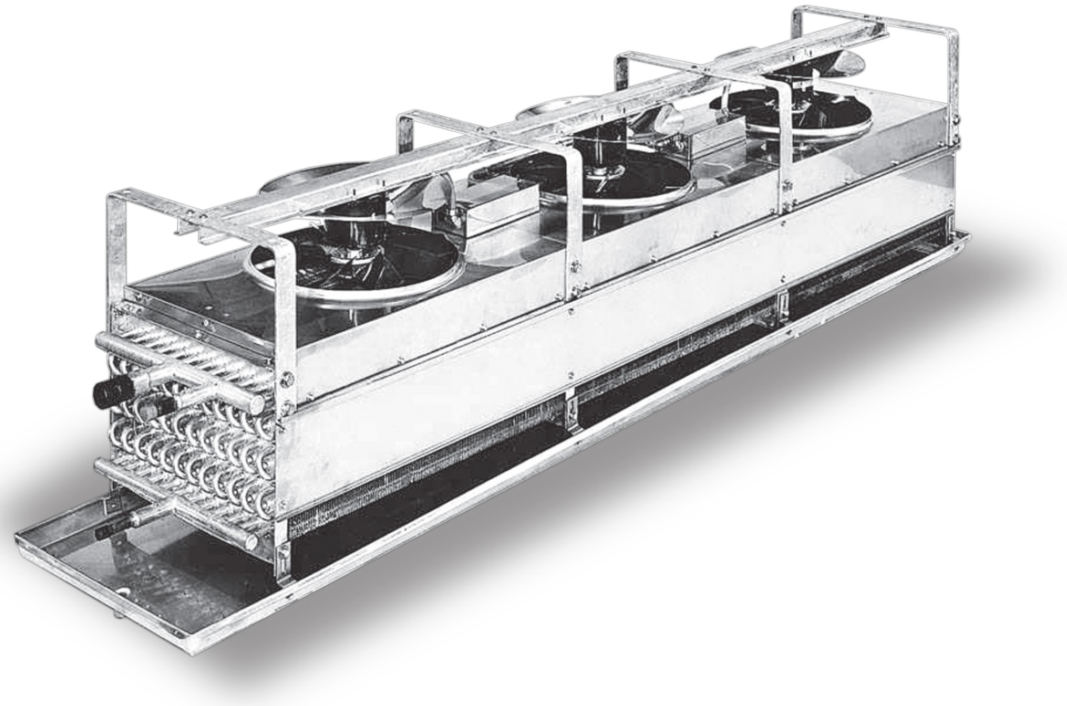
BTR Series

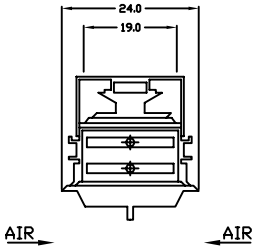
UNIT COOLER

ENGINEERING-ELECTRICAL SCHEMATIC DETAILS



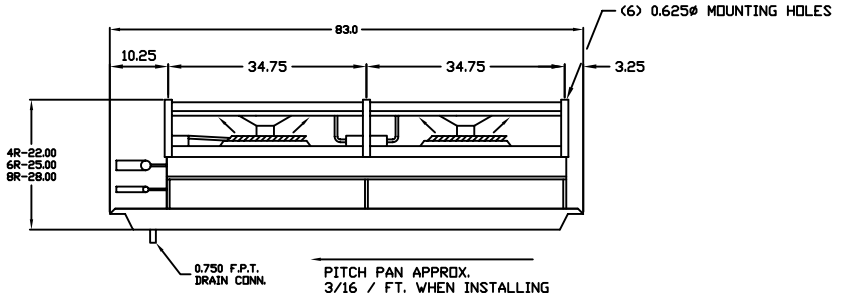
SGS REFRIGERATION

NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.



END VIEW

BTR 24, 26, 28

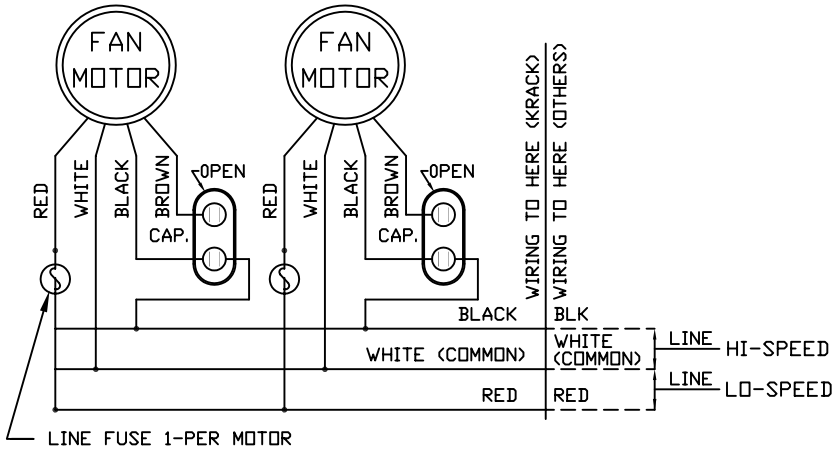


FRONT VIEW

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

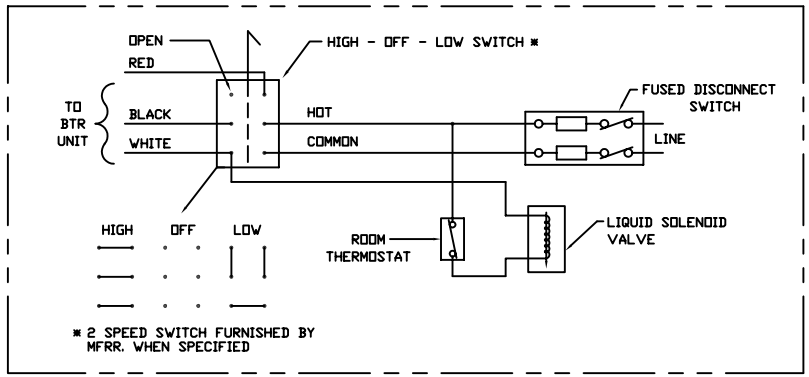
SALES ORDER:	LINE:	NO.	CHANGE DESCRIPTION	DATE	CHK'D
CUSTOMER P.O.:			REVISIONS		
CUSTOMER NAME:					
JOB NAME:					
TAG UNIT:					
MODEL:					
ITEM NO.:					
NO. REQ'D:	DATE:	DRAWN:			
SHEET					REV.
TOLERANCE: ±					

BTR2.DWG R.0



HP	FLA-EACH	FLA-TOTAL
	115/1	115/1
1/6	2.50	5.00

HP	FLA-EACH	FLA-TOTAL
	230/1	230/1
1/6	1.25	2.50



2 SPEED FAN CONTROL DIAGRAM
(MANUAL SWITCHING)
WIRING AND COMPONENTS
SHOWN BY OTHERS

WIRING BY OTHERS - - - - - - -

WIRING BY KRACK ———————

NOTES:

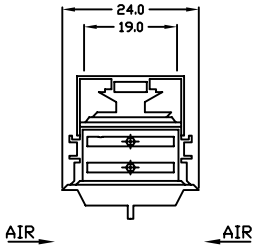
- VOLTAGE: 115-230/60/1
- MOTORS: ARE PERMANENT-SPLIT CAPACITOR-4 LEAD TYPE
  CAPACITORS: 5 MFD, 370 VA
- FAN MOTORS:
  (1) HAVE BUILT-IN OVERLOAD PROTECTION.
  (2) FUSES SHOWN BETWEEN MOTORS, ARE FOR PROTECTION FROM EXCESSIVE CLOSED LOOP CURRENTS THAT COULD BE GENERATED BETWEEN PARALLEL CONNECTED MOTORS DUE TO TRANSFORMER ACTION IN THE TAPPED LOW SPEED WINDINGS.
  (3) FOR 2 SPEED APPLICATIONS WHERE FANS WILL RUN CONTINUOUSLY USE A SEPARATE MANUAL SWITCH FOR EACH UNIT.
  (4) FOR 2 SPEED APPLICATIONS ON MULTIPLE UNITS WHERE AUTOMATIC SWITCHING IS REQUIRED, OR WHERE FANS MUST BE SHUT OFF DURING DEFROST, USE A SEPARATE SWITCHING RELAY FOR EACH UNIT WITH ONE N.C. & ONE N.C. CONTACT BETWEEN HIGH & LOW SPEED WIRES.
  (5) WHENEVER POSSIBLE ALWAYS START MOTOR IN HIGH SPEED.
  (6) CONSULT FACTORY FOR SUGGESTED WIRING.

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

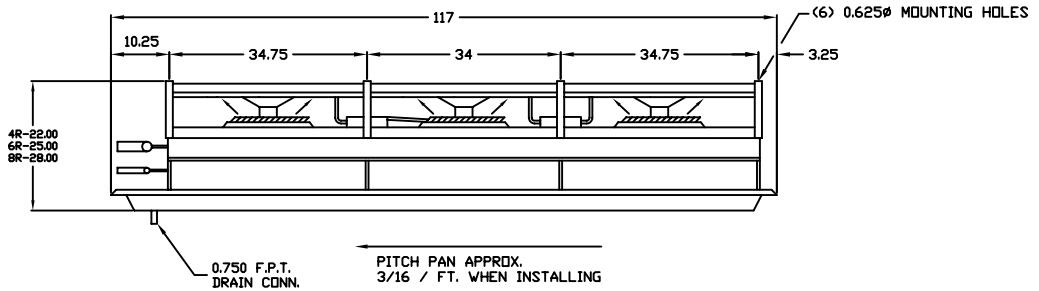
JOB NO.:			
CUSTOMER P.O.:			
CUSTOMER NAME:			
JOB NAME:			
TAG UNIT:			
MODEL:			
ITEM NO.:			
NO. REQ'D:	DATE:	DRAWN:	
SHEET OF			REV.
TOLERANCE: ± 0.500			

BTR2a.DWG R.0

NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.



END VIEW



BTR 34, 36, 38

FRONT VIEW

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

NO.	CHANGE DESCRIPTION	DATE	CK'D

REVISIONS

JOB NO.:

CUSTOMER P.O.:

CUSTOMER NAME:

JOB NAME:

TAG UNIT:

MODEL:

ITEM NO.:

NO. REQ'D:

DATE:

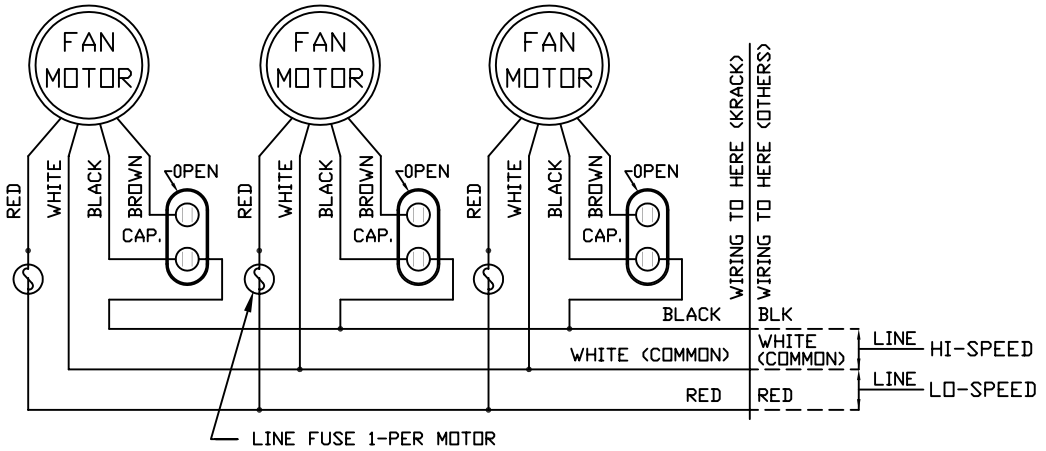
DRAWN:

SHEET OF

TOLERANCE: ±

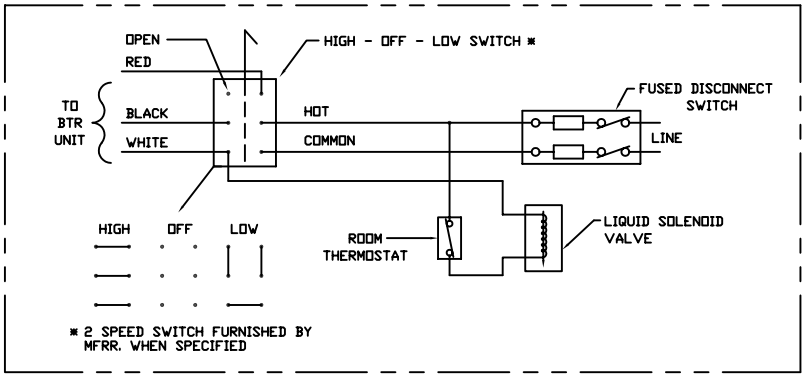
REV.

BTR3.DWG R.0



HP	FLA-EACH	FLA-TOTAL
	115/1	115/1
1/6	2.50	7.50

HP	FLA-EACH	FLA-TOTAL
	230/1	230/1
1/6	1.25	3.75



2 SPEED FAN CONTROL DIAGRAM
(MANUAL SWITCHING)
WIRING AND COMPONENTS
SHOWN BY OTHERS

WIRING BY OTHERS ----------

WIRING BY KRACK ——————

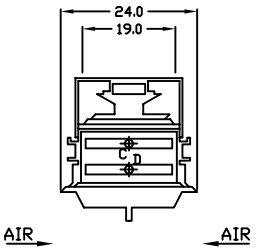
NOTES:

- VOLTAGE: 115-230/60/1
- MOTORS: ARE PERMANENT-SPLIT CAPACITOR-4 LEAD TYPE
  CAPACITORS: 5 MFD, 370 VA
- FAN MOTORS:
  (1) HAVE BUILT-IN OVERLOAD PROTECTION.
  (2) FUSES SHOWN BETWEEN MOTORS, ARE FOR PROTECTION FROM EXCESSIVE CLOSED LOOP CURRENTS THAT COULD BE GENERATED BETWEEN PARALLEL CONNECTED MOTORS DUE TO TRANSFORMER ACTION IN THE TAPPED LOW SPEED WINDINGS.
  (3) FOR 2 SPEED APPLICATIONS WHERE FANS WILL RUN CONTINUOUSLY USE A SEPARATE MANUAL SWITCH FOR EACH UNIT.
  (4) FOR 2 SPEED APPLICATIONS ON MULTIPLE UNITS WHERE AUTOMATIC SWITCHING IS REQUIRED, OR WHERE FANS MUST BE SHUT OFF DURING DEFROST, USE A SEPARATE SWITCHING RELAY FOR EACH UNIT WITH ONE N.C. & ONE N.C. CONTACT BETWEEN HIGH & LOW SPEED WIRES.
  (5) WHENEVER POSSIBLE ALWAYS START MOTOR IN HIGH SPEED.
  (6) CONSULT FACTORY FOR SUGGESTED WIRING.

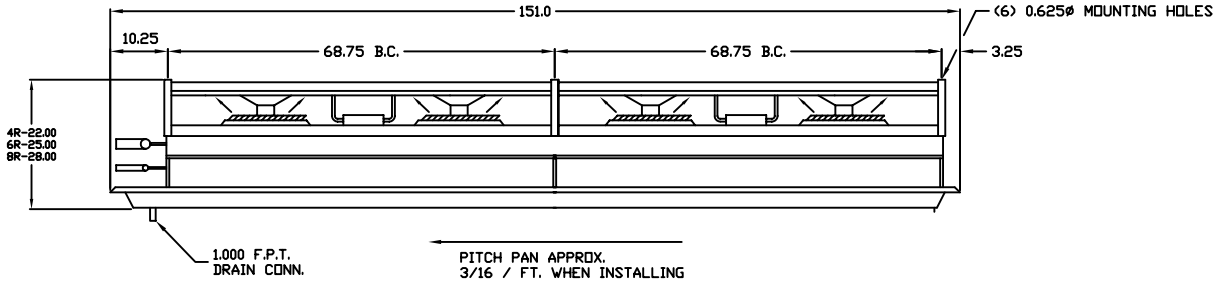
JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF			REV.	
TOLERANCE: ±				

BTR3a.DWG R.0

NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.



END VIEW



BTR 44, 46, 48

FRONT VIEW

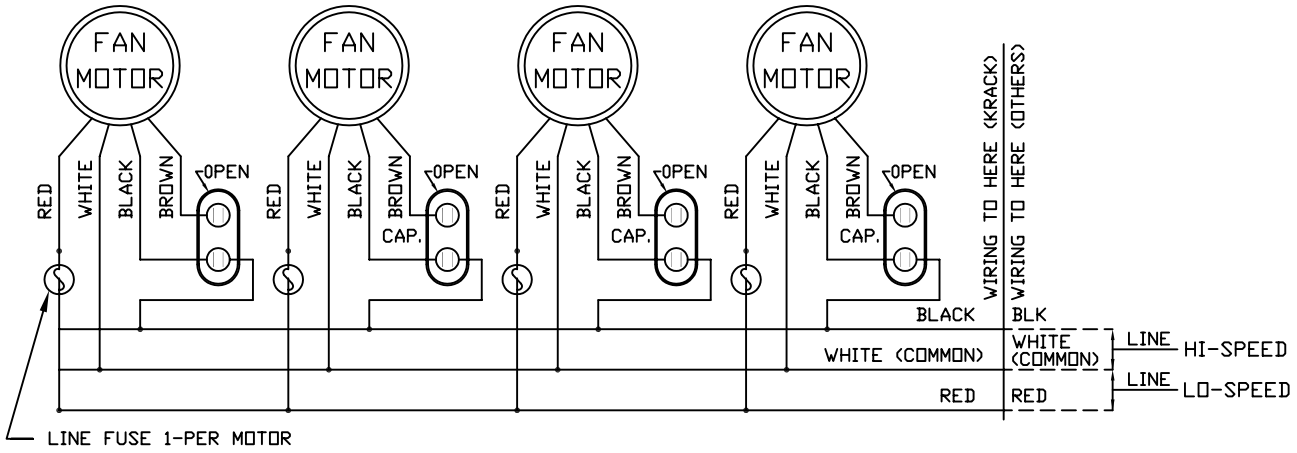
DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

NO.	CHANGE DESCRIPTION	DATE	CK'D

REVISIONS

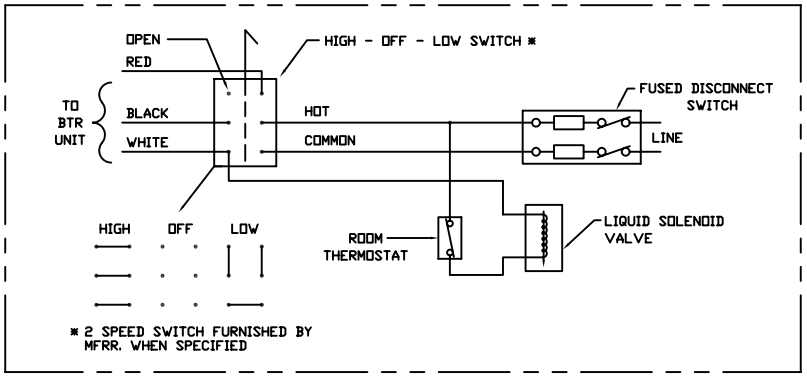
JOB NO.:		
CUSTOMER P.O.:		
CUSTOMER NAME:		
JOB NAME:		
TAG UNIT:		
MODEL:		
ITEM NO.:		
NO. REQ'D:	DATE:	DRAWN:
SHEET OF		REV.
TOLERANCE: ± 0.500		

BTR4.DWG R.0



HP	FLA-EACH	FLA-TOTAL
	115/1	115/1
1/6	2.50	10.00

HP	FLA-EACH	FLA-TOTAL
	230/1	230/1
1/6	1.25	5.00



2 SPEED FAN CONTROL DIAGRAM
(MANUAL SWITCHING)
WIRING AND COMPONENTS
SHOWN BY OTHERS

WIRING BY OTHERS - - - - - - - - - -

WIRING BY KRACK ————————

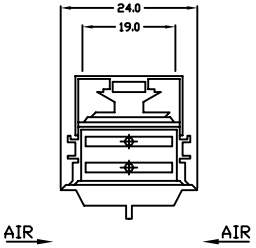
NOTES:

- VOLTAGE: 115-230/60/1
- MOTORS: ARE PERMANENT-SPLIT CAPACITOR-4 LEAD TYPE
  CAPACITORS: 5 MFD, 370 VA
- FAN MOTORS:
  (1) HAVE BUILT-IN OVERLOAD PROTECTION.
  (2) FUSES SHOWN BETWEEN MOTORS, ARE FOR PROTECTION FROM EXCESSIVE CLOSED LOOP CURRENTS THAT COULD BE GENERATED BETWEEN PARALLEL CONNECTED MOTORS DUE TO TRANSFORMER ACTION IN THE TAPPED LOW SPEED WINDINGS.
  (3) FOR 2 SPEED APPLICATIONS WHERE FANS WILL RUN CONTINUOUSLY USE A SEPARATE MANUAL SWITCH FOR EACH UNIT.
  (4) FOR 2 SPEED APPLICATIONS ON MULTIPLE UNITS WHERE AUTOMATIC SWITCHING IS REQUIRED, OR WHERE FANS MUST BE SHUT OFF DURING DEFROST, USE A SEPARATE SWITCHING RELAY FOR EACH UNIT WITH ONE N.C. & ONE N.C. CONTACT BETWEEN HIGH & LOW SPEED WIRES.
  (5) WHENEVER POSSIBLE ALWAYS START MOTOR IN HIGH SPEED.
  (6) CONSULT FACTORY FOR SUGGESTED WIRING.

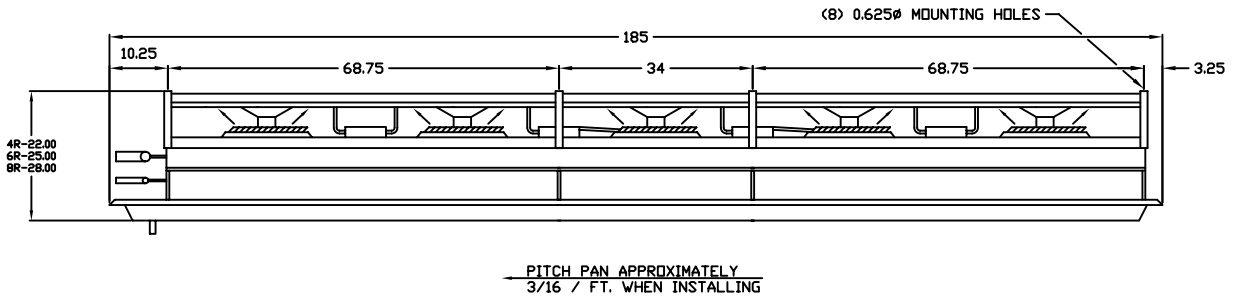
JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF				REV.
TOLERANCE: ± 0.500				

BTR4a.DWG R.0

NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.



END VIEW



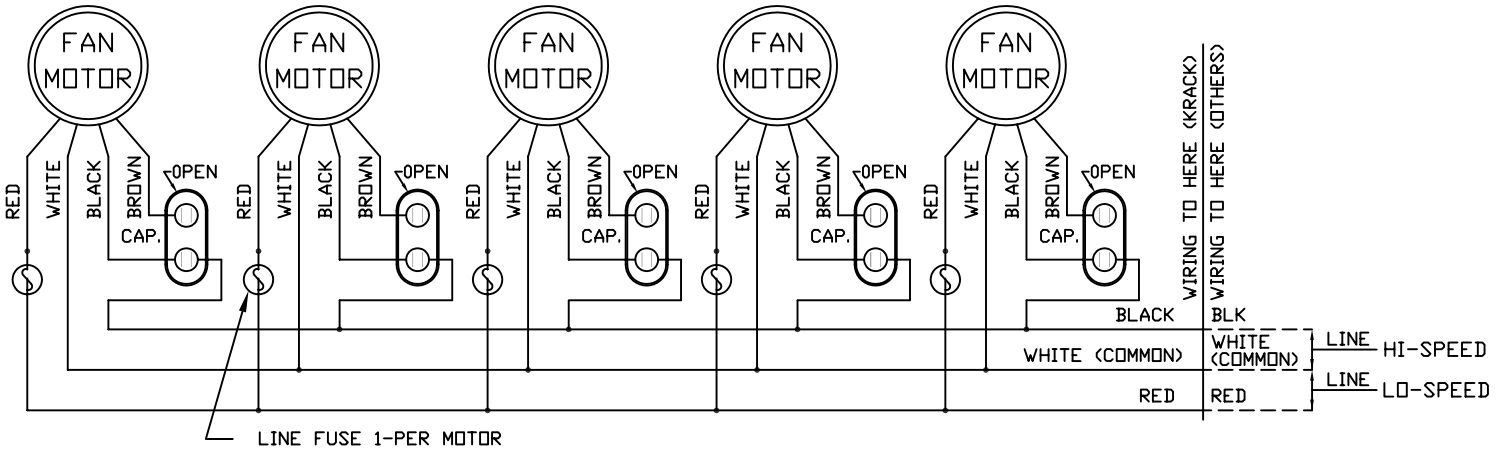
BTR 54, 56, 58

FRONT VIEW

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

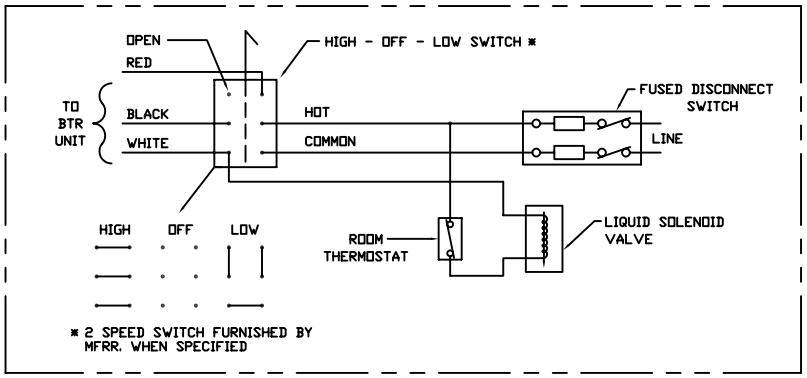
JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF				REV.
TOLERANCE: ±				

BTR5.DWG R.0



HP	FLA-EACH	FLA-TOTAL
	115/1	115/1
1/6	2.50	12.50

HP	FLA-EACH	FLA-TOTAL
	230/1	230/1
1/6	1.25	6.25



2 SPEED FAN CONTROL DIAGRAM
(MANUAL SWITCHING)
WIRING AND COMPONENTS
SHOWN BY OTHERS

WIRING BY OTHERS - - - - - - - - -

WIRING BY KRACK ———————

NOTES:

- VOLTAGE: 115-230/60/1
- MOTORS: ARE PERMANENT-SPLIT CAPACITOR-4 LEAD TYPE
  CAPACITORS: 5 MFD, 370 VA
- FAN MOTORS:
  (1) HAVE BUILT-IN OVERLOAD PROTECTION.
  (2) FUSES SHOWN BETWEEN MOTORS, ARE FOR PROTECTION FROM EXCESSIVE CLOSED LOOP CURRENTS THAT COULD BE GENERATED BETWEEN PARALLEL CONNECTED MOTORS DUE TO TRANSFORMER ACTION IN THE TAPPED LOW SPEED WINDINGS.
  (3) FOR 2 SPEED APPLICATIONS WHERE FANS WILL RUN CONTINUOUSLY USE A SEPARATE MANUAL SWITCH FOR EACH UNIT.
  (4) FOR 2 SPEED APPLICATIONS ON MULTIPLE UNITS WHERE AUTOMATIC SWITCHING IS REQUIRED, OR WHERE FANS MUST BE SHUT OFF DURING DEFROST, USE A SEPARATE SWITCHING RELAY FOR EACH UNIT WITH ONE N.C. & ONE N.C. CONTACT BETWEEN HIGH & LOW SPEED WIRES.
  (5) WHENEVER POSSIBLE ALWAYS START MOTOR IN HIGH SPEED.
  (6) CONSULT FACTORY FOR SUGGESTED WIRING.

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

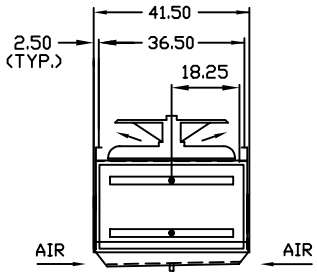
JOB NO.:
CUSTOMER P.O.:
CUSTOMER NAME:
JOB NAME:
TAG UNIT:
MODEL:
ITEM NO.:
NO. REQ'D:
DATE:
DRAWN:
SHEET OF
TOLERANCE: ±
REV.

BTR5a.DWG R.0

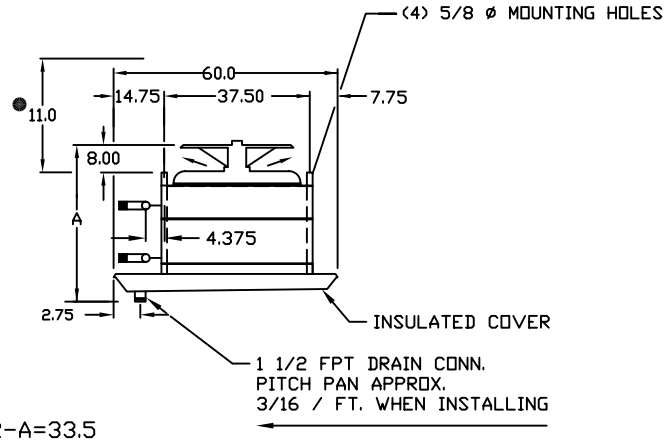
NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

BTR 114-6-8

END VIEW



FRONT VIEW



4R-A=33.5
6R-A=36.5
8R-A=39.5

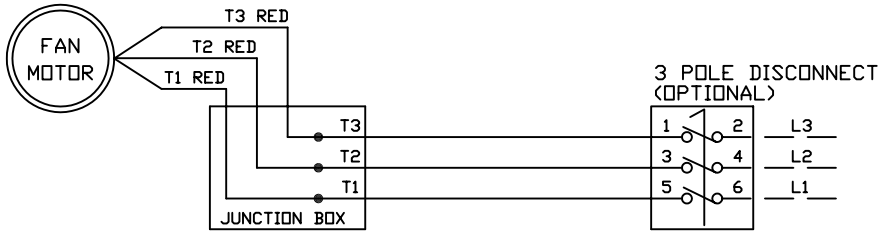
DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

● = MINIMUM REQUIRED FOR COMPLETE FAN AND MOTOR ASSEMBLY REMOVAL

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

JOB NO.:		
CUSTOMER P.O.:		
CUSTOMER NAME:		
JOB NAME:		
TAG UNIT:		
MODEL:		
ITEM NO.:		
NO. REQ'D:	DATE:	DRAWN:
SHEET OF		REV.
TOLERANCE: (INCHES) ± 0.500		

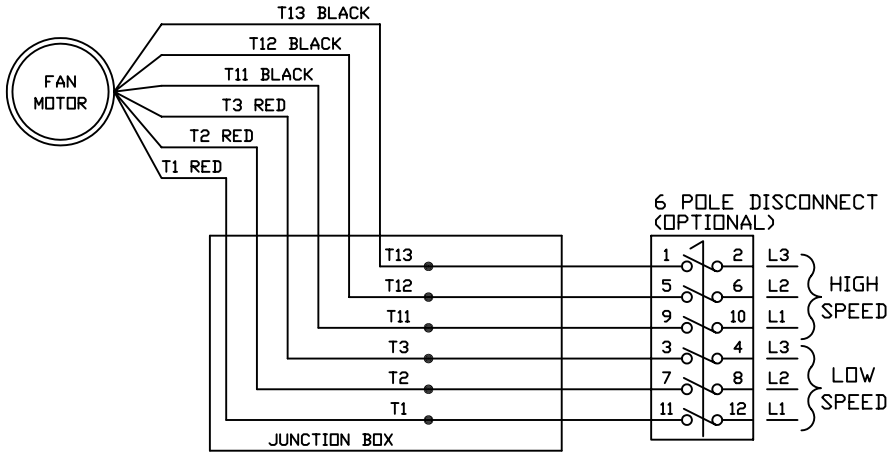
BTR11.DWG R.0



HP	FLA-EACH	FLA-TOTAL
	230/3	230/3
1/2	2.00	2.00

HP	FLA-EACH	FLA-TOTAL
	460/3	460/3
1/2	1.00	1.00

1 FAN WIRING DIAGRAM W/ OPTIONAL DISCONNECT



1 FAN 2 SPEED WIRING DIAGRAM W/ OPTIONAL DISCONNECT

WIRNG BY OTHERS — — — —

WIRING BY KRACK ————————

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

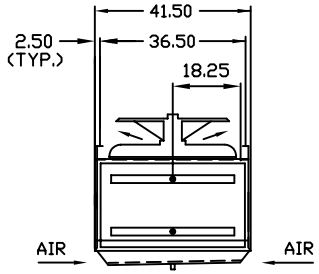
JOB NO.:	
CUSTOMER P.O.:	
CUSTOMER NAME:	
JOB NAME:	
TAG UNIT:	
MODEL:	
ITEM NO.:	
NO. REQ'D:	DATE: DRAWN:
SHEET OF	REV.
TOLERANCE: ±	

BTR11a.DWG R.0

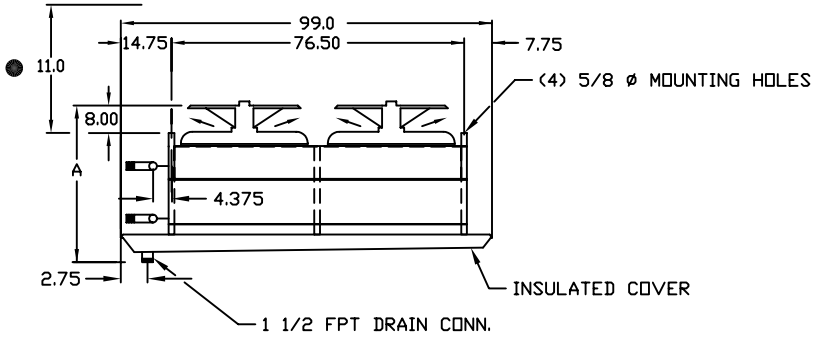
NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

BTR 214-6-8

END VIEW



FRONT VIEW



PITCH PAN APPROX.
3/16 / FT. WHEN INSTALLING

4R-A=33.5
6R-A=36.5
8R-A=39.5

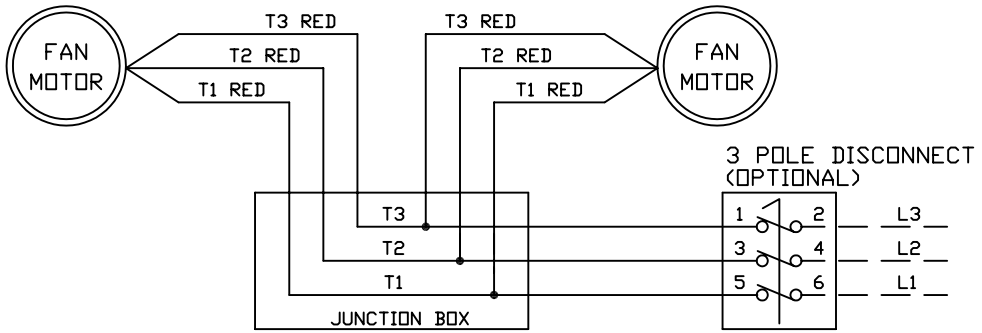
● = MINIMUM REQUIRED FOR COMPLETE FAN AND MOTOR ASSEMBLY REMOVAL

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

JOB NO.:
CUSTOMER P.O.:
CUSTOMER NAME:
JOB NAME:
TAG UNIT:
MODEL:
ITEM NO.:
NO. REQ'D:
DATE:
DRAWN:
SHEET OF
TOLERANCE: ±
REV.

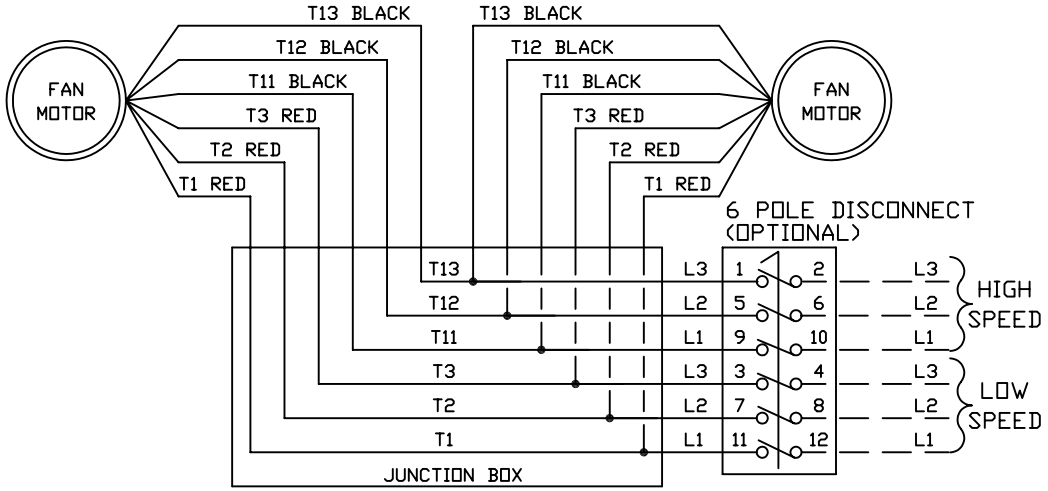
BTR21.DWG R.0



2 FAN WIRING DIAGRAM W/ OPTIONAL DISCONNECT

HP	FLA-EACH	FLA-TOTAL
	230/3	230/3
1/2	2.00	4.00

HP	FLA-EACH	FLA-TOTAL
	460/3	460/3
1/2	1.00	2.00



2 FAN 2 SPEED WIRING DIAGRAM W/ OPTIONAL DISCONNECT

WIRING BY OTHERS — — — — —

WIRING BY KRACK ————————

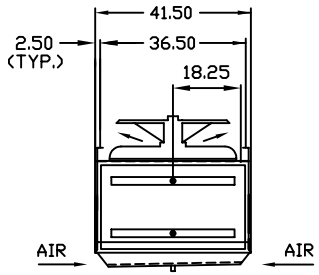
JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF				REV.
TOLERANCE: ± 0.500				

BTR21a.DWG R.0

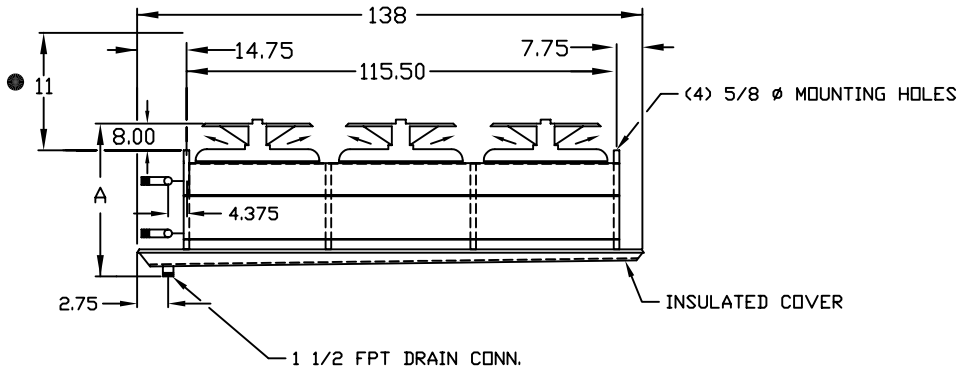
NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

BTR 314-6-8

END VIEW



FRONT VIEW



4R-A=33.5
6R-A=36.5
8R-A=39.5

PITCH PAN APPROX.
3/16 / FT. WHEN INSTALLING

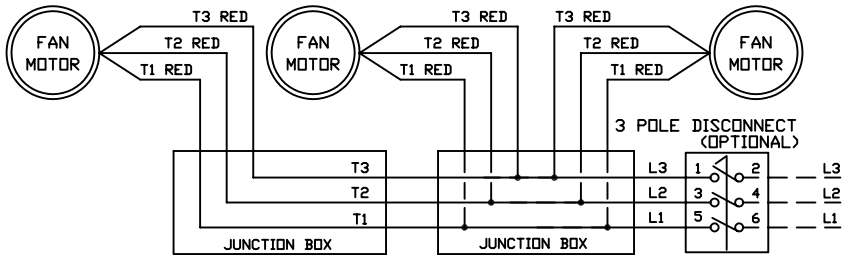
● = MINIMUM REQUIRED FOR COMPLETE FAN AND MOTOR ASSEMBLY REMOVAL

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

JOB NO.:
CUSTOMER P.O.:
CUSTOMER NAME:
JOB NAME:
TAG UNIT:
MODEL:
ITEM NO.:
NO. REQ'D:
DATE:
DRAWN:
SHEET OF
TOLERANCE: ±
REV.

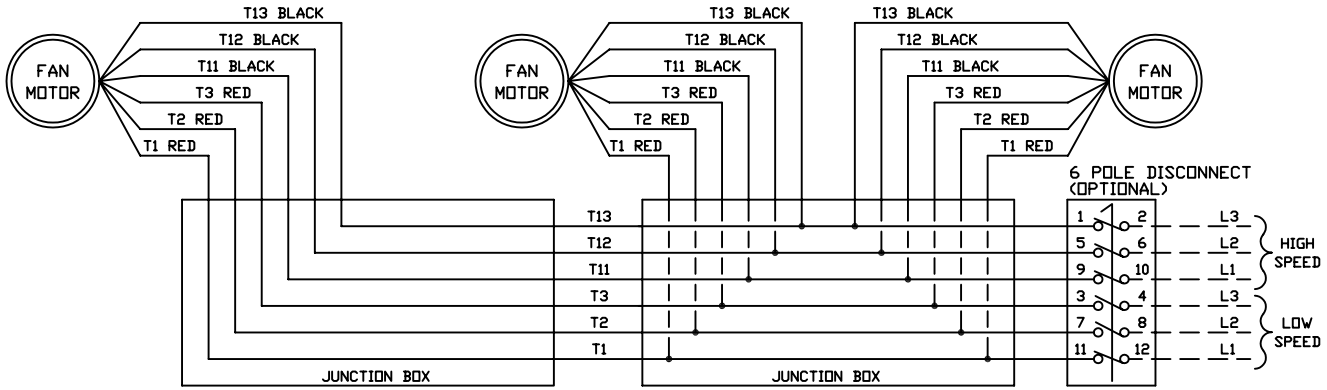
BTR31.DWG R.0



3 FAN WIRING DIAGRAM W/ OPTIONAL DISCONNECT

HP	FLA-EACH	FLA-TOTAL
	230/3	230/3
1/2	2.00	6.00

HP	FLA-EACH	FLA-TOTAL
	460/3	460/3
1/2	1.00	3.00



3 FAN 2 SPEED WIRING DIAGRAM W/ OPTIONAL DISCONNECT

WIRING BY OTHERS — — — — —

WIRING BY KRACK ————————

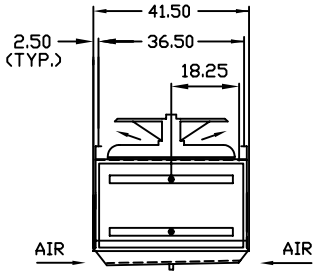
JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF				REV.
TOLERANCE: ±				

BTR31a.DWG R.0

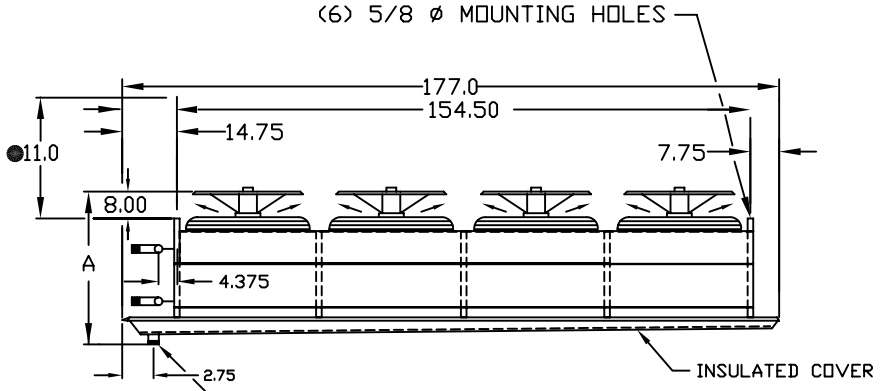
NOTE: DIMENSIONAL DRAWING FOR QUOTATION PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

BTR 414-6-8

END VIEW



FRONT VIEW



4R-A=33.5
6R-A=36.5
8R-A=39.5

PITCH PAN APPROX.
3/16 / FT. WHEN INSTALLING

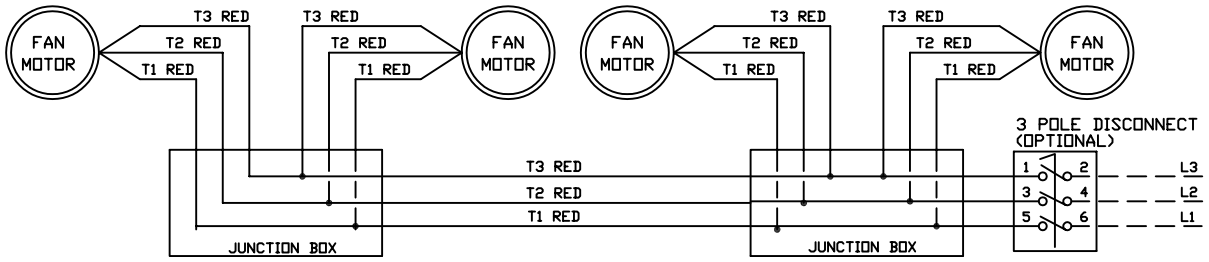
● = MINIMUM REQUIRED FOR COMPLETE FAN AND MOTOR ASSEMBLY REMOVAL

DESIGN SPECIFICATIONS		UNITS
UNIT COOLING CAPACITY		BTUH
ROOM TEMPERATURE		°F
SUCTION TEMPERATURE		°F
REFRIGERANT		–
AIR FLOW RATE		CFM
EXTERNAL STATIC PRESSURE		INWG
NOMINAL FIN SPACING		FINS/IN
TOTAL SURFACE AREA		FT^2
APPROXIMATE WEIGHT		LBS.

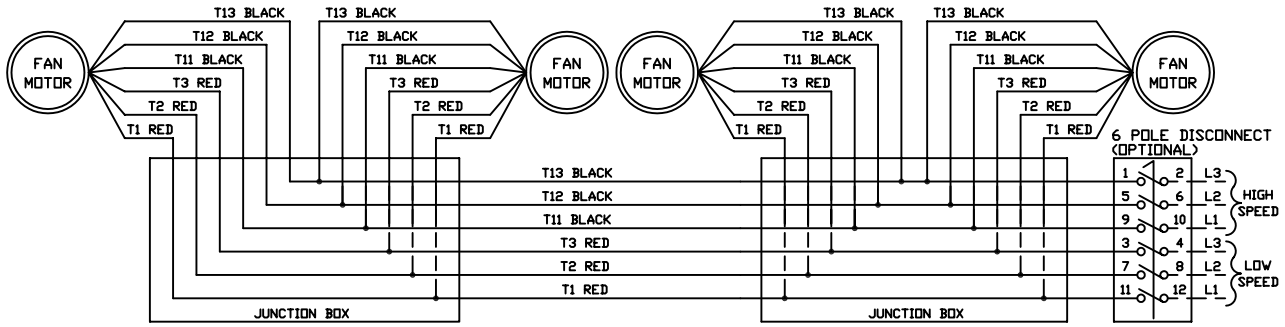
NO.	CHANGE DESCRIPTION	DATE	CK'D
	REVISIONS		

JOB NO.:
CUSTOMER P.O.:
CUSTOMER NAME:
JOB NAME:
TAG UNIT:
MODEL:
ITEM NO.:
NO. REQ'D:
DATE:
DRAWN:
SHEET OF
TOLERANCE: ±
REV.

BTR41.DWG R.0



4 FAN WIRING DIAGRAM W/ OPTIONAL DISCONNECT



4 FAN 2 SPEED WIRING DIAGRAM W/ OPTIONAL DISCONNECT

HP	FLA-EACH	FLA-TOTAL
	230/3	230/3
1/2	2.00	8.00

HP	FLA-EACH	FLA-TOTAL
	460/3	460/3
1/2	1.00	4.00

WIRING BY OTHERS ————————

WIRING BY KRACK — — — — —

JOB NO.:	NO.	CHANGE DESCRIPTION	DATE	CK'D
CUSTOMER P.O.:		REVISIONS		
CUSTOMER NAME:				
JOB NAME:				
TAG UNIT:				
MODEL:				
ITEM NO.:				
NO. REQ'D:	DATE:	DRAWN:		
SHEET OF			REV.	
TOLERANCE: ±				

BTR41a.DWG R.0