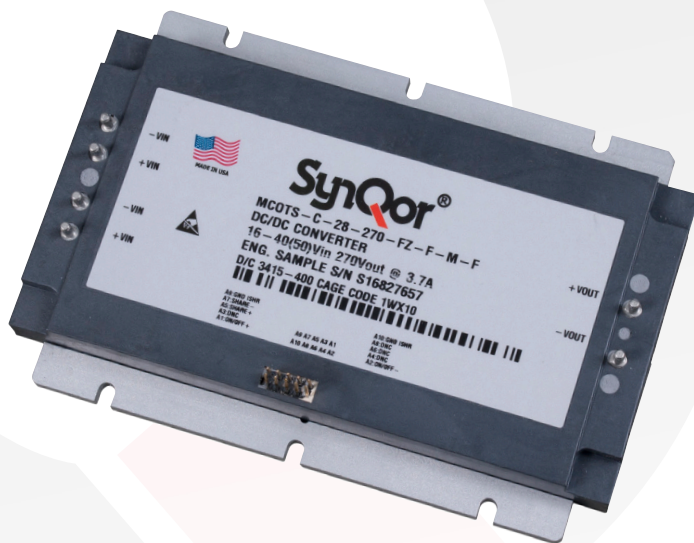


Heatsink Attachment and Mounting Assembly Sequence for SynQor Modules

SYNQOR ENCASED MODULE CONFIGURATIONS

SynQor fully encased modules, including but not limited to the MCOTS, AeroQor, RailQor, InQor, and NiQor product lines are offered in four configurations: (a) threaded base plate without standoffs, (b) non-threaded base plate with standoffs, (c) threaded base plate with standoffs, and (d) flanged base plate. Consult the product data sheet for available product specific configuration options.

All SynQor modules with a threaded base plate require M3 screws for heat sink attachment or chassis mounting. For modules with a threaded base plate without standoffs, as for option (a) above, the M3 screw length must be sized such that the maximum penetration depth below the surface of the baseplate does not exceed the value indicated on the product datasheet, and the torque applied to the M3 screws should not exceed 6.0 in-lb [0.7 Nm]. A thermal interface material is generally utilized to efficiently conduct heat from the module's baseplate to the customer's heatsink or chassis per the customer's design criteria.



SYNQOR ENCASED MODULE MOUNTING AND ASSEMBLY CONSIDERATIONS

The assembly method and technique utilized when installing the SynQor encased module can dramatically impact the performance of the product. The module's I/O pins and base plate are not designed to manage the dynamic or static loading of an unsupported heatsink or PCBA in applications subject to vibration or shock. In such applications, the heatsink or PCBA must be additionally secured to minimize transference of stress to the module's I/O pins and base plate.

Please refer to the recommended assembly sequence on the following page.

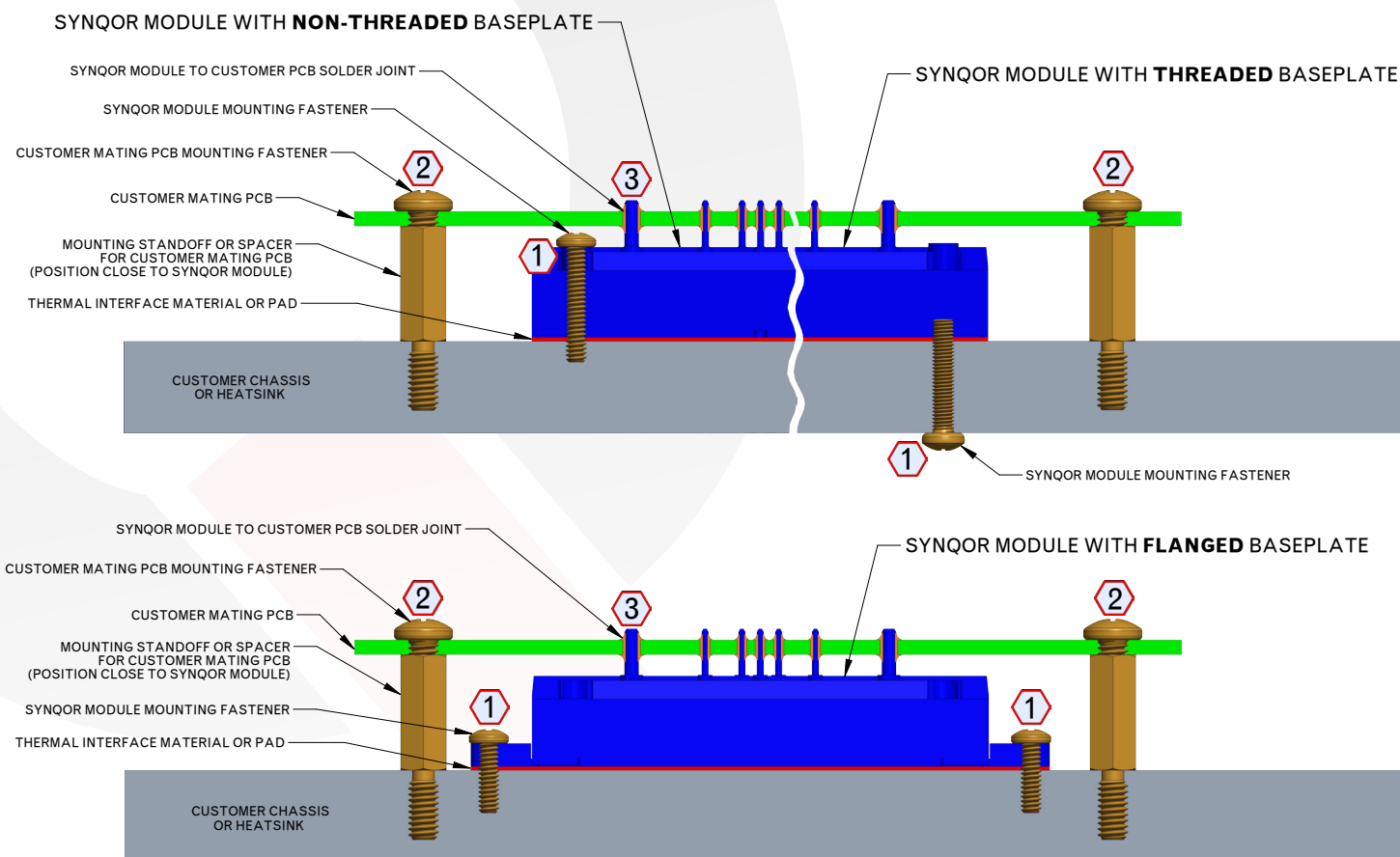
RECOMMENDED ASSEMBLY SEQUENCE

1. The SynQor module should be affixed to the PCBA or system chassis/coldplate only via the mounting holes provided on the module's baseplate.
2. Apply thermal interface material as desired on the module base plate or customer heatsink or chassis.
3. Install the SynQor module to the heatsink or customer system chassis/coldplate - DO NOT COMPLETELY TIGHTEN THE MODULE TO THE MOUNTING SURFACE AT THIS POINT IF POSSIBLE!
4. Install the mating PCBA over the SynQor module - DO NOT COMPLETELY TIGHTEN THE PCBA TO THE MOUNTING SURFACE AT THIS POINT IF POSSIBLE! DO NOT SOLDER THE SYNQOR MODULE YET!
5. Once the SynQor module and PCBA with their respective mounting hardware are installed and properly aligned, complete the assembly process in the following sequence (refer to the figures below for illustration):

Step 1: Tighten the SynQor module to the customer system chassis to its final torque specification. This will also compress the thermal interface material to its specified thickness.

Step 2: Tighten the PCBA to the customer system chassis to its final torque specification.

Step 3: Once the SynQor module and PCBA mounting hardware are torqued down, the module's I/O pins may be soldered to the mating PCBA. Refer to the [SynQor Aqueous Cleaning and Soldering application note](#) for additional details regarding soldering considerations.



Please contact our Technical Support Team if you have additional questions regarding your particular application.

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