DOCKETED	
Docket Number:	18-BSTD-02
Project Title:	2019 ENERGY CODE COMPLIANCE MANUALS
TN #:	232778-16
Document Title:	2019-CF2R-MCH-26-RatedSystemVerificationpdf
Description:	N/A
Filer:	Corrine Fishman
Organization:	California Energy Commission
Submitter Role:	Public Agency
Submission Date:	4/20/2020 8:45:49 AM
Docketed Date:	4/20/2020

RATED SPACE CONDITIONING SYSTEM EQUIPMENT VERIFICATION

00_ 0000 0.0		xi	
EC-CF2R-MCH-26-H (Revised 01/19)	(CALIFORNIA ENERGY COMMISSION	
CERTIFICATE OF INSTALLATION		CF2R-MCH-26	-H
Rated Space Conditioning System Equipment Verification		(Page 1 of	3)
Project Name:	Enforcement Agency:	Permit Number:	
Dwelling Address:	City:	Zip Code:	

	ystem Information	
Proc	edures for verification of High SEER and EER Equipment are described in Reference Apper	ndix RA3.4. Each HVAC system requiring verification
must	t use a separate form.	
01	Space Conditioning System Identification or Name	
02	Space Conditioning System Description of Area Served	
03	Indoor Unit Name	
04	Status: SEER Performance Compliance Credit Check	
05	Status: EER Performance Compliance Credit Check	
06	Status: Heat Pump Heating Output Performance Compliance Check	
07	Directory Used to Certify Product Performance	
08	AHRI Certification Number for the Installed Space Conditioning System from	:0'
00	http://www.ahridirectory.org	*/0
09	Does the directory used to certify product performance require a specific air handler,	6.0
03	furnace or fan coil make and model?	
10	Does the directory used to certify product performance require a time delay relay	110 110
10	(+TDR)?	
11	Does the directory used to certify product performance require a TXV (+TXV)?	0 . 112

B. Rated Space Conditioni	ng System Equipment	Verification from	Nameplate
----------------------------------	---------------------	--------------------------	-----------

The data on the nameplate of the installed component shall conform to the data for the component as shown in the directory used to certify product performance in order to demonstrate compliance.

01	02	03		Data from nameplate of installed system component					
01	02	03	04	05	06	07	08	09	
			Outdoor	700	97.				
		Indoor Unit	Condenser or	Outdoor	00	.0	Air Handler,		
	SC System	Name or	Package Unit -	Condenser or	Inside Unit -	10	Furnace or Fan	Air Handler,	
	Description	Description	Installed	Package Unit -	Installed	Inside Unit -	Coil - Installed	Furnace or Fan	
SC System	of Area	of Area	Manufacturer	Installed Model	Manufacturer	Installed Model	Manufacturer	Coil - Installed	
ID/Name	Served	Served	Name	Number	Name	Number	Name	Model Number	
		7							
		3	,	120	* O				

C. Rated Space Conditioning System Equipment Verification from Directory

The data on the nameplate of the installed component shall conform to the data for the component as shown in the directory used to certify product performance in order to demonstrate compliance.

01	02	03	Data from	Data from the directory used to certify product performance for the rated system component						
01	02	03	04	05	06	07	08	09		
- 3		0	Outdoor	P						
0,		Indoor Unit	Condenser or	Outdoor			Air Handler,			
	SC System	Name or	Package Unit -	Condenser or	Inside Unit -		Furnace or Fan	Air Handler,		
	Description	Description	Installed	Package Unit -	Installed	Inside Unit -	Coil - Installed	Furnace or Fan		
SC System	of Area	of Area	Manufacturer	Installed Model	Manufacturer	Installed Model	Manufacturer	Coil - Installed		
ID/Name	Served	Served	Name	Number	Name	Number	Name	Model Number		
0					•					

D. V	erified Cooling System SEER					
01	Required minimum SEER					
02	Installed SEER					
03	Compliance Statement:					
Signa	Signature by responsible party below certifies that the installed cooling equipment meets or exceeds the required value listed on the CF1R.					

E. Verified Cooling System EER					
01	Required Minimum EER				
02	Installed EER				
03	Compliance Statement:				

CA Building Energy Efficiency Standards - 2019 Residential Compliance

RATED SPACE CONDITIONING SYSTEM EQUIPMENT VERIFICATION

EC-CF2R-MCH-26-H (Revised 01/19)	CALI	FORNIA ENERGY COMMISSION
CERTIFICATE OF INSTALLATION		CF2R-MCH-26-H
Rated Space Conditioning System Equipment Verification		(Page 2 of 3)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

Signature by responsible party below certifies that the installed cooling equipment meets or exceeds the required value listed on the CF1	Sig	gnature b	v res	ponsible	party	below certifies	that the instal	led cooling	eaui	pment meets o	r exceeds the	required	l value	listed or	the (CF1F
---	-----	-----------	-------	----------	-------	-----------------	-----------------	-------------	------	---------------	---------------	----------	---------	-----------	-------	------

F. Ve	erified Heat Pump Heating Output					
01	Required Heating BTU Output at 47 Degrees F					
02	Installed Heating BTU Output at 47 Degrees F					
03	Required Heating Output at 17 Degrees F					
04	Installed Heating Output at 17 Degrees F					
05	Compliance Statement:					
Signa	Signature by responsible party below certifies that the installed heat pump equipment meets or exceeds the required value listed on the					

CF1R.

G. Verified Space Conditioning System Air Handler, Furnace or Fan Coil

If a specific air handler, furnace or fan coil is required by the directory used to certify product performance, the responsible party certifies by signing below that the installed air handler/furnace matches the equipment specified in the directory.

H. Verified Space Conditioning System Time Delay Relay

If a Time Delay Relay is required by the directory used to certify product performance, the responsible party certifies by signing below that the Time Delay Relay is installed and has been tested to operate correctly according to the protocols of RA3.4.3.

I. Verified Space Conditioning System TXV

esponsible par enent of sensing bulb. If a TXV is required by the directory used to certify product performance, the responsible party certifies by signing below that the TXV is

Registration Number: Registration Date/Time: **HERS Provider:**

RATED SPACE CONDITIONING SYSTEM EQUIPMENT VERIFICATION

EC-CF2R-MCH-26-H (Revised 01/19)	CALIFORI	NIA ENERGY COMMISSION
CERTIFICATE OF INSTALLATION		CF2R-MCH-26-H
Rated Space Conditioning System Equipment Verification		(Page 3 of 3)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

Dwelling Address:	City:	
	Gity.	Zip Code:
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT		
1. I certify that this Certificate of Installation documentation is accu	ırate and complete.	
Documentation Author Name:	Documentation Author Signature:	
Description A. Abov Common Norman	Data Signado	
Documentation Author Company Name:	Date Signed:	
Address:	CEA/HERS Certification Identification (if	applicable):
City/State/Zip:	Phone:	
RESPONSIBLE PERSON'S DECLARATION STATEMENT		-0
 I certify the following under penalty of perjury, under the laws of th The information provided on this Certificate of Installation is tr I am either: a) a responsible person eligible under Division 3 of responsibility for the system design, construction, or installation scope of work identified on this Certificate of Installation and a representative of the responsible person and attest to the decl The constructed or installed features, materials, components of Installation conforms to all applicable codes and regulations are Compliance, plans, and specifications approved by the enforce I understand that a HERS rater will check the installation to ver 	ue and correct. the Business and Professions Code in n of features, materials, components, ttest to the declarations in this statem arations in this statement on the resp r manufactured devices (the installation d the installation conforms to the req ment agency. ify compliance and if such checking de	or manufactured devices for the nent, or b) I am an authorized onsible person's behalf. on) identified on this Certificate of uirements given on the Certificate of
comply, I am required to offer any necessary corrective action 5. I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency for Cortificate of Installation is required to be included with the de-	tion shall be posted, or made available r all applicable inspections. I understa	nd that a registered copy of this
 I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency fo Certificate of Installation is required to be included with the do 	tion shall be posted, or made available r all applicable inspections. I understa	nd that a registered copy of this
5. I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency for	tion shall be posted, or made available r all applicable inspections. I understa cumentation the builder provides to t	nd that a registered copy of this
5. I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency fo Certificate of Installation is required to be included with the do Responsible Builder/Installer Name:	tion shall be posted, or made available r all applicable inspections. I understa cumentation the builder provides to the Responsible Builder/Installer Signature:	nd that a registered copy of this
I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency for Certificate of Installation is required to be included with the document Responsible Builder/Installer Name: Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Address:	tion shall be posted, or made available r all applicable inspections. I understa cumentation the builder provides to t Responsible Builder/Installer Signature: Position With Company (Title):	nd that a registered copy of this
5. I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency for Certificate of Installation is required to be included with the do Responsible Builder/Installer Name: Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Address: City/State/Zip:	tion shall be posted, or made available r all applicable inspections. I understa cumentation the builder provides to t Responsible Builder/Installer Signature: Position With Company (Title): CSLB License: Phone:	nd that a registered copy of this he building owner at occupancy.
I will ensure that a registered copy of this Certificate of Installa the building, and made available to the enforcement agency for Certificate of Installation is required to be included with the document Responsible Builder/Installer Name: Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)	tion shall be posted, or made available r all applicable inspections. I understa cumentation the builder provides to t Responsible Builder/Installer Signature: Position With Company (Title): CSLB License:	nd that a registered copy of this he building owner at occupancy.

CERTIFICATE OF INSTALLATION – USER INSTRUCTIONS	CF2R-MCH-26-H
Rated Space Conditioning System Equipment Verification – MCH-26	(Page 1 of 3)

CF2R-MCH-26-H User Instructions

Section A. System Information

- 1. System Name or Identification/Tag: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. System Location or Area Served: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 3. Indoor Unit Name: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 4. Status: SEER performance compliance credit check: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 5. Status: EER performance compliance credit check: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 6. Status: Heat Pump Heating Output Performance Compliance Check: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 7. Directory Used to Certify Product Performance: User to select from dropdown list the certification data base used to document equipment efficiency. Choices are AHRI, CEC and DOE.
- 8. AHRI Certification Number for the Installed Space Conditioning System: If the directory used is not AHRI, "N/A" will automatically be entered. Otherwise, enter the complete AHRI Certification Number for the Installed Space Conditioning System. This number represents a specific piece of equipment (e.g., package units) or combination of equipment (e.g., split systems) that must match the installed equipment.
- 9. Does the directory used to certify product performance require a specific air handler, furnace or fan coil make and model?: If not using AHRI, user has the option to select "N/A." Note that when using AHRI, this does not apply to package units. Sometimes, for split systems, a specific model air handler/furnace will be called out in addition to the condenser and coil. When it is, it must be installed and verified for the AHRI certificate to be valid for the installed system. Sometimes, the AHRI certificate only calls out the condenser and coil model numbers. In this case the furnace make/model need not be verified. If not, select "No".
- 10. Does the directory used to certify product performance require a time delay relay (+TDR)?: If not using AHRI, user has the option to select "N/A." If the AHRI certificate specifies that a TDR was on the system when it was tested, then the TDR is required for the system to achieve its certified efficiency and it must be verified. If not, select "No". The indication for a TDR usually consists of a "+TDR" at the end of the model number. Sometimes it may just be a "+D" (delay).
- 11. Does the directory used to certify product performance require a TXV (+TXV)?: If not using AHRI, user has the option to select "N/A." If the AHRI certificate specifies that a TXV was on the system when it was tested, then the TXV is required for the system to achieve its certified efficiency and it must be verified. If not, select "No". The indication for a TXV usually consists of a "+TXV" at the end of the model number. Sometimes it may just be a "+V" (valve).

Section B. Rated Space Conditioning System Equipment Verification from Nameplate

- 1. System Name or Identification/Tag: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. System Location or Area Served: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 3. Indoor unit Name: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 4. Outdoor Condenser or Package Unit Installed Manufacturer Name, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 5. Outdoor Condenser or Package Unit Installed Model Number, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 6. Inside Coil Installed Manufacturer Name, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 7. Inside Coil Installed Model Number, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document. For systems where there is no separate inside coil "N/A" will be automatically energiance.
- 8. Air Handler, Furnace or Fan Coil Installed Manufacturer Name, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.

CERTIFICATE OF INSTALLATION – USER INSTRUCTIONS	CF2R-MCH-26-H
Rated Space Conditioning System Equipment Verification – MCH-26	(Page 2 of 3)

9. Air Handler, Furnace or Fan Coil - Installed Model Number, Data from Nameplate of Installed system component: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document

Section C. Rated Space Conditioning System Equipment Verification from Directory

- 1. System Name or Identification/Tag: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. System Location or Area Served: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 3. Indoor unit Name: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 4. Outdoor Condenser or Package Unit Installed Manufacturer Name, Data from the Directory used to certify product performance for the rated system component: Enter the Manufacturer's name for the condenser as it appears in the Directory. For Package units, this will be the only Manufacturer's name.
- 5. Outdoor Condenser or Package Unit Installed Model Number, Data from the Directory used to certify product performance for the rated system component: Enter the Manufacturer's model number for the condenser as it appears in the Directory. For Package units, this will be the only model number required.
- 6. Inside Coil Installed Manufacturer Name, Data from the Directory used to certify product performance for the rated system component: Enter the Manufacturer's name for the inside coil (aka, indoor coil, evaporator coil) as it appears in the Directory. For system types that don't have separate inside coils or if the directory rating does not include this information, like package units, fan coil units and multi-split variable capacity heat pumps, user may enter "N/A".
- 7. Inside Coil Installed Model Number, Data from the Directory used to certify the rated system component: Enter the Manufacturer's model number for the inside coil (aka, indoor coil, evaporator coil) as it appears in the Directory. For system types that don't have separate inside coils or if the directory rating does not include this information (package units, fan coil units, multi-split variable capacity heat pumps), user may enter "N/A".
- 8. Air Handler, Furnace or Fan Coil Installed Manufacturer Name, Data from the directory used to certify product performance for the rated system component: If not using AHRI, user has the option to select "N/A." Enter the Manufacturer's name for the air handler/furnace as it appears in the directory. For package units there is no separate air handler, so enter "N/A". Also enter "N/A" if a specific furnace or air handler is not called out in the directory, as indicated in Section A, above.
- 9. Air Handler, Furnace or Fan Coil Installed Model Number, Data from the directory used to certify product performance for the rated system component: If not using AHRI, user has the option to select "N/A". Enter the Manufacturer's model number for the air handler/furnace as it appears in the directory. For package units there is no separate air handler, so enter "N/A". Also enter "N/A" if a specific furnace or air handler is not called out in the directory, as indicated in Section A, above.

Section D. Verified Cooling System SEER

- 1. Required Minimum SEER: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. Installed SEER: Enter the exact SEER value shown in the Directory used to certify the equipment shown in Section B, above.
- 3. Compliance Statement: This field is filled out automatically. Compliance requires that the installed SEER meet the required minimum SEER.

Section E. Verified Cooling System EER

- 1. Required Minimum EER: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. Installed EER: Enter the exact EER value shown on in the Directory used to certify the equipment shown in Section B, above.
- 3. Compliance Statement: This field is filled out automatically. Compliance requires that the installed EER meet the required minimum EER.

Section F. Verified Heat Pump Heating Output

- 1. Required Heating BTU Output at 47 Degrees F: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
- 2. Installed Heating BTU Output at 47 Degrees F: Enter the exact Heating BTU Output at 47 Degrees F value shown on in the Directory used to certify the equipment shown in Section B, above.
- 3. Required Heating BTU Output at 17 Degrees F: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.

CERTIFICATE OF INSTALLATION – USER INSTRUCTIONS	CF2R-MCH-26-H
Rated Space Conditioning System Equipment Verification – MCH-26	(Page 3 of 3)

- Installed Heating BTU Output at 17 Degrees F: Enter the exact Heating BTU Output at 17 Degrees F value shown on in the Directory used to certify the equipment shown in Section B, above. N/A entry is allowed if heat pump system output is not rated at 17 degrees F in any directory
- Compliance Statement: This field is filled out automatically. If both rating points are available compliance requires that the installed Heating BTU Output at 47 Degrees and Heating BTU Output at 17 Degrees meet the required minimum from CF2R-For information and data collection as HERS provider only. MCH-01 or if the high temperature is available compliance requires that the installed Heating BTU Output at 47 Degrees meet the required minimum from CF2R-MCH-01.

