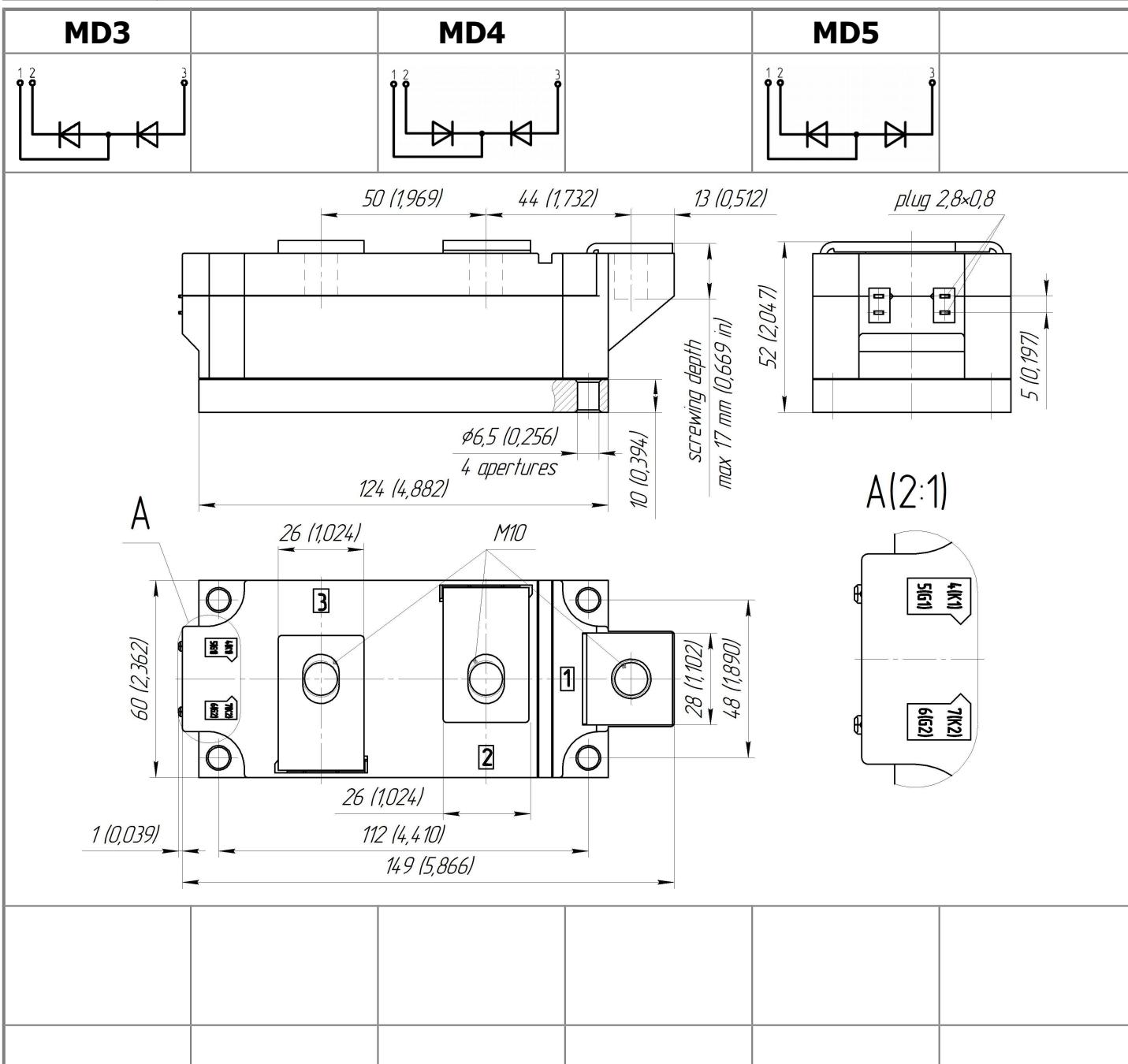




Electrically isolated base plate
Industrial standard package
Simplified mechanical design, rapid assembly
Pressure contact

Double Diode Module For Phase Control **MDx-320-65-A2**

Average forward current						I _{FAV}	320 A				
Repetitive peak reverse voltage						V _{RRM}	4600 ÷ 6500 V				
V _{RRM} , V	4600	4800	5000	5200	5400	5600	5800	6000	6200	6400	6500
Voltage code	46	48	50	52	54	56	58	60	62	64	65
T _j , °C	- 40 ÷ 140										



All dimensions in millimeters (inches)

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	Values	Test conditions	
ON-STATE					
I _{FAV}	Average forward current	A	320	T _c =100 °C;	
I _{FRMS}	RMS forward current	A	502	180° half-sine wave; 50 Hz	
I _{FSM}	Surge forward current	kA	6.0	T _j =T _j max	180° half-sine wave;
			7.0	T _j =25 °C	t _p =10 ms; single pulse; V _R =0 V;
I ² t	Safety factor	A ² s·10 ³	7.0	T _j =T _j max	180° half-sine wave;
			8.0	T _j =25 °C	t _p =8.3 ms; single pulse; V _R =0 V;
I ² t	Safety factor	A ² s·10 ³	180	T _j =T _j max	180° half-sine wave;
			245	T _j =25 °C	t _p =10 ms; single pulse; V _R =0 V;
I ² t	Safety factor	A ² s·10 ³	200	T _j =T _j max	180° half-sine wave;
			265	T _j =25 °C	t _p =8.3 ms; single pulse; V _R =0 V;
BLOCKING					
V _{RRM}	Repetitive peak reverse voltages	V	4600÷6500	T _{j min} < T _j <T _j max;	
V _{RSM}	Non-repetitive peak reverse voltages	V	4700÷6600	180° half-sine wave; 50 Hz;	
V _R	Reverse continuous voltages	V	0.75·V _{RRM}	T _j =T _j max;	
THERMAL					
T _{stg}	Storage temperature	°C	-40 ÷ 50		
T _j	Operating junction temperature	°C	-40 ÷ 140		
MECHANICAL					
a	Acceleration under vibration	m/s ²	50		

CHARACTERISTICS

Symbols and parameters		Units	Values	Conditions
ON-STATE				
V _{FM}	Peak forward voltage, max	V	2.40	T _j =25 °C; I _{FM} =1570 A
V _{F(TO)}	Forward threshold voltage, max	V	0.95	T _j =T _j max;
r _T	Forward slope resistance, max	mΩ	1.100	0.5 π I _{FAV} < I _T < 1.5 π I _{FAV}
BLOCKING				
I _{RRM}	Repetitive peak reverse current, max	mA	100	T _j =T _j max; V _R =V _{RRM}
THERMAL				
R _{thjc}	Thermal resistance, junction to case			
	per module	°C/W	0.0340	180° half-sine wave, 50 Hz
	per arm	°C/W	0.0680	
	per module	°C/W	0.0325	DC
	per arm	°C/W	0.0650	
R _{thch}	Thermal resistance, case to heatsink			
	per module	°C/W	0.0100	
	per arm	°C/W	0.0200	
INSULATION				
V _{ISOL}	Insulation test voltage	kV	3.00	Sine wave, 50 Hz; t=1 min
			3.60	RMS t=1 sec
MECHANICAL				
M ₁	Mounting torque (M6) ¹⁾	Nm	6.00	Tolerance ± 15%
M ₂	Terminal connection torque (M10) ¹⁾	Nm	12.00	Tolerance ± 15%
w	Weight	g	1500	

PART NUMBERING GUIDE	NOTES																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>MD</td><td>3</td><td>-</td><td>320</td><td>-</td><td>65</td><td>-</td><td>A2</td><td>-</td><td>N</td></tr> <tr> <td>1</td><td>2</td><td></td><td>3</td><td></td><td>4</td><td></td><td>5</td><td></td><td>6</td></tr> </table> <p> 1. MD - Rectifier Diode 2. Circuit Schematic: 3 – serial connection 4 – common Cathode 5 – common Anode 3. Average Forward Current, A 4. Voltage Code 5. Package Type (M.A2) 6. Ambient Conditions: N – Normal </p>	MD	3	-	320	-	65	-	A2	-	N	1	2		3		4		5		6	<p>¹⁾ The screws must be lubricated</p>
MD	3	-	320	-	65	-	A2	-	N												
1	2		3		4		5		6												



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