



# SERVICE MANUAL & SERVICE PARTS LIST

(EMGR24, EMGR33, EMSGR33, EMGR48, EMSGR48, EMGR69, EMSGR69)



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## Warranty Information

The terms and conditions of the Everest new product warranty can be found in the owner's manual or downloaded at [www.EVERESTref.com](http://www.EVERESTref.com). The Everest new product warranty is for the original purchaser only and it not transferable.

<b>IMPORTANT</b>	
For an Everest unit to be repaired under warranty, the service company must be on file with Everest as an Everest authorized one and be dispatched by Everest or one of Everest's authorized distributors. The details of Everest's warranty service procedure can be found in the "Everest Authorized Service Company Agreement" which can be downloaded at <a href="http://www.EVERESTref.com">www.EVERESTref.com</a> .	

## Model and Serial Numbers

The model and serial number can be found on the inside surface of the left most wall of the refrigerated compartment.

Model Number Explained	
E	Everest
M	Merchandiser
S	Swing Door
G	Glass
R	Refrigerator
#(#)	Interior volume in cubic feet

<Model Number Example>

EMSGR24

- E – Everest
- M – Merchandiser
- S – Swing Door
- G – Glass Door

- R – Refrigerator
- 24 – 24 Cubic Foot Interior Volume

Serial Number Explained	
B	BuSung
M	Merchandiser
S	Swing Door
G	Glass
R	Refrigerator
####	Manufacture date as a two digit year and two digit month (YYMM)
####	Production sequence number of the model manufactured during the specified month and year

<Serial Number Example>

- BMGR69-0712-0025
- B – BuSung
- M – Merchandiser
- G – Glass Door
- R – Refrigerator
- 07 – Manufacture Year
- 12 – Manufacture Month
- 0025 – Production sequence number of all of the specified model during the specified month and year

Barcode Explained	
B	BuSung
[B-K][B-K]	Manufacture year as year code
[B-K][B-K]	Manufacture month as month code
A	Product for the United States

Deciphering Month and Year Code									
B	C	D	E	F	G	H	I	J	K
1	2	3	4	5	6	7	8	9	0

<Barcode Example>

BKDKI0325A

- B – BuSung
- KD – Manufacture year of “03”, 2003

- KI – Manufacture month of “08”, August
- 0325 – Production sequence number of all units produced during the specified month and year

## Technical Specifications

**Condenser: Coil, Fan Blades, Fan Motors · Evaporator: Coil, Fan Blades, Fan Motors**

MODEL	Ref/Frz	CONDENSER			EVAPORATOR		
		COIL ( $\emptyset \times R \times S \times L \times EA$ )	FAN BLADE ( $\emptyset \times B \times EA$ )	FAN MOTOR	COIL ( $\emptyset \times R \times S \times L \times EA$ )	FAN BLADE ( $\emptyset \times B \times EA$ )	FAN MOTOR
EMGR24	Ref	3/8×3×8×300×1	200×5B×1	6W×4P×1	3/8×4×8×380×1	180×5B×1	4W×4P×1
	Frz						
EMGR33	Ref	3/8×3×8×300×1	200×5B×1	6W×4P×1	3/8×4×8×380×1	180×5B×1	4W×4P×1
	Frz						
EMGR33	Ref	3/8×3×8×300×1	200×5B×1	6W×4P×1	3/8×4×8×380×1	180×5B×1	4W×4P×1
	Frz						
EMGR48	Ref	3/8×4×10×360×1	250×4B×1	16W×4P×1	3/8×4×9×720×1	180×5B×2	4W×4P×2
	Frz						
EMSGR48	Ref	3/8×4×10×360×1	250×4B×1	16W×4P×1	3/8×4×9×720×1	180×5B×2	4W×4P×2
	Frz						
EMGR69	Ref	3/8×4×10×360×1	250×4B×1	16W×4P×1	3/8×4×8×480×2	180×5B×2	4W×4P×2
	Frz						
EMSGR69	Ref	3/8×4×10×360×1	250×4B×1	16W×4P×1	3/8×4×8×480×2	180×5B×2	4W×4P×2
	Frz						

Key	
( $\emptyset \times R \times S \times L \times EA$ )	(Tubing Diameter) x (Rows) x (Stacks) x (Length) x (Quantity)
( $\emptyset \times B \times EA$ )	(Fan Blade Diameter) x (# of Blades) x (Quantity)

## Compressors

Model	Ref/Frz	Compressor Model	HP	Winding Resistance @ 25°C (77°F)		LRA (A)	RLA (A)	Rated Input (W)
				Run (Ω)	Start (Ω)			
EMGR24	Ref	Embraco FFI10HAKW	1/3	1.9	7.2	32.5	2.93	212.0
	Frz							
EMGR33	Ref	Embraco FFI10HAKW	1/3	1.9	7.2	32.5	2.93	212.0
	Frz							
EMSGR33	Ref	Embraco FFI10HAKW	1/3	1.9	7.2	32.5	2.93	212.0
	Frz							
EMGR48	Ref	Aspera T6217Z	1/2	0.7	4.2	48.8	11.18	1053.8
	Frz							
EMSGR48	Ref	Aspera T6217Z	1/2	0.7	4.2	48.8	11.18	1053.8
	Frz							
EMGR69	Ref	Aspera T6217Z	1/2	0.7	4.2	48.8	11.18	1053.8
	Frz							
EMSGR69	Ref	Aspera T6217Z	1/2	0.7	4.2	48.8	11.18	1053.8
	Frz							

## Compressor Components

Model	Ref/Frz	Start Relay		Overload			Start Capacitor	
		Opens @ 60Hz (A)	Closes @ 60Hz (A)	Opens (°C / °F)	Closes (°C / °F)	Time Check (A)	Capacity (μF)	Voltage (V)
EMGR24	Ref	12.10	9.3	105 / 221	61 / 141.8	21.5	243-292	100
	Frz							
EMGR33	Ref	12.10	9.3	105 / 221	61 / 141.8	21.5	243-292	100
	Frz							
EMSGR33	Ref	12.10	9.3	105 / 221	61 / 141.8	21.5	243-292	100
	Frz							
EMGR48	Ref	20.3	24.4	135 / 275	61 / 141.8	43	189-227	330
	Frz							
EMSGR48	Ref	20.3	24.4	135 / 275	61 / 141.8	43	189-227	330
	Frz							
EMGR69	Ref	20.3	24.4	135 / 275	61 / 141.8	43	189-227	330
	Frz							
EMSGR69	Ref	20.3	24.4	135 / 275	61 / 141.8	43	189-227	330
	Frz							

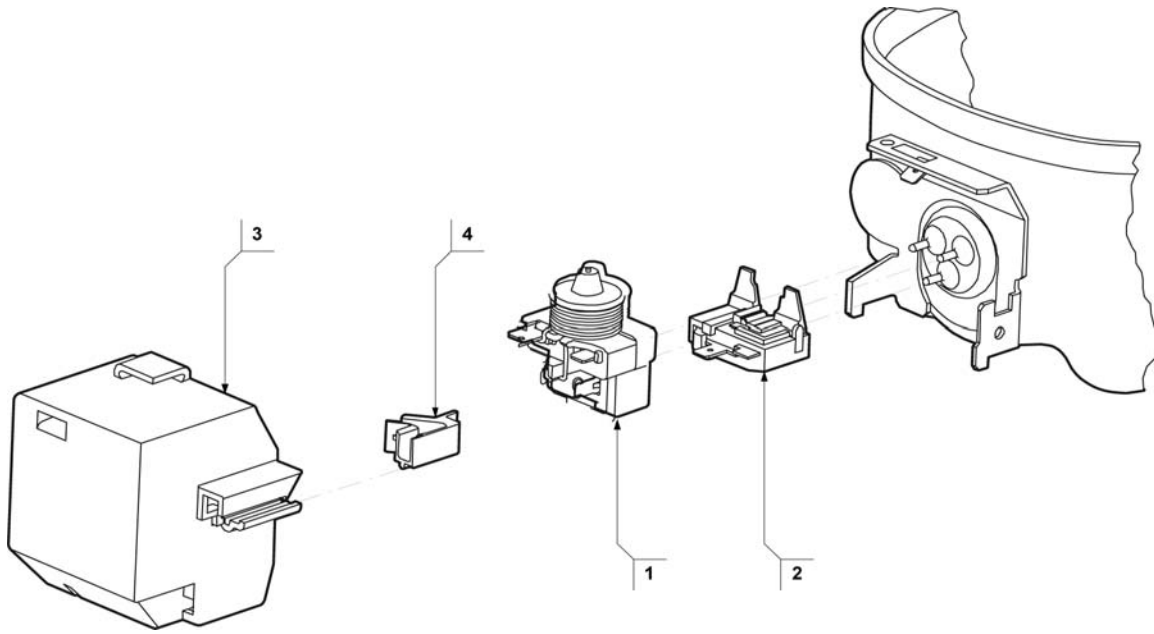
## Capillary Tube and Refrigerant

Model	Ref/Frz	Refrigerant		Capillary Tube		Suction Pressure During Compressor Run Time @ Set Temp (PSI)
		Type	Charge (Oz)	ID (mm)	Length (mm)	
EMGR24	Ref	R-134a	10.23	1.2	1650	8 to 10
	Frz					
EMGR33	Ref	R-134a	10.23	1.2	1650	8 to 10
	Frz					
EMSGR33	Ref	R-134a	10.23	1.2	1650	8 to 10
	Frz					
EMGR48	Ref	R-134a	17.64	1.2	1650	8 to 10
	Frz					
EMSGR48	Ref	R-134a	17.64	1.2	1650	8 to 10
	Frz					
EMGR69*	Ref	R-134a	20.10	1.2	1650	8 to 10
	Frz					
EMSGR69*	Ref	R-134a	20.10	1.2	1650	8 to 10
	Frz					



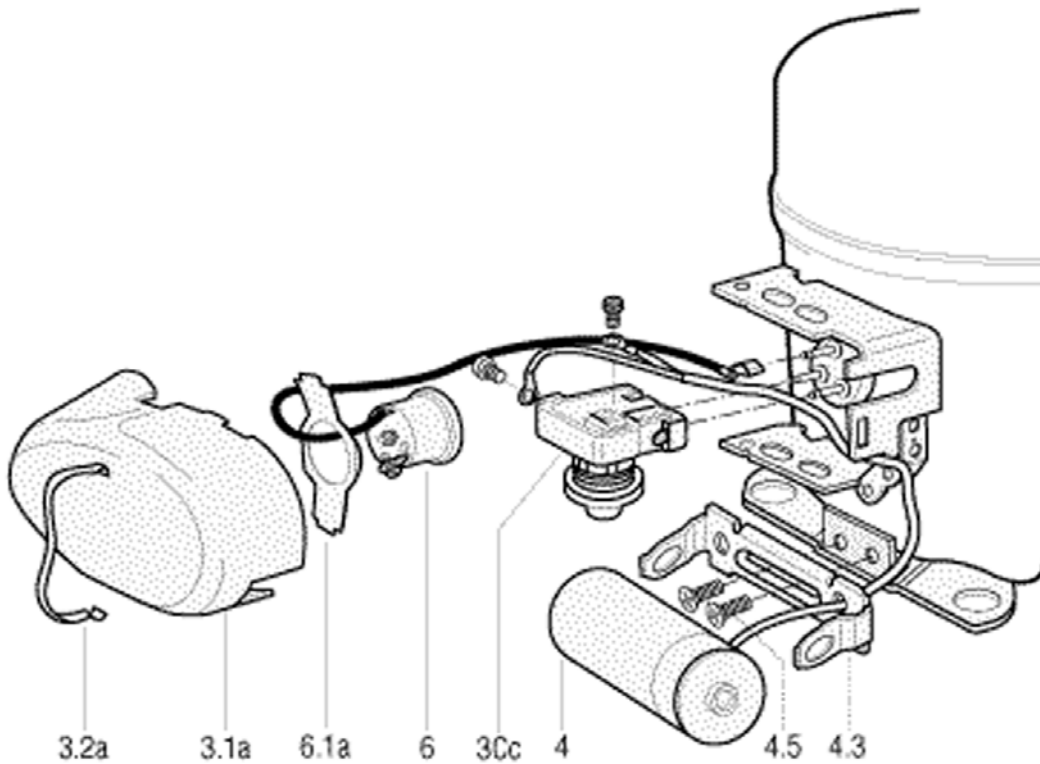
# Compressor Component Assembly Diagrams

**FFI10HAKW (EMGR24, EMGR33, EMSGR33)**



Key	
3	– Cover
4	– Cord Relief
1	– Start Relay
2	– Overload

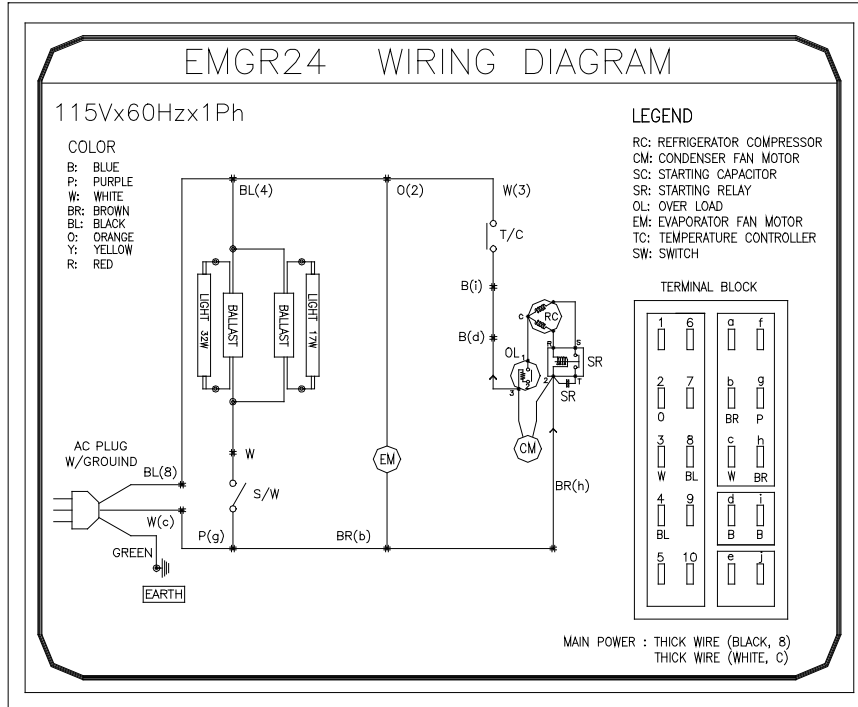
**T6127Z (EMGR48, EMSGR48, EMGR69, EMSGR69)**



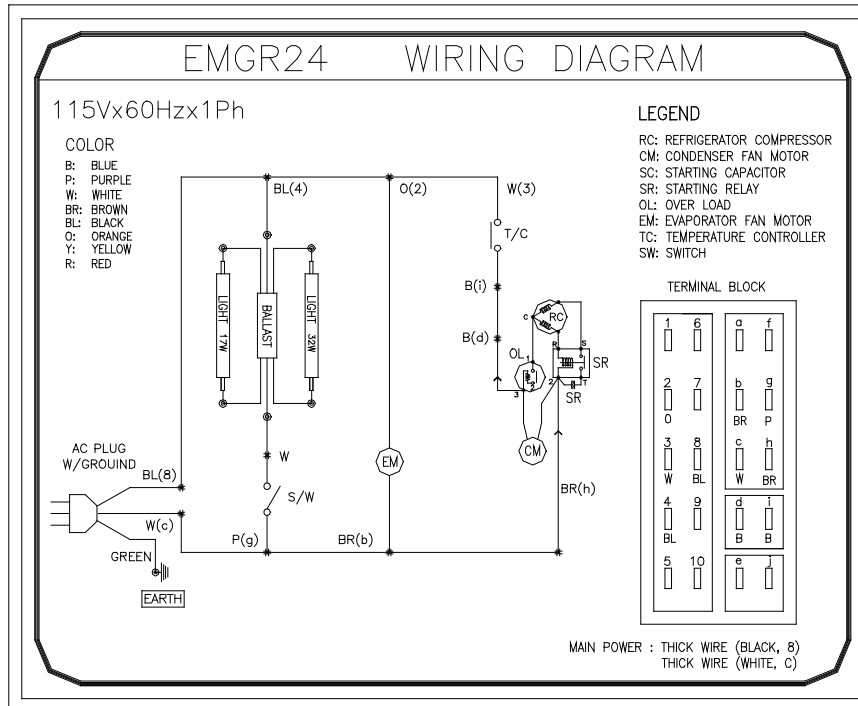
Key	
3.2a	– Cover Strap
3.1a	– Cover
6.1a	– Overload Spring
6	– Overload
3Cc	– Start Relay
4	– Start Capacitor
4.5	– Self-Tapping Screw
4.3	– Capacitor Clamp

# Wiring Diagrams

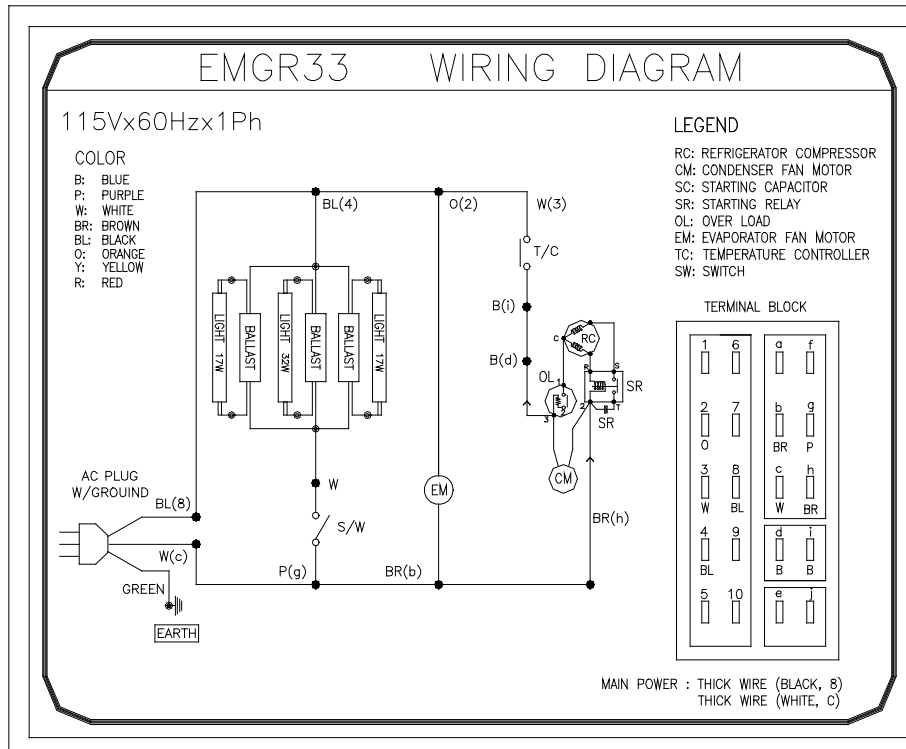
## EMGR24 (BMGR24-0610-XXXX & Earlier)



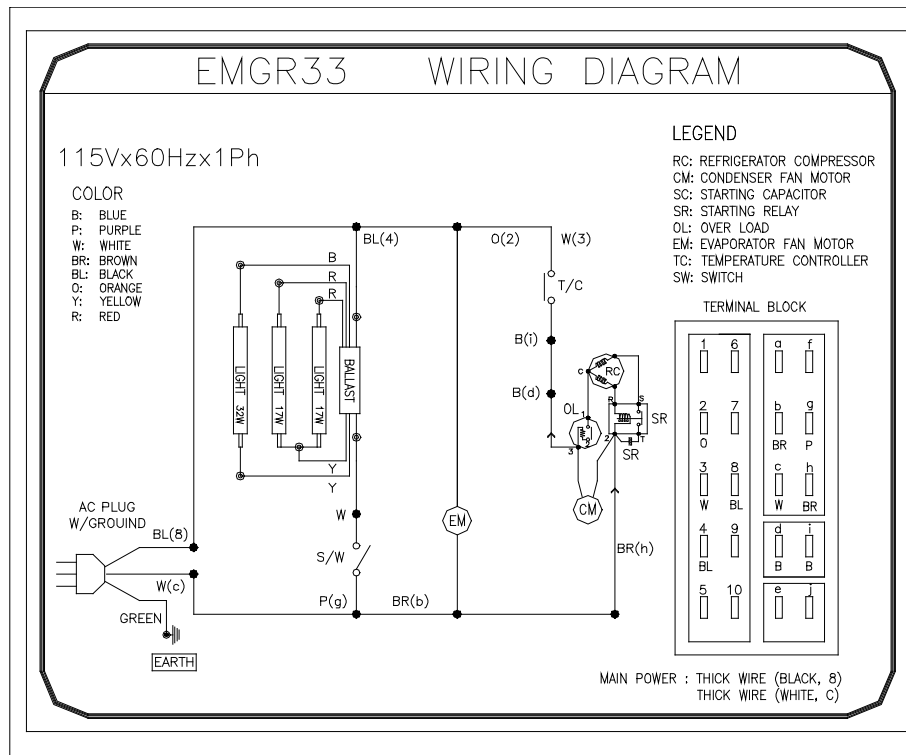
## EMGR24 (BMGR24-0611-XXXX & Later)



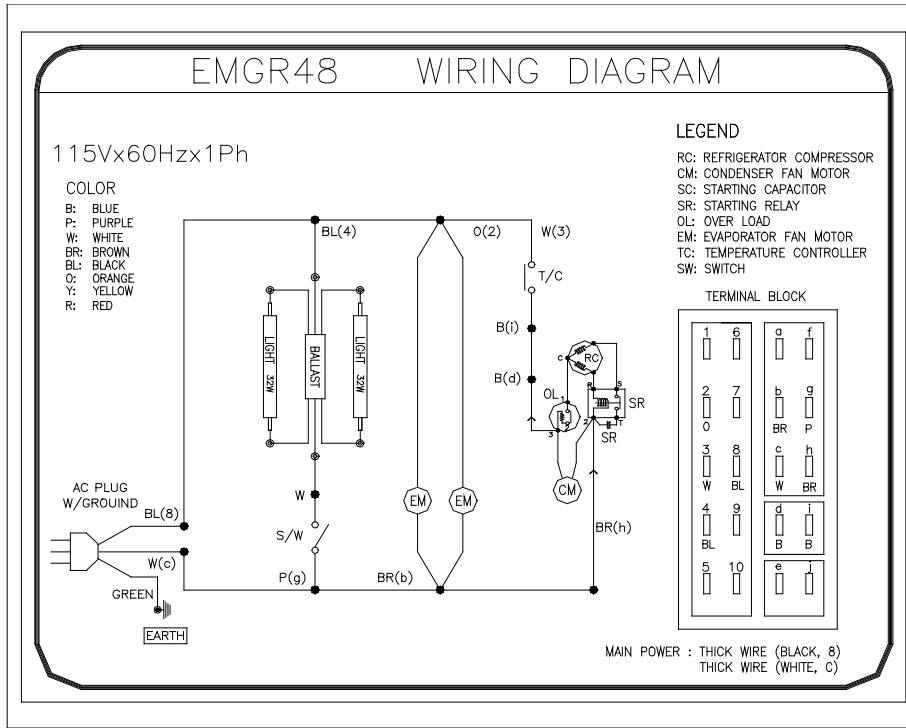
## EMGR33 & EMSGR33 (BM(S)GR33-0612-XXXX & Earlier)



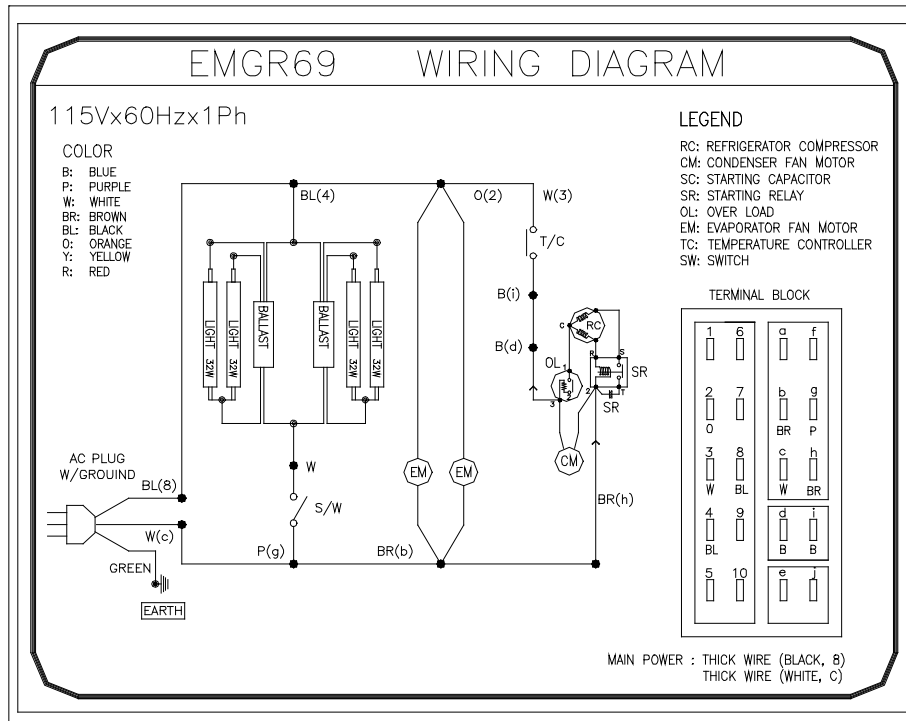
## EMGR33 & EMSGR33 (BM(S)GR33-0701-XXXX & Later)



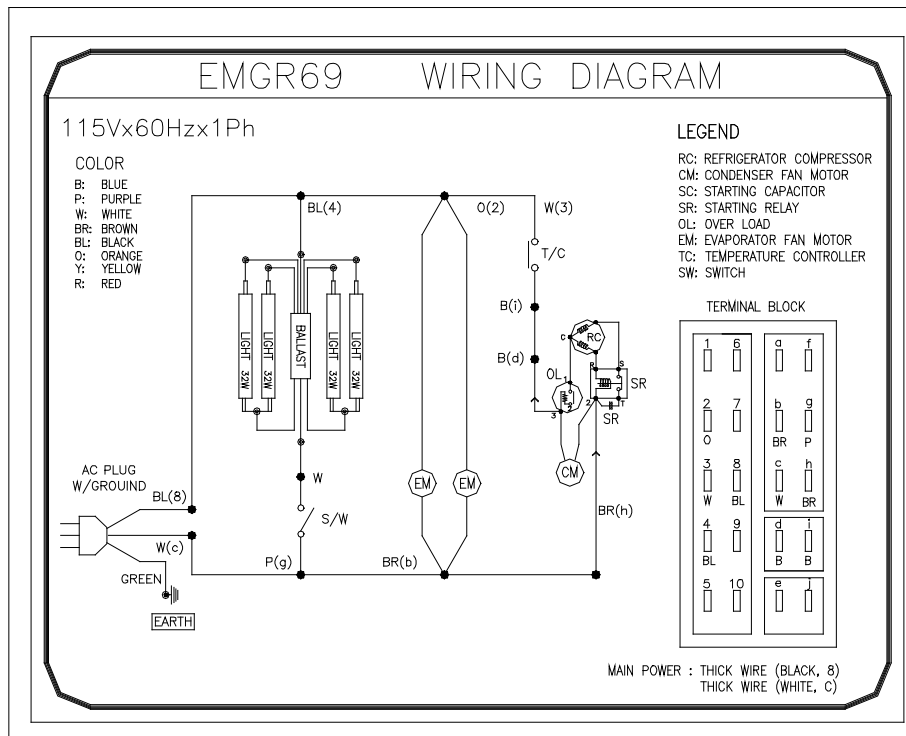
# EMGR48 & EMSGR48 (All Serial Numbers)



## EMGR69 & EMSGR69 (BM(S)GR69-0612-XXXX & Earlier)



## EMGR69 & EMSGR69 (BM(S)GR69-0701-XXXX & Later)



# Mechanical Service Parts List

**COMPRESSORS & ACCESSORIES**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	ESMGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	CM03-01	1/3HP Compressor (Model: FFI-10HAKW)	1	1	1				
2	CM06-00	1/2HP Compressor (Model: T6217Z)				1	1	1	1
3	CR03-01	Relay Box Assembly for 1/3HP, FFI-10HAKW	1	1	1				
4	CR06-00	Relay Box Assembly for 1/2HP, T6217Z				1	1	1	1
5	CP05-00	Start Capacitor 1/3HP, FFI-10HAKW	1	1	1				
6	CP07-00	Start Capacitor 1/2HP, T6217Z				1	1	1	1

**CAPILLARY TUBES**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	ESMGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	CPT03-00	Capillary Tube 1.2mm X 1650mm	1	1	1	1	1	2	2

**FILTER DRIERS**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	ESMGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	FD03-00	1/4" Filter Drier with Two Holes	1	1	1	1	1	1	1

**CONDENSOR COILS**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	EMSGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	CC02-00	Condenser Coil (3/8" X 3R X 8S X 300mm)	1	1	1				
2	CC11-00	Condenser Coil (3/8" X 4R X 10S X 360mm)				1	1	1	1

**CONDENSOR FAN MOTORS & BLADES**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	EMSGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	CFM01-00	Fan Motor 6W X 4P (C.C.W)	1	1	1				
2	CFM02-00	Fan Motor 16W X 4P (C.C.W)				1	1	1	1
3	CFB01-00	Aluminum Fan Blades 200 X 5B	1	1	1				
4	CFB02-00	Aluminum Fan Blades 250 X 4B				1	1	1	1
5	CF06-00	Fan Blades Washer	1	1	1	1	1	1	1
6	CF07-00	Fan Blades Rubber	1	1	1	1	1	1	1

**EVAPORATOR COILS**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	EMSGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	EC08-00	Evap Coil (3/8" X 4R X 8S X 380mm)	1	1	1				
2	EC09-00	Evap Coil (3/8" X 4R X 9S X 720mm)				1	1		
3	EC11-00	Ecap Coil (3/8" X 4R X 8S X 480mm)						2	2



**CONDENSOR FAN MOTORS & BLADES**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	EMSGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
1	EM10-00	Fan Motor 4W X 4P (C.C.W)	1	1	1	2	2	2	2
2	EM11-00	Aluminum Fan Blades 180 X 5B	1	1	1	2	2	2	2
3	EM12-00	Fan Blades Holding Crew	1	1	1	2	2	2	2
4	EM13-00	S/S Motor Mounting Bracket	1	1	1	2	2	2	2
5	EM14-00	Plastic Motor Cover 225 X 224mm, ABS	1	1	1	2	2	2	2

**ELECTRICAL - LIGHTING & CONTROLS**

Applicable Manufacture Dates: 0401 ~ Present (YYMM)

#	Part Code	Description	Applicable Model & Quantity						
			EMGR24	EMGR33	EMSGR33	EMGR48	EMSGR48	EMGR69	EMSGR69
13	BLST03-00	Ballast for 2 Light, 32W HFE-232-120-IS	1			1	1		
14	BLST04-00	Ballast for 4 Light 32W		1	1			1	1
15	MLS01-00	Light Switch, JRA-1102	1	1	1	1	1	1	1
16	AT01-00	Analoque Thermostat Control, PFN-135-05	1	1	1	1	1	1	1
17	PCB27-00	Wiring Panel, BS-CON	1	1	1	1	1	1	1

*Multiple ballast designs should be replaced with one ballast. Please see above.*