


PART NUMBER	MODEL NUMBER	CUSTOMER CONNECTIONS	A	B	C	D	E	F	G	◆ H	MOUNTING KIT 	SPECIFICATIONS	
												ES NO.	DESCRIPTION
												ES92-155	CONVERSION-METRIC
497-1675-00	ZR84KC/KCE ZR94KC/KCE ZP90KCE ZH40KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	-	-	28.49-28.67 [ 1.122-1.129 ]	527-0116-00		
497-1675-01	ZR84KC/KCE ZR94KC/KCE ZP90KCE ZH40KCE	ROTALOCK WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	-	-	-	527-0116-00		
497-1675-02	ZR108KC/KCE/KF/KFE ZR125KC/KCE ZR144KC/KCE ZP103KCE ZP120KCE ZP137KCE ZP144KCE/KFE ZH45KCE ZH50KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	-	-	34.84-35.02 [ 1.372-1.379 ]	527-0116-00	⑦	
497-1675-03	ZR108KC/KCE/KF/KFE ZR125KC/KCE ZR144KC/KCE ZP103KCE ZP120KCE ZP137KCE ZP144KCE/KFE ZH45KCE ZH50KCE	ROTALOCK WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	-	-	-	527-0116-00	⑦	
497-1675-04	ZR160KC/KCE ZR190KC/KCE ZP154KCE/KFE ZH64KCE ZH75KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	-	-	34.84-35.02 [ 1.372-1.379 ]	527-0210-00	⑦ ⑧	
497-1675-05	ZR160KC/KCE ZR190KC/KCE ZP154KCE/KFE ZH64KCE ZH75KCE	ROTALOCK WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	-	-	-	527-0210-00	⑦ ⑧	
497-1675-06	ZR84KC/KCE ZR94KC/KCE ZP90KCE ZH40KCE	BRAZED WITH SIGHTGLASS WITH OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	67.6 [ 2.66 ]	74.3 [ 2.93 ]	28.49-28.67 [ 1.122-1.129 ]	527-0116-00		
497-1675-07	ZR84KC/KCE ZR94KC/KCE ZP90KCE ZH40KCE	ROTALOCK WITH SIGHTGLASS WITH OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	67.6 [ 2.66 ]	74.3 [ 2.93 ]	-	527-0116-00		
497-1675-08	ZR108KC/KCE/KF/KFE ZR125KC/KCE ZR144KC/KCE ZP103KCE ZP120KCE ZP137KCE ZP144KFE ZH45KCE ZH50KCE	BRAZED WITH SIGHTGLASS WITH OIL ADJUSTMENT	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	92.3 [ 3.63 ]	92.3 [ 3.63 ]	34.84-35.02 [ 1.372-1.379 ]	527-0116-00 527-0182-01	⑥ ⑦	

NOTES:

① ALL TOLERANCES ± 1.5 [ 0.06 ] UNLESS OTHERWISE SPECIFIED. DUE TO ACCUMULATED ASSEMBLY TOLERANCES THE LISTED COMPONENTS MAY VARY FROM THE MOUNTING HOLES AS TABULATED.

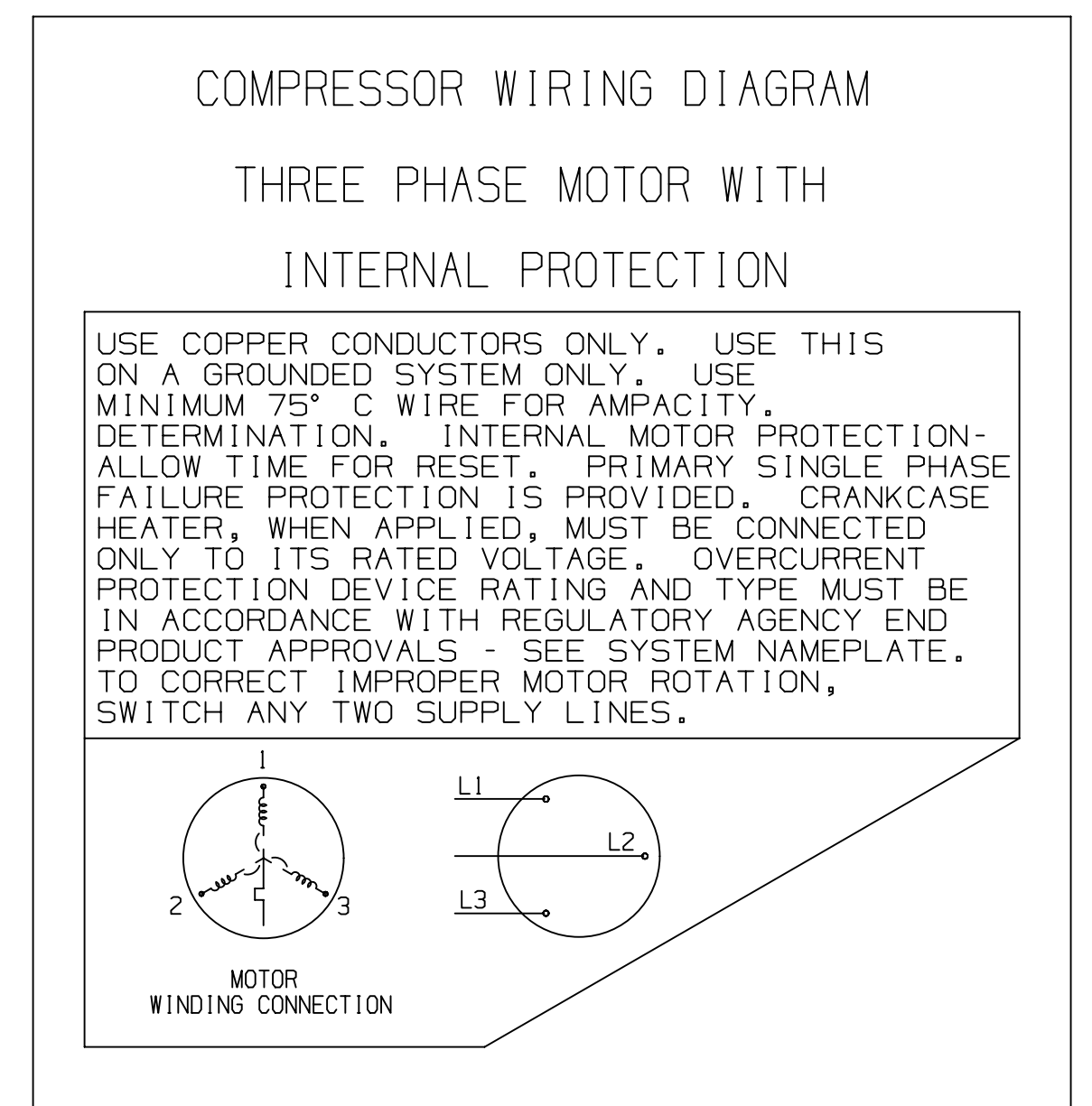
◆ SUCTION FITTING ± 3.0 [ 0.12 ]

◆ DISCHARGE FITTING ± 3.0 [ 0.12 ]

② MOUNTING KIT

3. TUBE ENDS MUST BE PLUGGED.

④ GROUNDING SCREW AND WASHER PER BOM.



ENG NOTICE NO.	REV.NO.	REVISIONS	DATE	BY	CHKD	APPR
ECN308659	9	SEE SHEET 2	09-05-18	CC	XMJ	YO
ECN100001	8	ADD ZP154KFE	10-26-16	AZ	LG	AW
ECN201120	7	CHANGED DIMENSIONS	08-15-16	JLS	LLB	KJR
ECN102816	6	REDRAWN & ADDED 527-0182-01 IN MOUNTING KIT COLUMN	12-30-15	PLS	KRB	KJR
ECN008643	0	RELEASED	06-26-14	VPV	LLB	KJR

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MATERIAL SPECIFICATION	DRAWN BY	SUPERSEDES DWG. NO. / REV. NO.	
N/A	PLS	497-1675-00 / 005	
	DATE	SCALE	DATE FORMAT
	12-30-15	1:1	MM-DD-YY
TITLE	DRAWING NUMBER	SHEET 1 OF 3 DWG	
REF DWG-WELD COMP ASSM	497-1675-00	4	
		SIZE	

EMERSON Climate Technologies

Copeland brand products

INTERPRET PER ASME Y14.5M-1994 AND EMERSON CLIMATE TECHNOLOGIES, INC. DESIGN STANDARDS DS2002

DO NOT SCALE DRAWING

CRITICAL PRODUCT CHARACTERISTICS

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE MILLIMETER OR ( INCH )

1-PLACE ±  
2-PLACE ±  
ANGULAR ±

①

PART NUMBER	MODEL NUMBER	CUSTOMER CONNECTIONS	A	B	C	D	E	F	G	◆	H	MOUNTING KIT △ 2	
497-1675-09	ZR108KC/KCE/KF/KFE ZR125KC/KCE ZR144KC/KCE ZP103KCE ZP120KCE ZP137KCE ZP144KFE ZH45KCE ZH50KCE	ROTALOCK WITH SIGHTGLASS WITH OIL ADJUSTMENT	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	92.3 [ 3.63 ]	92.3 [ 3.63 ]	-	-	527-0116-00	⑦
497-1675-10	ZR160KC/KCE ZR190KC/KCE ZP154KCE/KFE ZP182KCE ZH64KCE ZH75KCE	BRAZED WITH SIGHTGLASS WITH OIL ADJUSTMENT	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	92.4 [ 3.64 ]	92.4 [ 3.64 ]	34.84-35.02 [ 1.372-1.379 ]	-	527-0210-00 527-0182-01	⑥⑦⑧
497-1675-11	ZR160KC/KCE ZR190KC/KCE ZP154KCE/KFE ZP182KCE ZH64KCE ZH75KCE	ROTALOCK WITH SIGHTGLASS WITH OIL ADJUSTMENT	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	92.4 [ 3.64 ]	92.4 [ 3.64 ]	-	-	527-0210-00	⑦⑧
497-1675-12	ZR84KC/KCE ZR94KC/KCE ZP90KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	67.6 [ 2.66 ]	-	28.49-28.67 [ 1.122-1.129 ]	-	527-0182-01	⑥
497-1675-13	ZR108KC/KCE/KF/KFE ZR125KC/KCE ZR144KC/KCE ZP103KCE ZP120KCE ZP137KCE ZP144KCE/KFE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	92.3 [ 3.63 ]	-	34.84-35.02 [ 1.372-1.379 ]	-	527-0182-01	⑥⑦
497-1675-14	ZR160KC/KCE ZR190KC/KCE ZP154KCE/KFE ZP182KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	92.4 [ 3.64 ]	-	34.84-35.02 [ 1.372-1.379 ]	-	527-0182-01	⑥⑦⑧
497-1675-15	ZR144KC/KCE	BRAZED WITHOUT SIGHTGLASS WITH OIL FITTING	533.2 [ 20.99 ]	501.1 [ 19.73 ]	122.1 [ 4.81 ]	242.8 [ 9.56 ]	19.1 [ 0.75 ]	92.3 [ 3.63 ]	-	34.84-35.02 [ 1.372-1.379 ]	-	527-0182-01	⑥⑦
497-1675-16	ZR160KC/KCE ZR190KC/KCE ZP154KCE ZP182KCE	BRAZED WITHOUT SIGHTGLASS WITH OIL FITTING	551.4 [ 21.71 ]	519.3 [ 20.45 ]	140.3 [ 5.52 ]	261.0 [ 10.28 ]	33.3 [ 1.31 ]	92.4 [ 3.64 ]	-	34.84-35.02 [ 1.372-1.379 ]	-	527-0182-01	⑥⑦
497-1675-17	ZR94KCE	BRAZED WITHOUT SIGHTGLASS WITHOUT OIL ADJUSTMENT	476.3 [ 18.75 ]	444.3 [ 17.49 ]	93.6 [ 3.69 ]	201.5 [ 7.93 ]	19.1 [ 0.75 ]	-	-	28.49-28.67 [ 1.122-1.129 ]	-	-	⑨

ECN308659	9	RELEASED -17	09-05-18	CC	XMJ	YO
ECN100001	8	ADD ZP154KFE	10-26-16	AZ	LG	AW
ECN201120	7	CHANGED DIMENSIONS	08-15-16	JLS	LLB	KJR
ECN102816	6	REDRAWN & RELEASED -15 & -16	12-30-15	PLS	KRB	KJR
ECN008643	0	RELEASED	06-26-14	VPV	LLB	KJR
ENG NOTICE NO.	REV.NO.	REVISIONS	DATE	BY	CHKD	APPR

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MATERIAL SPECIFICATION	DRAWN BY	SUPERSEDES DWG. NO. / REV. NO.	
N/A	PLS	497-1675-00 / 005	
	DATE	SCALE	DATE FORMAT
	12-30-15	1:1	MM-DD-YY
TITLE	DRAWING NUMBER	SHEET 2 OF 3 DWG	
REF DWG-WELD COMP ASSM	497-1675-00	4	
		SIZE	

INTERPRET PER ASME Y14.5M-1994 AND EMERSON CLIMATE TECHNOLOGIES, INC. DESIGN STANDARDS DS2002





DO NOT SCALE DRAWING

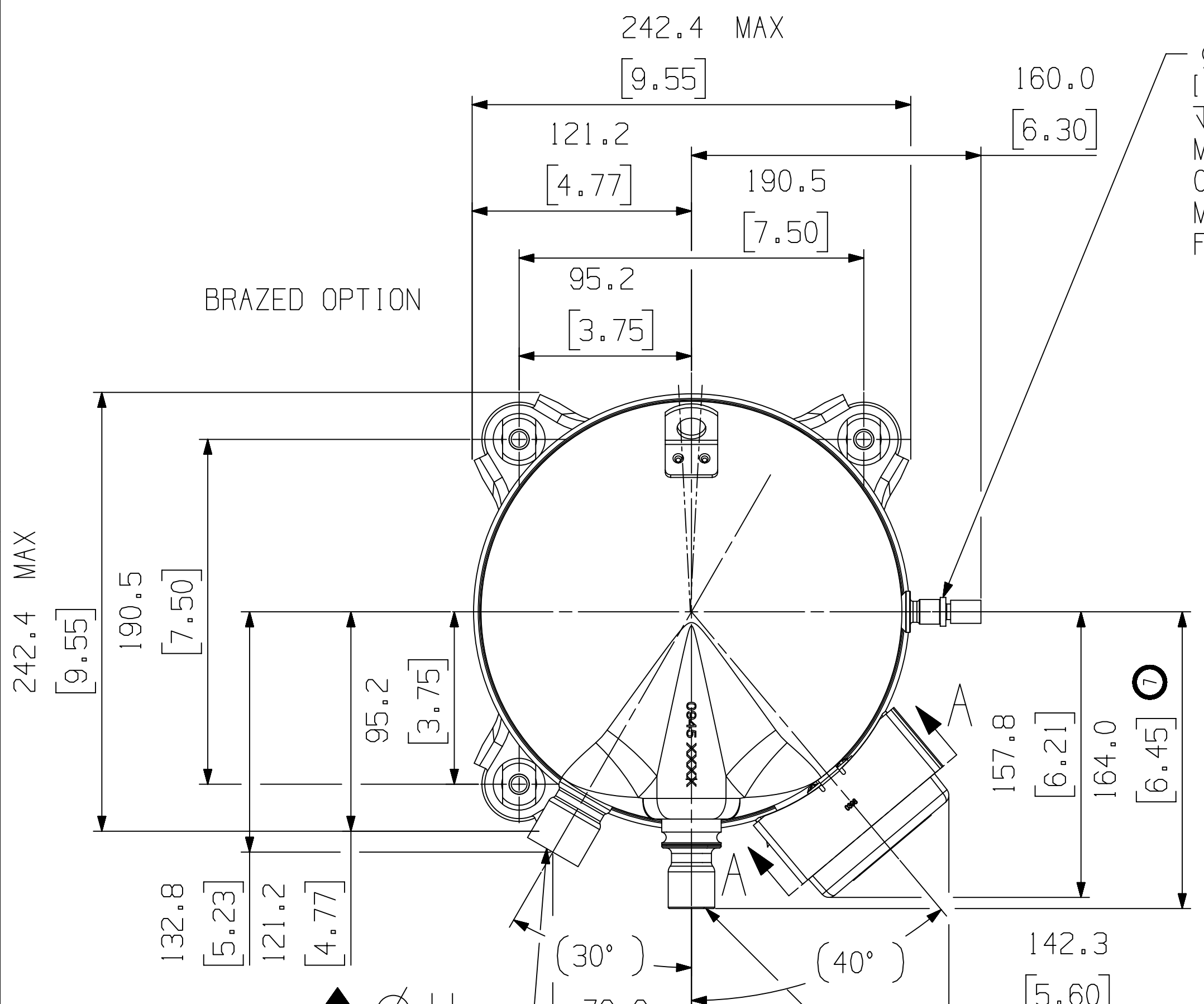
THIRD ANGLE PROJECTION

CRITICAL PRODUCT CHARACTERISTICS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE MILLIMETER OR (INCH)

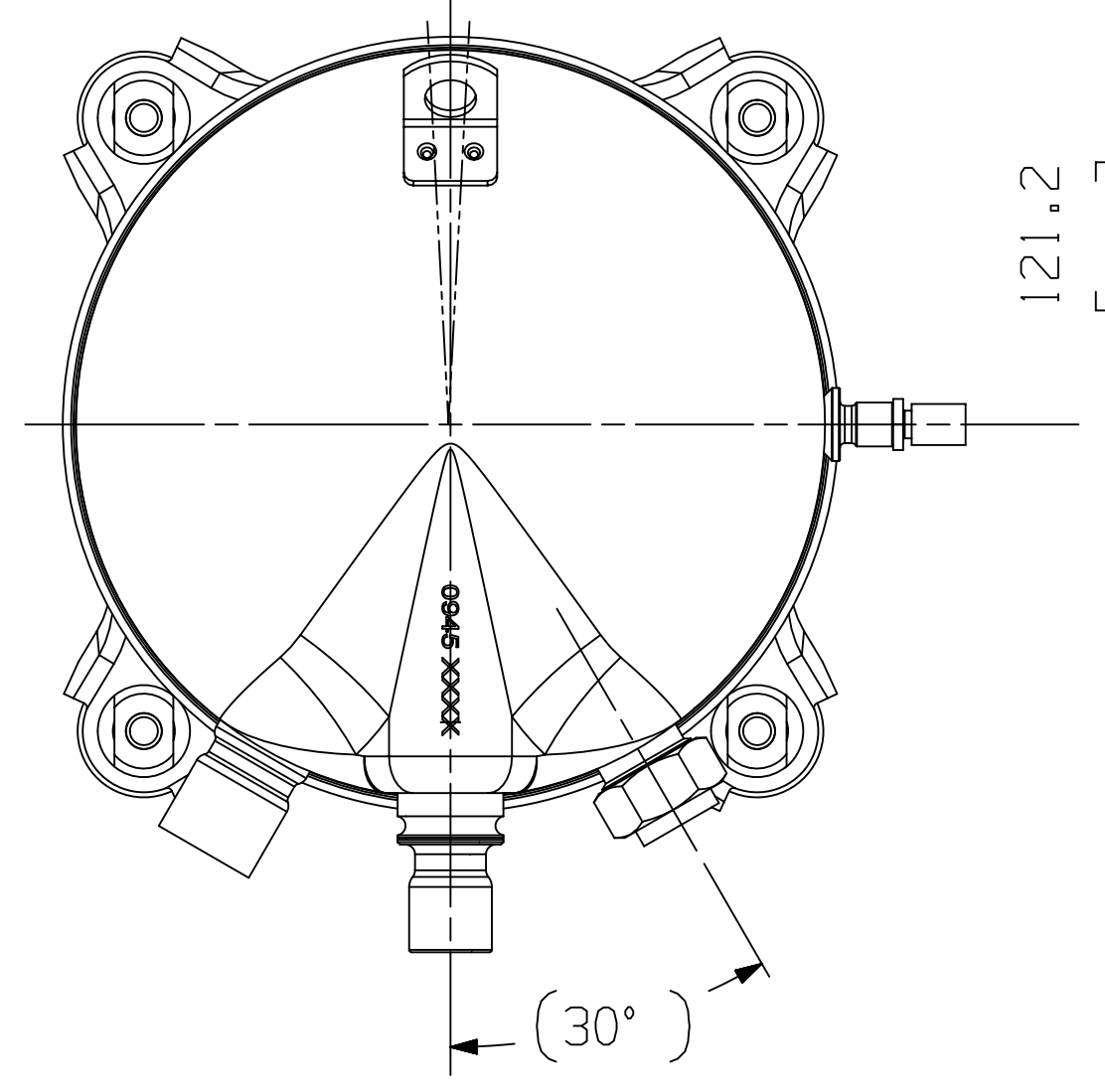
1-PLACE ±  
2-PLACE ±  
ANGULAR ±

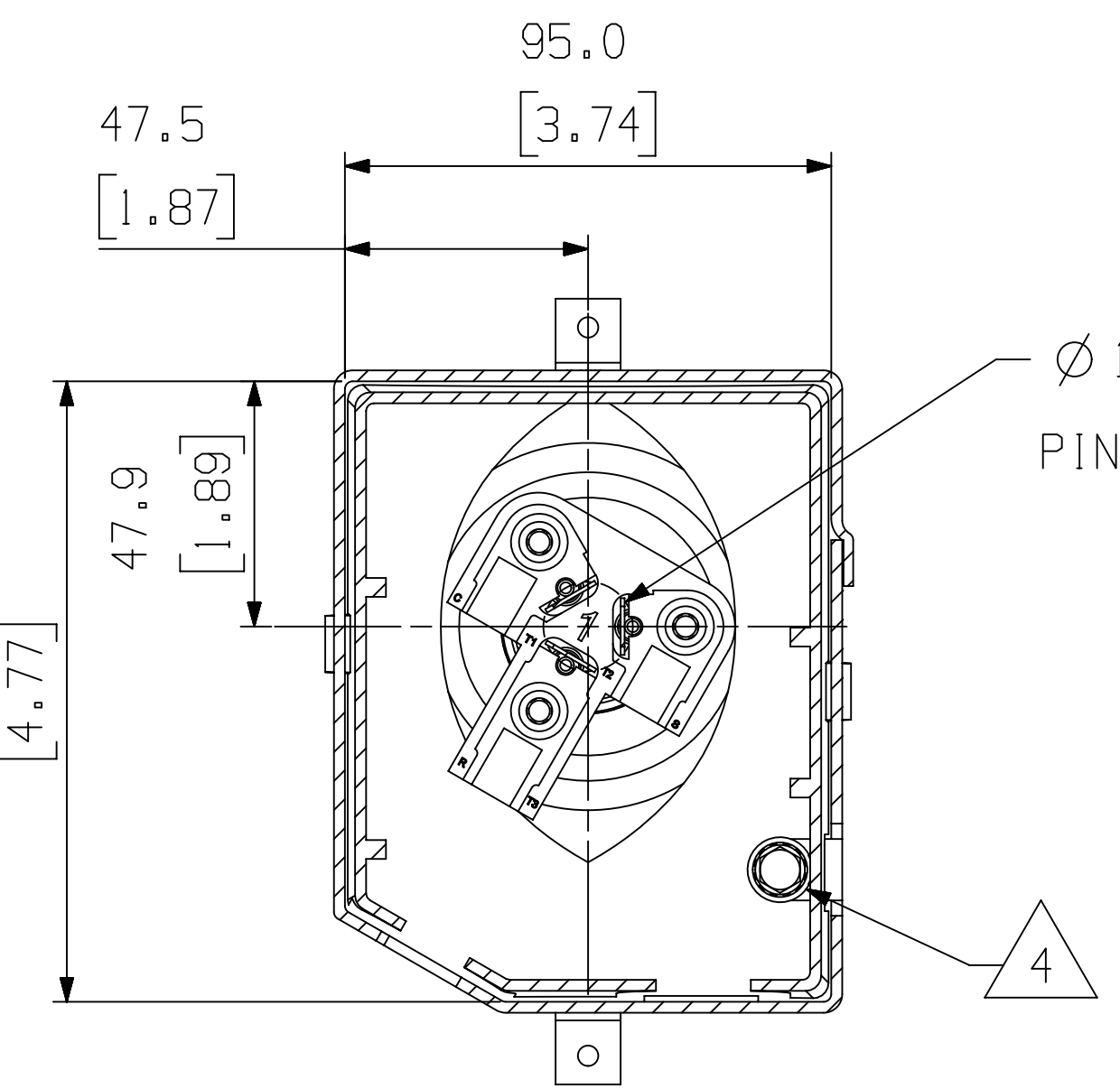


Ø 9.60-9.78 ID [Ø 0.378-0.385]  
 ▽ 9.40 [0.370] MIN  
 M9 X 1.25-6G THRU  
 0.06 [0.002] MIN THICK EXTERIOR AND 0.038 [0.0015] MIN THICK INTERIOR COPPER PLATED STEEL OIL LEVEL FITTING. THREADS TO BE FREE OF COPPER PLATING.

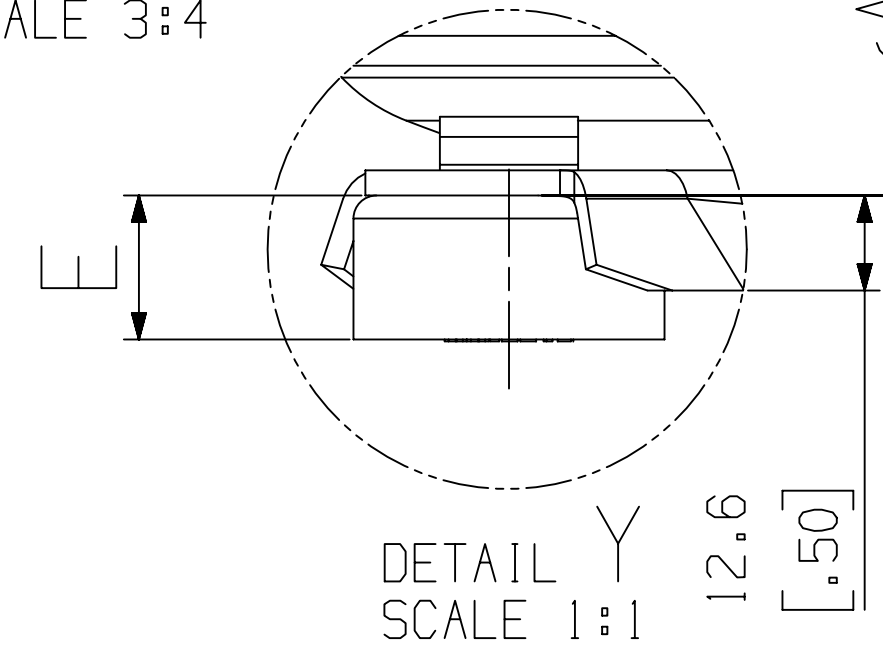
BRAZED OPTION



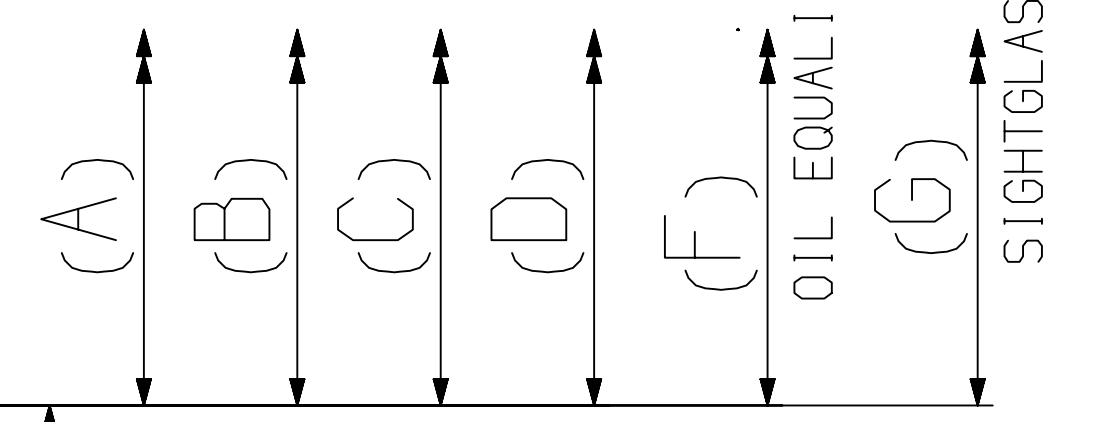
SIGHTGLASS LAYOUT  
T-BOX REMOVED



T-BOX LAYOUT STANDARD  
SECTION A-A  
SCALE 3:4



DETAIL Y  
SCALE 1:1

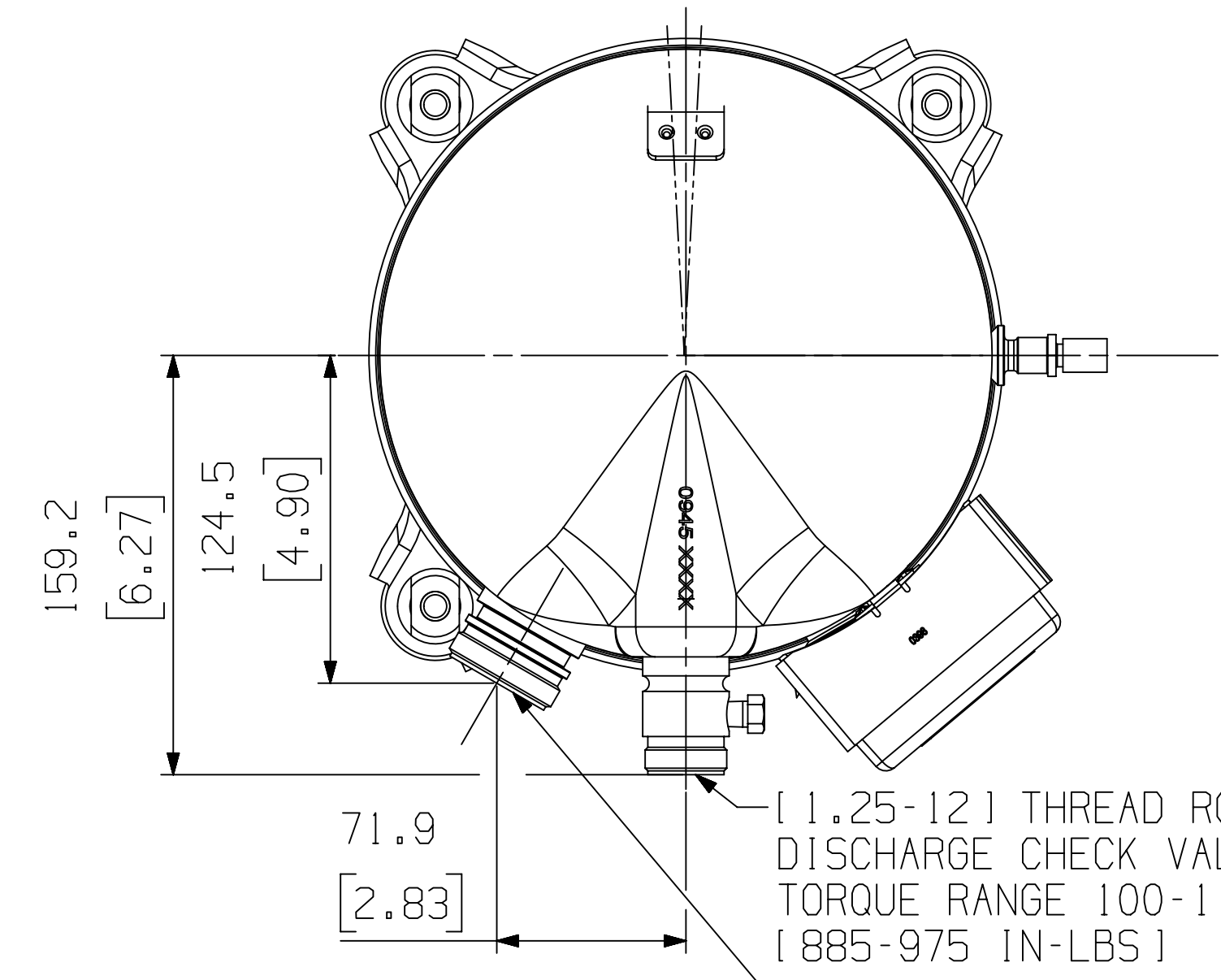


OIL EQUALIZATION  
SIGHTGLASS

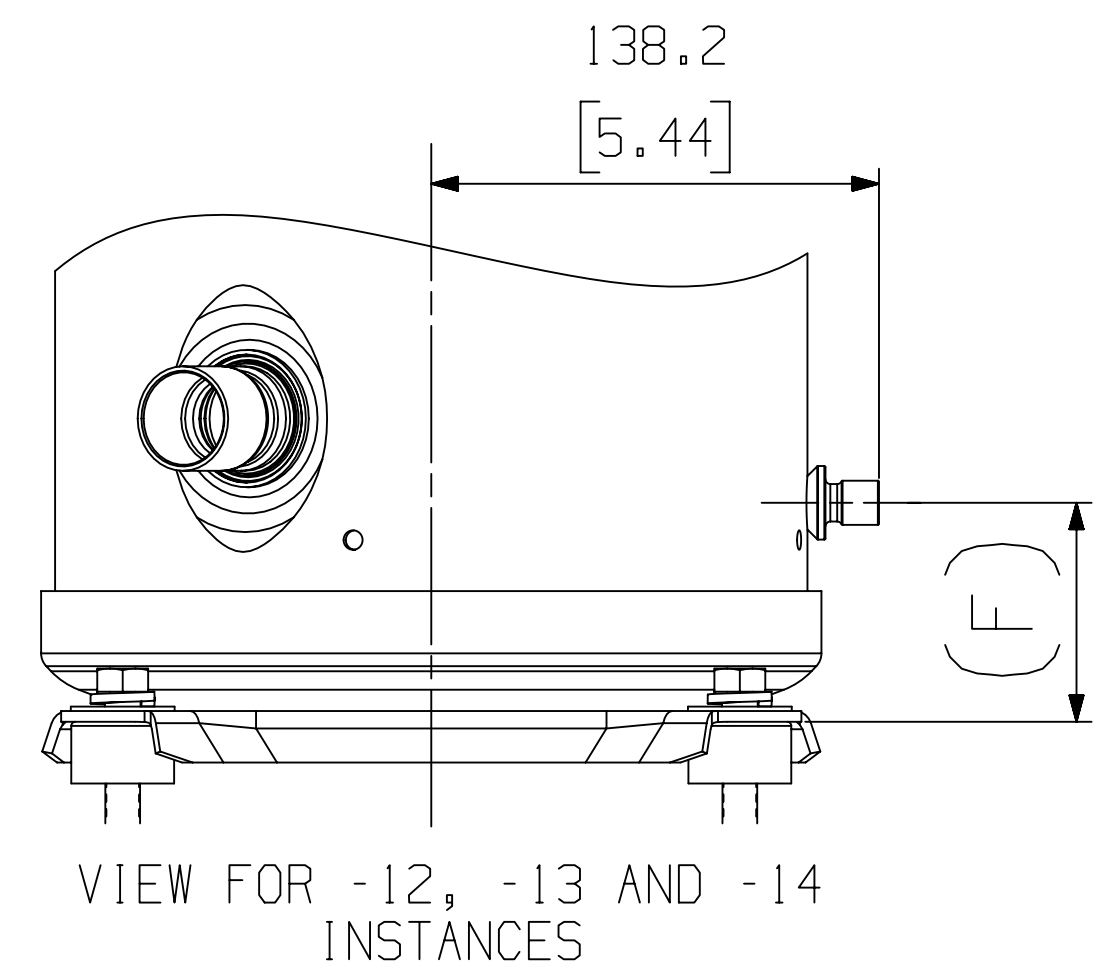
Ø H ID  
 ▽ 22.6 [0.890] MIN  
 0.038 [0.0015] MIN THICK EXTERIOR AND INTERIOR COPPER PLATED STEEL SUCTION FITTING

Ø 22.30-22.42 [0.878-0.883] ID  
 ▽ 20.0 [0.787] MIN.  
 0.038 [0.0015] MIN. THICK EXTERIOR AND INTERIOR COPPER PLATED DISCHARGE FITTING/STEEL CHECK VALVE

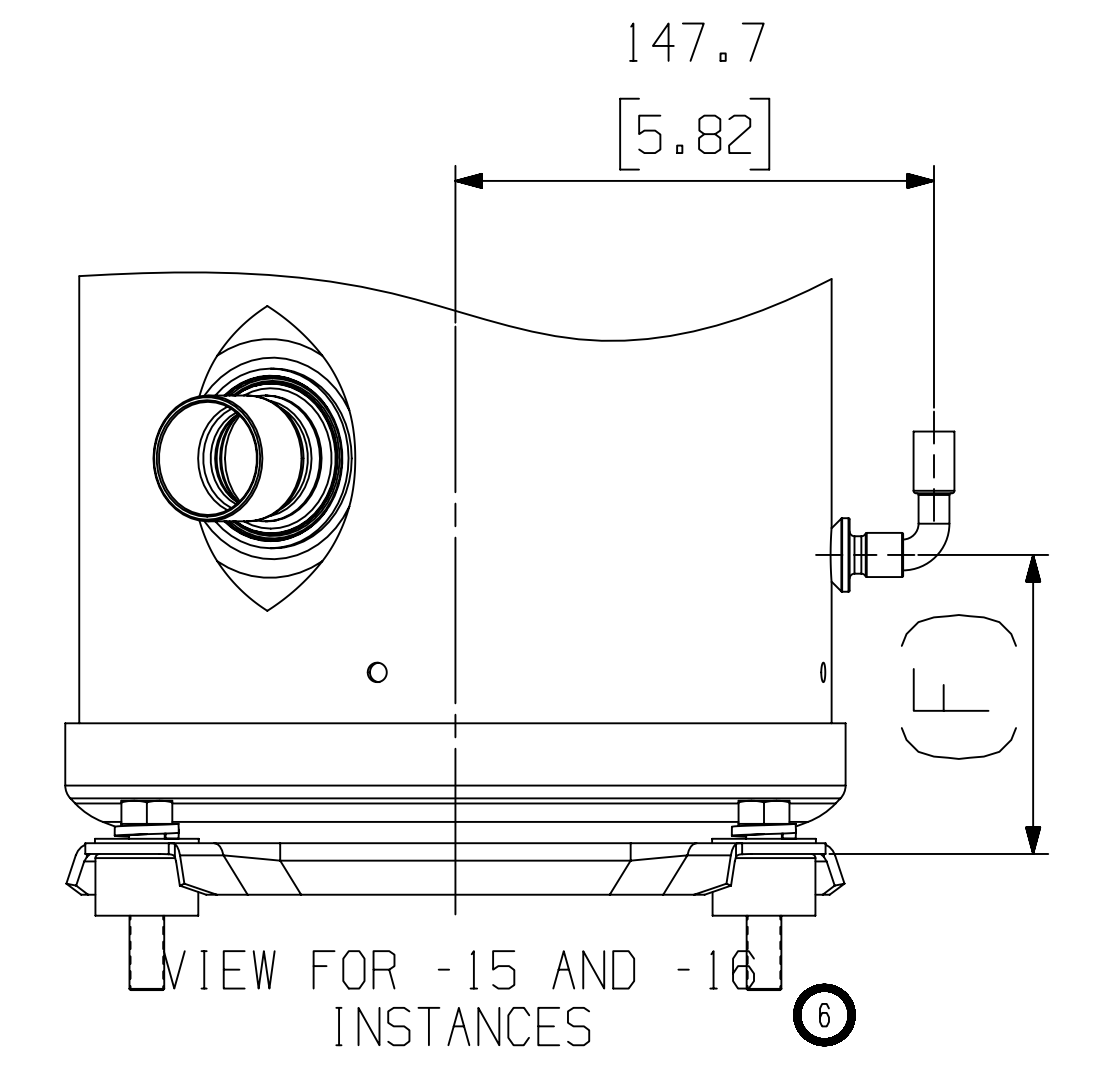
ROTALOCK OPTION



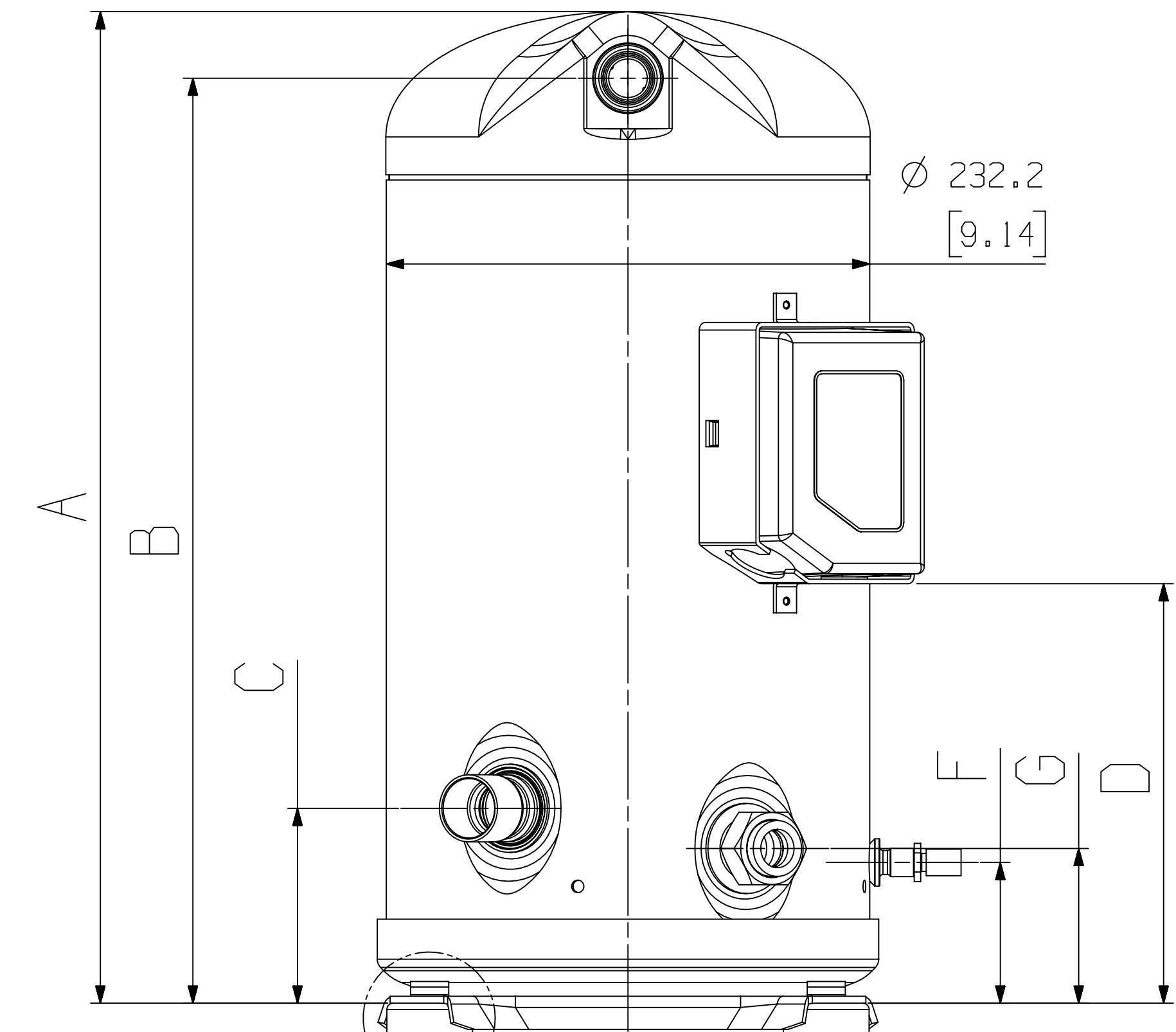
[1.75-12] THREAD ROTALOCK SPUD SUCTION FITTING TORQUE RANGE 170-180 NEWTON-METERS [1500-1590 IN-LBS]



VIEW FOR -12, -13 AND -14 INSTANCES



VIEW FOR -15 AND -16 INSTANCES



SEE DETAIL Y



INTERPRET PER ASME Y14.5M-1994 AND EMERSON CLIMATE TECHNOLOGIES, INC. DESIGN STANDARDS DS2002  
 DO NOT SCALE DRAWING  
 THIRD ANGLE PROJECTION  
 CRITICAL PRODUCT CHARACTERISTICS  
 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE MILLIMETER OR (1 INCH)  
 TOLERANCES:  
 1-PLACE ±  
 2-PLACE ±  
 ANGULAR ±

ECN308659	9	SEE SHEET 2	09-05-18	CC	XMJ	YO
ECN100001	8	SEE SHEET 1 & 2	10-26-16	AZ	LG	AW
ECN201120	7	CHANGED DIMENSION	08-15-16	JLS	LLB	KJR
ECN102816	6	REDRAWN & ADDED VIEW FOR -15 & -16	12-30-15	PLS	KRB	KJR
ECN008643	0	RELEASED	06-26-14	VPV	LLB	KJR
ENG NOTICE NO.	REV.NO.	REVISIONS	DATE	BY	CHKD	APPR

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MATERIAL SPECIFICATION	DRAWN BY	SUPERSEDES DWG. NO. / REV. NO.	
N/A	PLS	497-1675-00 / 005	
	DATE	SCALE	DATE FORMAT
	12-30-15	3:7	MM-DD-YY
TITLE	DRAWING NUMBER	SHEET 3 OF 3	DWG
REF DWG-WELD COMP ASSM	497-1675-00		4
			SIZE

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