ENGINEERING TOMORROW

Spare Parts Selection Guide - Revision H

Danfoss Turbocor® Twin-Turbine Centrifugal Compressors

TT Series Compressors



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List of Changes

Revision	Date	Page	Description of Change
F.5	8-13-2021	63	Added 575V Capacitor option / Combined TTS350 and TTS400 tables
		16	Updated last table
F.6	1-19-2022	71	Corrected Backplane description
		81	Updated Cooling Valve Section, Replaced Cooling Valve assembly PNs
		89	Obsoleted EMI filter 901666
		91	Obsoleted Line Reactors 901453, 901974, and 901975
		96	Replaced image for Suction Flange
F.7		86	Removed the Portable Training Simulator
		Appendix C	Updated the Recently Obsoleted Kit Reference section
G	1-17-2023	All Pages	Added TGS380 and TTS450 compressor references throughout this manual as required Reformatted tables to clarify the compressor models that each kit APPLIES TO
G.1	1-20-2023	23	Corrected part number for P/T Discharge sensor
H	5-11-2023	58	Corrected callout number for 100309-8 kit Added new SCR Cooling Manifold (100309-15) description and image Removed TGS380/TTS450 from kit 100309-9 application
H	5-11-2023	104	Removed TGS380 from the application for kit 100450-1
H	6-5-2023	51	Updated Soft Start image to include only the Open-Frame design
H	7-6-2023	Appendix B	Added new Compressor Interface Cable kit 100058-5 Moved all Interface Cable kits to Appendix B
H	7-6-2023	Appendix B	Moved I/O Board Assembly to Appendix B
H	6-6-2023	48	Added new DC-DC Fuse kit 100084
H	6-6-2023	62	Added new Capacitor Membrane kit 100122
H	6-6-2023	23/54	Updated P/T sensor from P/N 100037-1 to 100037-2

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Chapter 1.0 Introduction

1.1 Organization

The TT Series Spare Parts Manual is organized in a top-down manner. Sections include External Components, Top Side, Discharge Side, and Service Side. Spare part kits are differentiated using compressor major revision and part number, which can be found on your compressor's name plate. Refer to the product nomenclature on the following page to determine which major revision your compressor falls under. Knowing the major revision, part number, voltage, and electronics type of your compressor are essential to using this document effectively.

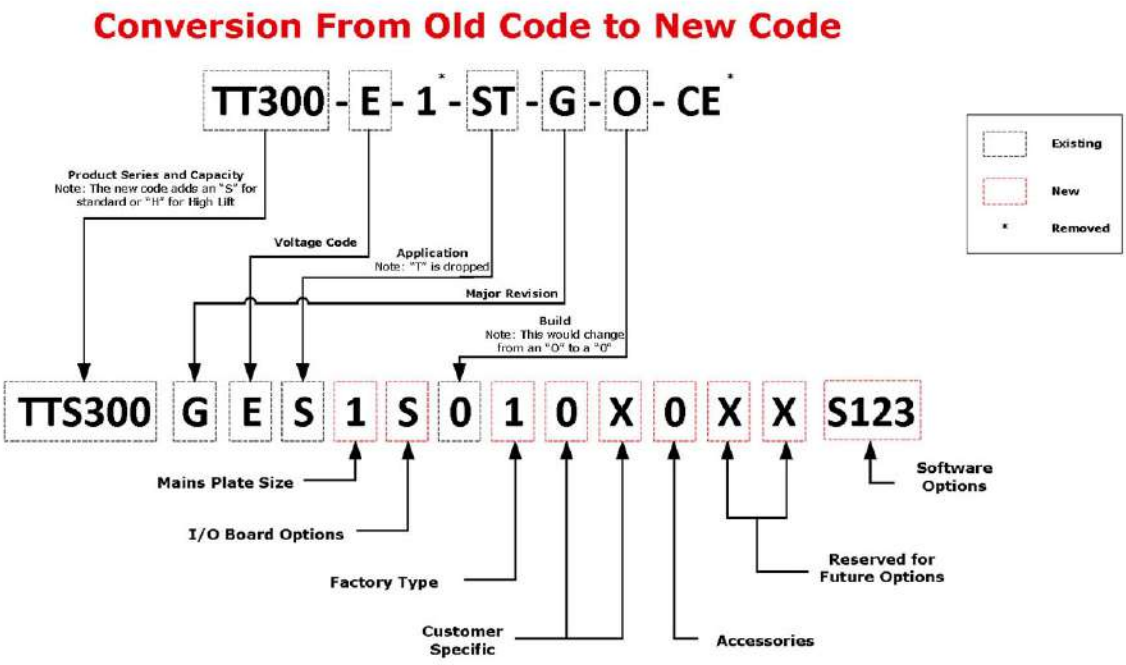
1.2 PDF Navigation

This document contains PDF hyperlinks for easy navigation. Clicking on items in the table of contents, or any blue hyperlink text will take you to the page it references.

1.3 Nomenclature

As of May 6, 2019, the product nomenclature changed. The following two illustrations provide examples of the two different formats. Additionally, the "Series" indicators have an additional character in order to differentiate the standard compressors from high-lift compressors. Unless the compressor is a high-lift design, an "S" will be added (e.g., TTS350). A high lift compressor will have an "H" in the Series designation (e.g., TTH375).

Figure 1-1 Conversion from Old Code to New Code



Type Code Definition

Product Series and Capacity
TTS300: TT Series 300 Aero Config
TTS350: TT Series 350 Aero Config
TTS400: TT Series 400 Aero Config
TTS500: TT Series 500 Aero Config
TTS700: TT Series 700 Aero Config
TGS230: TG Series 230 Aero Config
TGS310: TG Series 310 Aero Config
TGS390: TG Series 390 Aero Config
TGS520: TG Series 520 Aero Config
TTH375: TT High Lift Series 375 Aero Config
TGH285: TG High Lift Series 285 Aero Config

Major Revision
E: Major Revision E
F: Major Revision F
G: Major Revision G

Voltage Code
E: 380V/50Hz
D: 380V/60Hz
H: 400V/50Hz
J: 400V/60Hz
G: 460V/60Hz
F: 575V/60Hz

Application
S: Standard Application
M: Medium Temperature Application
J: Standard Temp KHK Listed
K: Medium Temp KHK Listed

Mains Plate Size
1: Mains Plate 2.00"
2: Mains Plate 2.48"
3: Mains Plate 3.00"
4: Mains Plate 3.50"

I/O Board Option
S: I/O Board included with 5m cable
M: No I/O Board, 5m cable Included

Build
0: New Compressor
C: Rebuilt Certified Compressor

Factory Type
1: TLH Factory (CE Rated)
2: HYN Factory (CH Rated)
3: TLH Factory (NC Rated)

Customer Specific Configuration
0: Gen Covers/Plate, EN/FR/CH

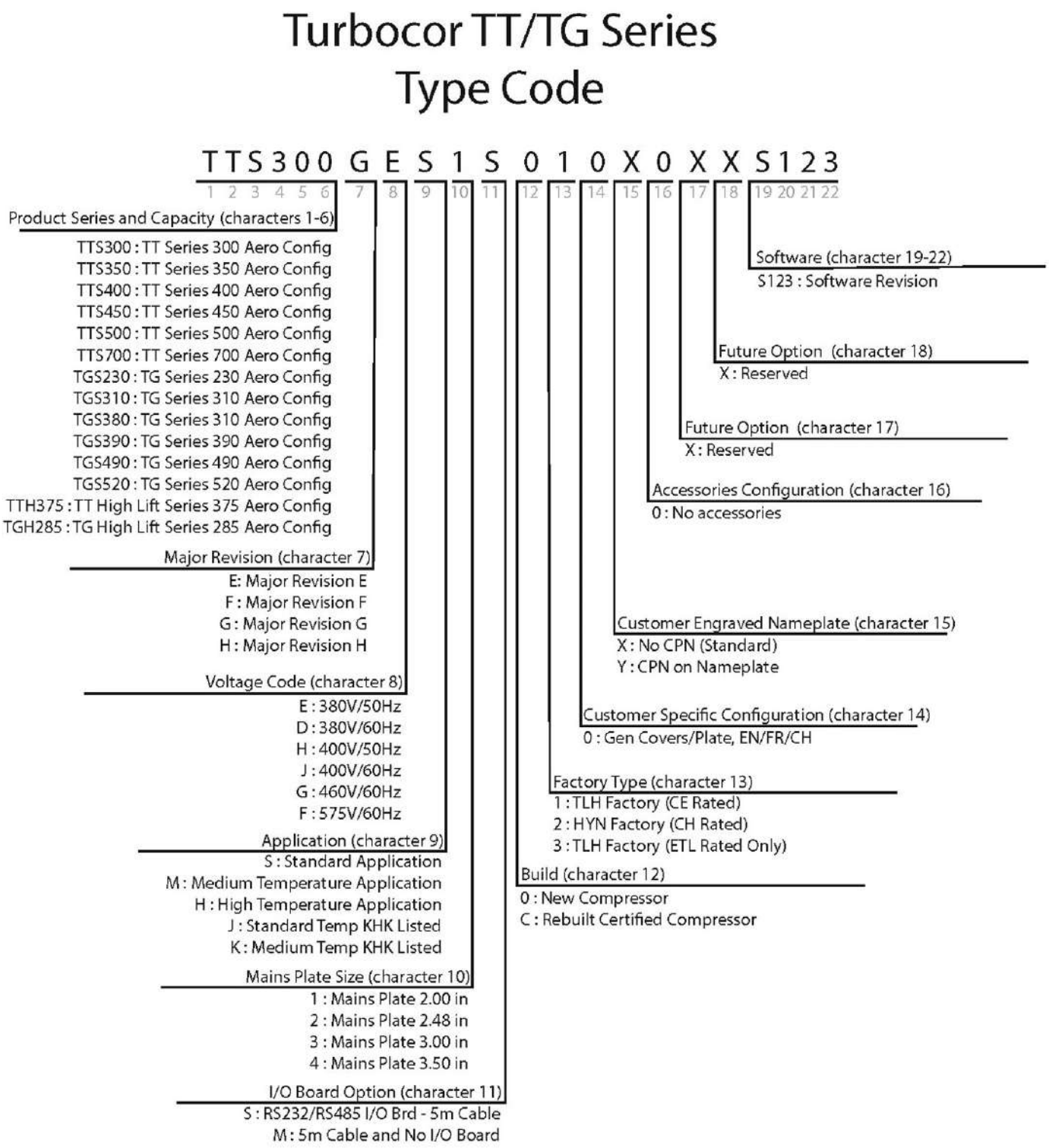
Customer Engraved Nameplate
X: No CPN (Standard)
Y: CPN on Nameplate

Accessories Configuration
0: No accessories

Future Option
X: Reserved
X: Reserved

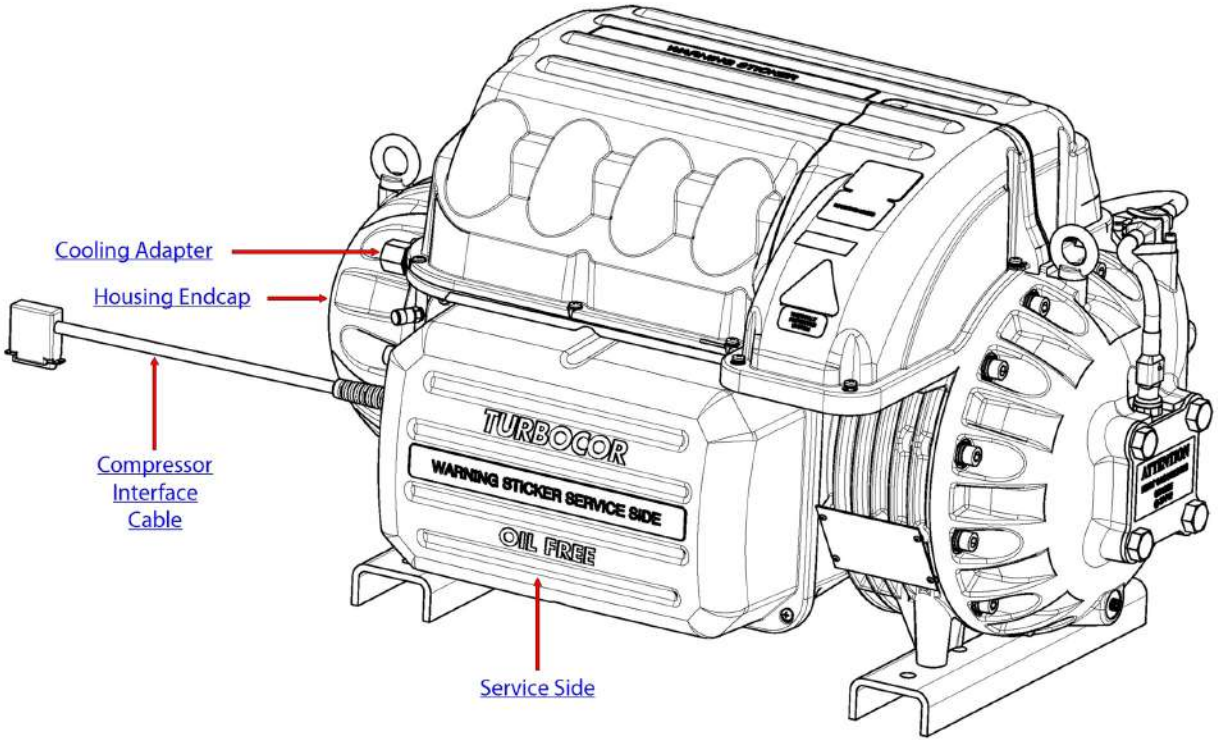
Software
S123: Software Revision

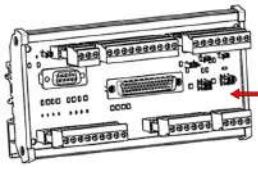
Figure 1-2 TT and TG Product Nomenclature After May 6, 2019



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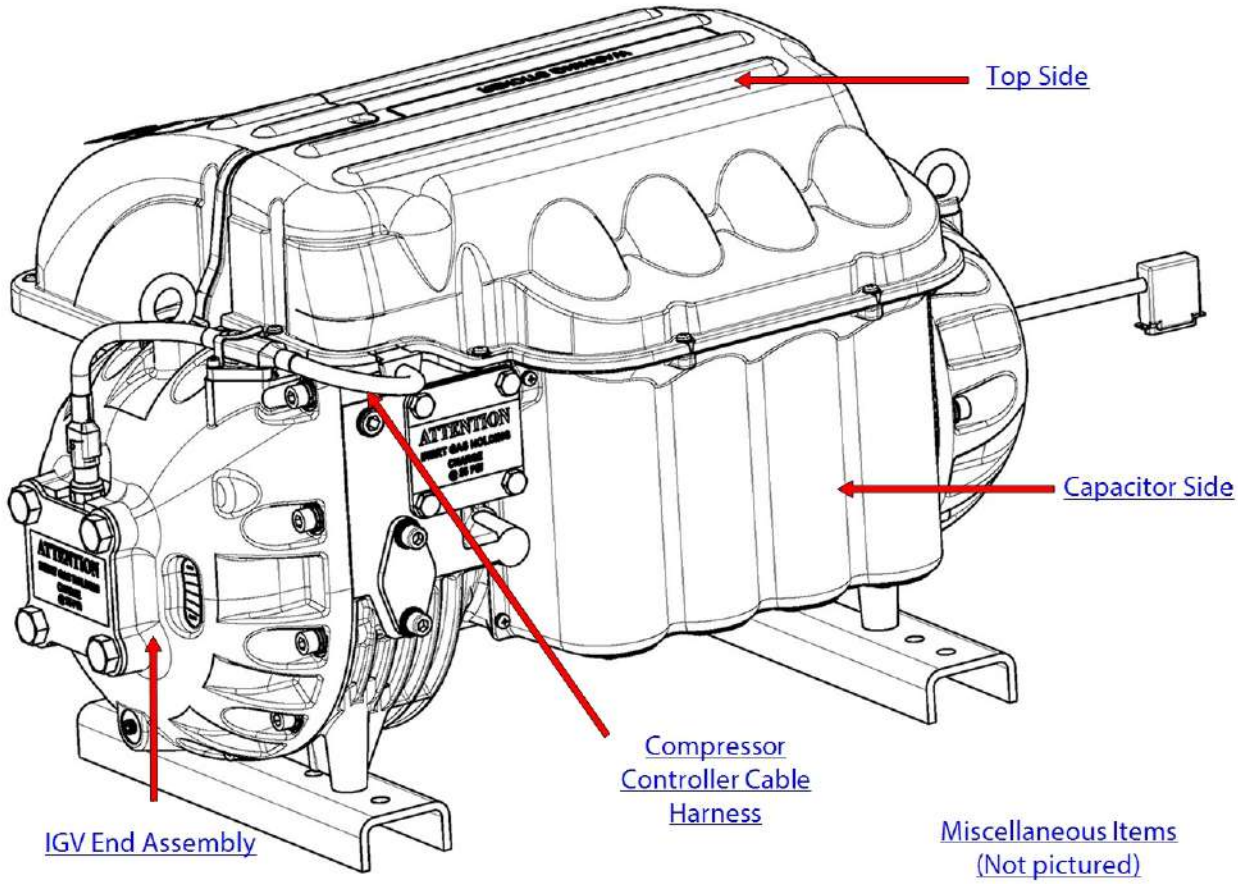
TTS/TGS Model



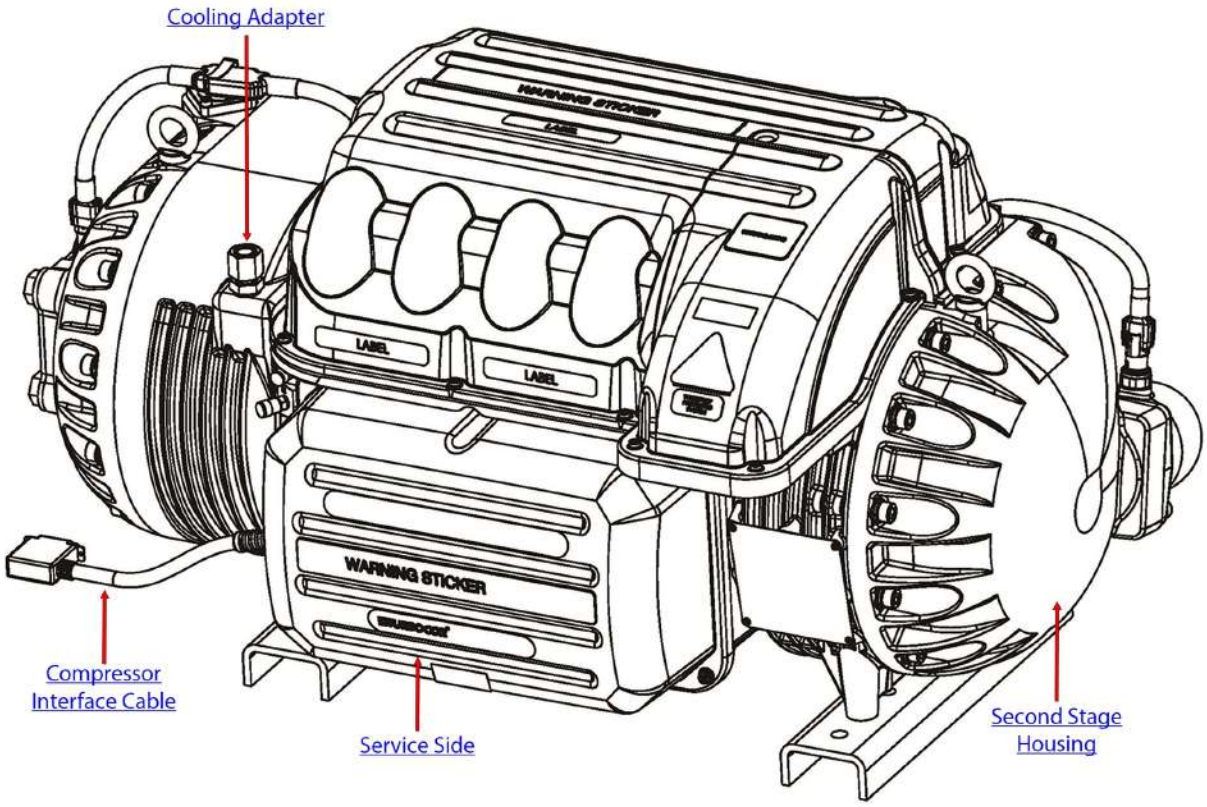


PCB Assembly I/O Board

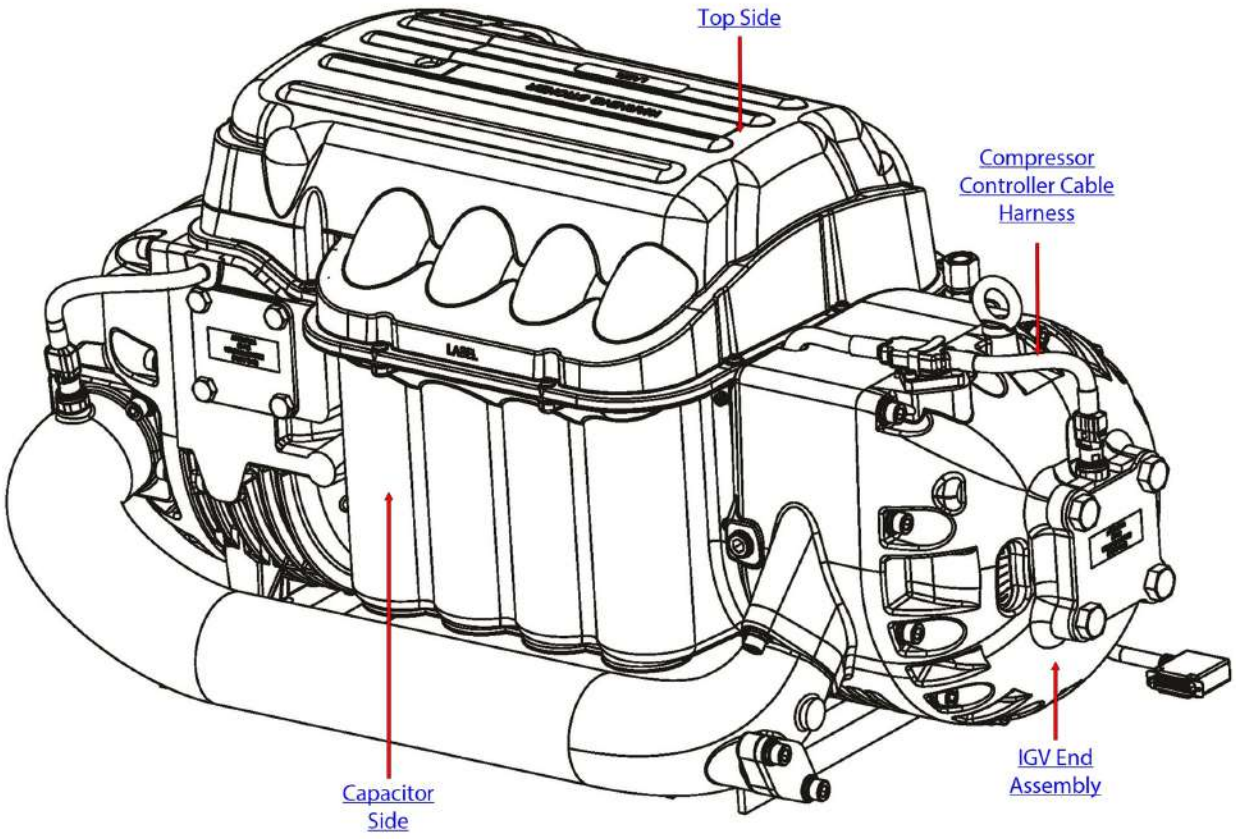
TTS/TGS Model



TTH/TGH Model



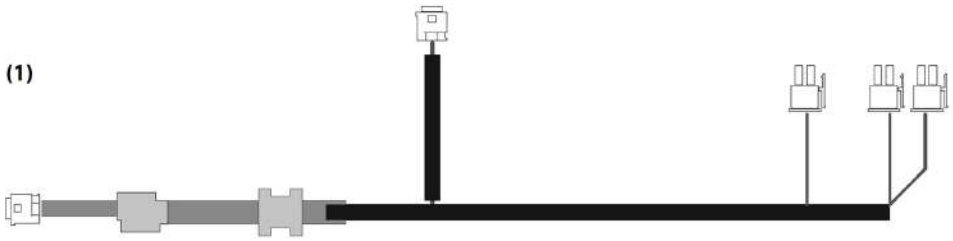
TTH/TGH Model



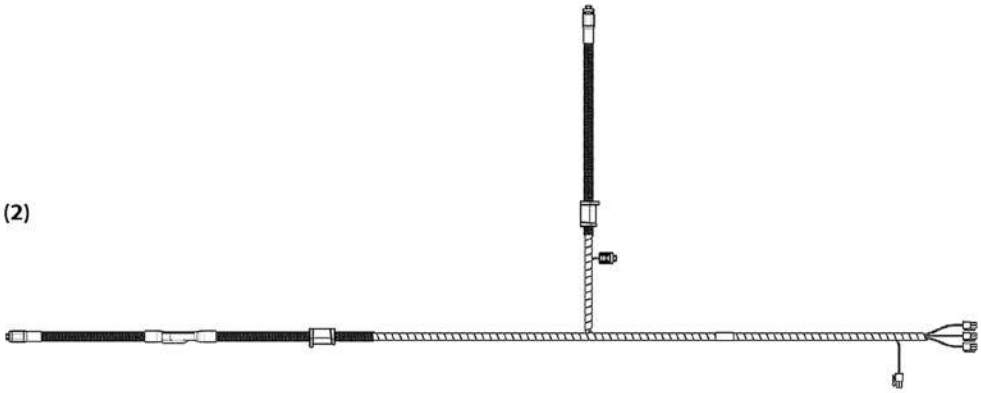
Miscellaneous Items (Not pictured)

2.1 Compressor Controller Cable Harness

(1)



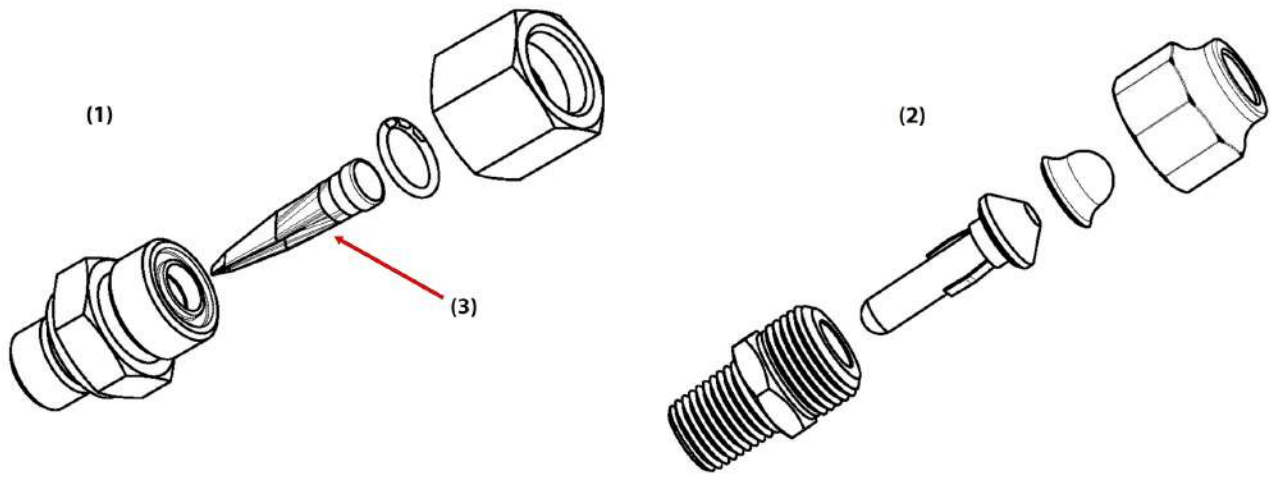
(2)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) COMPRESSOR CONTROLLER CABLE HARNESS	100322-5	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Cable Only SCR Temperature Sensor connection is no longer available

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) COMPRESSOR CONTROLLER CABLE HARNESS	100322-4	• TTH375/TGH285	-F, -H	Cable Only

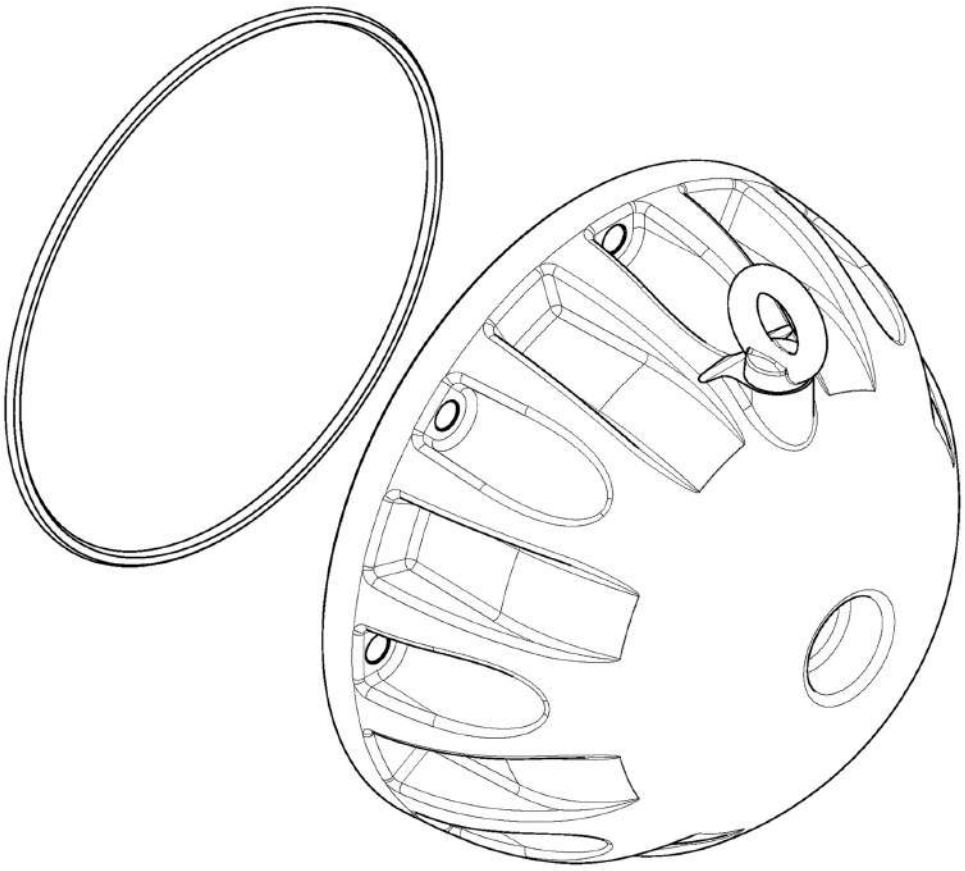
2.2 Cooling Adapter



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) COOLING ADAPTER W/SCREEN	100169-1	ALL COMPRESSORS	-E, -F, -G, -H	Contains O-rings and strainer Use if compressor part number ends in "-3"
(3) STRAINER FOR COOLING ADAPTER	100186-1	ALL COMPRESSORS	-E, -F, -G, -H	Replaces strainer and one external O-ring

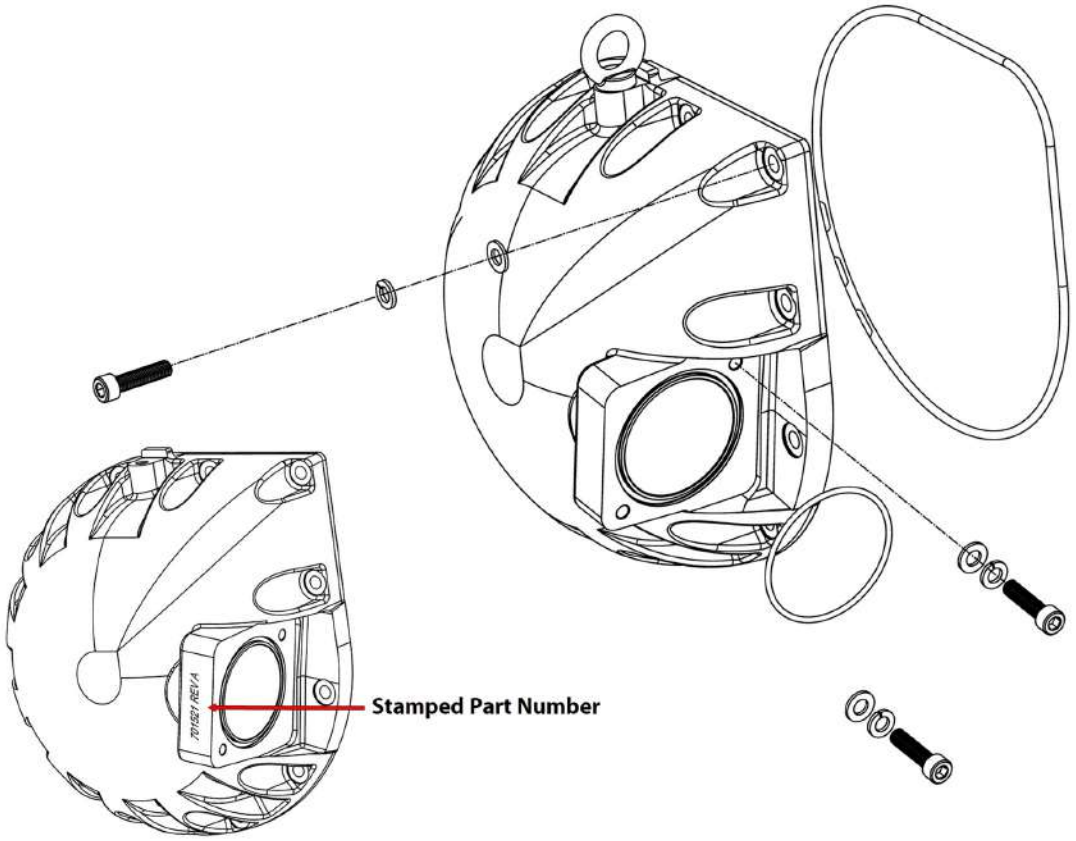
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) COOLING FITTING AND STRAINER	100215	• TTS300	-N, -P, -C, -D	Do not use if compressor part number ends in "-3", includes strainer and nut

2.3 Housing End Cap



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
END CAP ASSY	100324-2	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Contains eyebolt and O-ring
O-RING, END CAP	100352	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Replaces Endcap O-ring

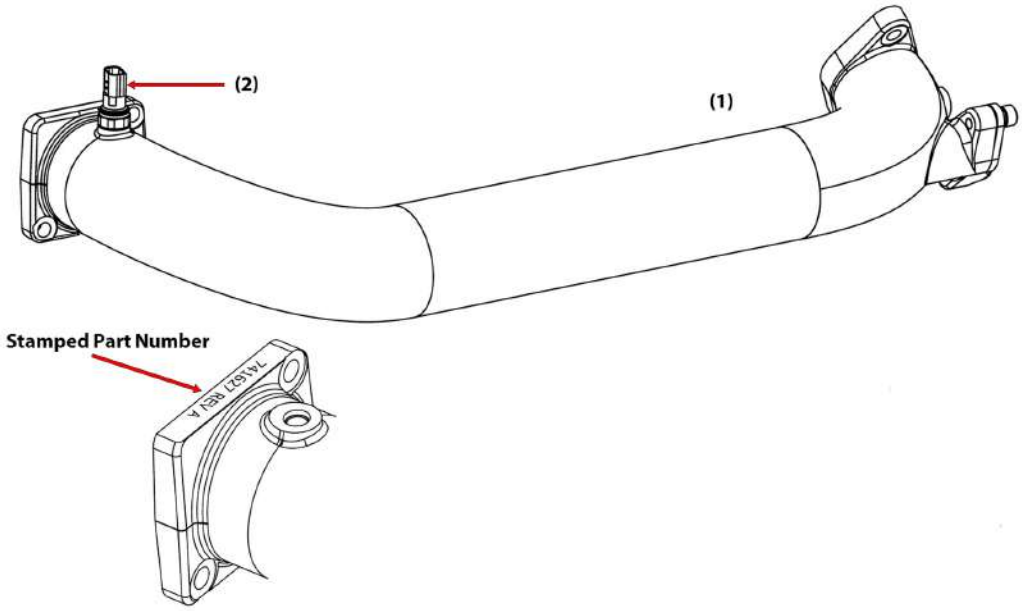
2.4 Second Stage Housing



It is important to determine the version of Second Stage Housing that is currently installed on the compressor in order to identify the correct part number. There are two variants of Second Stage Housing and Interstage pipe and they are not interchangeable. Refer to the stamped part number on the Second Stage Housing flange that mates to the Interstage Pipe. When replacing early revision Second Stage Housings, the Interstage Pipe will also need to be replaced.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SECOND STAGE HOUSING	100706-3	• TTS375/TGH285	-F, -H	For Second Stage Housing stamped part number 701521, also order kit 100703-3. For Second Stage Housing stamped part number 741630, no other kit is required. Contains eyebolt, O-rings, and mounting hardware.
O-RINGS, SECOND STAGE HOUSING	100706-2	• TTH375/TGH285	-F, -H	Contains O-rings and fasteners for Second Stage Housing, Interstage Pipe, and Economizer

2.5 Interstage Pipe



It is important to determine the version of Interstage Pipe that is currently installed on the compressor in order to identify the correct part number. There are two variants of Second Stage Housing and Interstage pipe and they are not interchangeable. Refer to the stamped part number on the Interstage Pipe flange that mates to the Second Stage Housing. When replacing early revision Interstage Pipes, the Second Stage Housing will also need to be replaced.

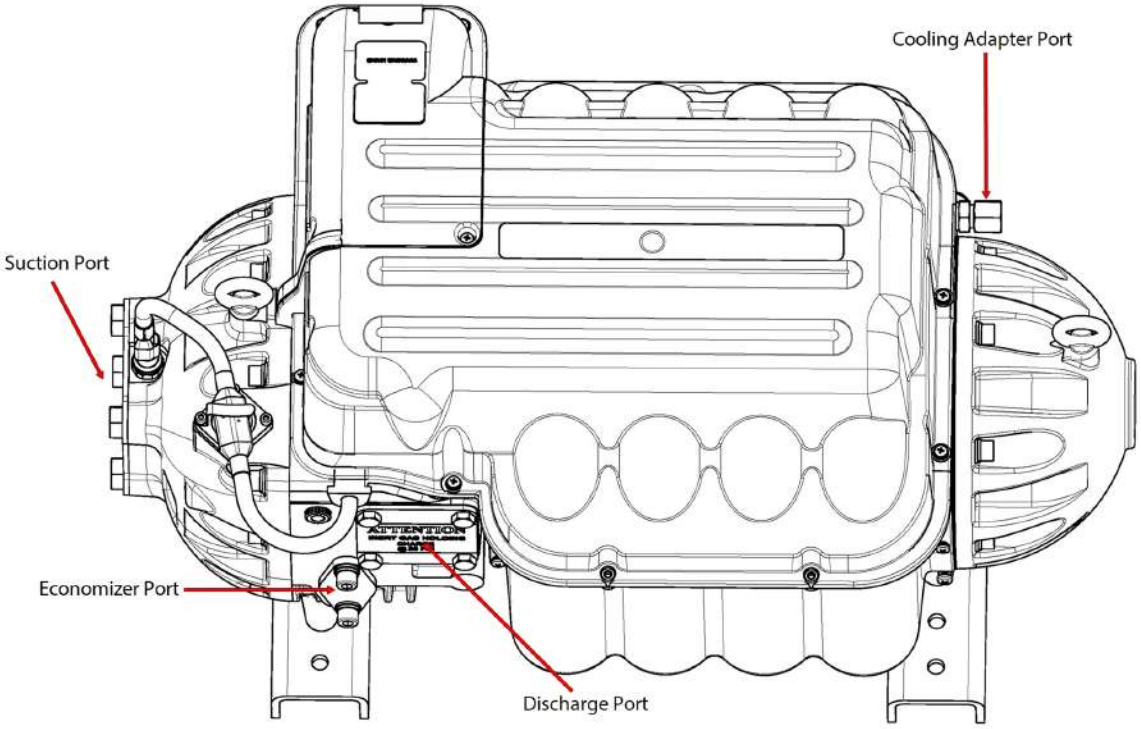
NOTE

If the part number on the Interstage Pipe is not visible, verify the Second Stage Housing part number. If the Second Stage Housing is part number, 701521, then kits **100703-3** and **100706-3** need to be purchased. If the Second Stage part number is 741630, then purchase kit **100703-3**.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) INTERSTAGE PIPE	100703-3	• TTH375/TGH285	-F, -H	For Interstage Pipe stamped part number 741627, also order kit 100706-3. For Interstage Pipe stamped part number 741629, no other kit is required. Contains P/T Sensor, O-rings, and fasteners
(2) PRESSURE/TEMP SENSOR, DISCHARGE	100037-2	• TTH375/TGH285	-F, -H	Marked with a red spot and a green spot, contains O-ring
O-RINGS, INTERSTAGE PIPE	100703-2	• TTH375/TGH285	-F, -H	Contains O-rings for the Interstage Pipe and Economizer (includes fasteners)

2.6 Miscellaneous Items

Port O-rings



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
O-RINGS, PORT CONNECTIONS	100329	ALL COMPRESSORS	ALL	Includes O-rings for Cooling Adapter, Suction, Discharge, and Economizer ports
O-RING, SUCTION PORT	100555	ALL COMPRESSORS	ALL	Suction Port O-Ring only

Miscellaneous Items

Dielectric Grease



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DIELECTRIC GREASE, 1.25 FL OZ	901982	ALL COMPRESSORS	ALL	1.25 fl. oz. tube of Grease Only

Refrigerant Labels



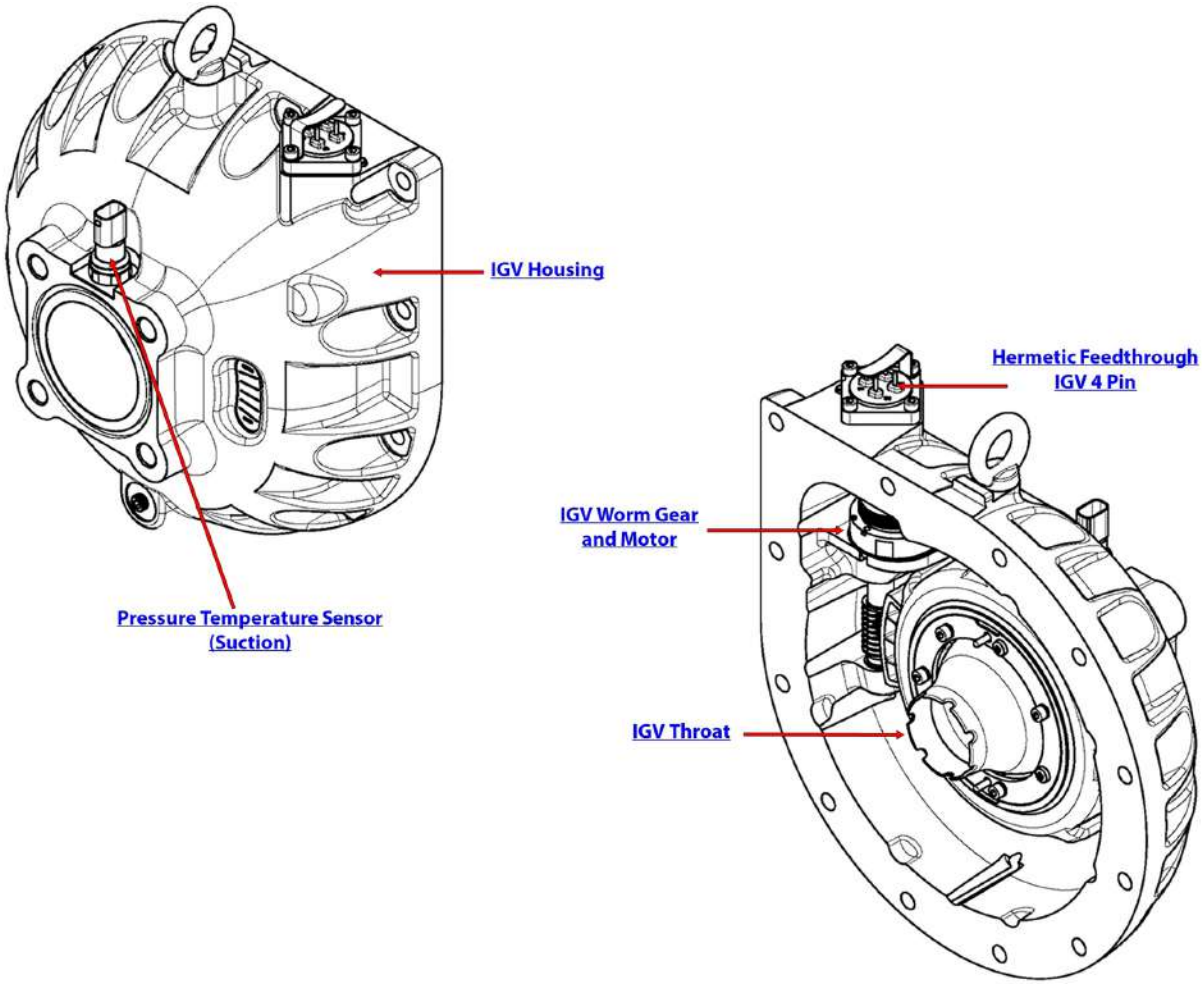
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
R513A REFRIGERANT LABEL	100374	• TTS300/TTS350/TTS400/TTS500/TTS700 • TTH375	-F, -G, -H	Includes 10 labels

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Chapter 3.0 IGV End Assembly

The spare part kits available for the Inlet Guide Vanes (IGV) Drive assembly are detailed in this section. The IGV Drive Assembly and O-ring kits detailed on the following page replace the entire IGV assembly, including feedthrough, sensor, housing, throat, and motor.

IGV Drive Assembly



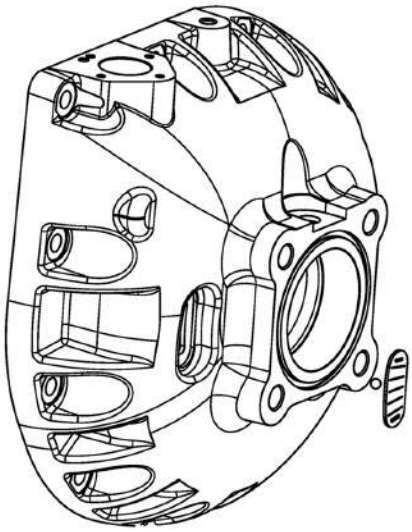
3.1 IGV Drive Assembly

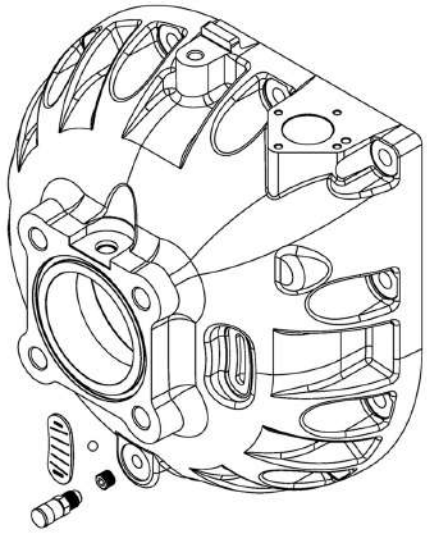
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV DRIVE ASSY, BLACK THROAT	100050-16	• TTS300 • TGS230	-P, -C, -D, -E, -F, -G, -H	Fully assembled IGV with black IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, BLUE THROAT	100050-15	• TTS350 • TGS310	-A, -E, -F, -H	Fully assembled IGV with blue IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, SILVER THROAT	100050-26	• TTS450 • TGS380	-H	Fully assembled IGV with silver IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, GOLD THROAT	100050-17	• TTS400 • TGS390	-C, -E, -F, -H	Fully assembled IGV with gold IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, SILVER THROAT	100050-25	• TGS490	-F, -H	Fully assembled IGV with silver IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, STEEL THROAT	100050-18	• TTS500/TTS700 • TGS520	-A, -E, -F, -H	Fully assembled IGV with steel IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, ORANGE THROAT	100050-19	• TTH375 • TGH285	-F, -H	Fully assembled IGV with orange IGV throat, includes O-rings and fasteners

3.2 IGV Housing

The IGV Housing kits detailed here replace the IGV housing. The plug and indicator ball are pre-installed.

NOTE
The Worm Gear Extractor Tool 100246 is required.



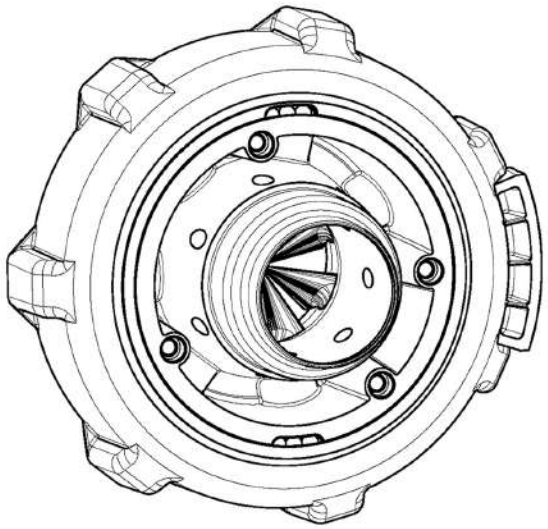


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV HOUSING, BARE	100223	• TTS300/ TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390	All	Contains Housing, IGV indicator, plug
IGV HOUSING, BARE	100229	• TTS500/TTS700 • TGS520/TGS490	All	Contains Housing, IGV indicator, plug
IGV HOUSING, BARE	100223-5	• TTH375/TGH285	All	Contains Housing, plug, IGV indicator, O-rings, and fasteners
O-RING, IGV ASSY	100051-1	• TTS300/TTS350/TTS400/TTS500/TTS700 • TGS230/TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	All	Includes O-rings for Suction, IGV Housing and IGV motor Feedthrough

3.3 IGV Throat

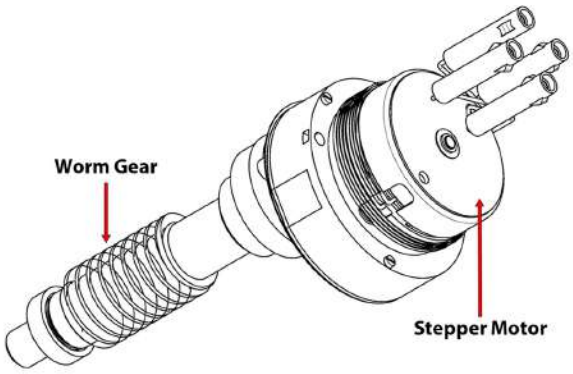
The IGV Throat kits detailed here replace the IGV Throat assembly.

NOTE
The Worm Gear Extractor Tool 100246 is required.



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV THROAT, BLACK	100227	• TTS300 • TGS230	-P, -C, -D, -E, -F, -G, -H	Contains IGV throat assembly-black, thin rim, O-rings and fasteners
IGV THROAT, BLUE	100228	• TTS350 • TGS310	-A, -E, -F, -H	Contains IGV throat assembly-blue, O-rings and fasteners
IGV THROAT, SILVER	100392	• TTS450 • TGS380	-H	Contains IGV throat assembly-silver, O-rings and fasteners
IGV THROAT, GOLD	100231	• TTS400 • TGS390	-C, -E, -F, -H	Contains IGV throat assembly-gold, O-rings and fasteners
IGV THROAT, STEEL	100232	• TTS500/TTS700 • TGS520	-A, -E, -F, -H	Contains IGV throat assembly-steel, O-rings and fasteners
IGV THROAT, SILVER	100261	• TGS490	-F, -H	Contains IGV throat assembly-silver, O-rings and fasteners
IGV THROAT, ORANGE	100704	• TTH375 • TGH285	-F, -H	Contains IGV throat assembly-orange, O-rings and fasteners

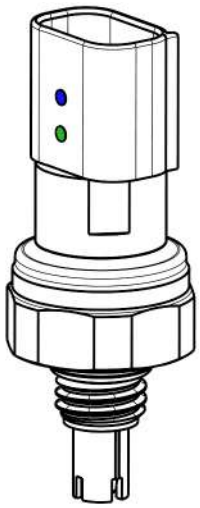
3.4 IGV Worm Gear and Motor



NOTE
The Worm Gear Extractor Tool 100246 is required.

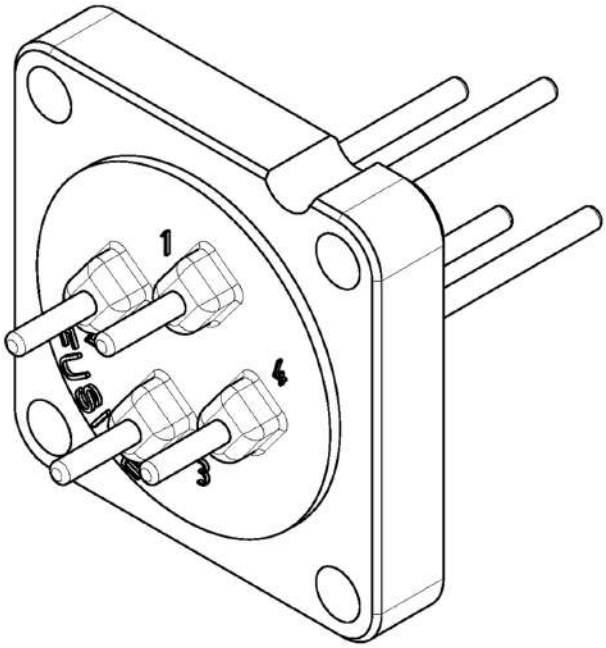
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV WORM GEAR SHAFT REPAIR	100222	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Contains Worm Gear, Stepper Motor, Bearings, Collars, and Clips
IGV WORM GEAR SHAFT REPAIR	100705	• TTH375/TGH285	ALL	Contains Worm Gear, Stepper Motor, Bearings, Collars, Clips, O-rings, and fasteners
IGV MOTOR	100035-1	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Includes Stepper Motor and O-rings
IGV MOTOR	100035-2	• TTH375/TGH285	ALL	Includes Stepper Motor, O-rings, and fasteners
O-RING, IGV ASSY	100051-1	ALL COMPRESSORS	ALL	Includes O-rings
WORM GEAR EXTRACTOR TOOL	100246	ALL COMPRESSORS	ALL	Worm Gear Extractor tool only

3.5 Pressure Temperature Sensor Suction



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
PRESSURE/TEMP SENSOR, SUCTION	100036-1	ALL COMPRESSORS	ALL ITEM 6	Marked with a blue dot and a green dot, includes O-ring

3.6 Hermetic Feedthrough IGV 4 Pin

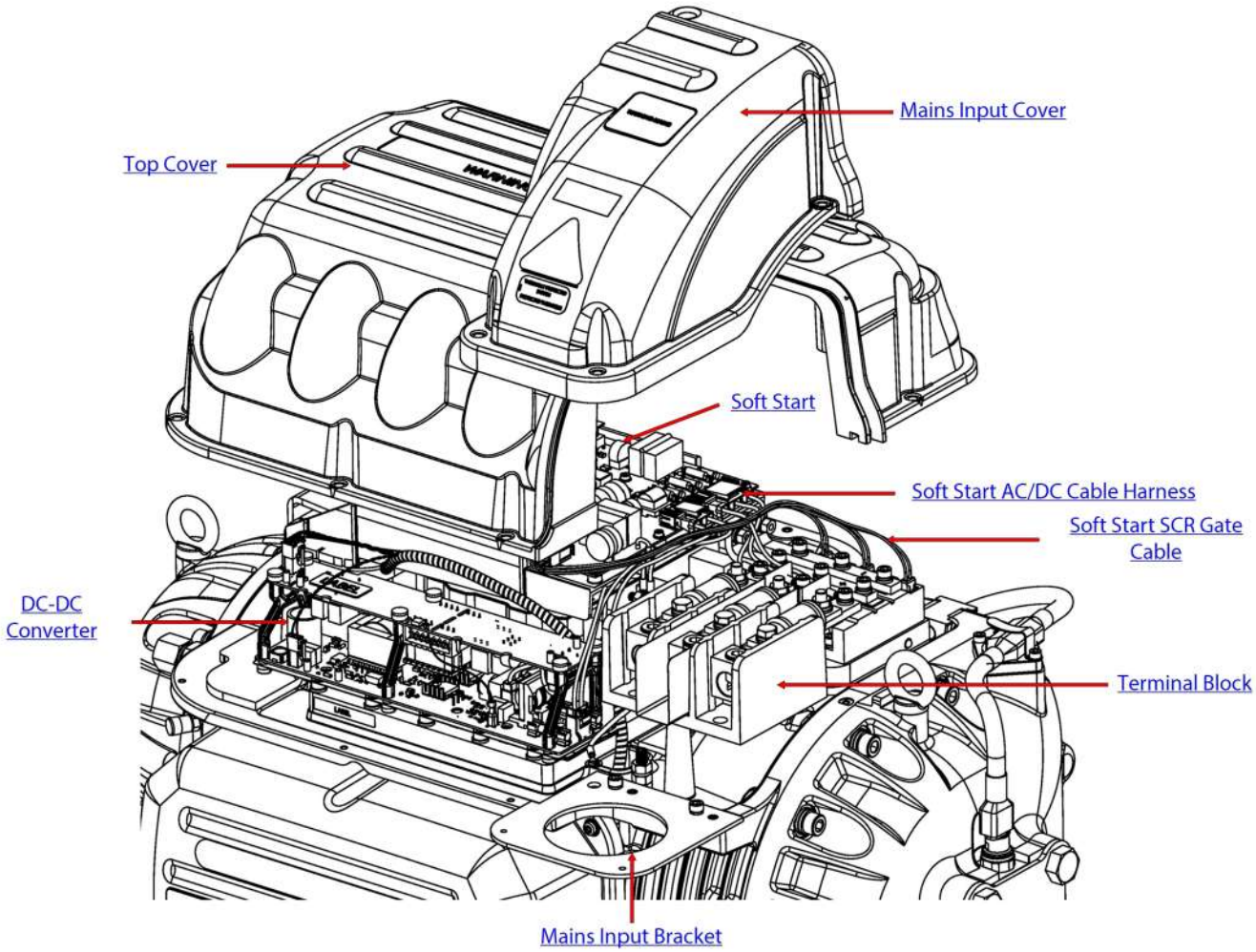


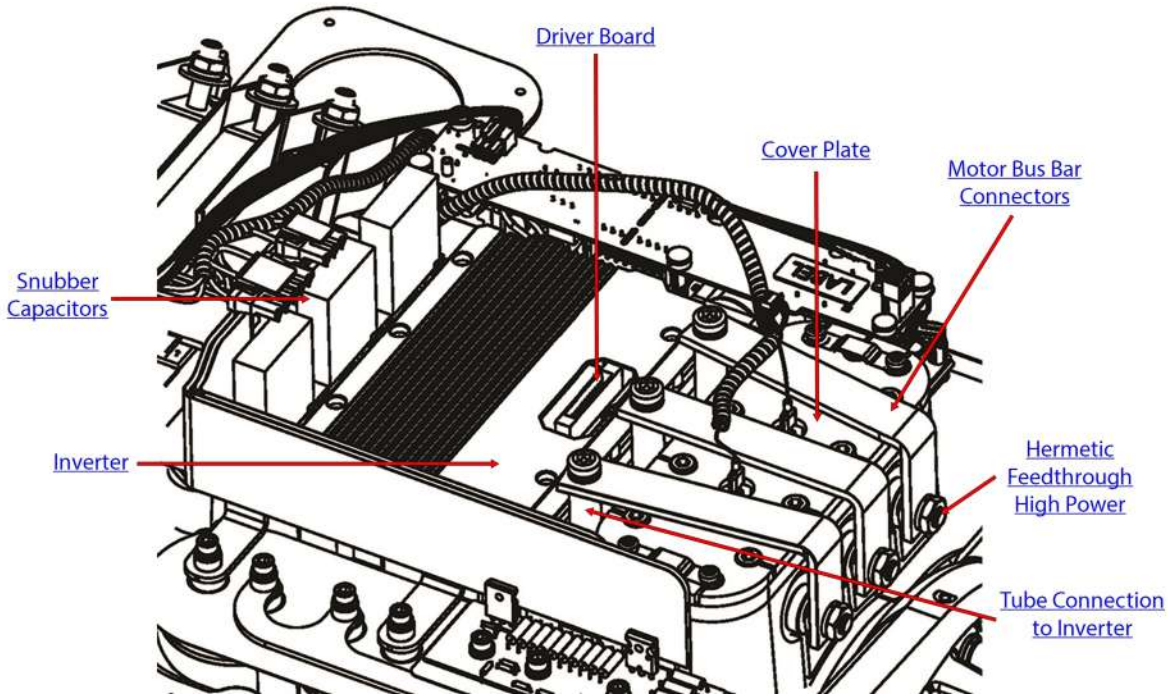
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
4 PIN IGV FEEDTHROUGH	100321-1	ALL COMPRESSORS	ALL ITEM 8	Includes O-ring, clamp, and fasteners

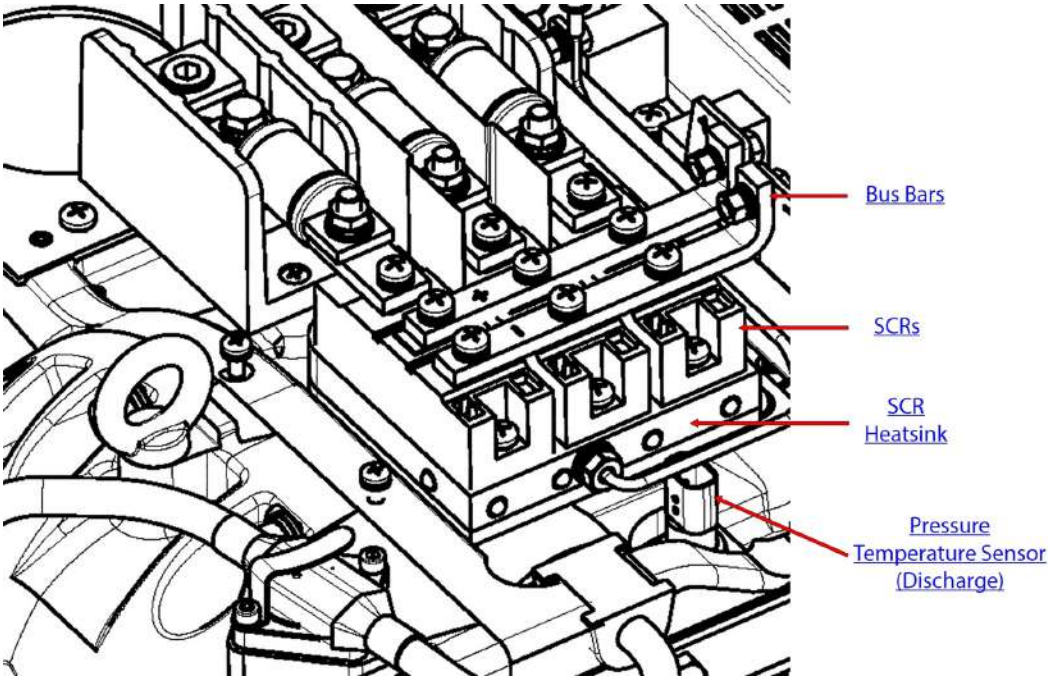
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Chapter 4.0 Top Side

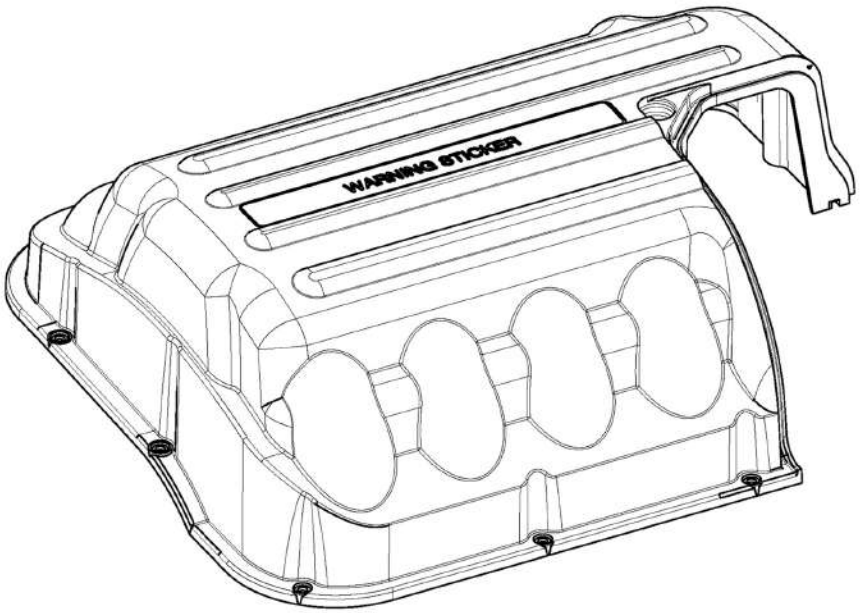
This section details the spare part kits available for components underneath the Top Side and Mains Input covers.




Driver Board
Cover Plate
Motor Bus Bar Connectors
Snubber Capacitors
Inverter
Hermetic Feedthrough High Power
Tube Connection to Inverter

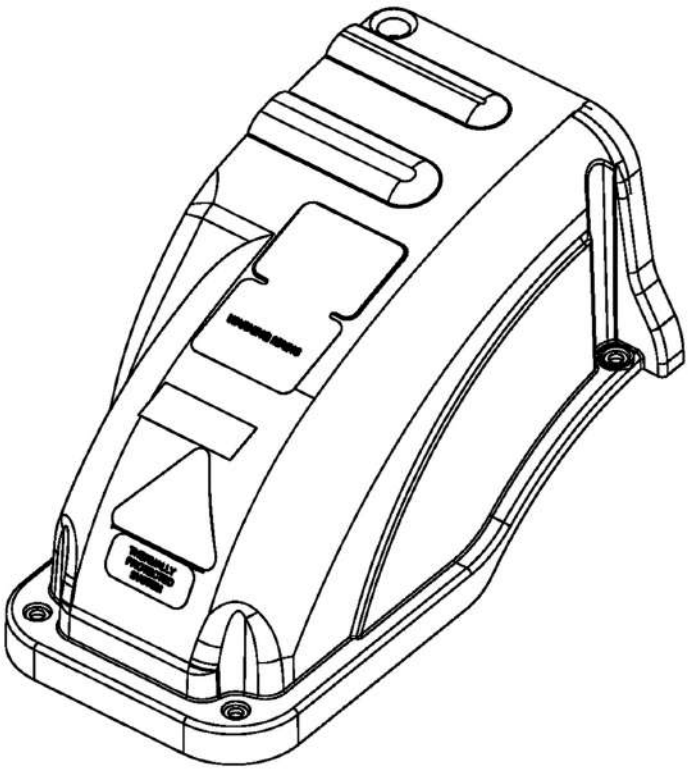

Bus Bars
SCRs
SCR Heatsink
Pressure Temperature Sensor (Discharge)

4.1 Top Cover



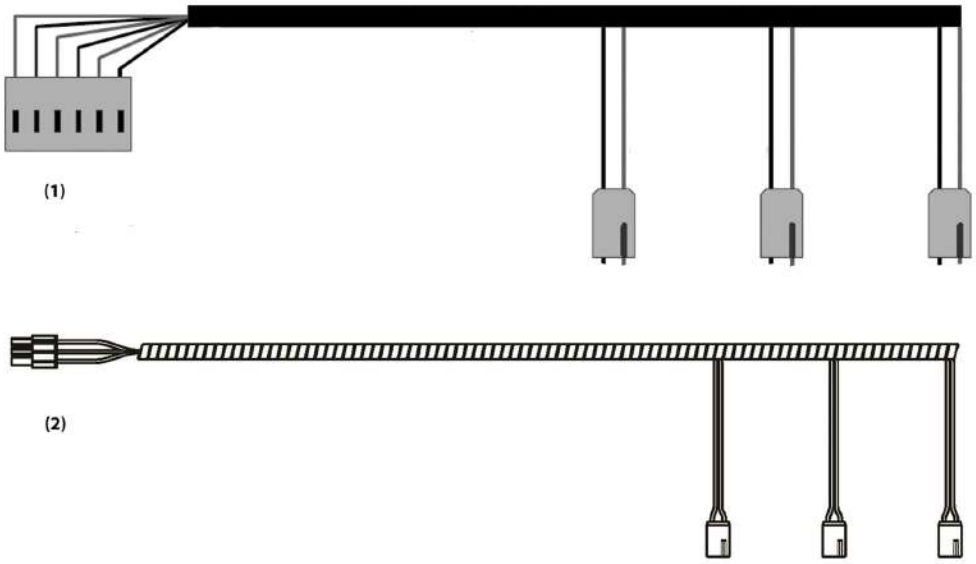
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
TOP COVER, BLACK, EN/FR	100054-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375 ITEM 24	ALL	Includes fasteners
TOP COVER, GREEN, EN/FR	100054-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four (4) covers (24 fasteners)

4.2 Mains Input Cover



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MAINS INPUT COVER, BLACK	100056-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375 ITEM 30	ALL	Includes fasteners
MAINS INPUT COVER, GREEN	100056-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four (4) covers (24 fasteners)

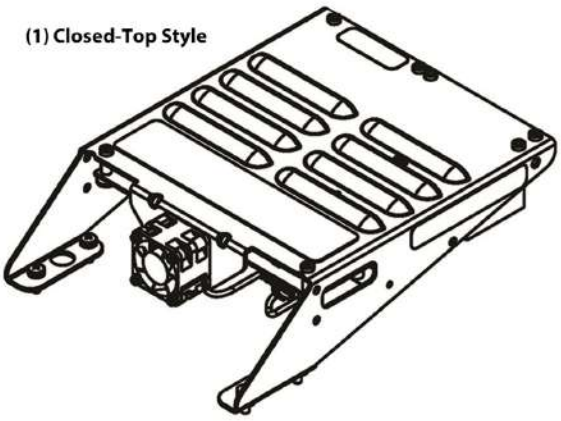
4.3 Soft Start SCR Gate Cable



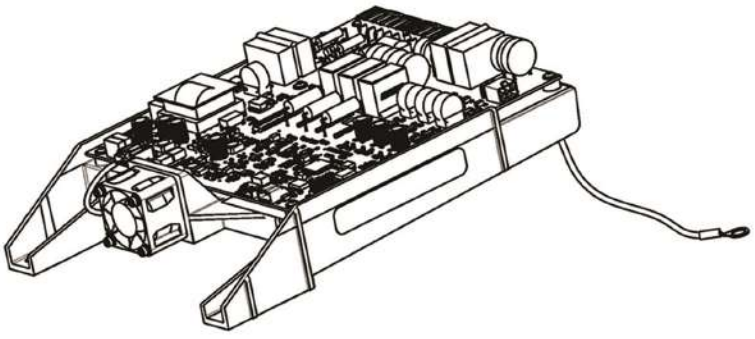
It is important to determine the Soft Start that is currently installed on the compressor. Pre Rev H compressors may contain a Soft Start that has been upgraded to the Open-Top style. The two (2) different style Soft Starts utilize a different SCR Cable connector, which requires a unique Soft Start SCR Gate Cable.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CABLE, SOFTSTART SCR GATE	100059	ALL COMPRESSORS	-N, -P, -C, -D, -E, -F, -G	Closed-Top Soft Starts (1) Includes cable only
(2) CABLE, SOFTSTART SCR GATE	100059-1	ALL COMPRESSORS	-H	Open-Top Soft Start (2) Includes cable only

(1) Closed-Top Style

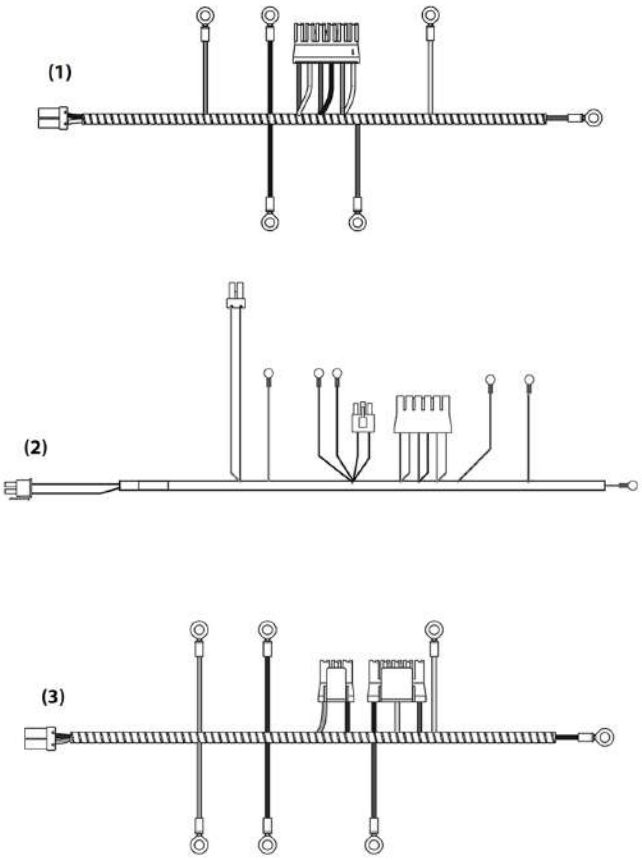


(2) Open-Top Style



*The Open-Top style Soft Starts require a different Soft Start SCR Cable.

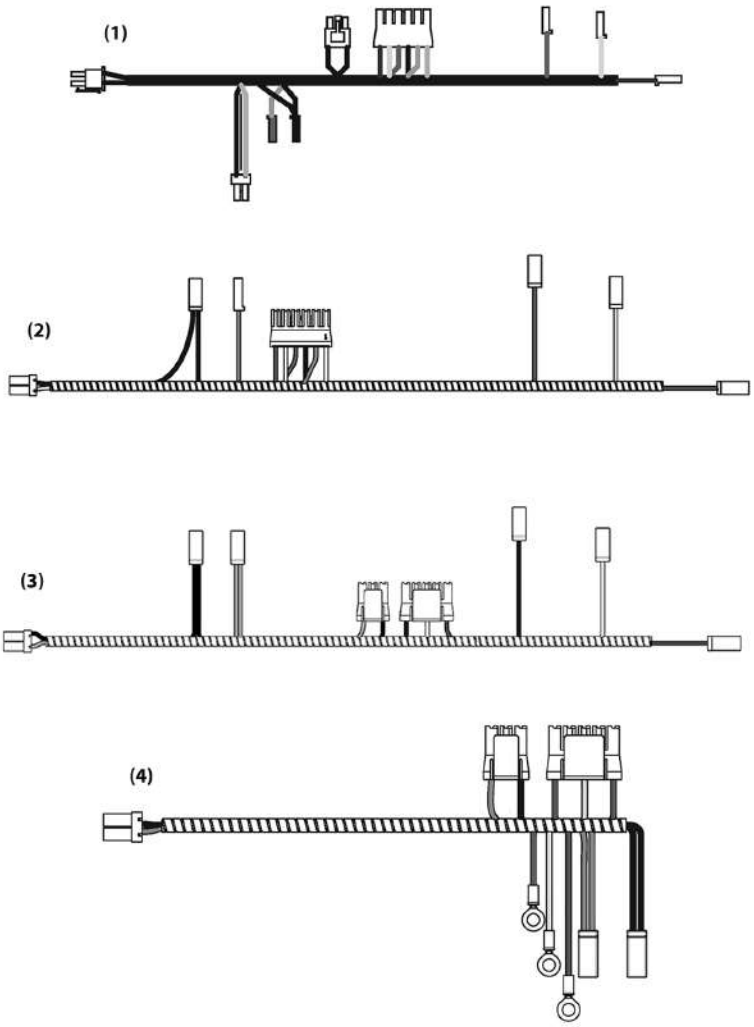
4.4 Cable Harness Soft Start AC/DC



It is important to determine the Soft Start that is currently installed on the compressor, as well as the DC-DC Converter and Bus Bar assembly. Pre-rev H compressors may contain a Soft Start that has been upgraded to the Open-Top style and a DC-DC Converter that has been upgraded to the Open-Frame style. Each of these items will impact the required kit. Refer to the Comment section in the tables below to determine the appropriate kit for the existing compressor. Also, refer to the Soft Start section in this manual if you need assistance to identify the visual difference between the two (2) types of Soft Starts.

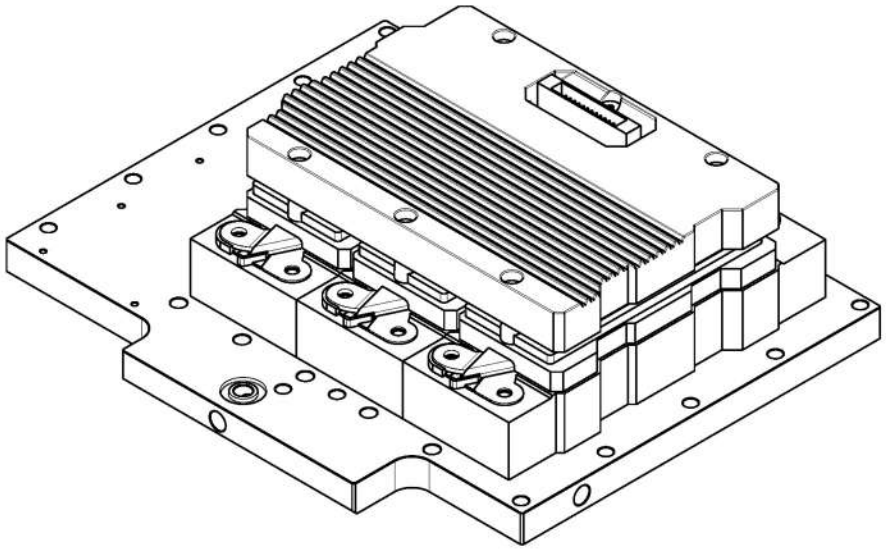
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1 & 2) CABLE, SOFTSTART AC/DC	100380	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F, -G	Cable Only Includes two cables in order to accommodate either DC-DC style
(3) CABLE, SOFTSTART AC/DC	100380-1	• TTS300 • TGS230	-H	Cable Only Rev. G compressors can use this cable if they have the Open Frame DC-DC and the Open-Top Soft Start installed

Cable Harness Soft Start AC/DC (continued)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1 & 2) CABLE, SOFTSTART AC/DC	100381	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	Cable Only Includes two (2) cables in order to accommodate either DC-DC style)
(3) CABLE, SOFTSTART AC/DC	100381-2	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	Cable Only For use with Soft Start (open-top style), Open Frame DC-DC, and Curved Bus Bars
(4) CABLE, SOFTSTART AC/DC	100381-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Cable Only For use with Soft Start (open-top style), Open- Frame DC-DC, small SCRs, and Straight Bus Bars

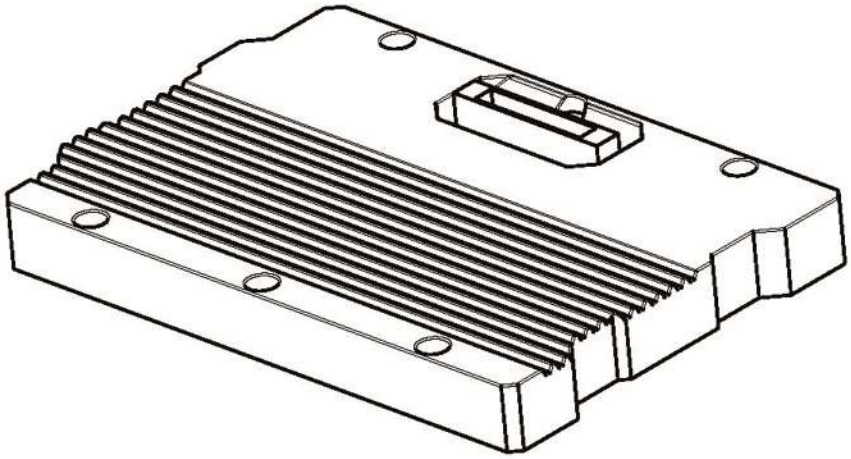
4.5 Inverter



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
INVERTER ASSEMBLY CONVERSION (342 to 613)	100521*	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes motor bus bars, manifold insulator, fasteners, washers, and O-rings
INVERTER ASSEMBLY, 613	100043-13*	• TTS300 • TGS230	-G, -H	Includes fasteners, washers, and O-rings
INVERTER ASSEMBLY, 613	100043-11	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F, -H	Includes fasteners, washers, and O-rings
O-RINGS, INVERTER ASSY	100310-2	• TTS300 • TGS230	ALL	Includes Inverter O-rings and fasteners
O-RING, INVERTER ASSY	100310-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Replaces Inverter O-rings and fasteners

*Refer to Customer Notification (B-CN-079-EN)

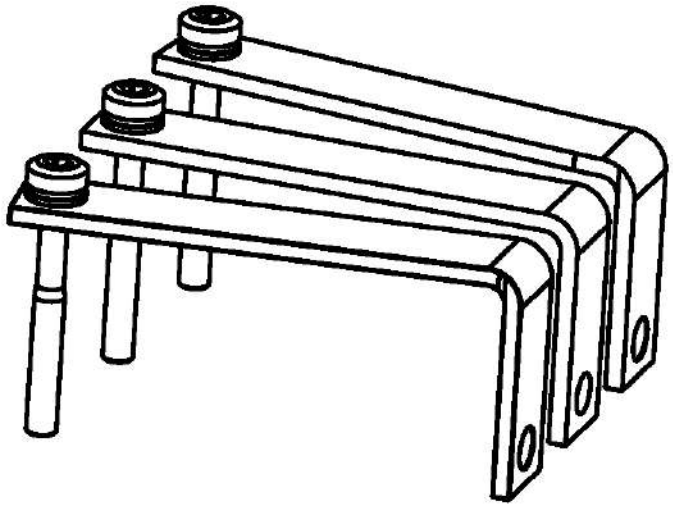
4.6 Driver Board



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
INVERTER DRIVER BOARD, 613	100518-1*	• TTS300 • TGS230	-G, -H	Includes mounting fasteners and spring pins
INVERTER DRIVER BOARD, 613	100518	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F, -H	Includes mounting fasteners and spring pins

*Refer to Customer Notification (B-CN-079-EN) - This kit is for TTS300/TGS230 Rev. G and later compressors or when Conversion Kit (100521) has already been applied

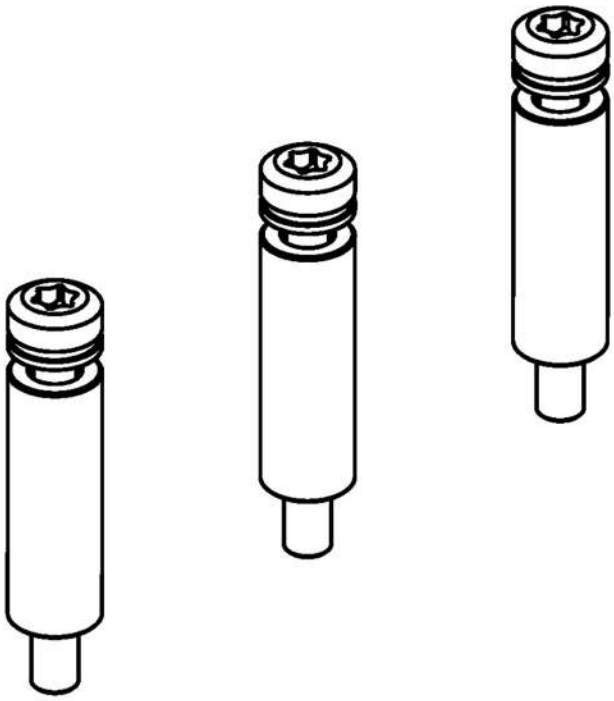
4.7 Motor Bus Bar Assembly Connectors



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MOTOR BUS BAR ASSY	100313	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes three (3) bus bars and fasteners
MOTOR BUS BAR ASSY	100313-1	• TTS300*/TTS350/TTS400/TTS450/TTS500/ TTS700 • TGS230*/TGS310/TGS380/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F, G, -H	Includes three (3) bus bars and fasteners

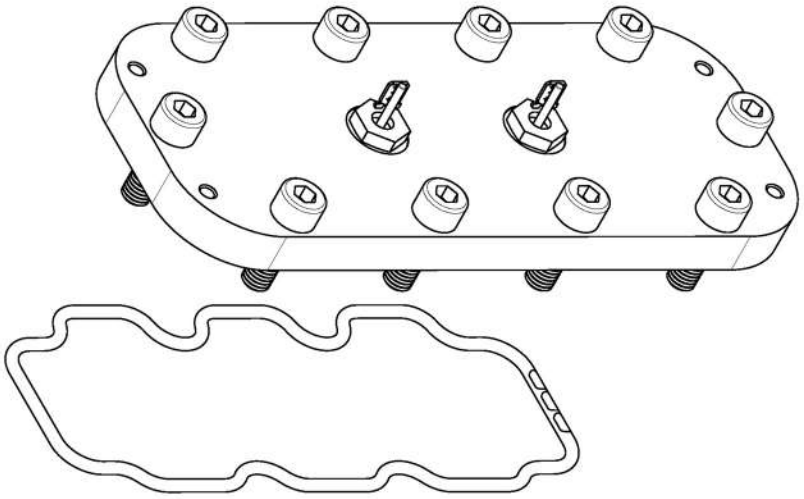
*Refer to Customer Notification (B-CN-079-EN) - This kit is for TTS300/TGS230 Rev. G and later compressors or when Conversion Kit (100521) has already been applied

4.8 Tube Connection to Inverter



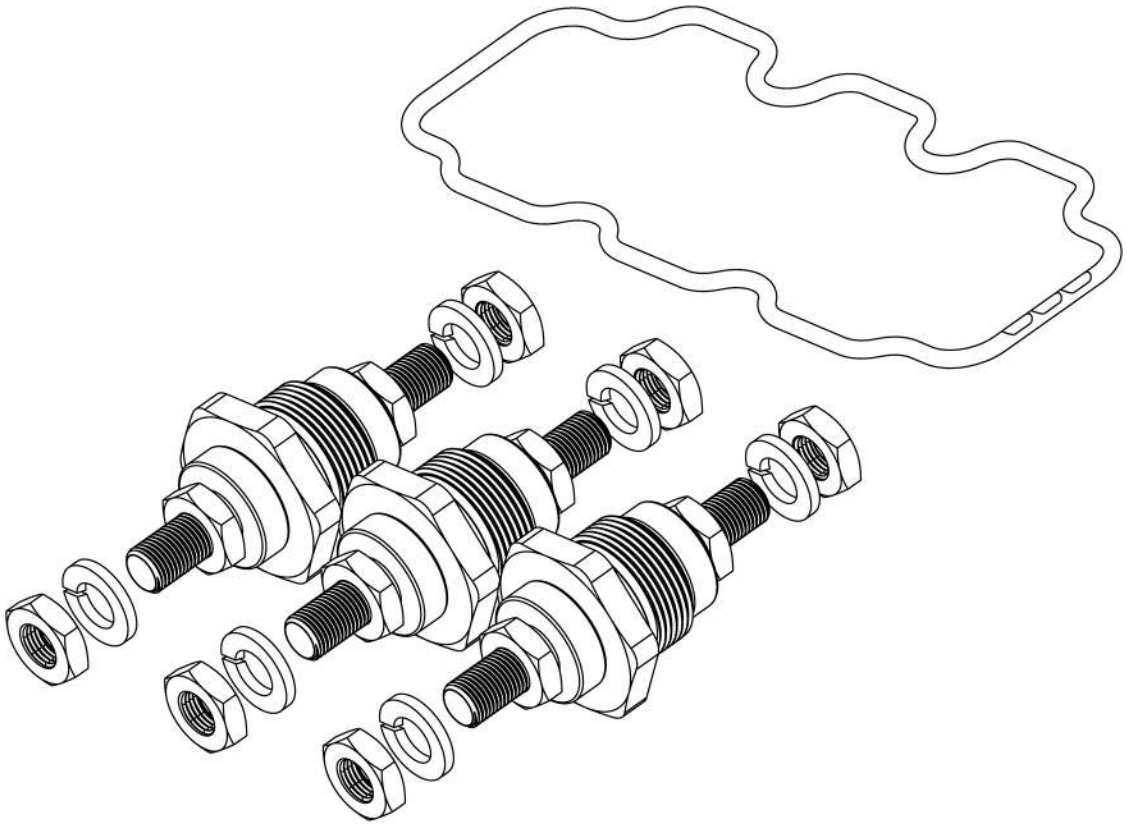
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
TUBE CONNECTION TO INVERTER	100311	ALL COMPRESSORS	ALL	Includes three (3) tubes and fasteners

4.9 Cover Plate Assembly



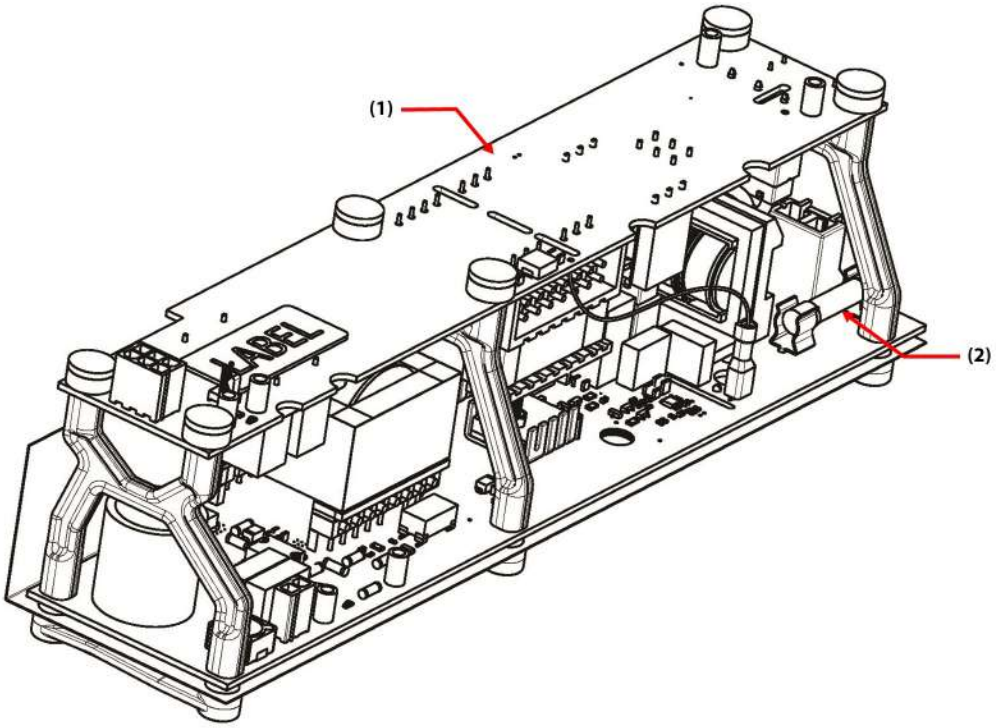
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COVER PLATE ASSY	100314-2	ALL COMPRESSORS	ALL	Includes O-ring
O-RING, COVER PLATE ASSY	100315-1	ALL COMPRESSORS	ALL	Molded O-ring Only (shown)

4.10 Hermetic Feedthrough High Power



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
HIGH-POWER FEEDTHROUGH	100383	ALL COMPRESSORS	ALL	Includes three high power feedthroughs, nuts, washers, O-rings, and fasteners
O-RING, COVER PLATE ASSY	100315-1	ALL COMPRESSORS	ALL	Custom O-ring only (shown)

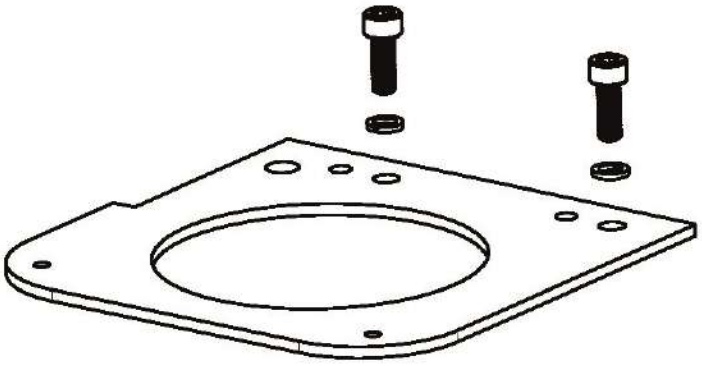
4.11 DC-DC Converter



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC-DC CONVERTER	100379	ALL COMPRESSORS	ALL	Includes fasteners
(2) FUSE, 2A, 1000V	100084	ALL COMPRESSORS	ALL OPEN FRAME DC-DC CONVERTERS	Includes 2 fuses

ITEM 22

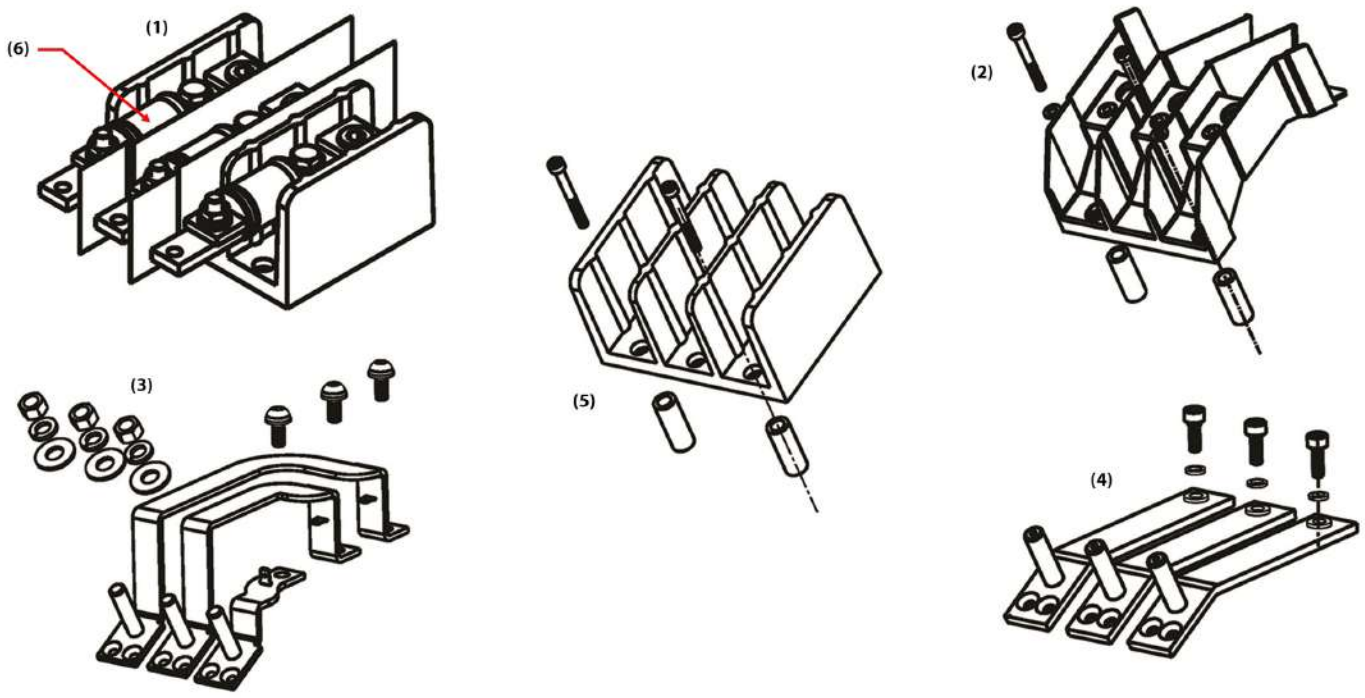
4.12 Mains Input Bracket and Grounding Stud



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MAINS PLATE BRACKET-2.0 IN DIA	100216	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-2.5 IN DIA	100217	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-3.0 IN DIA	100218	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-3.5 IN DIA	100219	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAIN INPUT GROUND POST	100519 *	ALL COMPRESSORS	ALL	Includes fasteners and washers

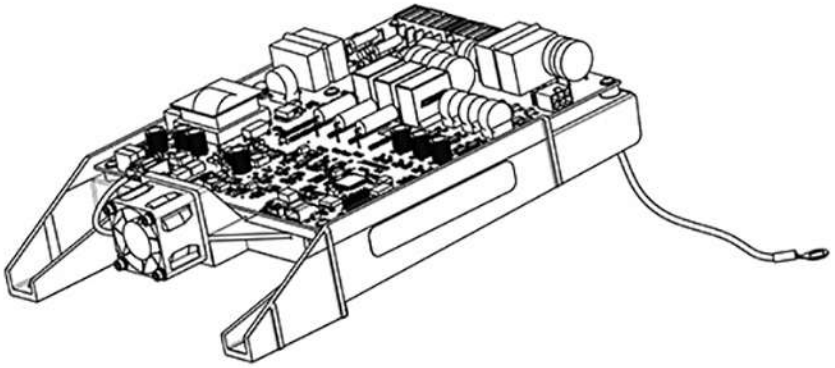
* Not pictured

4.13 Terminal Block Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) TERMINAL BLOCK AND FUSE ASSY	100048-2	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F ,-G, -H	Replaces Terminal Block assembly, includes fuses, insulator, fuse extension, fasteners, and connectors
(6) MAINS INPUT FUSE	100344	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F ,-G, -H	Replaces the three (3) fuses in the terminal block assembly
(3) INPUT MAINS BUS BARS, CURVED	100416	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-A, -C, -E, -F	Includes three (3) Bus Bars and fasteners
(4) INPUT MAINS BUS BARS, STRAIGHT	100416-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Includes three (3) Bus Bars and fasteners
(5) TERMINAL BLOCK ASSY	100048-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-A, -C, -E, -F	Replaces Terminal Block, fasteners, and spacers
(2) TERMINAL BLOCK ASSY	100048-3	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Replaces Terminal Block, Bus Bars, fasteners, and spacers

4.14 Soft Start Assembly



- It is important to determine the DC-DC that is currently installed on the compressor prior to purchasing a new Soft Start.
- Please refer to the detail in the Comment column below to determine the appropriate kit or other required cables.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SOFT START OPEN TOP UPGRADE	100020-19	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes Soft Start, DC-DC, Soft Start AC/DC Cable, Soft Start SCR Gate Cable, and fasteners
SOFT START OPEN TOP	100020-18	• TTS300 • TGS230	-G**, -H	Includes fasteners only ****Rev G compressors with Potted DC-DC require Soft Start Upgrade Kit (100020-19) instead** ****Rev G Compressors with Open Frame DC-DC and Closed-Top Soft Start require cables 100380-1 and 100059-1 in addition to this kit**

NOTE
The first compressor to receive the Open Frame DC-DC was S/N **191015180**.
Any compressor prior to S/N **191015180** will require the Soft Start Open Top Upgrade Kit if the upgrade was not previously made.

Soft Start Assembly (continued)

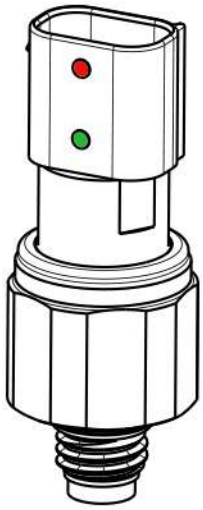
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SOFT START OPEN TOP UPGRADE	100020-20	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E	Includes Soft Start, DC-DC, Soft Start AC/DC Cable, Soft Start SCR Gate Cable, and fasteners
SOFT START OPEN TOP	100020-18	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-F**, -H	Includes fasteners ****Rev F compressors with Potted DC-DC require Soft Start Upgrade Kit (100020-20) instead** **** Rev F Compressors with Open Frame DC-DC requires cables 100381-2 and 100059-1 in addition to this kit**

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COOLING FAN AND ADAPTER	100373-1	ALL COMPRESSORS	ALL	Includes adapter and fasteners

4.15 Soft Start Fuses

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
FUSES, SOFT START	100317-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Fuses included: QTY 3 - 2A HVA (F1), QTY 3 - 2A SPF (F1), QTY 10 - 1A Nano (F3, F6), QTY 10 - 0.25A Nano (F2), and QTY 6 - 0.25A Midget (F4, F5)
FUSES, SOFT START	100317-2	ALL COMPRESSORS	-F ,-G	For Soft Starts Rev Q and later, Fuses included: QTY 3 - 2A SPF (F1), QTY 10 - 1A Nano (F3, F6), QTY 10 - Nano 0.25A (F2), and QTY 6 - 0.25A Midget (F4, F5)
FUSE, NANO, SMF, 0.25A 125V	100430	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes 10 fuses
FUSE, MIDGET, TIME DELAY, 0.2A, 600V	100432	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes six (6) fuses
FUSE, NANO, 1A 125V	100433	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes 10 fuses
FUSE, 2A, 1000V, 3IN	100421	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	-N, -P, -A, -C, -D, -E	For Soft Starts rev P and earlier, includes three (3) fuses
FUSE, 2A, 1000V	100422	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-F , -G	For Soft Starts rev Q and later, includes three (3) fuses

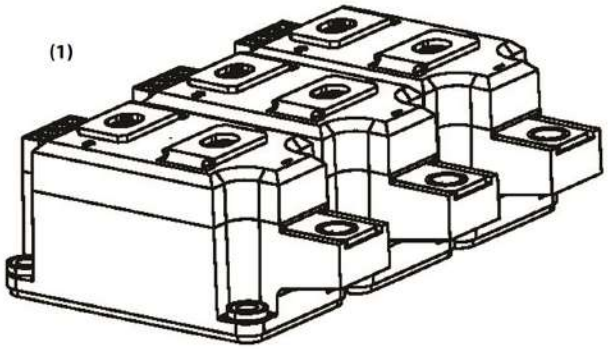
4.16 Pressure Temperature Sensor Discharge

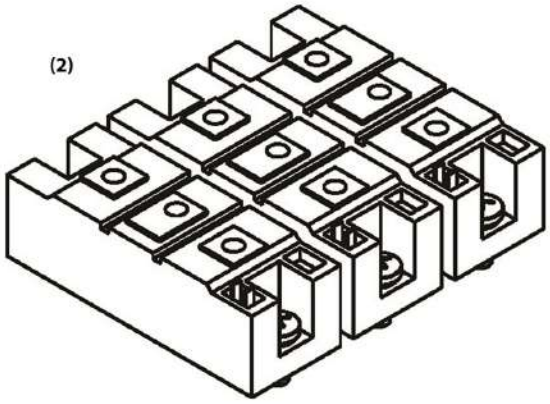


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
*PRESSURE/TEMP SENSOR, DISCHARGE	100037-2	ALL COMPRESSORS	ALL ITEM 7	Marked with a red dot and a green dot, contains O-ring

* Also replaces the TTH/TGH compressor Interstage Pressure/Temperature Sensor.

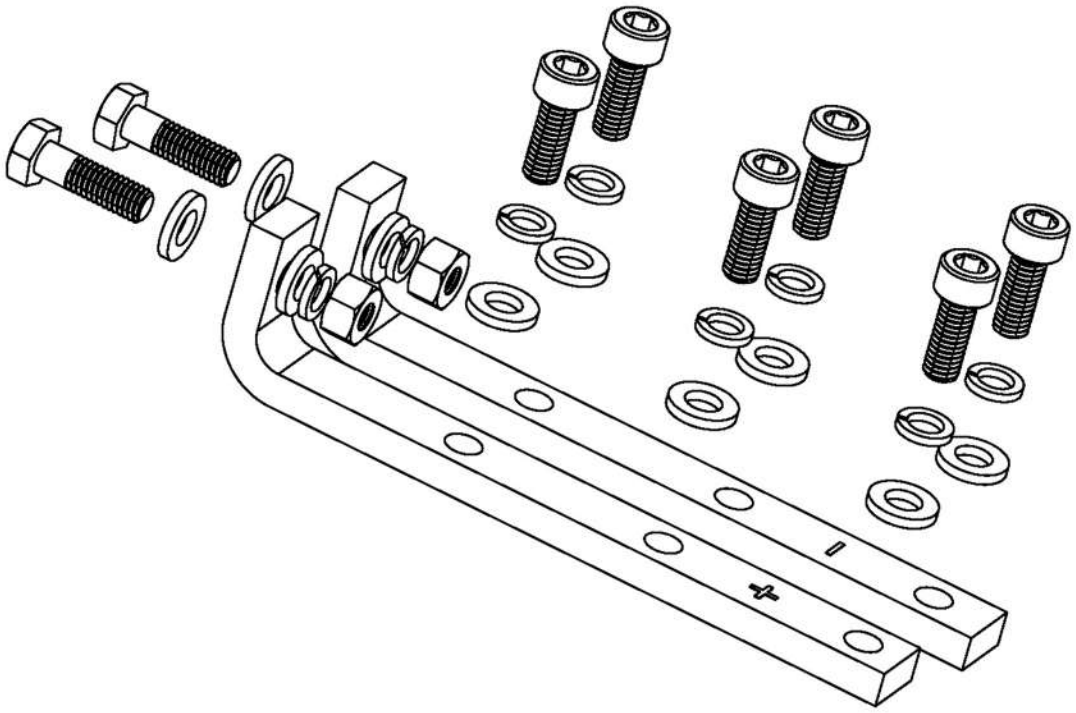
4.17 Silicone-Controlled Rectifiers (SCRs)





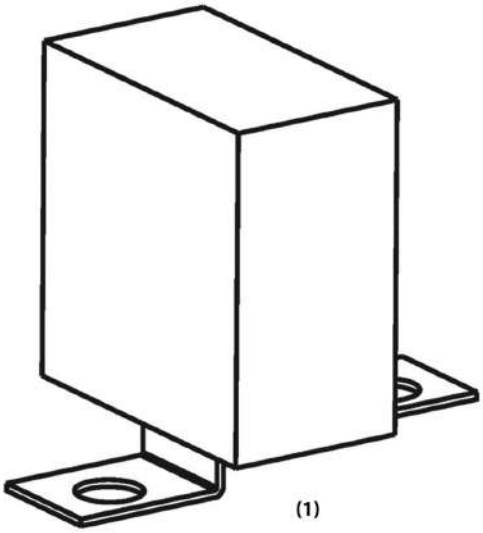
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) SILICONE CONTROLLED RECTIFIERS	100047-1	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F , -G, -H	Includes fasteners **Not interchangeable with Kit 100047-3**
(2) SILICONE CONTROLLED RECTIFIERS	100047-1	• TTS400 • TGS390	-H	Includes fasteners **Not interchangeable with Kit 100047-3**
(1) SILICONE CONTROLLED RECTIFIERS	100047-2	• TTS350/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS490/TGS520 • TTH375/TGH285 ITEM 3	-A, -C, -E, -F	Includes fasteners
(1) SILICONE CONTROLLED RECTIFIERS	100047-2	• TTS400 ITEM 3 • TGS390	-P, -A, -C, -E, -F	Includes fasteners
(2) SILICONE CONTROLLED RECTIFIERS	100047-3	• TTS350/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS490/TGS520 • TTH375/TGH285	-H	Includes fasteners **Not interchangeable with Kit 100047-1**

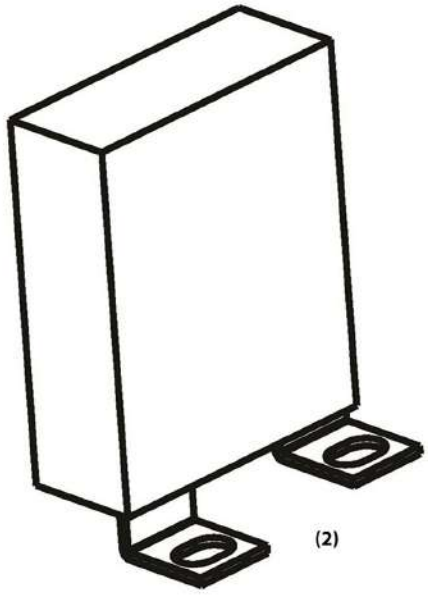
4.18 Bus Bar



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SCR BUS BAR	100316	• TTS300 • TGS230	ALL	Includes positive and negative Bus Bars and fasteners

4.19 Snubber Capacitors

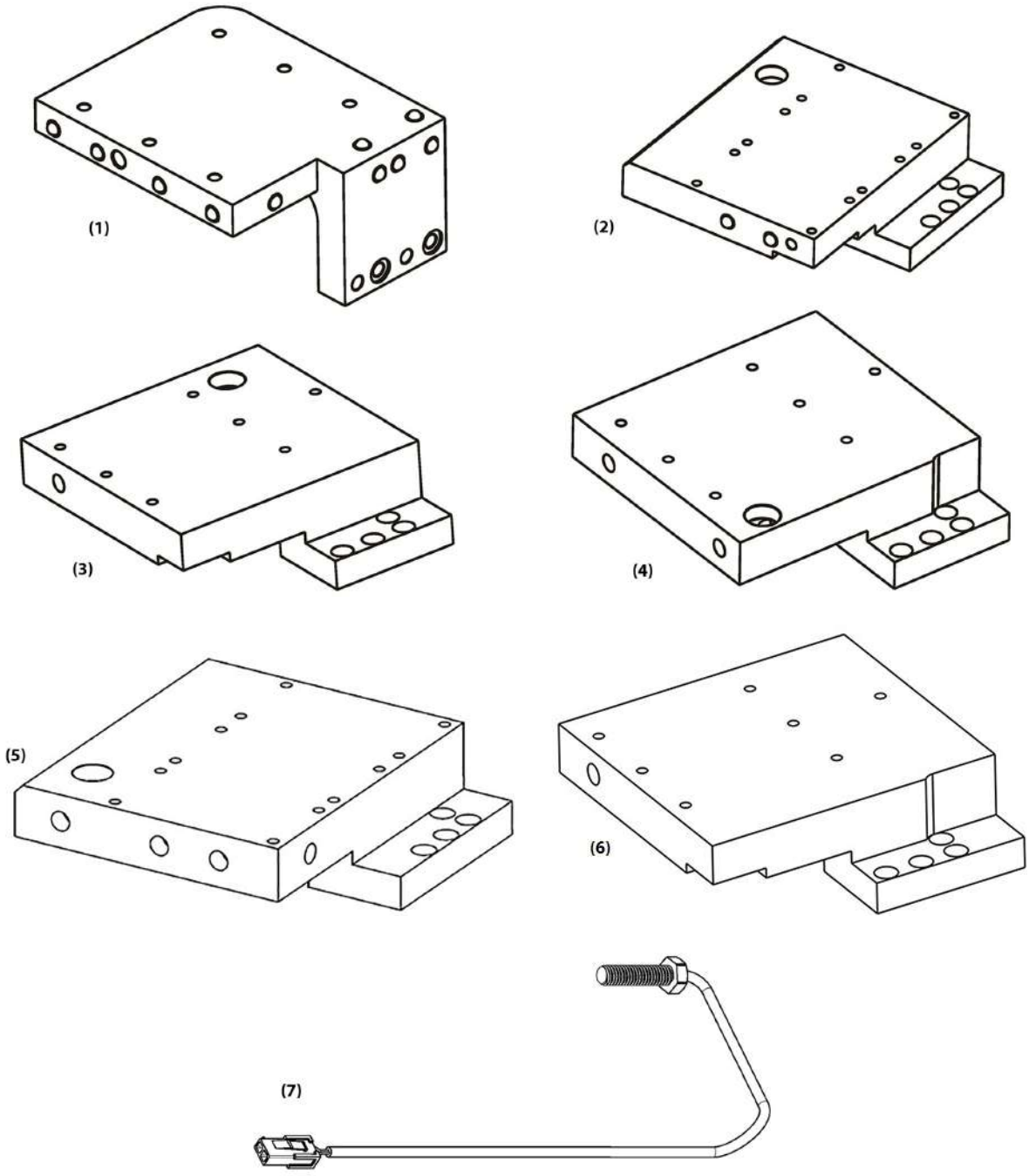




DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417	• TTS300 • TGS230 ITEM 9	ALL	Includes three (3) snubbers and fasteners
(1) SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285 ITEM 9	-P, -A, -C, -E, -F	Includes three (3) snubbers and fasteners
(2) INVERTER SNUBBER CAPACITOR, 0.47µF, 1250VDC	100417-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Includes three (3) snubbers and fasteners **(Not for use on High SST Models)**
(1) SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417	• TTS350/TTS400/TT450/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 **(High SST Models only)** ITEM 9	-H	Includes three (3) snubbers and fasteners **(High SST Models)**

NOTE
Snubber capacitors should always be replaced as a kit.

4.20 SCR Heatsink Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) SCR COOLING MANIFOLD	100309-11	• TTS300 • TGS230	ALL	Includes O-rings and fasteners **(sensor not applicable)**
(2) SCR COOLING MANIFOLD	100309-13	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520	-P, -A, -C, -E, -F	Includes O-rings and fasteners **(sensor not applicable)**

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(3) SCR COOLING MANIFOLD	100309-9	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520	-H	Includes O-rings and fasteners (sensor not applicable)
(4) SCR COOLING MANIFOLD HIGH SST	100309-8	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520	-H **(High SST)**	High SST Option Includes O-rings and fasteners **Refer to Note 2**
(6) SCR COOLING MANIFOLD	100309-15	• TGS380/TTS450	-H	**Standard Temp Models only**
(5) SCR COOLING MANIFOLD	100309-7	• TTH375/TGH285	-F	Includes O-rings and fasteners **Not interchangeable with Kit 100309-8**
(4) SCR COOLING MANIFOLD	100309-8	• TTH375/TGH285	-H	Includes O-rings and fasteners **Not interchangeable with Kit 100309-7**
O-RINGS, SCR COOLING MANIFOLD	100310-2	• TTS300 • TGS230	ALL	Replaces Inverter and SCR Heatsink Manifold O-rings and fasteners
O-RINGS, SCR COOLING MANIFOLD	100310-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Replaces Inverter and SCR Heatsink Manifold O-rings and fasteners

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(7) SCR COOLING MANIFOLD TEMP SENSOR	100268	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	-N, -P, -A, -C, -D, -E, -F , -G	Includes washers **Will not work in Rev H compressors**

NOTE 1

The SCR Temperature Sensor is not required on Revision H compressors.

NOTE 2

A TTS/TGS model series standard temperature compressor can be converted to a high temperature compressor. To do so, the following items are required:

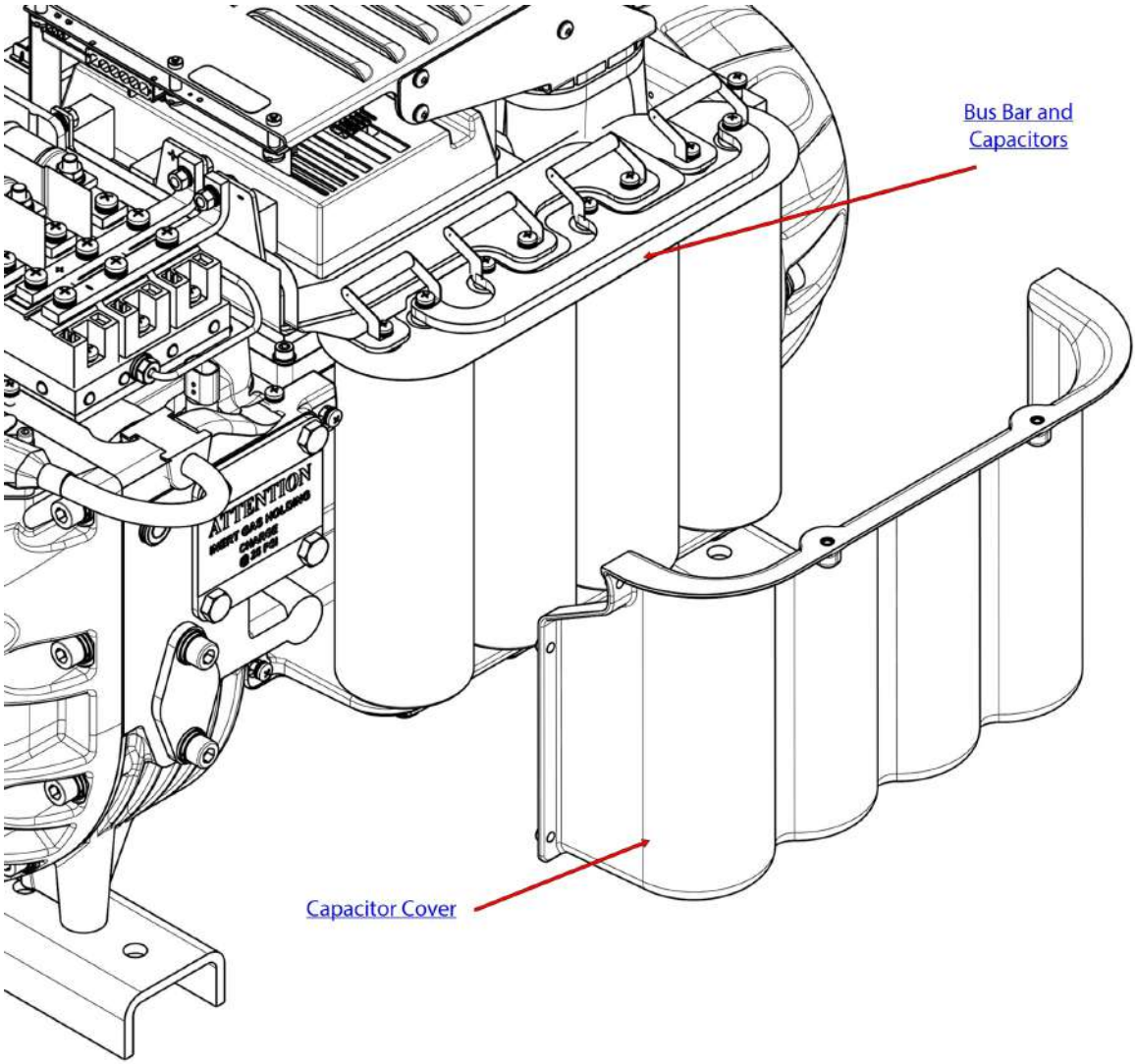
- 100309-8 - Heatsink, Cooling Manifold SCR Assembly
- 201055-xxxxxxx-xxx 4.3.0 BMCC*
- 100417 - CAPACITOR INVERTER SNUBBER, 0.47Y1000

*BMCC PNs are not unique between application option ST (Standard Temperature) and HT (High Temperature); however, HT applications require software version 4.3.0 and later to operate.

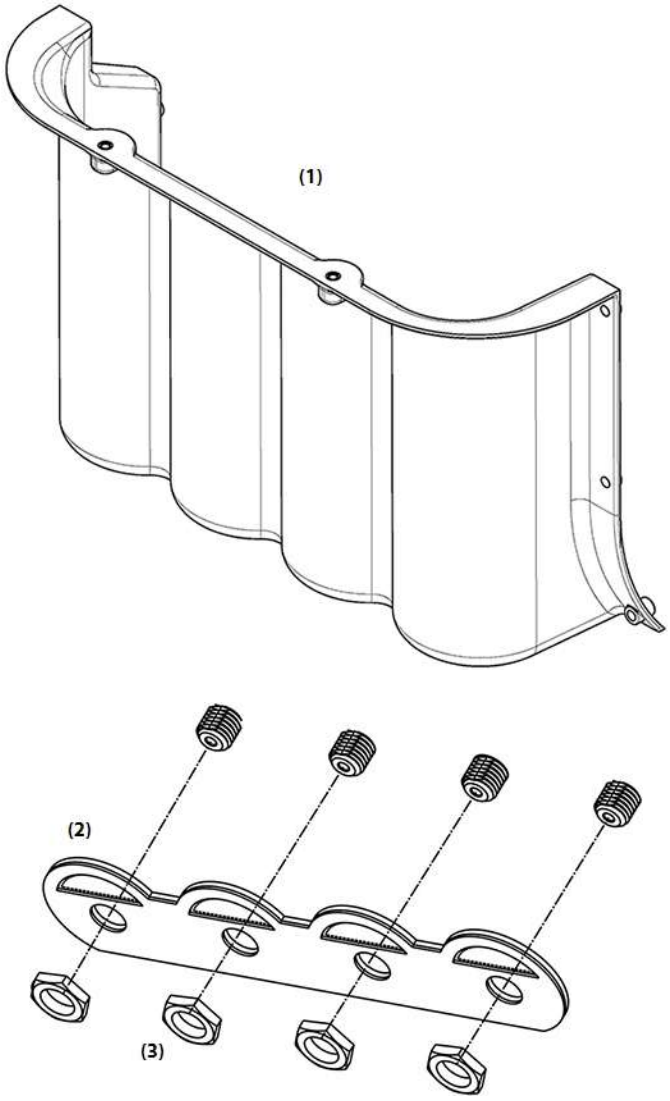
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Chapter 5.0 Capacitor Side

This section details the spare part kits that are visible from the discharge side of the compressor underneath the Capacitor and Mains Input cover.

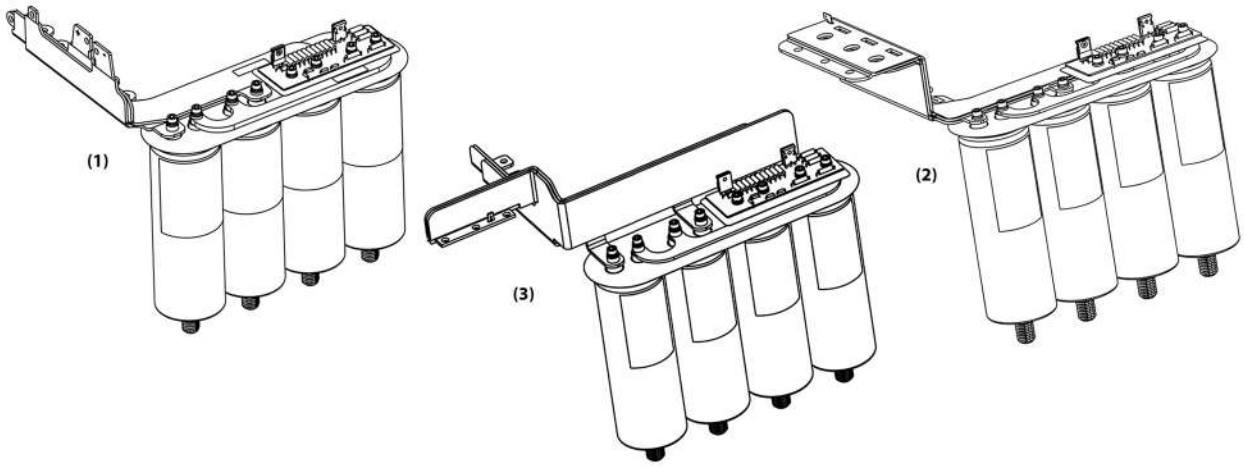


5.1 Capacitor Cover



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CAPACITOR COVER, BLACK	100053-3	• TT300/TTS350/TS3TS400/TTS450/TTS500/TTS700 • TTH375	ALL	Includes fasteners
(1) CAPACITOR COVER, GREEN	100053-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
(2) & (3) CAP MEMBRANE	100122	ALL COMPRESSORS	ALL	Includes nylon hex nuts
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four (4) covers (24 fasteners)

5.2 Bus Bar and Capacitor Assembly

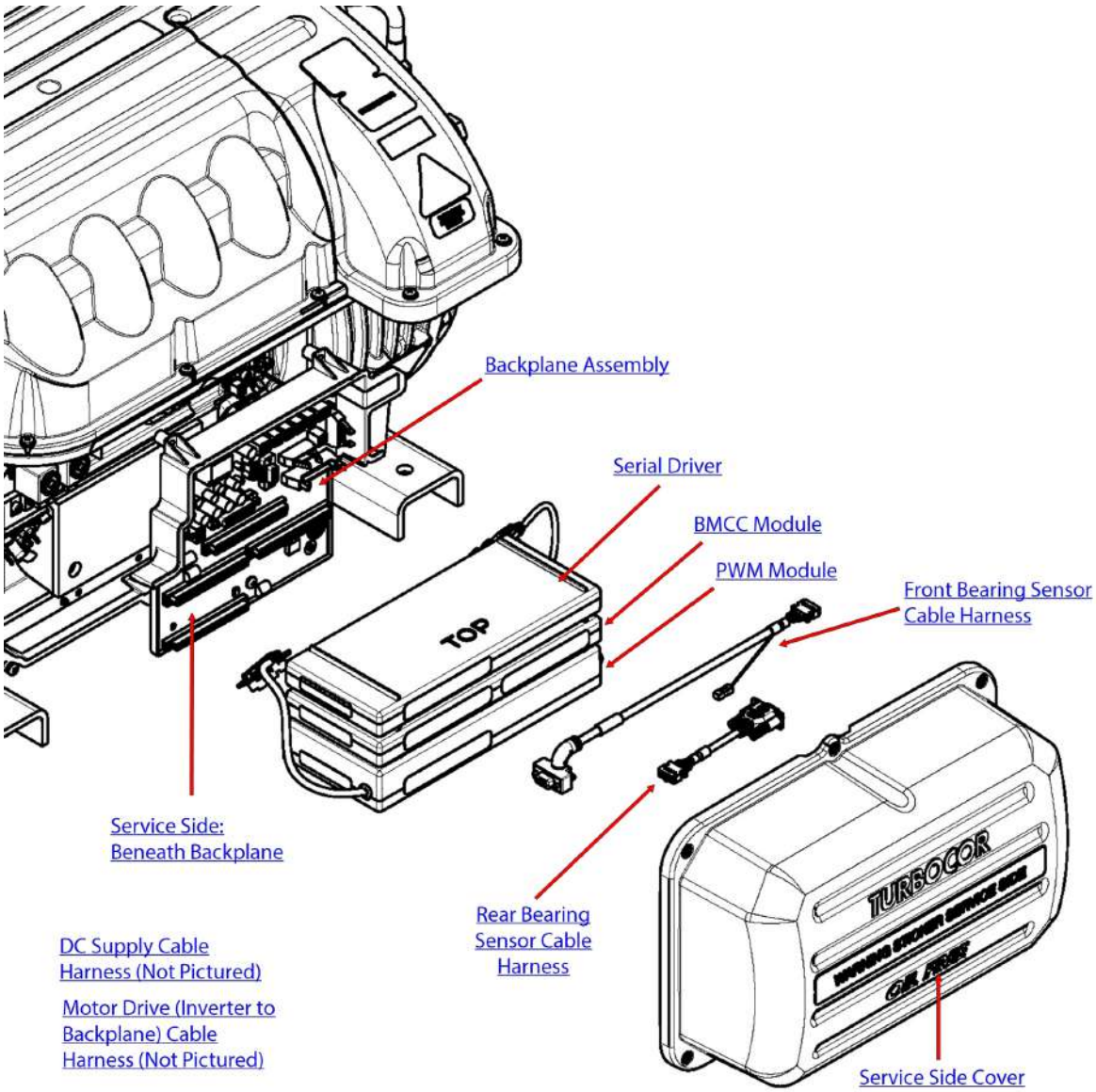


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC CAPACITOR ASSY, 6800µF (460V)	100044-7	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 460V models, includes nylon nuts
(1) DC CAPACITOR ASSY, 4700µF (575V)	100044-8	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 575V models, includes nylon nuts
(1) DC CAPACITOR ASSY, 9000µF (380/400V)	100044-6	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 380/400V models, includes nylon nuts
(2) DC CAPACITOR ASSY, 11000µF (380/400V)	100044-11	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	For use with 380V and 400V models, includes nylon nuts
(3) DC CAPACITOR ASSY, 11000µF (380/400V)	100044-14	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 380V and 400V models, includes nylon nuts
(2) DC CAPACITOR ASSY, 6800µF (575V)	100044-13	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-C, -E, -F	For use with 575V models, includes nylon nuts
(3) DC CAPACITOR ASSY, 6800µF (575V)	100044-16	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 575V models, includes nylon nuts
(2) DC CAPACITOR ASSY, 8500µF (460V)	100044-12	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285 ITEM 10	-P, -A, -C, -E, -F	For use with 460V models, includes nylon nuts
(3) DC CAPACITOR ASSY, 8500µF (460V)	100044-15	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 460V models, includes nylon nuts

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Chapter 6.0 Service Side

This section details the spare part kits available on the service side of the compressor underneath the Service Side cover.

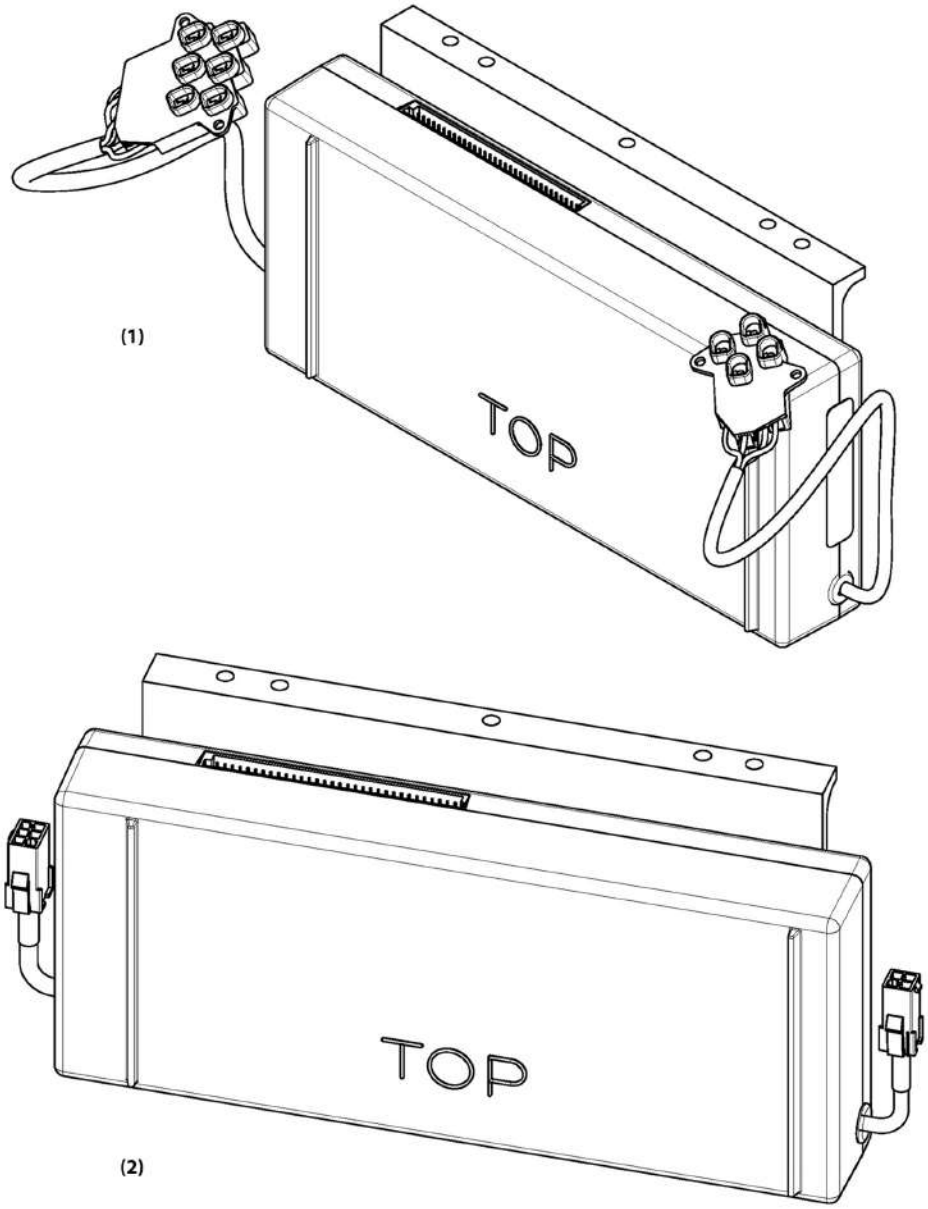


6.1 Cover



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SERVICE SIDE COVER , BLACK	100055-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375 ITEM 2	ALL	Includes fasteners
SERVICE SIDE COVER, GREEN	100055-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four (4) covers (24 fasteners)

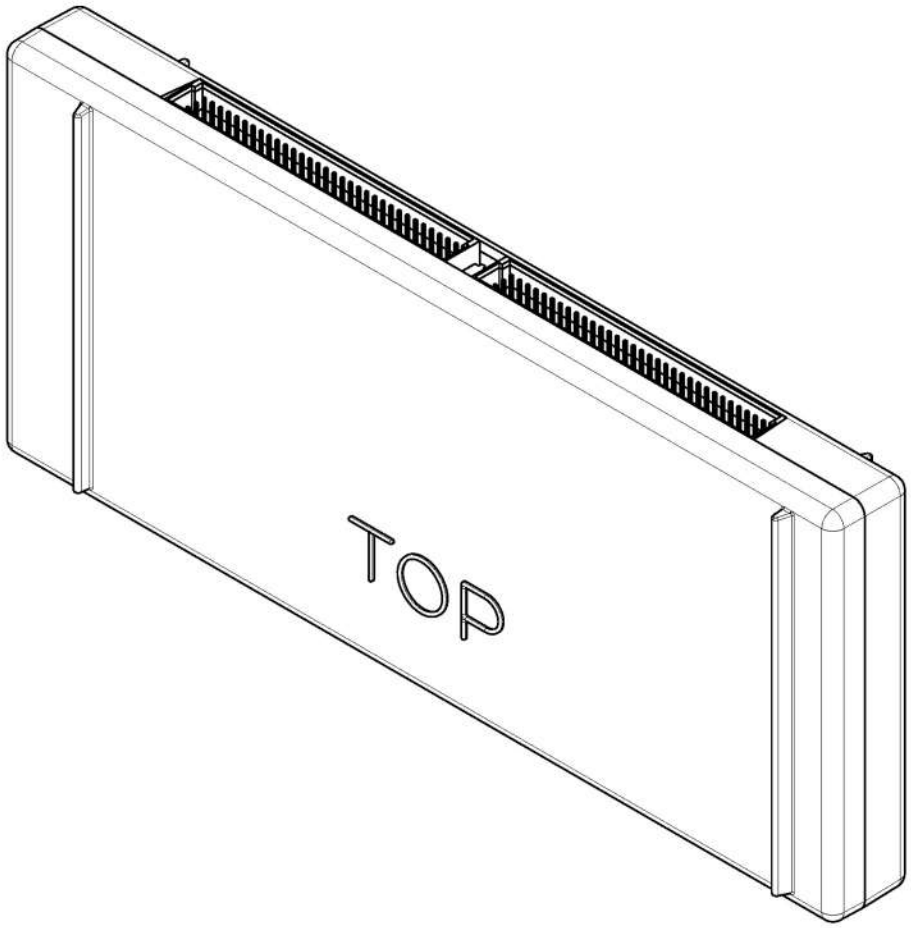
6.2 Pulse Width Modulation (PWM) Module



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) BEARING PWM	100022	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes fasteners
(2) BEARING PWM	100372	ALL COMPRESSORS	-F, -G, -H	Includes fasteners

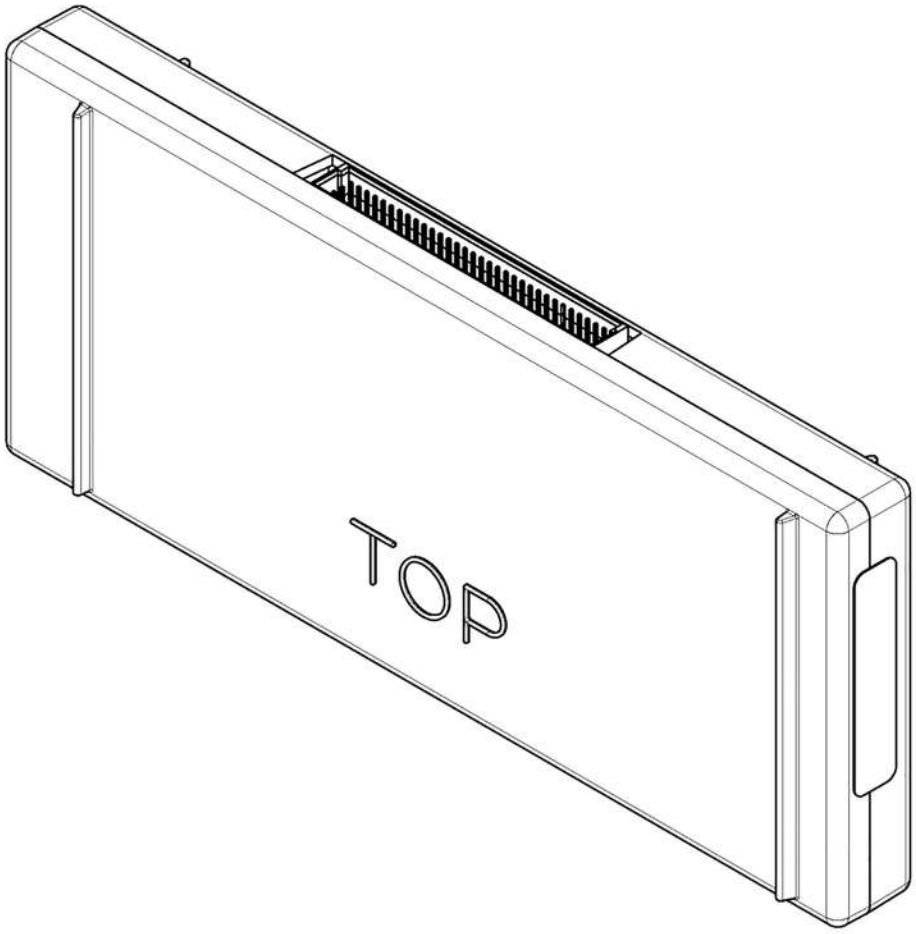
ITEM 11

6.3 Bearing Motor Compressor Control (BMCC) Module



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
BEARING MOTOR COMPRESSOR CONTROL (BMCC)	201055-xxxxxxx-xxx	ALL COMPRESSORS ITEM 21	ALL	Specific compressor software part number used in place of -**xxxxxxx-xxx**, Contains BMCC with compressor specific software only

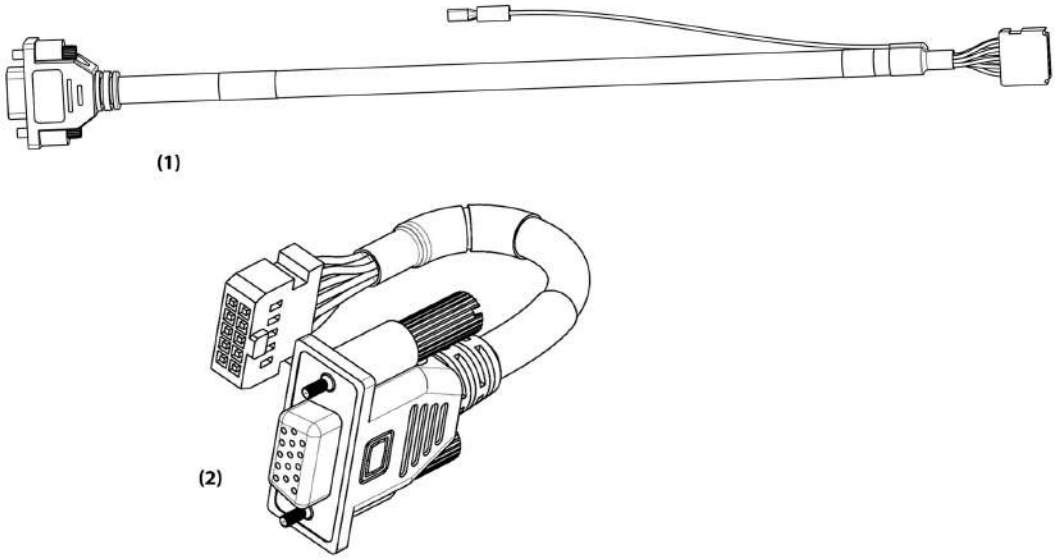
6.4 Serial Driver



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SERIAL DRIVER	100292	ALL COMPRESSORS	ALL	Serial Driver Only

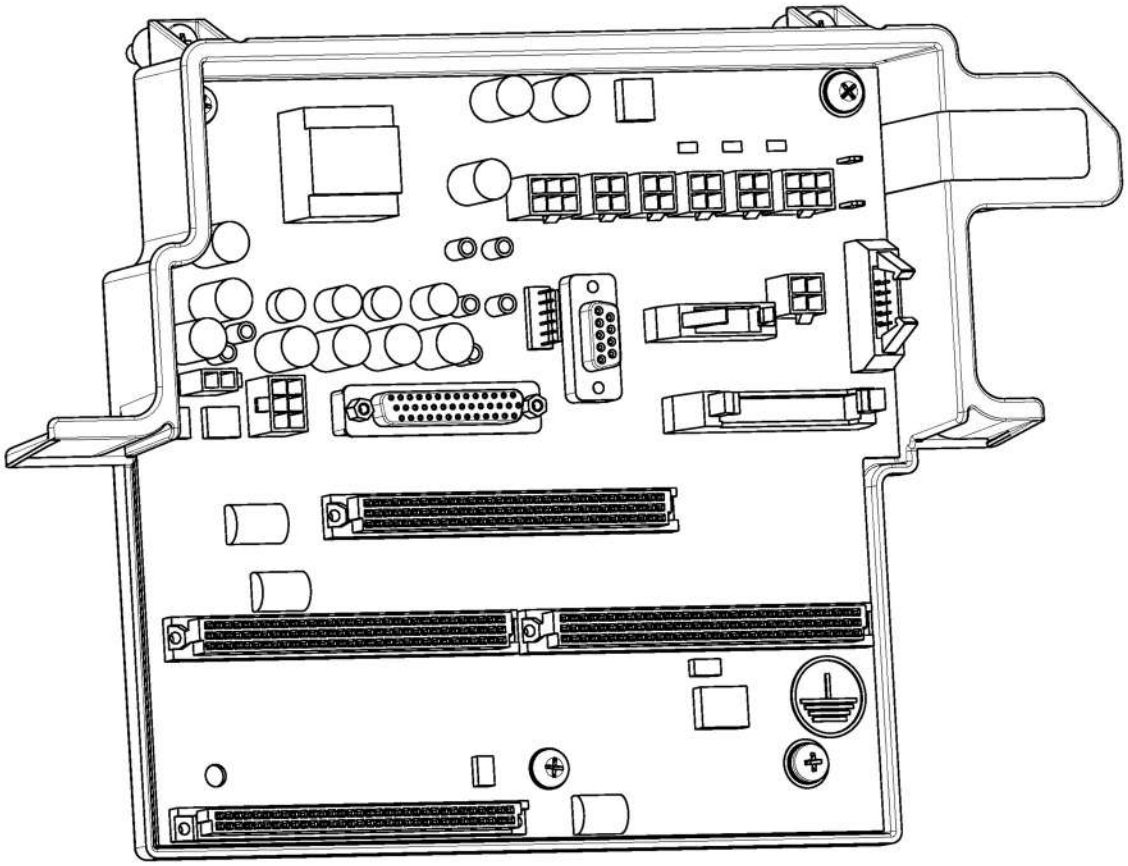
ITEM 12

6.5 Rear/ Front Bearing Sensor Cable Harness



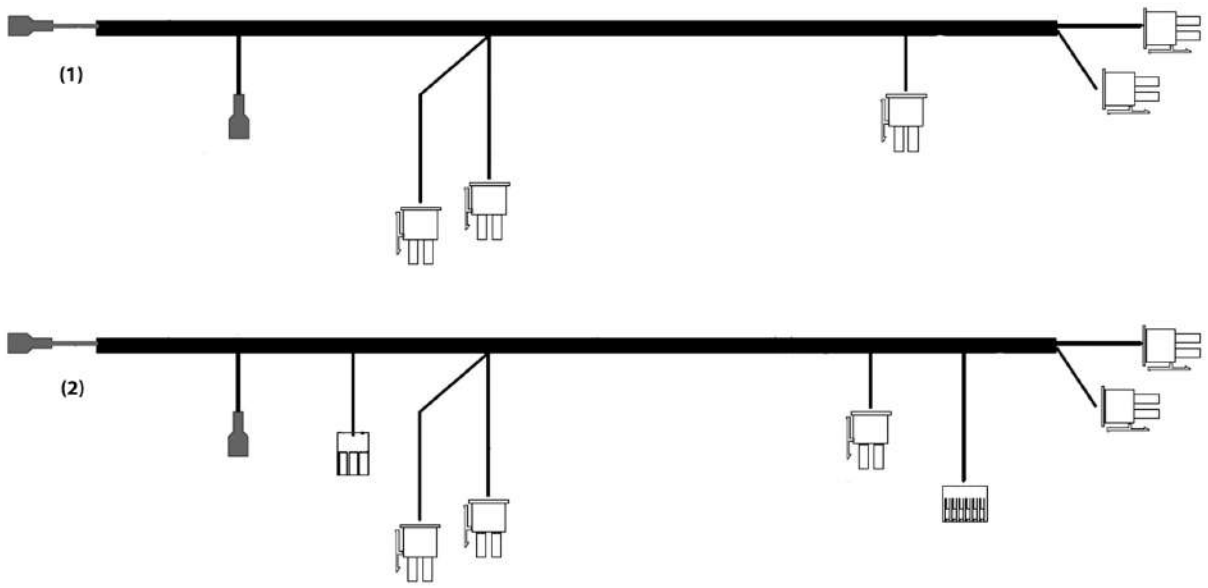
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) REAR BEARING SENSOR CABLE HARNESS	100065	ALL COMPRESSORS ITEM 13	ALL	Cable Only
(2) FRONT BEARING SENSOR CABLE HARNESS	100064	ALL COMPRESSORS ITEM 14	ALL	Cable Only

6.6 Backplane Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
BACKPLANE ASSEMBLY	100021-1	ALL COMPRESSORS ITEM 20	ALL	Includes screws and washers

6.7 DC Supply Cable Harness



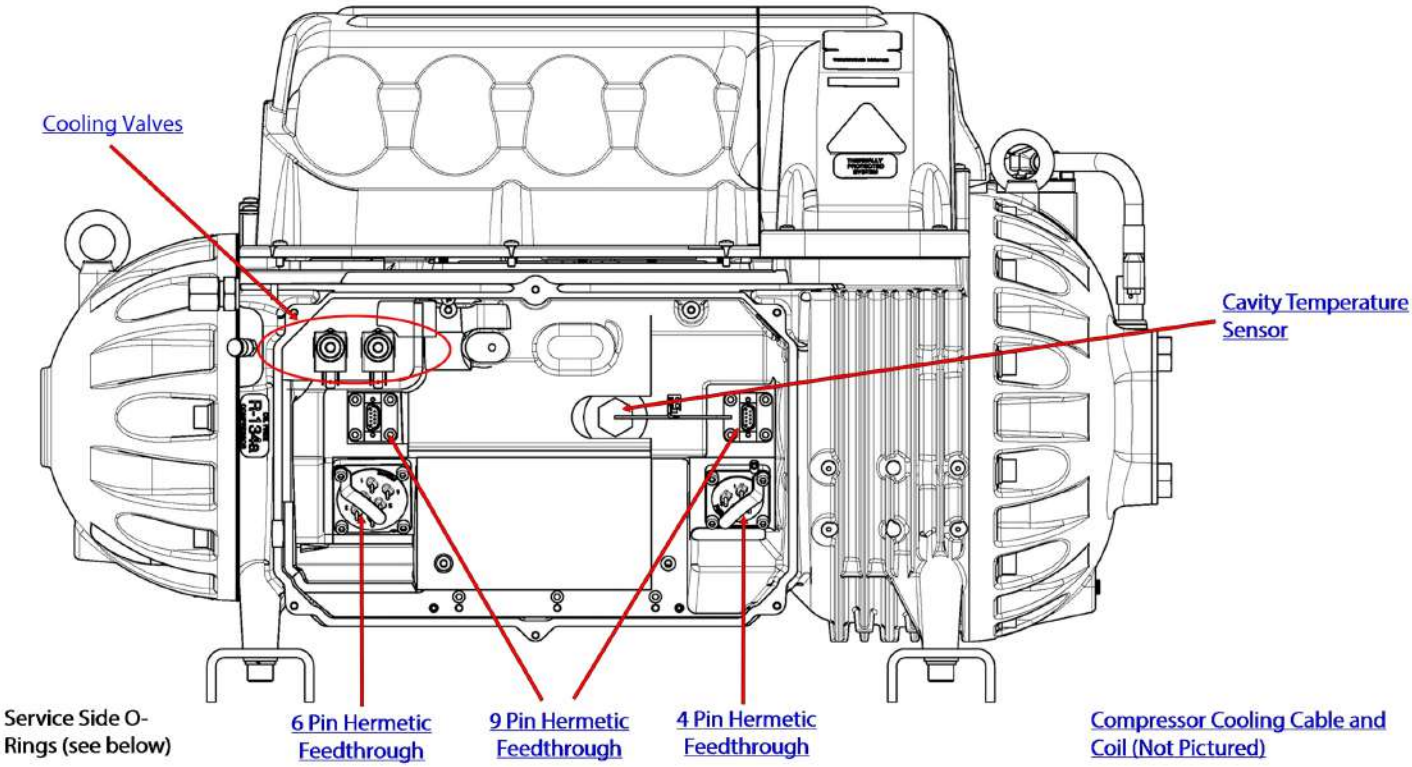
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC SUPPLY CABLE HARNESS	100323	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Cable Only
(2) DC SUPPLY CABLE HARNESS	100323-2	ALL COMPRESSORS	-F, -G, -H	Cable Only Soft Start Temperature Sensor is only required in CC Firmware Revision 4.x and later

6.8 Motor Drive (Inverter to Backplane) Cable Harness



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MOTOR DRIVE CABLE HARNESS	100061	ALL COMPRESSORS ITEM 15	ALL	Cable Only

6.9 Service Side Beneath Backplane



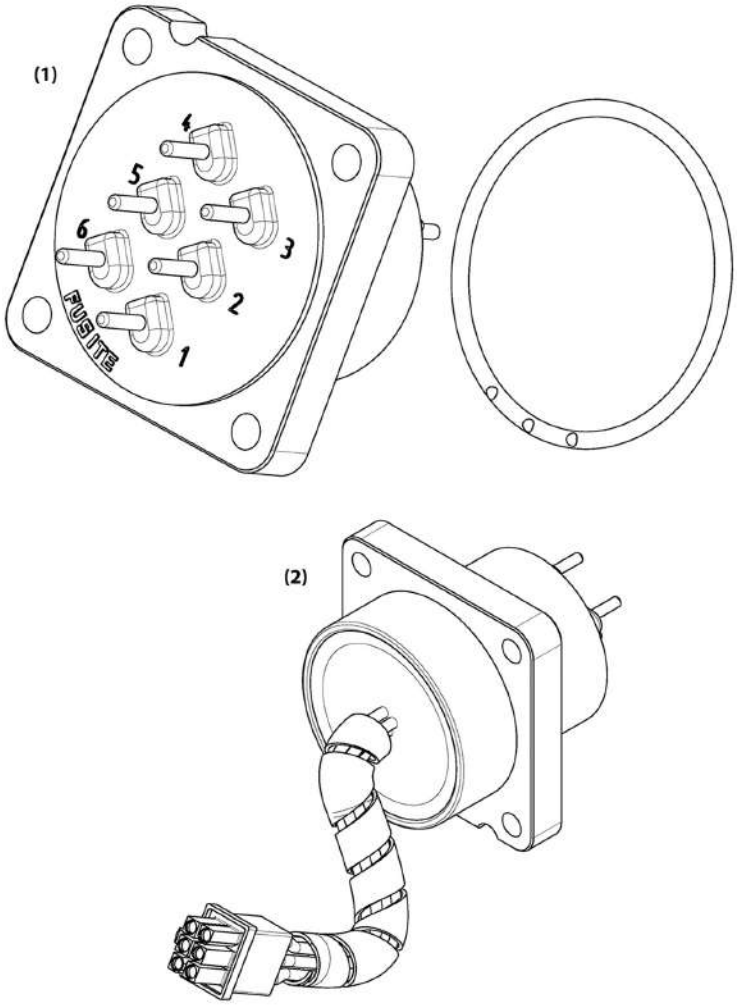
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
O-RINGS, SERVICE SIDE, SMALL	100052-2	ALL COMPRESSORS	ALL	Includes O-rings for cooling valves, 6 Pin, 4 Pin, and 9 Pin Hermetic Feedthroughs
O-RING, SOLENOID ORIFICE	100242	ALL COMPRESSORS	ALL	Only replaces cooling valve O-rings

6.10 Compressor Cooling Cable and Coil Assembly



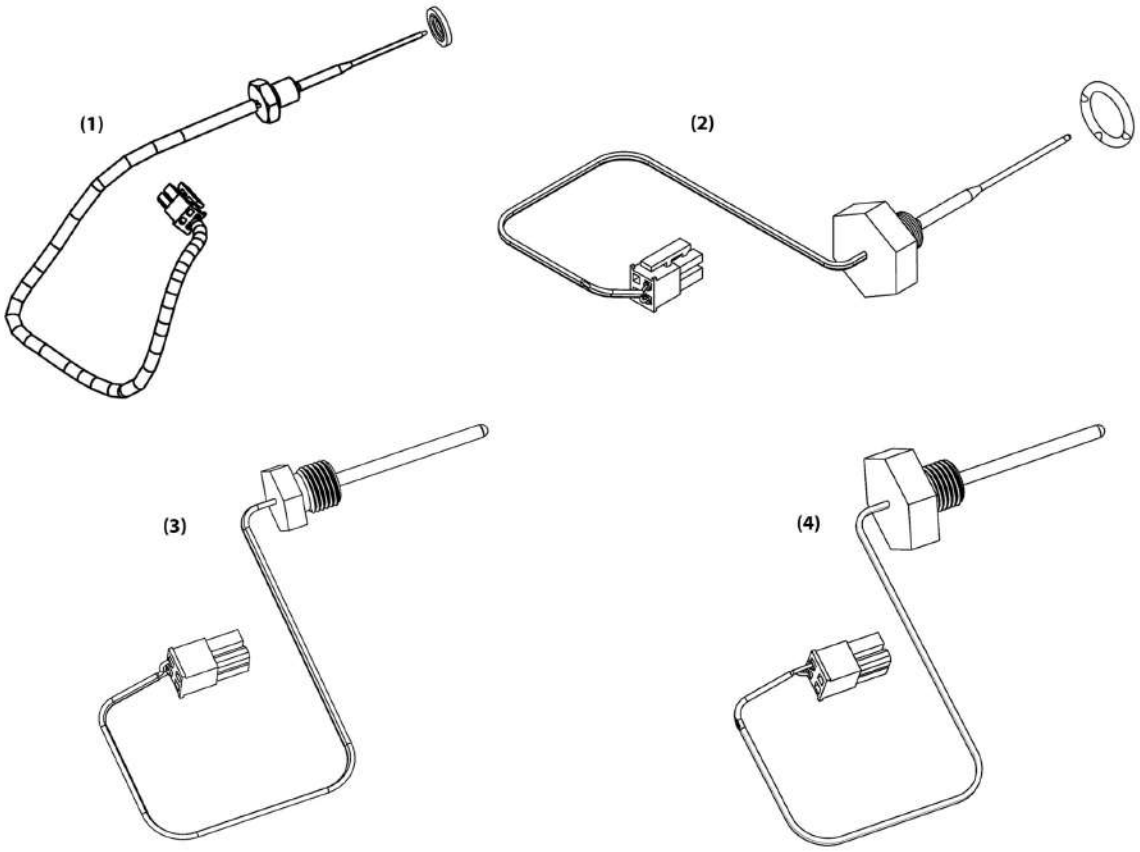
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COMPRESSOR COOLING CABLE/COIL ASSY	100063-1	ALL COMPRESSORS	ALL	Includes nut and washer

6.11 6 Pin Hermetic Feedthrough



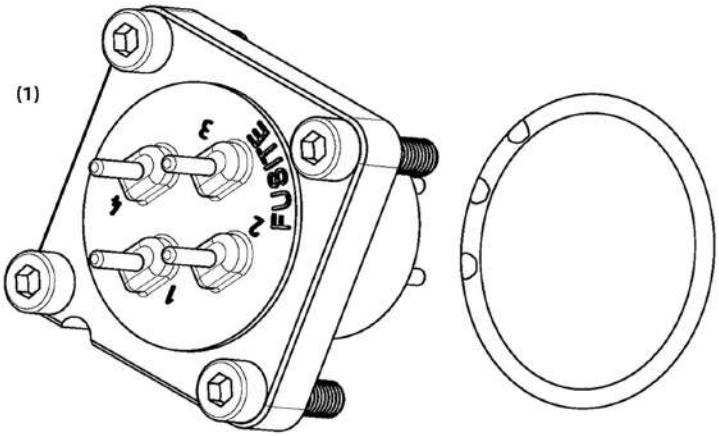
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) FEEDTHROUGH, 6 PIN	100294-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes O-ring and fasteners
(2) FEEDTHROUGH, 6 PIN	100371	ALL COMPRESSORS ITEM 16	-F, -G, -H	Includes O-ring and fasteners

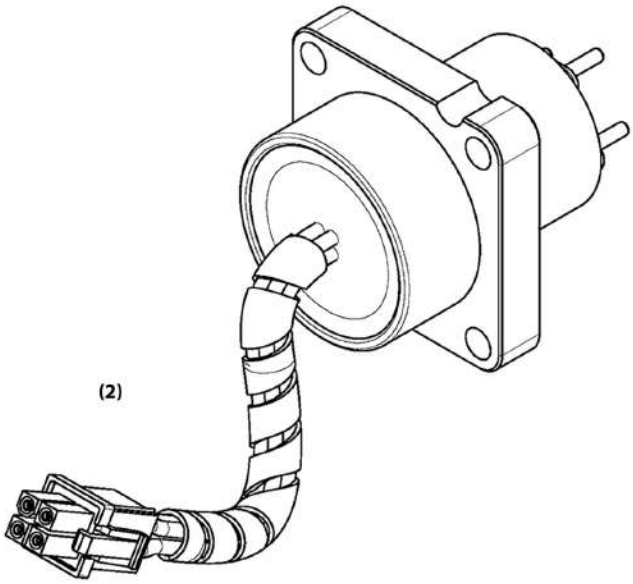
6.12 Cavity Temperature Sensor/Motor Rotor



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CAVITY TEMP SENSOR	100034	• TTS300/TTS350/TTS400	-N, -P, -A, -C, -D	Do not use if compressor PN ends in "-3" Includes Sensor and Seal **(16mm sensor head)**
(2) CAVITY TEMP SENSOR	100196-3	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285 ITEM 17	-E, -F, -G, -H	Also use if compressor part number ends in "-3", Includes O-ring **(15/16" sensor head)**
(3) CAVITY TEMP SENSOR	100034-1	• TTS500	-A	Do not use if compressor PN ends in "-3", Includes O-ring **(16mm sensor head)**
(4) CAVITY TEMP SENSOR	100196-4	• TTS500/TTS700 • TGS520	-E, -F, -G, -H	Also use if compressor part number ends in "-3", includes O-ring **(15/16" sensor head)**

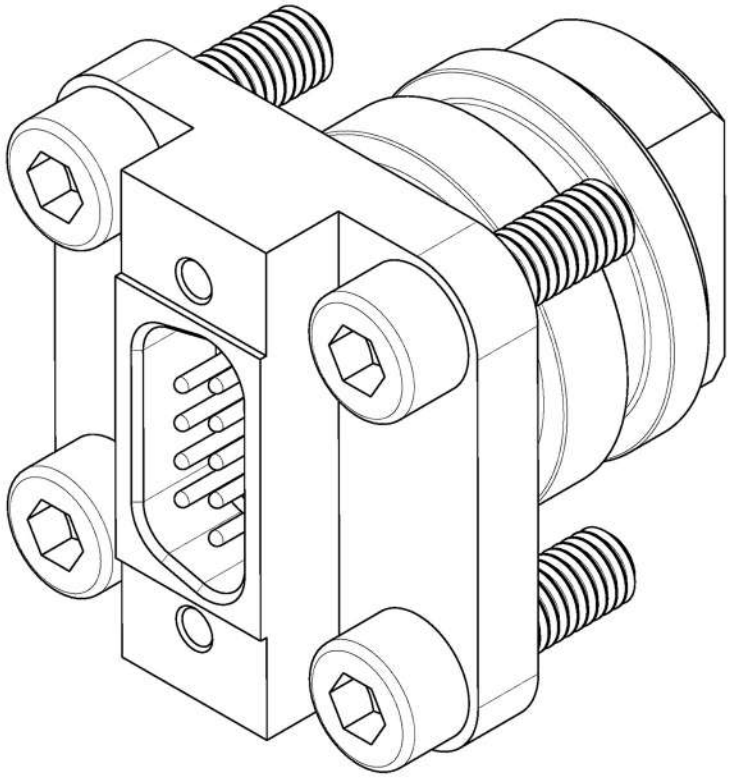
6.13 4-Pin Hermetic Feedthrough





DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) FEEDTHROUGH, 4 PIN	100293-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes O-ring and fasteners
(2) FEEDTHROUGH, 4 PIN	100370	ALL COMPRESSORS ITEM 18	-F, -G, -H	Includes O-ring and fasteners

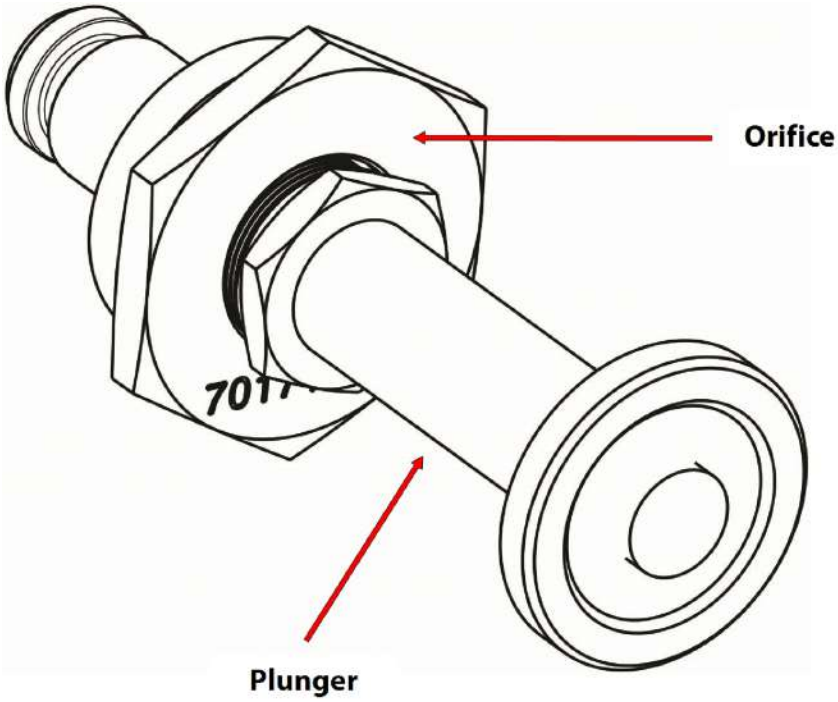
6.14 9-Pin Hermetic Feedthrough



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
FEEDTHROUGH, 9 PIN	100295-1	ALL COMPRESSORS ITEM 19	ALL	Includes O-ring and fasteners

6.15 Cooling Valves Assembly

Each Cooling Valve Assembly spare part kit contains two (2) Plunger Assemblies, two (2) Orifices for the Inverter and Motor Cavity ports, and the O-rings required to replace them. The table on the following page is organized so that each row contains all of the related cooling valve kits. Plunger Assembly kits include O-rings, which cannot be ordered separately. Orifice kits do not include O-rings therefore they must be purchased separately.

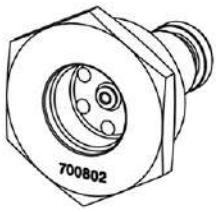


6.16 Cooling Valves

Refer to the table below to select the proper Cooling Valve Assembly. Match the model and voltage of the compressor to determine the appropriate part number.

COOLING VALVE ASSEMBLY				
COMPRESSOR MODELS	COMPRESSOR VOLTAGE			
	380V	400V	460V	575V
TGS230	100281-2	100281-2	100281-2	100281-2
TGH285	100281-5	100281-5	100281-5	100281-5
TTS300	100281-2	100281-2	100281-2	100281-2
TGS310	100281-1	100281-1	100281-1	100281-1
TTS350	100281-5	100281-5	100281-5	100281-5
TTH375	100281-5	100281-5	100281-5	100281-5
TGS380	100281-5	100281-5	100281-5	100281-5
TGS390	100281-4	100281-4	100281-4	100281-1
TTS400	100281-4	100281-4	100281-4	100281-1
TTS450	100281-5	100281-5	100281-5	100281-5
TGS490	100281-5	100281-5	100281-5	100281-5
TTS500	N/A	100281-3	100281-3	100281-3
TGS520	100281-3	100281-3	100281-3	100281-3
TTS700	100281-3	100281-3	100281-3	100281-3

6.16.1 Orifice Body



Refer to the table below to select the proper orifice. Match the model and voltage of the compressor to determine the appropriate part number. You will also need to purchase an O-ring set for each orifice kit. The part number for the O-ring set is 100242.

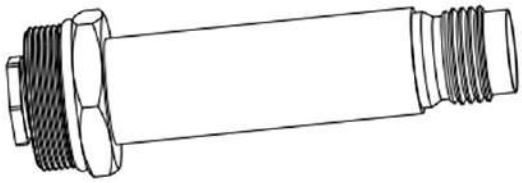
ORIFICE BODY				
COMPRESSOR MODELS	COMPRESSOR VOLTAGE			
	380V	400V	460V	575V
TGS230 (Motor & Electronics)	100236	100236	100236	100236
TGH285 (Motor)	100238	100238	100238	100238
TGH285 (Electronics)	100239	100239	100239	100239
TTS300 (Motor & Electronics)	100236	100236	100236	100236
TGS310 (Motor)	100239	100239	100239	100239
TGS310 (Electronics)	100240	100240	100240	100240
TTS350 (Motor)	100238	100238	100238	100238
TTS350 (Electronics)	100239	100239	100239	100239
TTH375 (Motor)	100238	100238	100238	100238
TTH375 (Electronics)	100239	100239	100239	100239
TGS380 (Motor)	100238	100238	100238	100238
TGS380 (Electronics)	100239	100239	100239	100239
TGS390 (Motor)	100240	100240	100240	100239
TGS390 (Electronics)	100240	100240	100240	100240
TTS400 (Motor)	100240	100240	100240	100239
TTS400 (Electronics)	100240	100240	100240	100240
TTS450 (Motor)	100238	100238	100238	100238
TTS450 (Electronics)	100239	100239	100239	100239
TGS490 (Motor)	100238	100238	100238	100238
TGS490 (Electronics)	100239	100239	100239	100239
TTS500 (Motor)	100238	100238	100238	100238
TTS500 (Electronics)	100240	100240	100240	100240
TGS520 (Motor)	100238	100238	100238	100238
TGS520 (Electronics)	100240	100240	100240	100240
TTS700 (Motor)	100238	100238	100238	100238
TTS700 (Inverter)	100240	100240	100240	100240

NOTE
No O-ring included in the Orifice Body kits. **Part number 100242 (O RING, SOLENOID ORIFICE) should be ordered with any orifice kit.**

The table below identifies the orifice size for each part number.

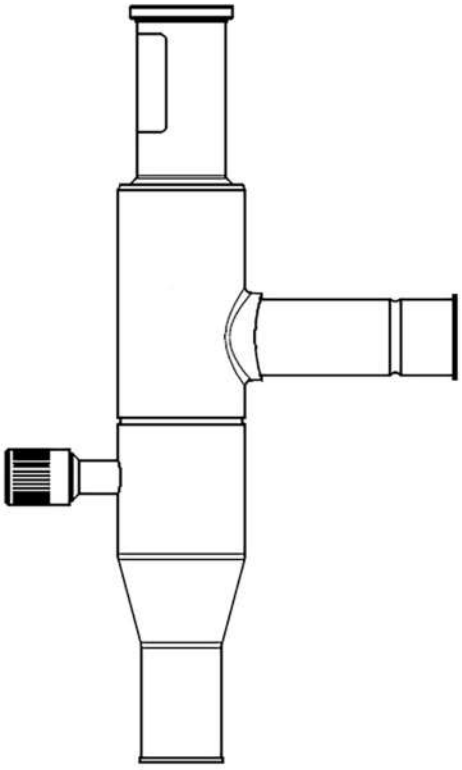
ORIFICE SIZE	PART NO.
1.3MM	100236
1.6MM	100240
2.0MM	100239
2.5MM	100238

6.16.2 Plunger Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
PLUNGER ASSY, SOLENOID	100280	ALL COMPRESSORS	ALL	Includes one (1) plunger with O-ring

6.17 Pressure Regulating Valve

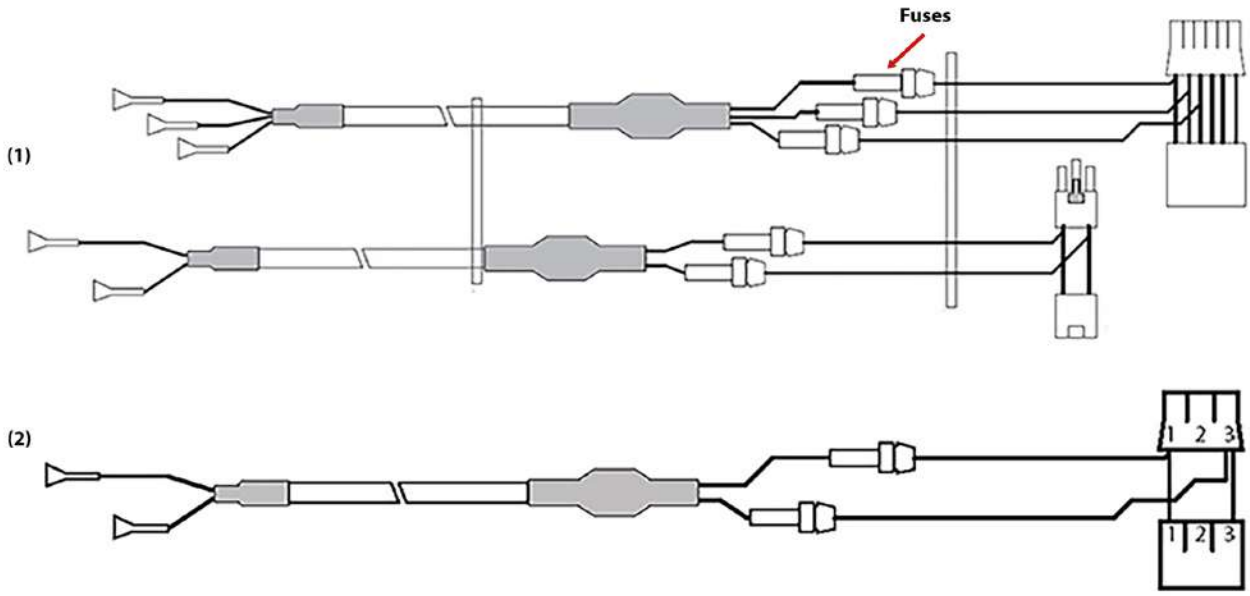


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
KVP 22 EVAPORATOR PRES REG M/12	034L0025	• TTS300/TGS230 MEDIUM TEMP • TTH375/TGH285 MEDIUM TEMP	ALL	KVP 22, Inlet size [mm]: 22.00, Inlet connection type: SOLDER, ODF, Outlet size [mm]: 22.00, Outlet connection type: SOLDER, ODF

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Appendix A Test Equipment

A.1 DC Bus Test Harness



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC BUS TEST HARNESS	100326	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F, -G	Cable Only
(2) DC BUS TEST HARNESS	100101	ALL COMPRESSORS	-H (and compressors converted to the Open-Top Soft Start)	Cable Only

A.2 Compact Inverter Tester

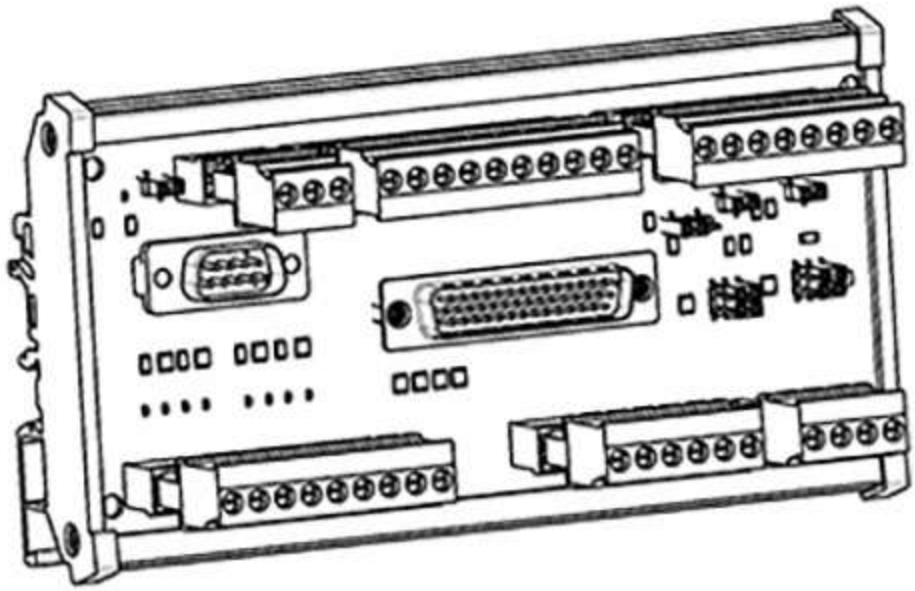
The Compact Inverter Tester allows users to verify the inverter is correctly functioning, and to verify the functionality of the inverter control card. Testing can be accomplished without the removal of the inverter assembly.

The Compact Inverter Tester provides all power necessary to interface with the inverter module during testing. This device will test the high voltage section, both top and bottom diodes of each section, and the driver board of the inverter.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COMPACT INVERTER TESTER	100377	ALL COMPRESSORS	ALL	Includes power adapter, AC plug (US and Europe), data cables, and user manual

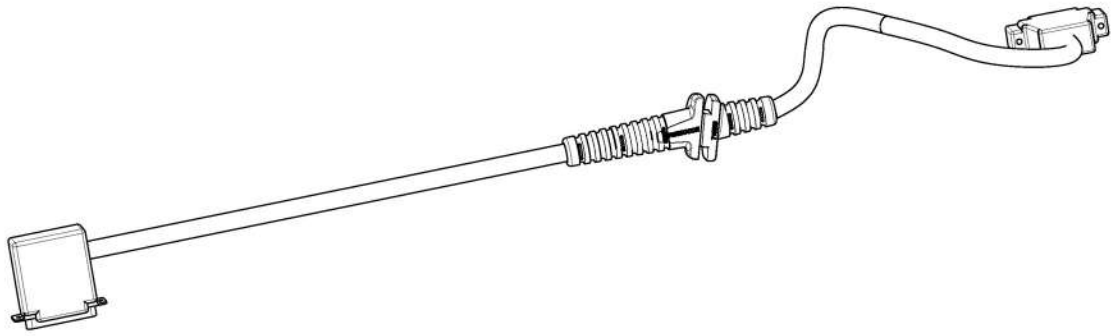
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B.1 I/O Board Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
I/O BOARD ASSY	100076-1	ALL COMPRESSORS	ITEM 5 ALL	PCB Assembly Only

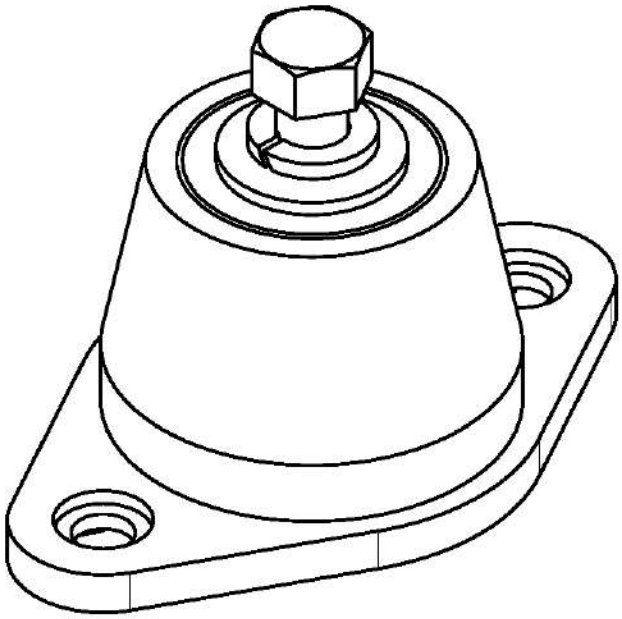
B.2 Compressor Interface Cable



DESCRIPTION	PART NO.	APPLIES	MAJOR REV	COMMENT
COMPRESSOR INTERFACE CABLE, 5M	100058-1	ALL COMPRESSORS	ALL ITEM 4	Cable Only
COMPRESSOR INTERFACE CABLE, 10M	100058-4	ALL COMPRESSORS	ALL	Cable Only
COMPRESSOR INTERFACE CABLE, 20M	100058-5	ALL COMPRESSORS	ALL	Cable Only **(See Note below)**

NOTE
Compressor Interface Cables longer than 10m (32.8 ft) of total length exceed the maximum recommended length and could lead to inconsistent and unreliable performance on communication and stepper motor interfaces. It is recommended to consult DTC Product Support to see if the 20m is appropriate for your application.

B.3 Rubber Mounts

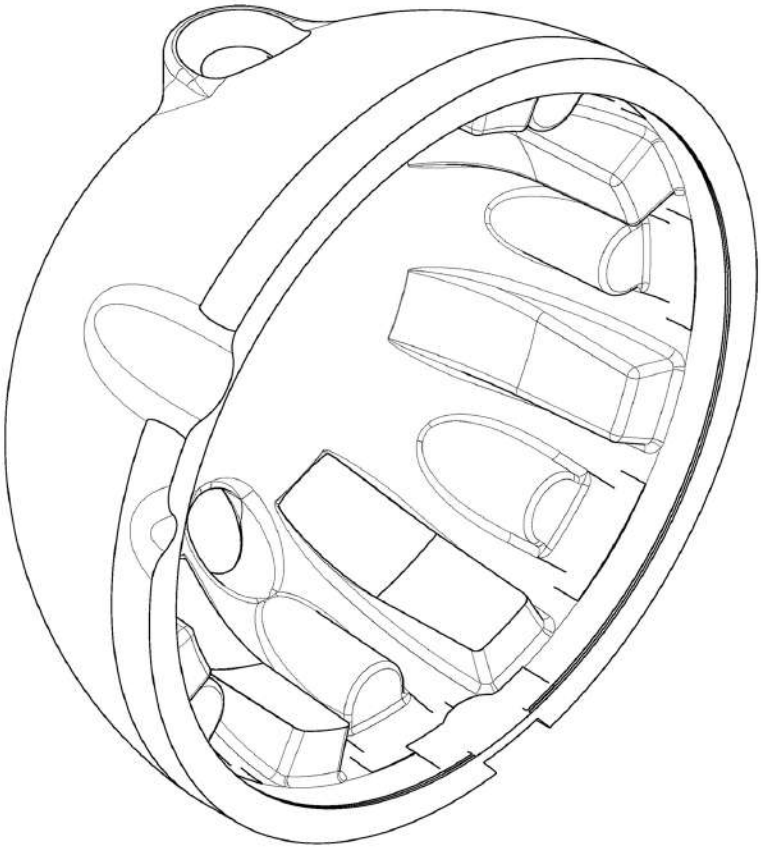


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
RUBBER MOUNT	100066	ALL COMPRESSORS	ALL	Includes fasteners and washers for mounting compressor to the mount. Rubber mount to chiller fasteners are not included.

Neoprene mountings shall have a maximum static deflection of 0.4" (10mm). All metal surfaces shall be neoprene covered and have friction pads at the bottom. Bolt holes shall be provided on the bottom and a tapped hole and cap screw on top. Aluminum rails shall be used above the mountings under the compressor such as small vent sets to compensate for the overhang.

- Maximum Deflection: 10mm (0.4")
- Material: Neoprene Duro Meter 50
- Tightening Torque: 27± 3 Nm (20 ± 4 lb.ft)
- Capacity Range: 50 -107 kg (110 - 236 lb) EACH

B.4 End Cap Insulation



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
END CAP INSULATION	100147	ALL COMPRESSORS	ALL	Includes end cap insulation and silicone adhesive.

The End Bell Kit insulates the compressor's end bell to prevent condensation due to the motor-cooling circuit located on this end of the compressor.

- Size: 11 1/2" diameter
- Flame Class: HF-1
- Compatible with all compressor models
- UL approved
- Material: Polystyrene Grade 54

EMI/EMC Filters

The Interference/Electromagnetic Compatibility (EMI/EMC) Filter minimizes harmonics in the higher frequency domain (typically above 1kHz). In order for the compressor to be CE-compliant, it should be located between the disconnect switch and the line reactor.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
EMI/EMC FILTER 322A, CE	901866	ALL COMPRESSORS	ALL	Filter only

Specifications

Approved to UL 1283

Max leakage current each line to ground:

- 90mA @ 250VAC 60Hz
- 180mA @ 480VAC 60Hz

Designed to comply to EN 133200. CSA 22.2 No. 8

Hi Pot (1 Min)

L/G 2210VDC

L/L 2780VDC

Rated voltage: up to 480VAC max 50/60Hz (3 Phase)

Hi Pot (1 Min)

A-G, B-G, C-G (3 tests)

A-B, B-C, A-C (3 tests)

Rated current:

- 322A @ 40°C operating ambient temp

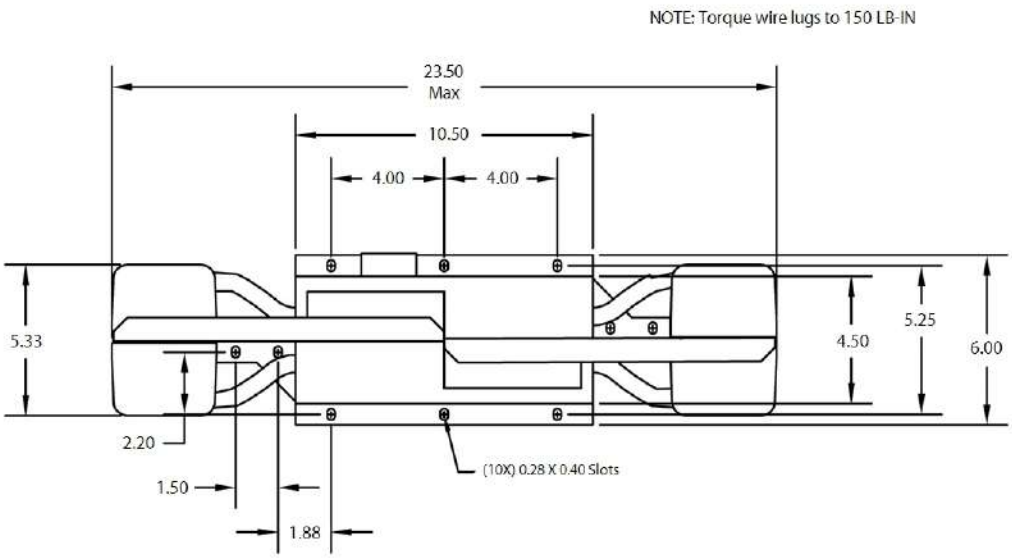
Humidity range: 0-95% R.H.

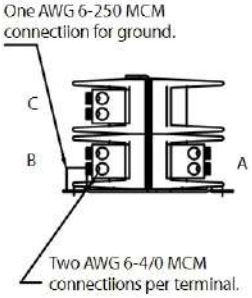
Power dissipation @ rated current: 30W max

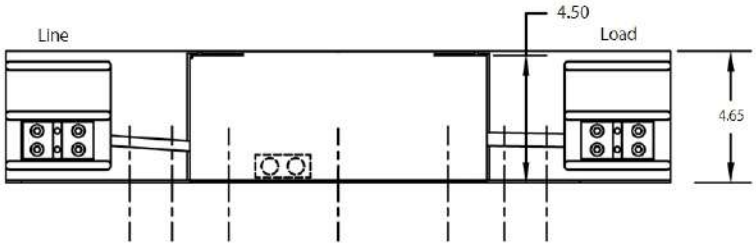
Weight: 35 lbs max

EMI/ECI Filters (continued)

901866







B.5 Line Reactors

The line reactor acts as an input buffer between the motor drive power circuits and the AC line power. Line reactors provide additional circuit impedance that improves power factor, reduces line current harmonics, and dampens the transient voltages on the power line, thereby protecting the electronic motor drive components.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
LINE REACTOR 240A - 5%	901832	ALL COMPRESSORS	ALL	Line Reactor only

Specifications

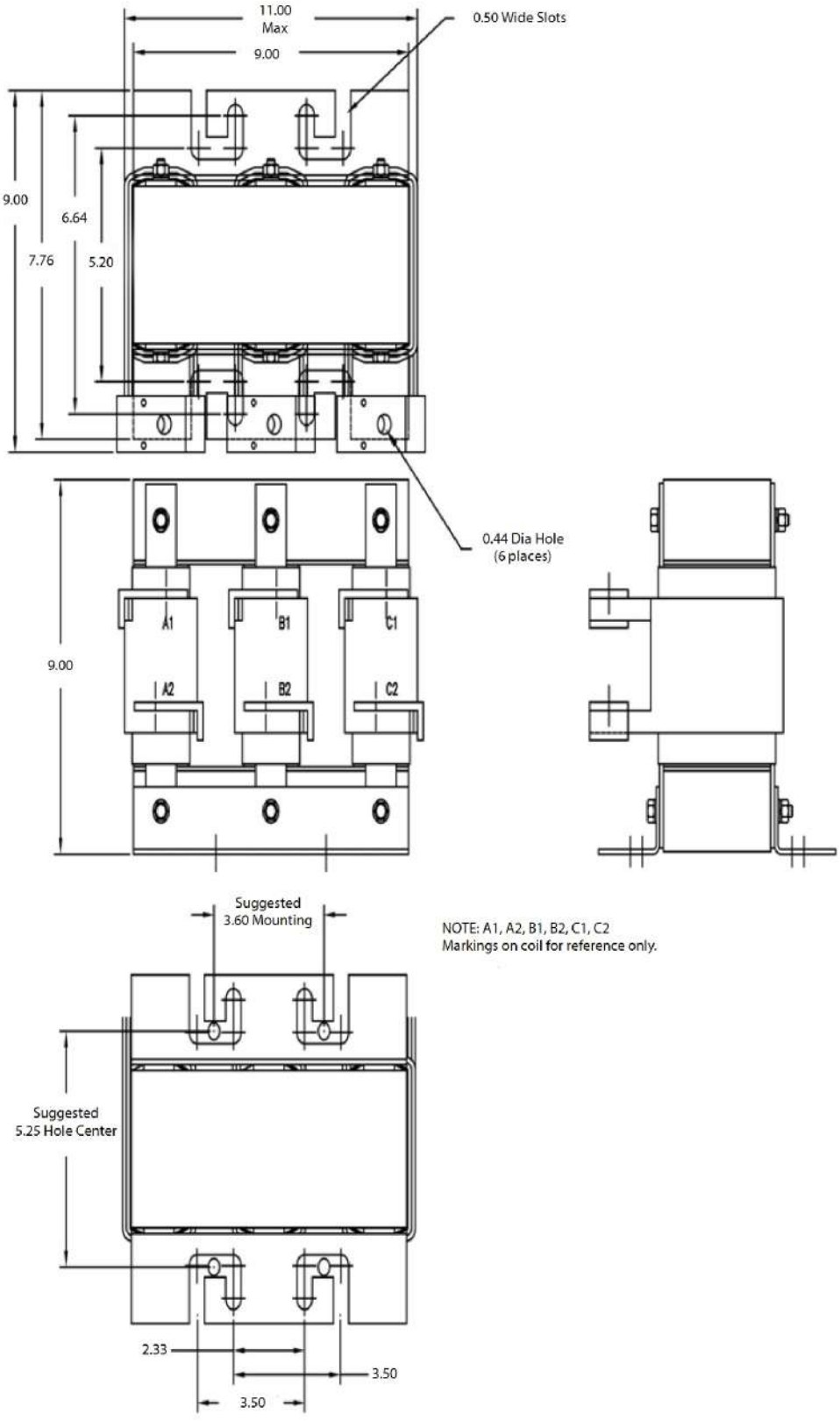
Ambient Temperature Max: 40°C (104°F)
Type: dry, air-cooled, open terminals
Flux density @ rated current: <1.6 tesla
Agency approvals:
Manufactured to UL Standard 508
UL recognized to file # E116124
CSA certified - LR86011
CE marked
Core type: high permeability silicon, non-grain-oriented (N.G.O.), laminated core
Phase/Frequency: 3-phase/ 50/60 Hz
Cooling type: air-cooled
Supply voltage: up to 480Vac (600 Max).

Q factor at rated current, 60 Hz: approx. 22
Rated current: 240A - 5%
Insulation class: Class H - 220
Inductance: 0.50mH ±10%
Dielectric strength tested @: 2.2kVac for 1 minute according to UL508
Total losses, basic current: approx. 500 W
Temp rise @ rated current: <155°C (<279°F)
Dimensions: 229H x 279W x 236D (in mm) 9H x 11W x 9.3D (in inches)
Mass: 43 kg (95 lbs)
Impregnation: dip and bake process to varnish, class H insulation standard
Terminals: copper bus bar, hole to suit M8 bolt

NOTE
Failure to install a line reactor will result in a higher-than-rated current draw, larger cabling requirements, and lower power factor.

Line Reactors (continued)

901832

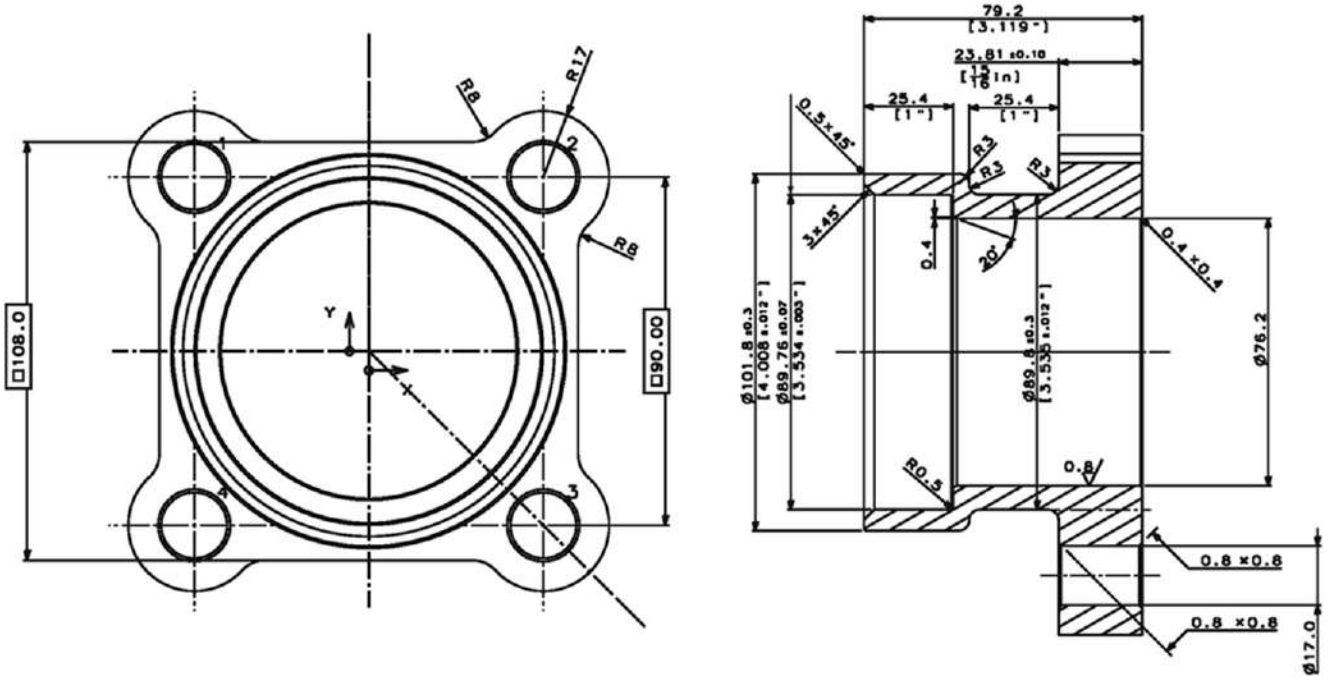


NOTE: A1, A2, B1, B2, C1, C2
Markings on coil for reference only.

B.6 Flanges

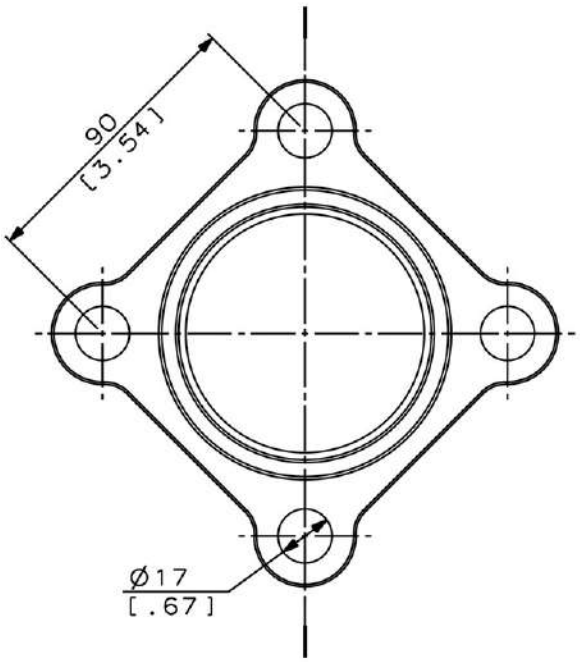
Suction Flange

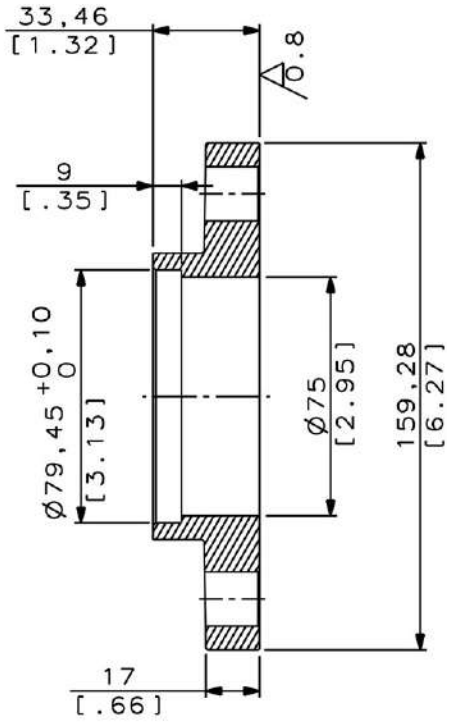
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, STEEL, 3 IN	100151-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



Suction Flange (continued)

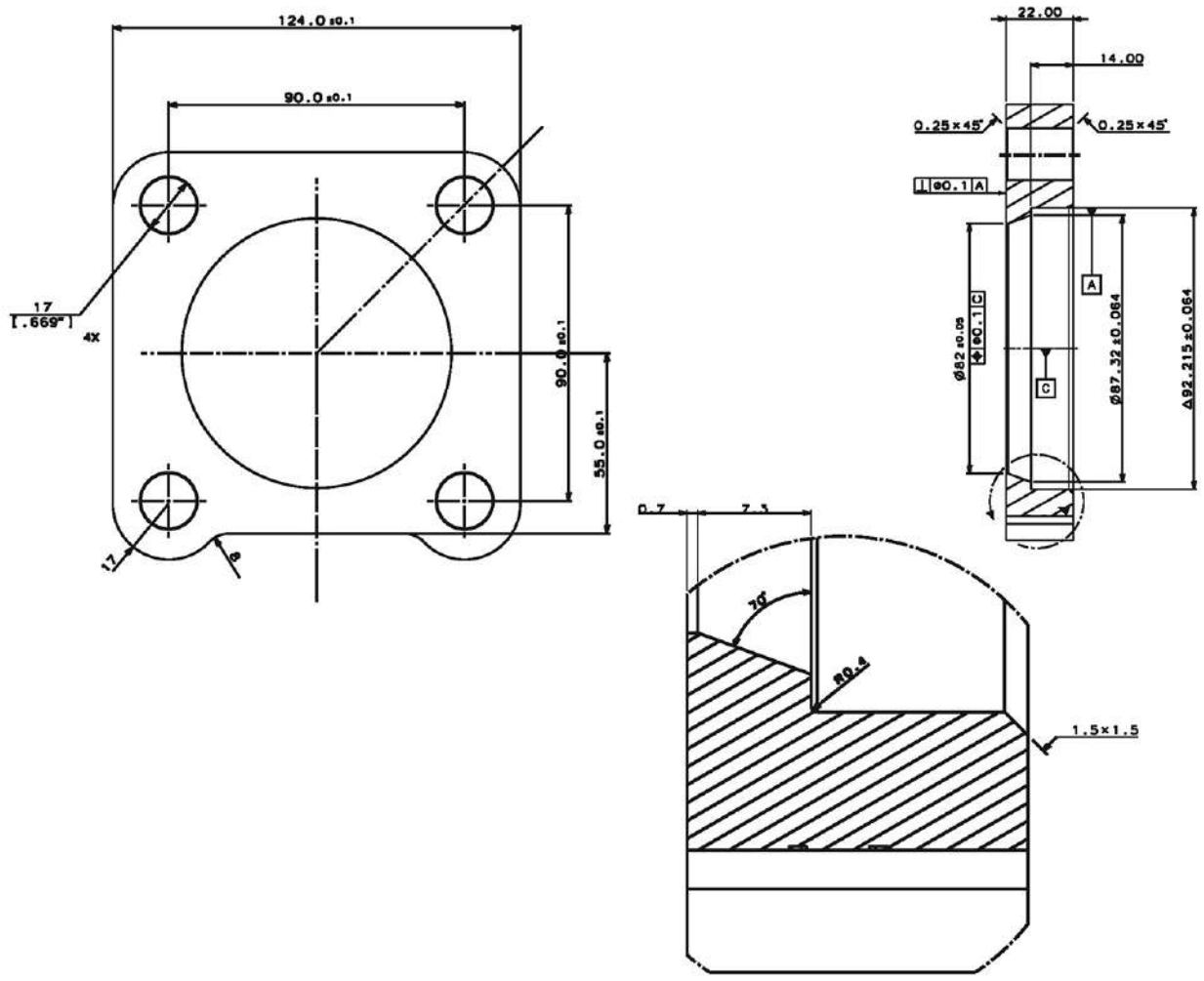
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, BRASS, 3 IN	100402-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring





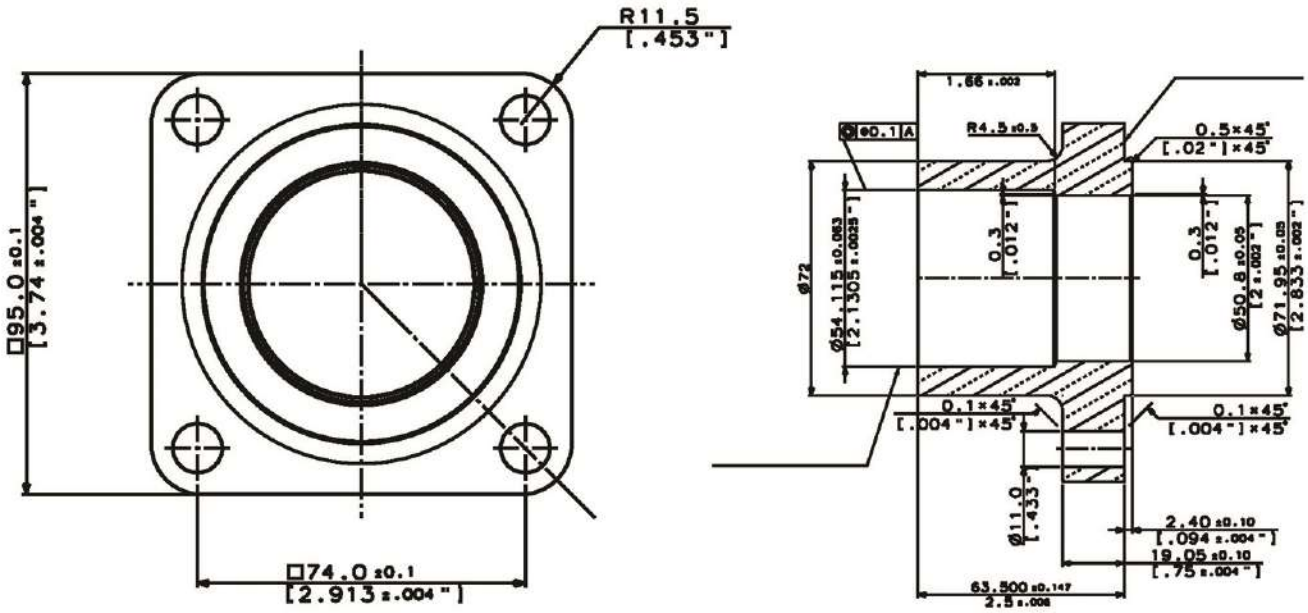
Suction Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, BRASS, 3-5/8 IN	100378	• TTS500/TTS700 • TGS520	ALL	Includes flange, fasteners, and O-ring



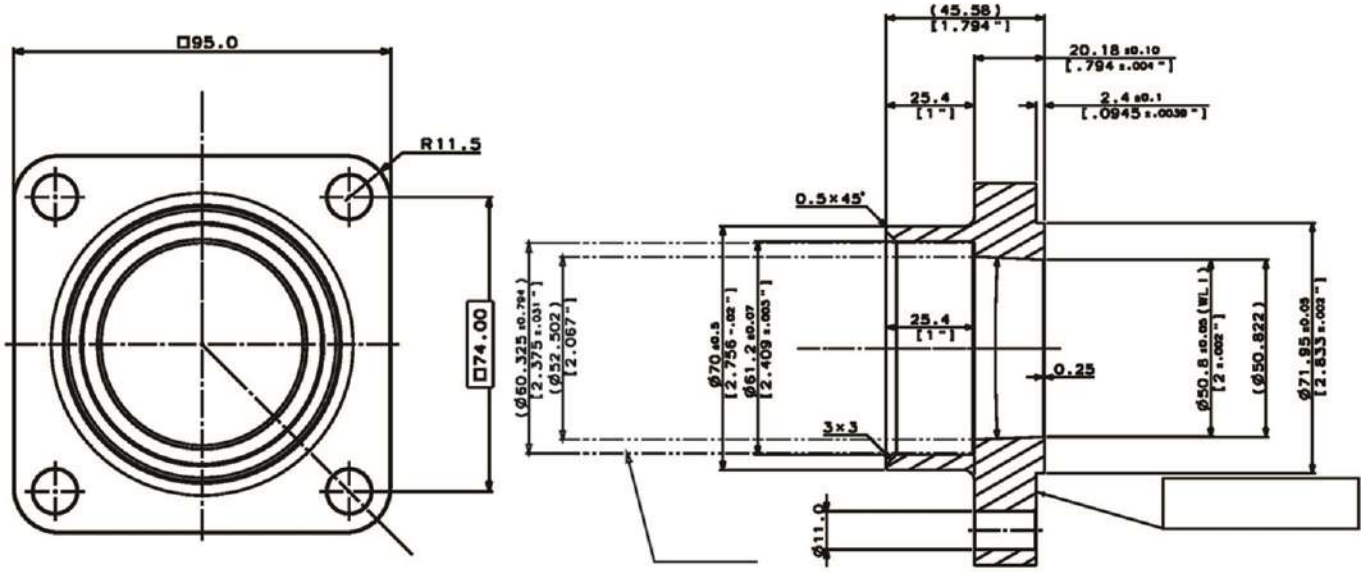
Discharge Flange

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, BRASS, 2-1/8 IN	100152	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



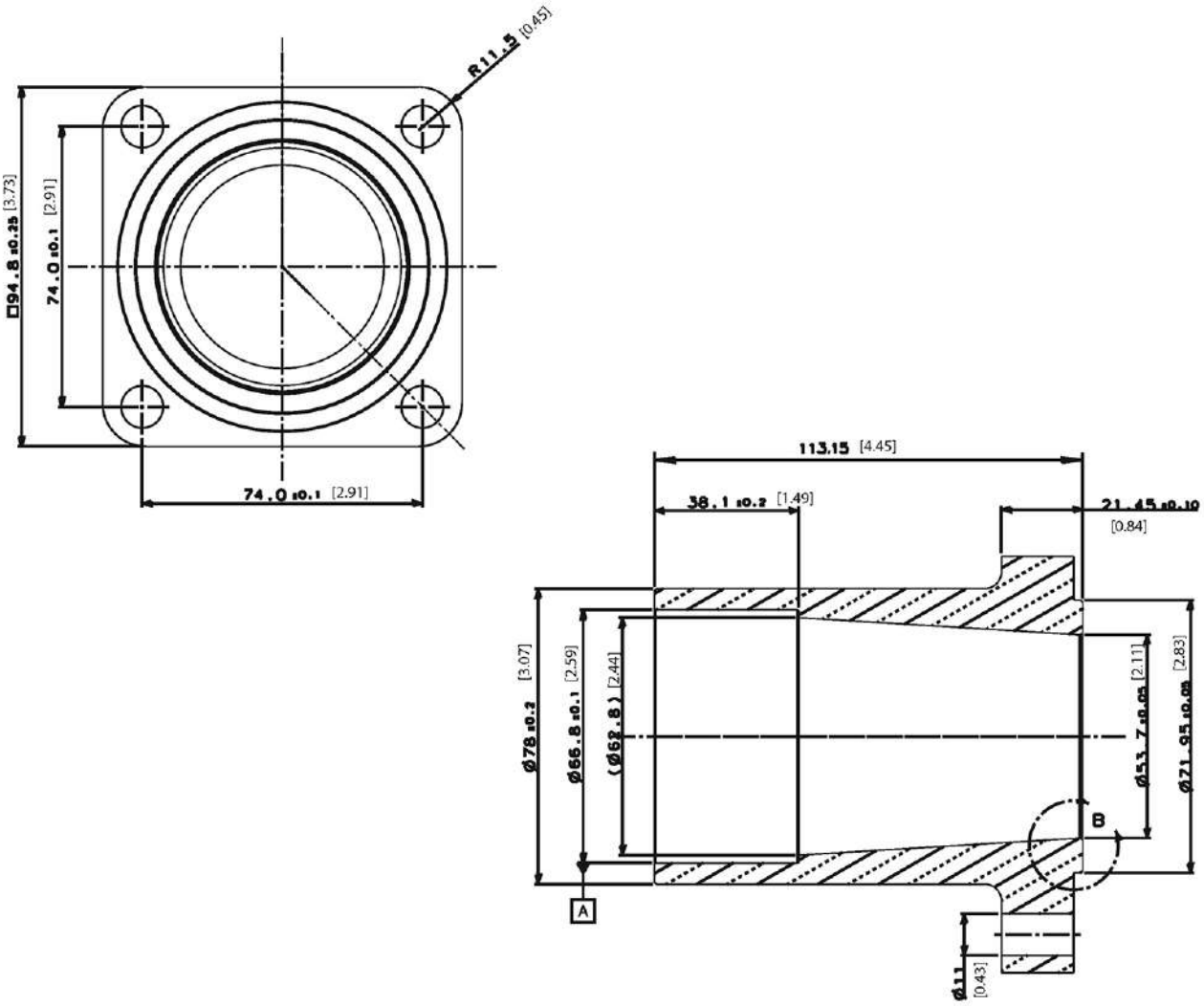
Discharge Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, STEEL, 2-1/8 IN	100153-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



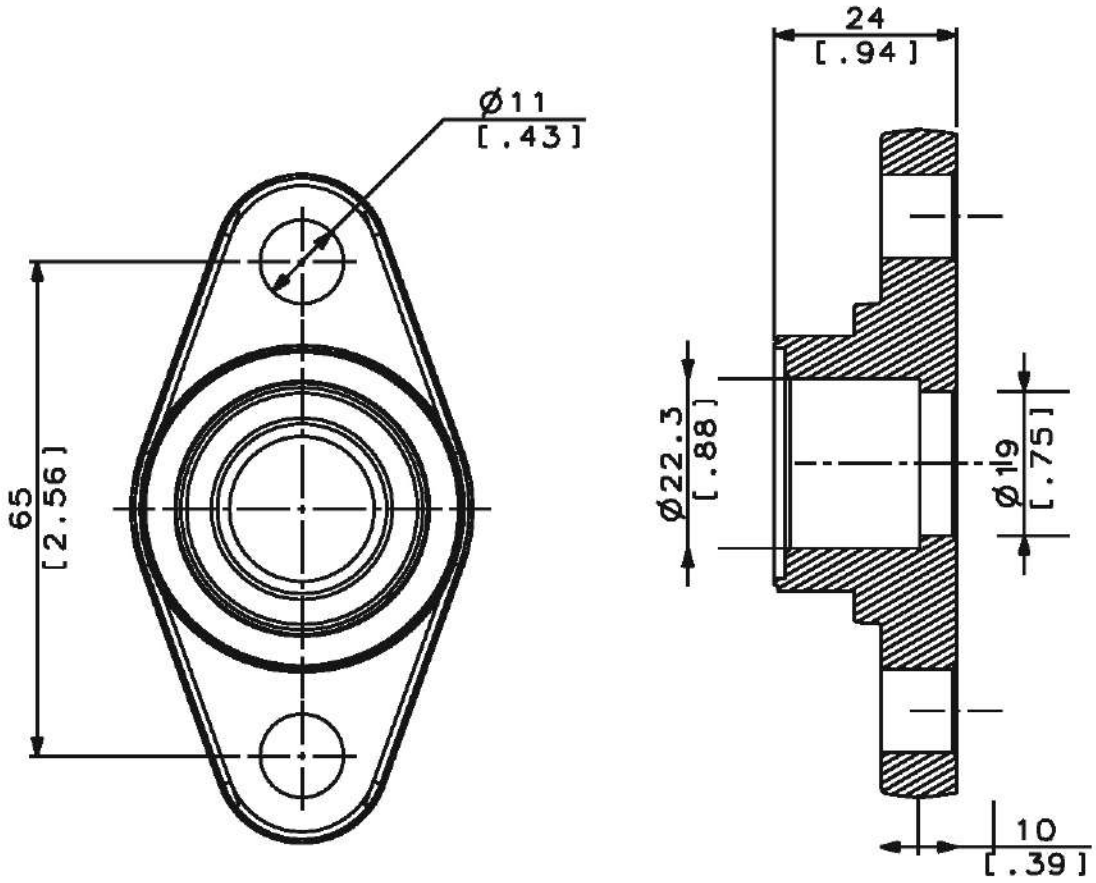
Discharge Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, BRASS, 2-5/8 IN	100254	• TTS500/TTS700 • TGS490/TGS520	ALL	Includes flange, fasteners, and O-ring



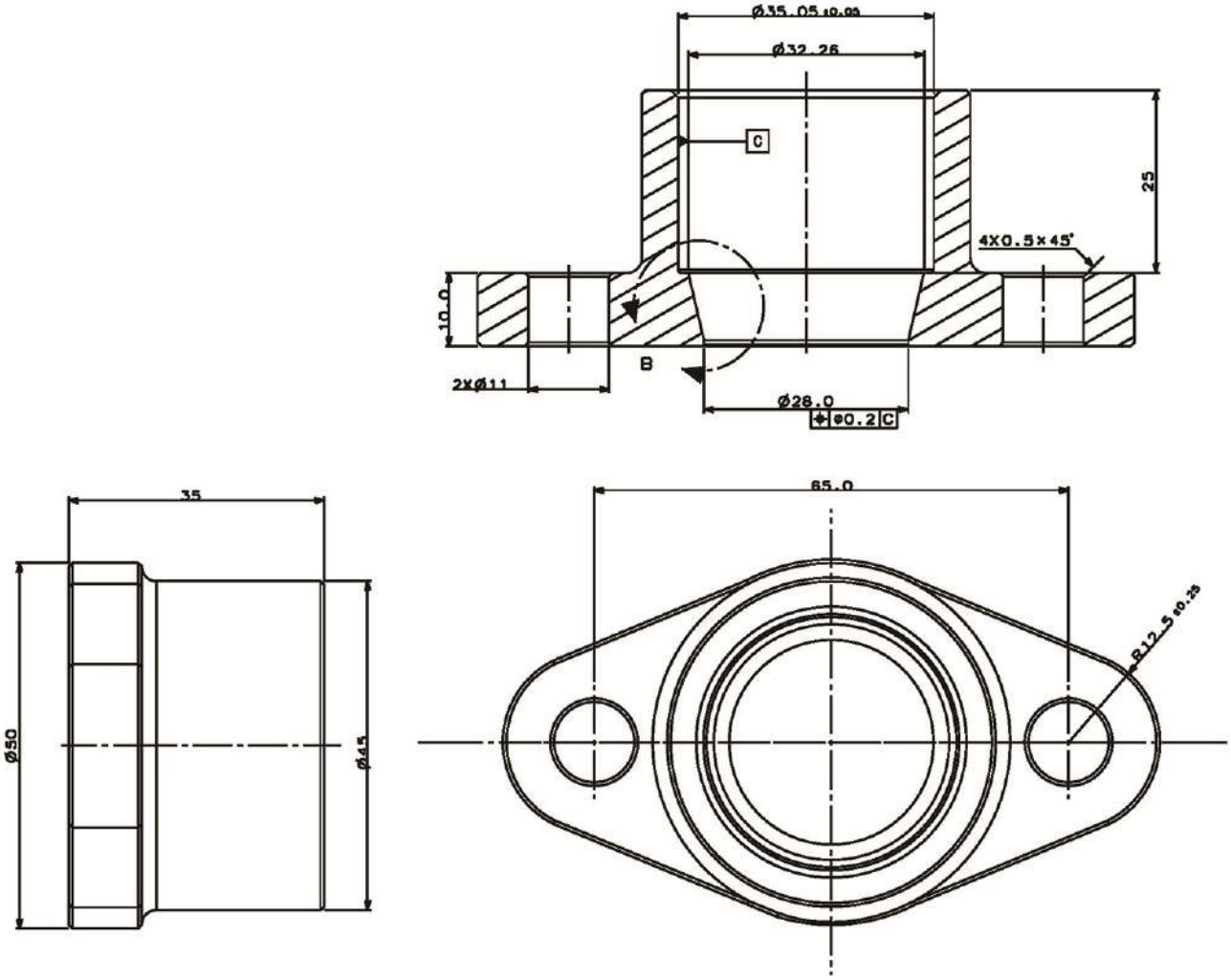
Economizer Flange

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
ECONOMIZER FLANGE, BRASS, 7/8 IN	100400	• TTS300/TG230	ALL	Includes flange, fasteners, and O-ring



Economizer Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
ECONOMIZER FLANGE, BRASS, 1-5/8 IN	100450-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



Appendix C Obsoleted Kit Reference

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100020	SOFT START	TT300 SIE	Kit no longer supported	
100020-1	SOFT START (460V)	All 460V models ITEM 23	100020-19 100020-20	Refer to 4.14 Soft Start Assembly for the proper replacement kit
100020-2	SOFT START (575V)	All 575V models		
100020-3	SOFT START (400V)	All 400V models		
100020-4	SOFT START (380V)	All 380V models		
100020-6	SOFT START, REINFORCED UPGRADE (400V)	All reinforced 400V models		
100020-7	SOFT START, REINFORCED UPGRADE (460V)	All reinforced 460V models		
100021	BACKPLANE ASSY	TT300 SIE	Kit no longer supported	
100035	IGV MOTOR SERVICE	TT300 (R22)	Kit no longer supported for R22 applications All others - 100035-1	
100036	SENSOR PRESSURE/TEMPERATURE SUCTION	TT300 (R22)	Kit no longer supported for R22 applications All others - 100036-1	
100037	SENSOR PRESSURE/TEMPERATURE DISCHARGE	TT300 (R22)	Kit no longer supported for R22 applications All others - 100037-1	
100037-1	PRESSURE/TEMP SENSOR, DISCHARGE	ALL COMPRESSORS	100037-2	SENSOR PRESSURE/TEMPERATURE DISCHARGE
100040-1	DC/DC CONVERTER ASSY 380V	TT300 SIE	Kit no longer supported	
100040-3	DC-DC CONVERTER ASSY (575)	All 575V Models	100379	DC-DC
100040-4	DC/DC CONVERTER ASSY (SIE) 480 V	TT300 SIE	Kit no longer supported	
100040-5	IGBT ASSY MANIFOLD COOLING TT400 C/W DC/DC CONVERTER	All 400 & 460V models	100379	DC-DC
100040-6	DC-DC CONVERTER ASSY (380V)	All 380V models	100379	DC-DC
100043-1	IGBT 310032 PARALLEL COOLING	TT300 SIE	Kit no longer supported	
100043-2	IGBT 320032 SERIAL COOLING	TT300 SIE	Kit no longer supported	

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100043-3	IGBT MANIFOLD COOLING	TT300 Rev:-N, -P, -C, -D, -E, -F	100521	INVERTER ASSY 613 KIT – INVERTER ASSY CONVERSION 342 TO 613 SERIES
100043-5	IGBT ASSY MANIFOLD COOLING TT400 C/W DC/DC CONVERTER	TT350, TT400, TT500 Rev: -P, -A, -C, -E 460V	100043-11 (DC-DC sold separately)	
100043-6	IGBT MANIFOLD COOLING - 575V TT 300	TT300 Rev: -P 575V	Kit no longer supported	
100043-7	IGBT MANIFOLD COOLING TT300 R22 SPLIT COOLING	TT300 (R22)	Kit no longer supported	
100043-8	IGBT ASSY - SEMIKRON SKiiP 613 TT400C 575V	TT350, TT400, TT500 Rev: -P, -A, -C, -E 380V, 400V, 460V, 575V	100043-11	INVERTER ASSY 613 ITEM 1
100043-12	INVERTER ASSY 342	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100521	INVERTER ASSY CONVERSION 342 to 613 SERIES
100043-14	24kHz INVERTER ASSY	TT300 (R134a)/TG230: -N, -P, -C	100521	INVERTER ASSY CONVERSION 342 to 613 SERIES
100044	BUS BAR ASSY AND CAPACITORS 6800µF (460V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100044-7	BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-1	BUS BAR ASSY AND CAPACITORS 4700µF (575V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F, -G	100044-8	BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-2	BUS BAR ASSY AND CAPACITORS 9000µF (400V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100044-6	BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-3	BUS BAR ASSY AND CAPACITORS 8500µF (460V)	TT350, TT400, TT500, TT700, TG310, TG390, TG520 Rev: -P, -A, -C, -E, -F	100044-12	BUS BAR ASSY AND CAPACITORS 8500µF (460V)
100044-4	BUS BAR ASSY AND CAPACITORS 11000µF (380/400V)	TT400, TG390 Rev: -P, -C, -E, -F	100044-11	BUS BAR ASSY AND CAPACITORS 11000µF 380/400 VAC
100044-5	BUS BAR ASSY AND CAPACITORS 6800µF (575V)	TT400, TG390 Rev: -P, -C, -E, -F	100044-13	BUS BAR ASSY AND CAPACITORS 6800µF (575V)
100050-1	DRIVE ASSY AND O-RING TT300 (SIE,-N)	TT300 SIE, Rev: -N	Kit no longer supported	
100050-2	IGV, DRIVE ASSY AND O-RING, R134a EXTENDED RANGE	TT300 Rev: -P, -C, -D, -E, R134a	100050-16	IGV, DRIVE ASSY AND O-RING TT300/TG230

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100050-3	IGV, DRIVE ASSY AND O-RING - TT300 RETROFIT	TT300, TG230 Rev: -P, -C, -D, -E	100050-16	IGV, DRIVE ASSY AND O-RING - TT300/ TG230
100050-5	IGV, DRIVE ASSY AND O-RING - R22 RETROFIT	TT300 R22 Rev: -P	Kit no longer supported	
100050-6	IGV, DRIVE ASSY AND O-RING - TT400-P	TT400 Rev: -P	Kit no longer supported	
100050-7	IGV, HOUSING ASSY AND O-RING, TT400C	TT400 Rev: -C, -E, R134a	100050-17	IGV, DRIVE ASSY AND O-RING TT400/TG390
100050-8	IGV, HOUSING ASSY AND O-RING-TT500	TT500 Rev: -A, -E, R134a	100050-18	IGV, DRIVE ASSY AND O-RING TT700/TG520
100050-9	IGV, HOUSING ASSY TT350	TT350 Rev: -A, -E, R134a	100050-15	IGV, DRIVE ASSY AND O-RING TT350/TG310
100050-11	IGV, DRIVE ASSY AND O-RING - TT350 RETROFIT	TT350 Rev: -A, -E, R134a	100050-15	IGV, DRIVE ASSY AND O-RING - TT350/ TG310
100050-12	IGV, DRIVE ASSY AND O-RING - TT400 -P RETROFIT	TT400 Rev: -P	Kit no longer supported	
100050-13	IGV, DRIVE ASSY AND O-RING - TT400 RETROFIT	TT400 Rev: -C, -E	100050-17	IGV, DRIVE ASSY AND O-RING TT400/ TG390
100050-14	IGV, DRIVE ASSY AND O-RING - TT500 RETROFIT	TT500 Rev: -A, -E	100050-18	IGV, DRIVE ASSY AND O-RING TT700/ TG520
100050-24	IGV, DRIVE ASSY AND O-RING TGS490	TGS490 Rev: -F, -H	100050-25	IGV, DRIVE ASSY AND O-RING TGS490
100052	O-RING, END CAP ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100352	
100052-1	O-RING, SERVICE SIDE SMALL O-RINGS	TT300 R22	Kit no longer supported for R22 applications All others - 100052-2	
100053-2	COVER, CAPACITOR ASSY (BLACK PAINTED) TT300	TT300 Rev: -N, -P, -C	100053-3	COVER, CAPACITOR ASSY (BLACK)
100053-5	CAPACITOR COVER ASSY	TT300 Rev: -N, -P, -C	100053-6	COVER, CAPACITOR ASSY (GREEN)
100054-2	COVER, TOP ASSY (BLACK - PAINTED) TT300	TT300 Rev: -N, -P, -C	100054-3	COVER, TOP ASSY (BLACK)
100054-5	COVER, TOP ASSY STANDARD GREEN	TT300 Rev: -N, -P, -C	100054-6	COVER, TOP ASSY GREEN
100055-2	COVER, SERVICE SIDE ASSY (BLACK PAINTED) TT300	TT300 Rev: -N, -P, -C	100055-3	COVER, SERVICE SIDE ASSY (BLACK)

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100055-5	COVER, SERVICE SIDE ASSY - (STANDARD GREEN)	TT300 Rev: -N, -P, -C	100055-6	COVER, SERVICE SIDE ASSY - GREEN
100056-2	COVER, MAINS INPUT ASSY (CONDUCTIVE PAINTED BLACK) TT300	TT300 Rev: -N, -P, -C	100056-3	COVER, MAINS INPUT ASSY (BLACK)
100056-5	COVER, MAINS INPUT ASSY (STANDARD GREEN)	TT300 Rev: -N, -P, -C	100056-6	COVER, MAINS INPUT ASSY (GREEN)
100058-2	CABLE HARNESS-ASSY,COMPRESSOR- INTERFACE (SIE)	TT300 SIE	Kit no longer supported	
100062	CABLE HARNESS SOFTSTART AC/DC (SIE) TT300	TT300 SIE	Kit no longer supported	
100062-3	CABLE HARNESS SOFTSTART AC/DC - TT350/400/700	TT350/400/700 Rev: -P, -A, -C, -E, -F	100381	CABLE HARNESS SOFTSTART AC/DC
100062-4	CABLE HARNESS SOFTSTART AC/DC (TT300/TG230)	TT300/TG230 Rev: -N, -P, -C, -D, -E, -F, -G	100380	CABLE HARNESS - AC/DC - TT300
100076-2	PCB ASSY COMPRESSOR INT CONNECTOR (SIE)	TT300 SIE	Kit no longer supported	
100150	COOLING VALVES ASSY TT300/R22	TT300 R22	Kit no longer supported	
100150-1	COOLING VALVES ASSY TT400-P	TT400 Rev: -P	100281-4	COOLING VALVES ASSY TT400 380/400/ 460
100150-3	COOLING VALVES ASSY R134a, TT350 &TT500	TT350, TT500 Rev: -A, -E	TT350-100281-5 TT500-100281-3	COOLING VALVES ASSY TT350 400/460V, TT500
100150-4	COOLING VALVES ASSY R134a, TT400C	TT400 Rev: -C, -E, 380V, 400V, 460V	100281-4	COOLING VALVES ASSY TT400 380/400/ 460
100150-5	COOLING VALVES ASS 134a, TT400C 575C	TT400 Rev: -C, -E, 575V	100281-1	COOLING VALVES ASSEMBLY TT400 (575V), TG310
100150-6	KIT, COOLING VALVES ASSY	TTS400 575V TGS310	100281-1	COOLING VALVES ASSY
100150-7	KIT, COOLING VALVES ASSY R134a, TT350, 380V	TT350 Rev: -A, -E, 380V	100281-5	COOLING VALVES ASSY TT350 380V
100150-8	COOLING VALVES ASSY TT300	TTS300 TGS230	100281-2	COOLING VALVES ASSY TT300
100150-9	COOLING VALVES ASSY	TTS500 TTS700 TGS520	100281-3	COOLING VALVES ASSY
100150-10	COOLING VALVES ASSY TT400	TTS400 380V, 400V & 460V TGS390	100281-4	COOLING VALVES ASSY TT400

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100150-11	COOLING VALVES ASSY	TTS350 TGS490 TTH375 TGH285	100281-5	COOLING VALVES ASSY
100150-12	COOLING VALVES ASSY	TTH375 TGH285	100281-5	COOLING VALVES ASSY
100151	SUCTION FLANGE (STEEL)	TT300, TT350, TT400 Ref: R134a	100151-1	SUCTION FLANGE (STEEL)
100153	DISCHARGE FLANGE (STEEL)	TT350, TT400, TG310, TG390	100153-1	DISCHARGE FLANGE (STEEL)
100155	O-RING SUCTION PORT	TT300 R22	Kit no longer supported for R22 applications All others - 100051-1	
100169	ADAPTER SCREEN FITTING ASSY	TT300, TT350, TT400, TT500 Rev: -E	100169-1	COMPRESSOR COOLING ADAPTER WITH STRAINER
100186	STRAINER, COOLING LINE ADAPTER, SCREEN FITTING	TT300, TT350, TT400, TT500 Rev: -E	100186-1	STRAINER
100196-1	CAVITY TEMP SENSOR TT300,TT350 & TT400	TT300, TT350, TT400 Rev: -E	100196-3	CAVITY TEMP SENSOR
100223-4	IGV HOUSING	TT300/TT350/ TT400/TG230/TG390 Retrofit compressors	100223	IGV HOUSING
100224	IGV HOUSING, TT300 (SIE, -N, R22)	TT300 SIE, Rev: -N	Kit no longer supported	
100224-4	IGV HOUSING, TT300 (SIE, -N, R22)	TT300 SIE, Rev: -N	Kit no longer supported	
100226	IGV THROAT, TT300 (SIE, -N, -P-6%)	SIE, Rev: -N	Kit no longer supported	
100229-4	IGV HOUSING TT500/TT700/TG520	TT500/TT700/TG520 Retrofit compressors	100229	IGV HOUSING TT500/TT700/ TG520
100230	IGV THROAT, TT400P	TT400 Rev: -P	Kit no longer supported	
100233	PLUNGER ASSY, SOLENOID	Use with TT300 R22/ TT400 Rev: -P	Kit no longer supported for R22 applications All others - 100280	
100234	SOFT START COOLING FAN ASSY	All models	100373	COOLING FAN AND ADAPTOR ASSY
100235	PLUNGER ASSY, SOLENOID	All models	100280	PLUNGER ASSY, SOLENOID
100237	ORIFICE BODY, COOLING 1.5MM	TT400 Rev: -P	100240	ORIFICE BODY, COOLING 1.6MM
100241	O-RING SOLENOID ORIFICE	TT300 R22	Kit no longer supported	
100250	IGV THROAT, TGS490	TGS490 Rev: -F, -H	100261	IGV THROAT, TGS490
100272	COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported	

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100293	HERMETIC FEEDTHROUGH FRONT BEARING - 4 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100293-1	
100294	HERMETIC FEEDTHROUGH REAR BEARING - 6 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100294-1	
100295	HERMETIC FEEDTHROUGH BEARING - 9 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100295-1	
100309	HEATSINK, COOLING MANIFOLD SCR ASSY	TT300 Rev: -N, -P, -A, -C, -D, -E, R134a	100309-11	HEATSINK COOLING MANIFOLD SCR ASSY
100309-1	HEATSINK, COOLING MANIFOLD SCR ASSY (TT400)	TT350, TT400, TT500 Rev: -P, -A, -C, -E	100309-13	HEATSINK COOLING MANIFOLD SCR ASSY
100309-2	HEATSINK, COOLING MANIFOLD SCR ASSY	TT300 R22	Kit no longer supported	
100309-3	DIODE HEATSINK, SERIAL COOLING (SIE)	TT300 SIE	Kit no longer supported	
100309-4	DIODE HEATSINK, PARALLEL COOLING (SIE)	TT300 SIE	Kit no longer supported	
100309-5	HEATSINK COOLING MANIFOLD SCR ASSY	TTS350, TTS400, TTS500, TTS700, TGS310, TGS390, TGS490, TGS520 Rev: -P, -A, -C, -E, -F	100309-13	HEATSINK, COOLING MANIFOLD SCR ASSY (TT350) NO SENSOR
100309-6	HEATSINK COOLING MANIFOLD SCR ASSY	TTS300/TGS230 Rev: -N, -P, -C, -D, -E, -F, -G	100309-11	HEATSINK, COOLING MANIFOLD SCR ASSY
100310	O-RING, IGBT ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100310-2	
100312	HERMETIC FEEDTHROUGH HIGH POWER NEOPRENE	TT300 R22	Kit no longer supported for R22 applications All others - 100383	
100312-1	HERMETIC FEEDTHROUGH HIGH POWER EPDM	All models	Kit no longer supported for R22 applications All others - 100383	
100314	COVER PLATE ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100314-2	

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100315	O-RING, COVER PLATE ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100315-1	
100321	HERMETIC FEEDTHROUGH IGV 4 PIN	TT300 R22	Kit no longer supported R22 All others - 100321-1	
100322	CABLE HARNESS COMPRESSOR CONTROLLER	All models	100322-5	CABLE HARNESS COMPRESSOR CONTROLLER
100322-2	CABLE HARNESS COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported	
100322-3	CABLE HARNESS COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported	
100323-1	CABLE HARNESS COMPRESSOR DC SUPPLY(SIE)	TT300 SIE	Kit no longer supported	
100324	END CAP ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100324-2	
100326-1	CABLE HARNESS DC BUS TEST LEAD (SIE)	TT300 SIE	Kit no longer supported	
100327	O-RING COOLING PORTS, SUCTION, DISCHARGE, ECONOMIZER, MOTORCOOLING	TT300 R22	Kit no longer supported for R22 applications All others - 100329	
100373	COOLING FAN AND ADAPTOR ASSY	All models	100373-1	COOLING FAN AND ADAPTOR ASSY
100375	HARMONIC RESISTOR PLUG	All models	Kit no longer supported	
100402	SUCTION FLANGE KIT (BRASS)	TT300, TT350, TT400 R134a	100402-1	SUCTION FLANGE (BRASS)
100414	ECONOMIZER VALVE KIT 7/8"	TT300 R134a	Kit no longer supported	
100419	PLUNGER ASSEMBLY, NON-RETURN VALVE	TT300	Kit no longer supported	
100420	FUSE 4 AMP (SIE) (TT300)	TT300 SIE	Kit no longer supported	
100450	ECONOMIZER FLANGE KIT 1 3/8" (BRASS)	All except TT300 and TG230	100450-1	ECONOMIZER FLANGE 1 3/8" (BRASS)
100455	SUCTION FLANGE 3 5/8" (BRASS)	TT500, TT700, TG520	100378	SUCTION BRASS FLANGE FOR 3-5/8" COPPER PIPE TT500 (EPDM O-ring)
100472	SUCTION STRAINER KIT	All models	Kit no longer supported	
100514	CONVERSION-SIE TO THE CURRENT ELECTRONICS (400V)	All 400V SIE models	Kit no longer supported	

OBSOLETE KIT		OBSOLETE KIT APPLICATION	REPLACEMENT KIT	
PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
100515	CONVERSION-SIE TO THE CURRENT ELECTRONICS (400V)	All 400V SIE models	Kit no longer supported	
100516	CONVERSION-SIE TO THE CURRENT ELECTRONICS (460V)	All 460V SIE models	Kit no longer supported	
100517	CONVERSION-SIE TO THE CURRENT ELECTRONICS (460V)	All 460V SIE models	Kit no longer supported	
100580	PORTABLE TRAINING SIMULATOR	All models	N/A	Contact Applications & Product Support team to request a Simulator
100703-1	INTERSTAGE PIPE	TTH375/TGH285 Rev: -F, -H	Order Kit 100703-3 and 100706-3	
100706-1	SECOND STAGE HOUSING	TTH375/TGH285 Rev: -F, -H	Order Kit 100703-3 and 100706-3	
901453	LINE REACTOR 140A - 10%	TTS300/TGS230	901832	LINE REACTOR 240A - 5%
901666	EMI FILTER (CE) 185A	All models	901866	EMI/EMC FILTER (CE) 322A
901974	LINE REACTOR 140A - 5%	TTS300/TGS230	901832	LINE REACTOR 240A - 5%
901975	LINE REACTOR 180A - 5%	All models	901832	LINE REACTOR 240A - 5%

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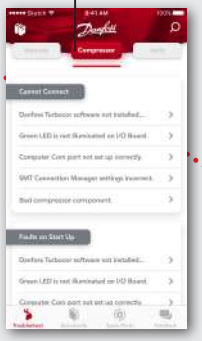
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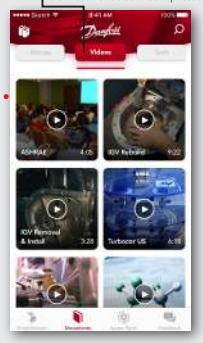


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TTS Compressors



Highlift Compressors



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