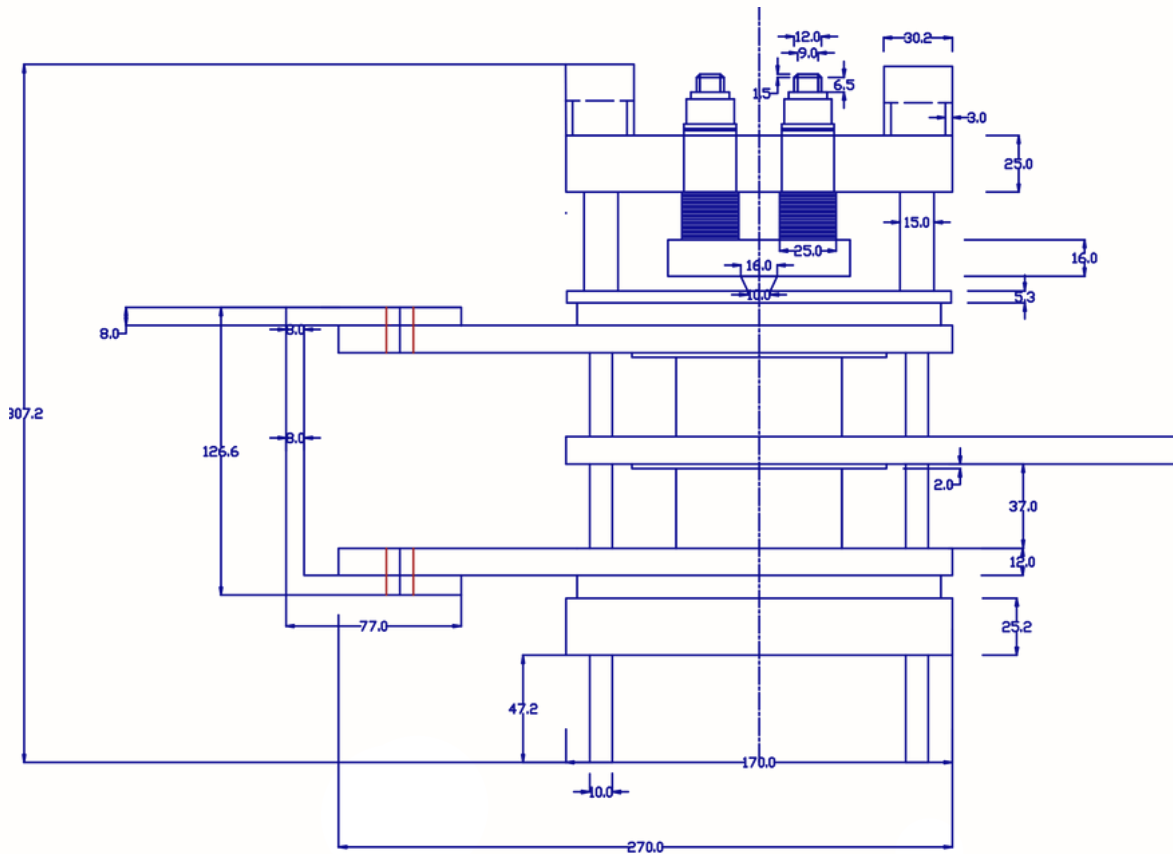
**AC SWITCH  
(WATER COOLED)  
2XDCR1474SY**



**FIG.10** surge (non-repetitive)  
on-state current vs  
time (with  
50%  $V_{RRM}$  at  $T_{case} = 125^{\circ}C$ )



PACKAGE OUTLINE



all dimensions in mm