

# WATER COOLED A.C. SWITCH

# 2-2W5I-AT505

Repetitive voltage up to

Maximum continuous RMS current

Surge current

**1600 V**

**625 A**

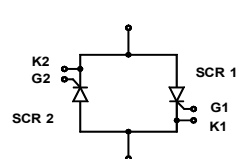
**5.6 kA**

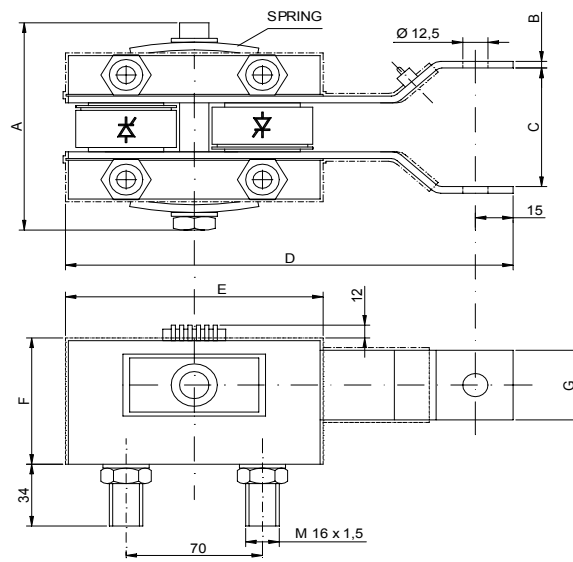
**FINAL SPECIFICATION**

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Symbol	Characteristic	Conditions	T <sub>J</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>DRM</sub> /V <sub>RRM</sub>	Repetitive peak voltage		125	1600	V
V <sub>DSM</sub> /V <sub>RSM</sub>	Non-repetitive peak voltage		125	1700	V
I <sub>DRM</sub> /I <sub>RRM</sub>	Repetitive peak current		125	30	mA
<b>CONDUCTING</b>					
I <sub>T(RMS)</sub>	Maximum continuous RMS current	50 Hz, Q = 4 l/min, water temperature = 40°C		625	A
I <sub>TSM</sub>	Surge on-state current	Max peak one cycle sine wave, 10 ms.	125	5.6	kA
I <sup>2</sup> t	I <sup>2</sup> t	Without reverse voltage reapplied		157 x1E3	A²s
V <sub>TM</sub>	Max peak on-state voltage	ITM = 850 A	125	1.58	V
V <sub>T(TO)</sub>	Threshold voltage		125	1.00	V
r <sub>T</sub>	On-state slope resistance		125	0.680	mΩ
<b>SWITCHING</b>					
di/dt	Critical rate of rise of on-state current, min.	From 75% V <sub>DRM</sub> up to 1650 A, gate 10 V - 5 Ω	125	200	A/μs
dv/dt	Critical rate of rise of off-state voltage, min.	Linear ramp up to 70% of V <sub>DRM</sub>	125	500	V/μs
<b>GATE</b>					
V <sub>GT</sub>	Gate trigger voltage	VD=5 V	25	3.5	V
I <sub>GT</sub>	Gate trigger current	VD=5 V	25	200	mA
P <sub>GM</sub>	Max peak gate power	Pulse width 100 μs	25	75	W
<b>MECHANICAL</b>					
R <sub>th(j-w)</sub>	Thermal impedance, DC	Junction to water (double side cooled)		0.3	°C/W
V <sub>ins(RMS)</sub>	Insulation voltage rms	1 min	25	2.5	kV
Press	Max water pressure			10	bar
T <sub>J max</sub>	Max operating junction temperature			125	°C
Weight				3500	g
Thermal switch open 63°C, cloused 50°C. 10 A - 250 V					

**OUTLINE**    **W1**





**DEVICES TYPE: AT505**

A	130
B	5
C	60
D	230
E	130
F	64
G	40
SPRING	1+1

