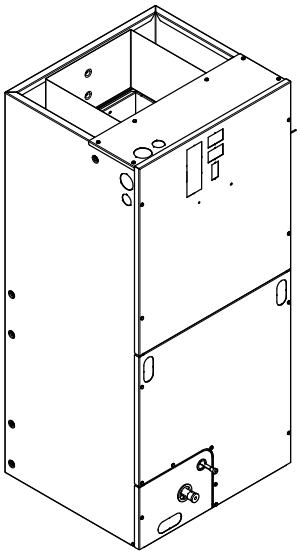
Submittal

Variable Speed Convertible Air Handler
4 Ton

TEM8A0C48V41DB



Note: *The TEM8 series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Field installed electric resistance heaters are available.*

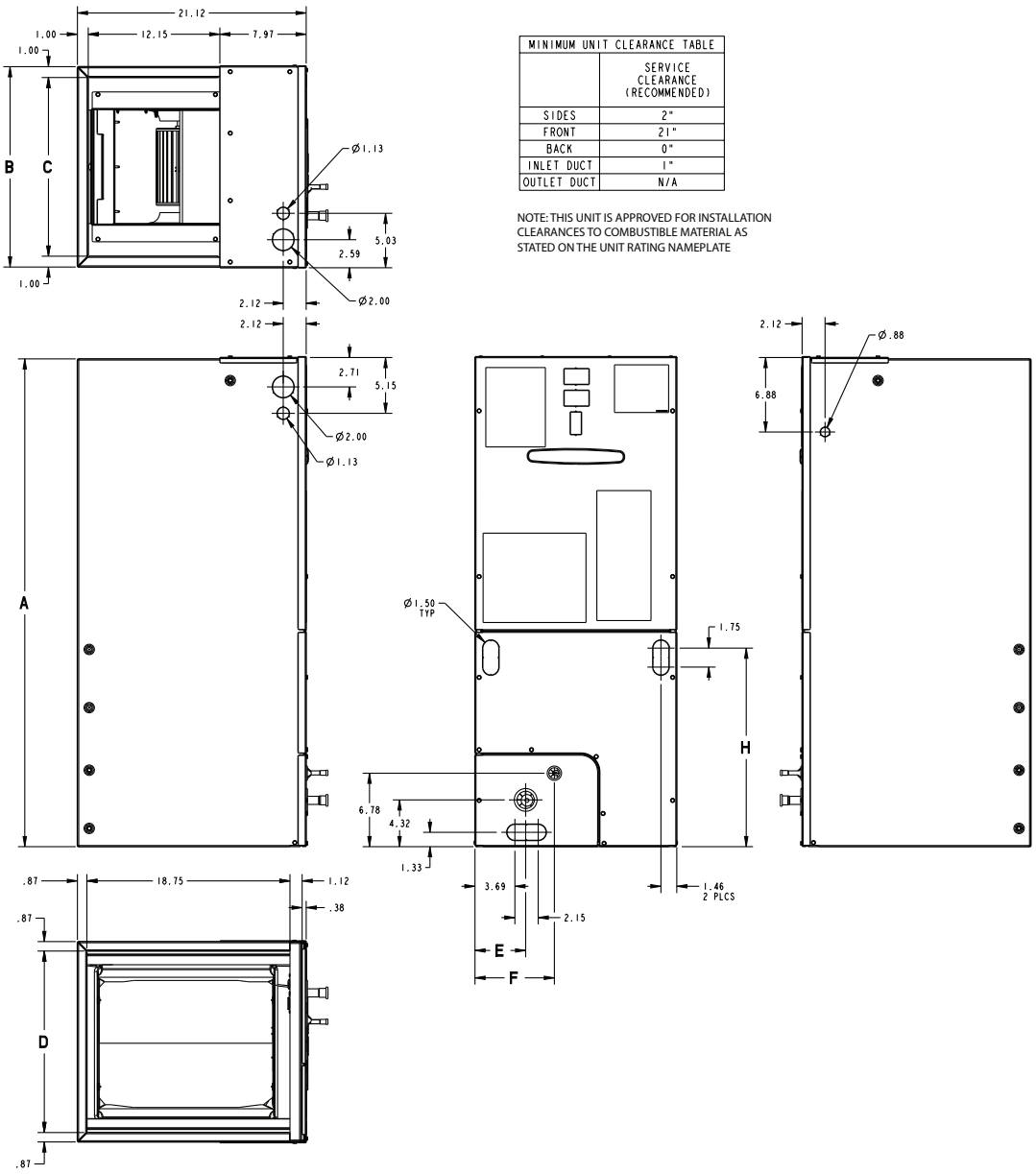
TAG:_____

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

March 2018 **TEM8A0C48-SUB-1C-EN** Ingersoll Rand

Outline Drawing



MINIMUM UNIT CLEARANCE TABLE	
	SERVICE CLEARANCE (RECOMMENDED)
SIDES	2"
FRONT	21"
BACK	0"
INLET DUCT	1"
OUTLET DUCT	N/A

NOTE: THIS UNIT IS APPROVED FOR INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIAL AS STATED ON THE UNIT RATING NAMEPLATE

PRODUCT DIMENSIONS									
Air Handler Model	A	B	C	D	E	F	H	Flow Control	Gas Line Braze
TEM8A0C48V41DB	55.87	23.50	21.50	21.75	4.68	9.66	27.19	TXV	7/8
All dimensions are in inches									

Product Specifications

MODEL	TEM8A0C48V41DB
RATED VOLTS/PH/HZ	208-230/1/60
RATINGS[a]	See O.D. Specifications
INDOOR COIL — Type	Plate Fin
Rows — F.P.I.	3 - 16
Face Area (sq. ft.)	7.9
Tube Size (in.)	3/8
Refrigerant Control	TXV
Drain Conn. Size (in.)[b]	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing
INDOOR FAN — Type	Centrifugal
Diameter-Width (In.)	11 X 11
No. Used	1
Drive - No. Speeds	Direct - 16
CFM vs. in. w.g.	See Fan Performance Table
No. Motors — H.P.	1 - 3/4
Motor Speed R.P.M.	Variable
Volts/Ph/Hz	208-230/1/60

F.L. Amps	5.7
FILTER	
Filter Furnished? [c]	No
REFRIGERANT	R-410A
Ref. Line Connections	Brazed
Coupling or Conn. Size — in. Gas	7/8
Coupling or Conn. Size — in. Liq.	3/8
DIMENSIONS	H x W x D
Crated (In.)	57-1/8 x 27-1/2 x 25-1/2
Uncrated	55-3/4 x 23-1/2 x 21-1/8
WEIGHT	
Shipping (Lbs.) / Net (Lbs.)	185/174

[a] These Air Handlers are A.H.R.I certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240). Refer to the Split System Outdoor Unit Product Data Guides for performance data.
[b] 3/4" Male Plastic Pipe (Ref: ASTM 1785–76)
[c] Remote filter required.

Minimum Airflow CFM

TEM8A0C48V41DB		
Heater	**Minimum Heater Airflow CFM**	
	With Heat Pump	Without Heat Pump
BAYHTR1504BRK, BAYHTR1504LUG BAYHTR1505BRK, BAYHTR1505LUG	900	800
BAYHTR1508BRK, BAYHTR1508LUG	1200	1000
BAYHTR1510BRK, BAYHTR1510LUG	1350	1000
BAYHTR1517BRK	1400	1100
BAYHTR3510LUG	1200	1000
BAYHTR3517LUG	1400	1100
BAYHTR1523BRK	1430	1300
BAYHTR1525BRK	1850	1600

Heater Pressure Drop Table

Airflow CFM	Number of Racks					Heater Racks	
	1	2	3	4		Heater Model	No. of Racks
	Air Pressure Drop — Inches W.G.					BAYHTR1504	1
1800	0.02	0.04	0.06	0.14		BAYHTR1505	1
1700	0.02	0.04	0.06	0.14		BAYHTR1508	2
1600	0.02	0.04	0.06	0.13		BAYHTR1510	2
1500	0.02	0.04	0.06	0.12		BAYHTR1516	3
1400	0.02	0.04	0.06	0.12		BAYHTR3510	3
1300	0.02	0.04	0.05	0.11		BAYHTR3515	3
1200	0.01	0.04	0.05	0.10		BAYHTR1517	3
1100	0.01	0.03	0.05	0.09		BAYHTR1522	4
1000	0.01	0.03	0.04	0.09		BAYHTR1523	4
900	0.01	0.03	0.04	0.08		BAYHTR3517	3
800	0.01	0.03				BAYHTR1525	4
700	0.01	0.02					
600	0.01	0.02					

Subcooling Adjustment for TEM8A0C48V41 & TEM8A0C60V51

Sub-Cooling Charge Specification For AHRI Rated Performance		
OD Equipment	**Up Flow / Horizontal**	**Down Flow**
AC UNIT	OD Name Plate	OD Name Plate
HP UNIT ≤ 3.5 Tons	OD Name Plate	OD Name Plate + 4 Degrees
HP UNIT = 4 and 5 Tons	OD Name Plate	OD Name Plate

Performance and Electrical Data

TEM8A0C48V41DB & TEM8A0C60V51DB AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
3 tons	290 CFM/ton	CFM Watts	864 / 1015 80 / 96	856 / 883 119 / 121	851 / 772 170 / 141	850 / 676 217 / 160	820 / 590 276 / 182	290 CFM/ton	CFM Watts	864 76	856 119	851 168	843 219	822 276
	350 CFM/ton	CFM Watts	1037 / 1179 120 / 137	1037 / 1059 170 / 164	1040 / 957 224 / 185	1030 / 866 265 / 204	1030 / 784 334 / 221	350 CFM/ton	CFM Watts	1037 110	1037 158	1040 213	1039 271	1032 334
	400 CFM/ton	CFM Watts	1184 / 1317 160 / 180	1187 / 1207 215 / 209	1193 / 1110 275 / 233	1180 / 1024 325 / 251	1190 / 945 380 / 268	400 CFM/ton	CFM Watts	1184 149	1187 200	1193 260	1196 324	1197 393
	450 CFM/ton	CFM Watts	1334 / 1457 205 / 232	1336 / 1354 265 / 265	1343 / 1263 335 / 290	1340 / 1181 395 / 310	1340 / 1105 460 / 327	450 CFM/ton	CFM Watts	1334 198	1336 254	1343 318	1348 388	1353 461
3.5 tons	290 CFM/ton	CFM Watts	1015 / 1147 115 / 128	1000 / 1025 160 / 155	1000 / 921 205 / 176	1000 / 829 255 / 194	1000 / 746 309 / 212	290 CFM/ton	CFM Watts	1003 103	1002 149	1004 203	1002 260	992 322
	350 CFM/ton	CFM Watts	1210 / 1341 165 / 188	1210 / 1231 220 / 218	1210 / 1136 280 / 241	1210 / 1050 335 / 260	1210 / 971 395 / 277	350 CFM/ton	CFM Watts	1209 157	1212 208	1218 269	1222 334	1224 403
	400 CFM/ton	CFM Watts	1380 / 1503 195 / 252	1380 / 1403 285 / 286	1390 / 1314 355 / 312	1390 / 1233 420 / 332	1390 / 1159 485 / 349	400 CFM/ton	CFM Watts	1384 217	1386 275	1393 340	1397 412	1402 487
	450 CFM/ton	CFM Watts	1560 / 1667 295 / 332	1560 / 1575 365 / 369	1570 / 1492 440 / 398	1570 / 1416 515 / 421	1579 / 1345 595 / 439	450 CFM/ton	CFM Watts	1563 293	1563 362	1566 429	1566 507	1564 588
4 tons	290 CFM/ton	CFM Watts	1140 / 1304 145 / 175	1140 / 1192 200 / 204	1140 / 1095 255 / 227	1140 / 1008 310 / 246	1150 / 929 365 / 263	290 CFM/ton	CFM Watts	1144 138	1147 188	1152 247	1155 309	1154 376
	350 CFM/ton	CFM Watts	1380 / 1525 220 / 262	1380 / 1426 285 / 295	1390 / 1338 355 / 322	1390 / 1257 420 / 343	1390 / 1183 485 / 360	350 CFM/ton	CFM Watts	1384 217	1386 275	1393 340	1397 412	1402 487
	400 CFM/ton	CFM Watts	1590 / 1711 305 / 356	1590 / 1621 380 / 267	1590 / 1539 455 / 356	1590 / 1464 535 /267	1600 / 1394 610 / 466	400 CFM/ton	CFM Watts	1589 305	1588 376	1591 444	1589 522	1585 604
	450 CFM/ton	CFM Watts	1790 / 1898 410 / 474	1790 / 1816 495 / 597	1800 / 1741 585 / 548	1800 / 1670 670 / 575	1810 / 1604 760 / 597	450 CFM/ton	CFM Watts	1800 419	1794 509	1791 575	1773 660	1745 749
5 tons †	290 CFM/ton	CFM Watts	1430 / 1571 240 / 283	1440 / 1475 310 / 318	1440 / 1388 375 / 345	1440 / 1309 445 / 367	1440 / 1236 515 / 384	290 CFM/ton	CFM Watts	1435 237	1436 297	1442 364	1446 437	1450 514
	350 † CFM/ton	CFM Watts	1740 / 1851 380 / 442	1740 / 1767 465 / 482	1750 / 1690 550 / 514	1750 / 1619 635 / 541	1760 / 1552 720 / 562	350 † CFM/ton	CFM Watts	1747 388	1742 472	1740 539	1728 623	1707 710
	400 CFM/ton	CFM Watts	2000 / 2087 540 / 619	2000 / 2012 635 / 663	2010 / 1942 735 / 700	1980 / 1873 810 / 729	1870 / 317 810 / 378	400 CFM/ton	CFM Watts	2015 559	2007 679	1995 739	1951 810	1877 810
	450 CFM/ton	CFM Watts	2260 / 2141 745 / 686	2210 / 2068 810 / 729	2100 / 1999 810 / 766	1980 / 903 810 / 359	1870 / 315 810 / 405	450 CFM/ton	CFM Watts	2125 641	2117 779	2100 810	2038 810	1932 810

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- In communicating mode, default CFM/Ton is 400.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

1. *See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters.*
2. *Heater model numbers may have additional suffix digits.*

Note: *Heater size needs to be set in Configuration Menu.*

Table 1. Electrical Data

TEM8A0C48V41DB, TEM8A0C60V51DB HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				5.7 *	7	15			5.7 *	7	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	27	30	2.88	9800	13.8	24	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	32	35	3.60	12300	17.3	29	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	47	50	5.76	19700	27.7	42	45
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1517BRK Circuit 1 [a]	2/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR1523BRK Circuit 1 [a]	2/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1523BRK Circuit 2		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYHTR1525BRK Circuit 1 [a]	4/1	6.00	20500	25.0	38	40	4.50	15400	21.6	34	35
BAYHTR1525BRK Circuit 2		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR1525BRK Circuit 3		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR1525BRK Circuit 4		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR3510LUG	1/3	9.60	32800	23.1	35	35	7.20	24600	20.0	31	35
BAYHTR3517LUG	1/3	14.40	49100	34.6	50	50	10.80	36900	30.0	44	45
* = Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

Features and Benefits

- Communicating or 24 V control
- Painted metal cabinet with captured foil face insulation
- 2% or less air leakage
- R-4.2 Insulating Value
- Multi-Position UP/Down Flow, Horizontal Left /Right
- ALL Aluminum Coil with Enhanced Patented Coil Fin
- Electric Heaters with polarized plug connections (sold as accessory)
- R-410A Thermal Expansion Valve
- Variable Speed ECM Motor
- Low Voltage Pigtail Connections
- Draw Through Design
- Horizontal Drain Pan
- Single Color
- Fused 24V Power
- **3 year warranty**
- **10-year warranty registered**
- **Optional extended warranty available**

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TEM8A0C48-SUB-1C-EN 19 Mar 2018
Supersedes TEM8A0C48-SUB-1B-EN (August 2017)