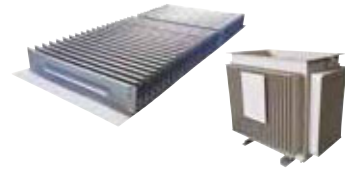


Transformer Components

Transformer Radiator



Corrugated Fin Wall & Tank



Cooling Fan



Radiator Valve



Oil Purifier





05 Transformer Radiator

- 06 Header Pipe Type Radiator
- 07 Swan Neck Type Radiator
- 08 Header Panel Type Radiator

09 Corrugated Fin Wall

10 Corrugated Fin Tank



11 Cooling Fan

- 12 KP0701
- 13 KP0702
- 14 KP0704
- 15 KP0705
- 16 KP0706
- 17 KP0707
- 18 KP0708



- 19 Flush Mount Hardware
- Transformer Wheel

- 20 Radiator Valve

- 22 Metal to Metal Sealing Butterfly Valve
- Full Tight Sealing Butterfly Valve (Vacuum Type)



- 23 N2 Gas Seal Equipment

- 24 Oil Purifier

- 26 Buchholz Relay

Dehydrating Breathers

Vacuum Pump Copper & AL Foil

Transformer Radiator

General Specifications of Transformer Radiator

Radiator Type

- Header Pipe Type (Welded Header)
- Header Panel Type (Integral Header)
- Detachable Type with Flanges
- Weldable Type without Flanges
- Swan Neck Type (Goose neck type, Sky type)

Material

- CR 1mm(t) or 1.2mm(t), Stainless Steel
- Header Pipe : 2", 2½", 3", 4", 5"
- Bracing Strapes (Reinforcing Bar)
- Lifting Lugs (SS400) & Flanges (SS400)

Surface Treatment

- Automatic Shot Blasting for painting or hot dip galvanizing

Internal Surface

- Flushing with Transformer oil
- Varnish Coating
- Epoxy Painting

External Surface

- Bare Metal with Anti-corrosive oil
- Primer Painting
- Hot Dip Galvanizing
- Painting with Epoxy & Polyurethane Top Coat
- Hot Dip Galvanizing + Painting
- Customizing Painting

Inspection (Quality Control)

- Inspection : Material Inspection, Process Inspection, Shipment Inspection
- Leakage Inspection : Each & Every Radiator is pressure tested for leakproofness, at 1.8~2.0kgf/cm²(25~28psi).

Packing

- Radiators are tightly packed on the pallets or in the wooden box for safe transport.

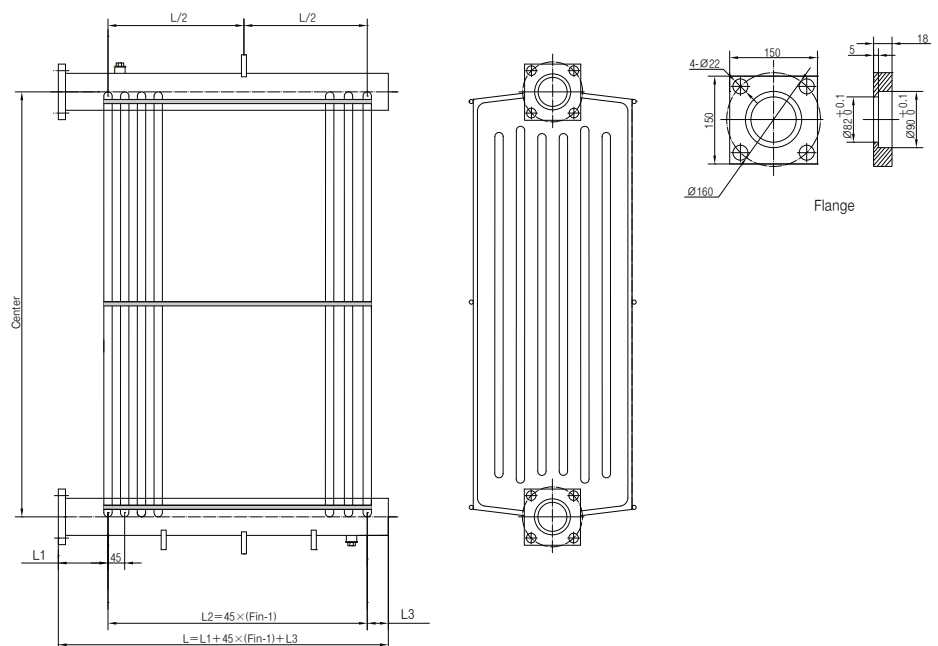




Item	Descriptions	Remarks
Width	300mm(12"), 310mm, 380mm(15"), 450mm(18"), 480(18.9"), 520mm(20.5"), 535mm(21")	
Center	Free	
Material(Thick.)	CR Steel, Stainless Steel (1mm, 1.2mm)	
Welding	O ₂ CO ₂	
No. of Elements	Free	Customer's specification
Fin Distance(Pitch)	40, 45, 50mm	Customer's specification
Surface Treatment	Plain(Bare Metal), Customizing Painting, Hot Dip Galvanizing	Customer's specification

No	Descriptions	Material	Dimension
1	Element Fin	SPPC	520×1.0t or 1.2t
2	Flange	SS400	18t×150×150
3	Header Pipe	SPP	3", 4", 5"
4	Drain Plug	SS400	
5	Reinforcing Bar	SS400	
6	Cover Plate	SS400	
7	Air Vent Plug	SS400	
8	Lifting Lug	SS400	

Pipe Size	OD	ID	Thickness
3"	Ø89.1mm	Ø81.9mm	3.6mm
4"	Ø108mm	Ø102mm	3mm
5"	Ø127mm	Ø117mm	5mm



Swan Neck Type Radiator (Goose Neck type, Sky type)



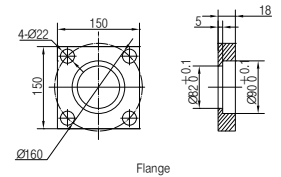
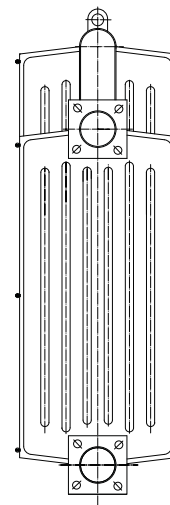
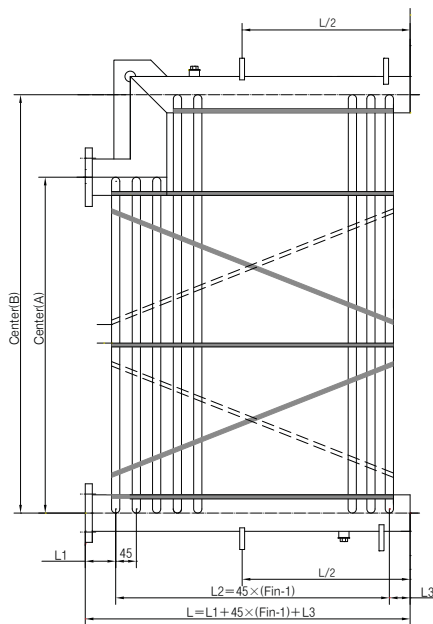
Specifications

Item	Descriptions	Remarks
Width	300mm(12"), 310mm, 380mm(15"), 450mm(18"), 480mm(18.9"), 520mm(20.5"), 535mm(21")	
Center	Free	
Material(Thick.)	CR Steel, Stainless Steel (1mm, 1.2mm)	
Welding	O ₂ CO ₂	
No. of Elements	Free	Customer's specification
Fin Distance(Pitch)	40, 45, 50mm	Customer's specification
Surface Treatment	Plain(Bare Metal), Customizing Painting, Hot Dip Galvanizing	Customer's specification

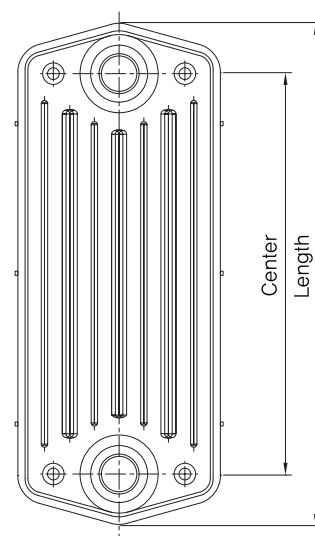
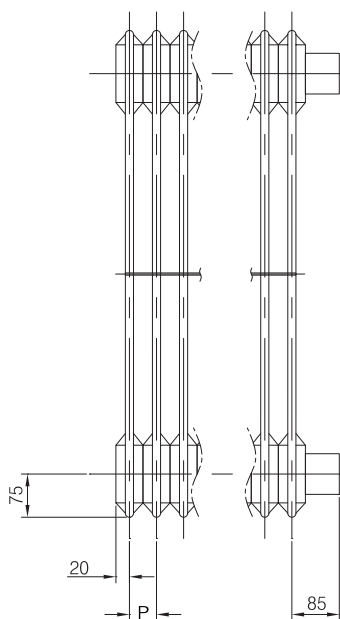
* Customizing sizes are available on request.

No	Descriptions	Material	Dimension
1	Element Fin	SPCC	520×1.0t or 1.2t
2	Flange	SS400	18t×150×150
3	Header Pipe	SPP	3", 4", 5"
4	Drain Plug	SS400	
5	Reinforcing Bar	SS400	
6	Cover Plate	SS400	
7	Air Vent Plug	SS400	
8	Lifting Lug	SS400	

Pipe Size	OD	ID	Thickness
3"	Ø89.1mm	Ø81.9mm	3.6mm
4"	Ø108mm	Ø102mm	3mm
5"	Ø127mm	Ø117mm	5mm



Header Panel Type Radiator (Integral Header)



Specifications

Item	Descriptions	Remarks
Width	225mm(9"), 300mm(12"), 450mm(17.7")	
Center	Free	
Material (Thick.)	CR Steel, Stainless Steel (1mm, 1.2mm)	
Welding	O ₂ , CO ₂	
Fin Distance (Pitch)	40~50	Customer's specification
No. of Elements	Free	Customer's specification
Surface Treatment	Plain(Bare Metal), Customizing Painting, Hot Dip Galvanizing	Customer's specification

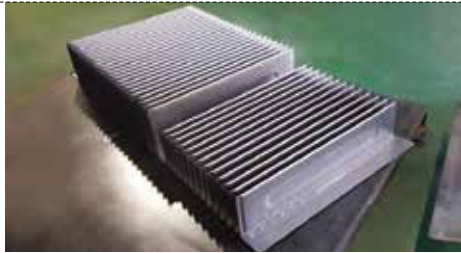
※ Customizing sizes are available on request.

No	Descriptions	Material	Dimension
1	Element Fin	SPCC	225, 300, 450W×1.0, 1.2t
2	Header Pipe	SPP	2", 2½", 3"
3	Flat Bar	SS400	
4	Flange	SS400	15t×150×150

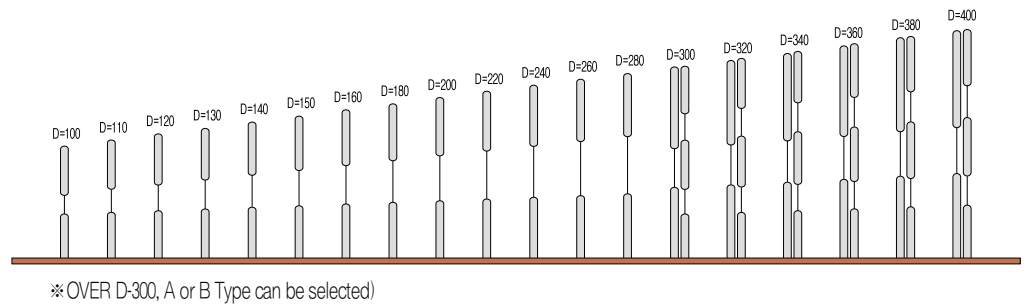
Pipe Size	OD	ID	Thickness
2"	Ø60.5mm	Ø53.9mm	3.3mm
2½"	Ø76.3mm	Ø69.7mm	3.3mm
3"	Ø89.1mm	Ø81.9mm	3.6mm



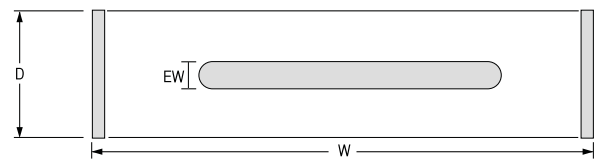
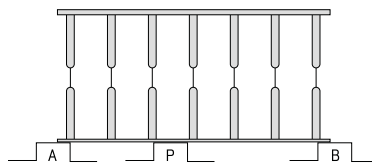
Corrugated Fin Wall



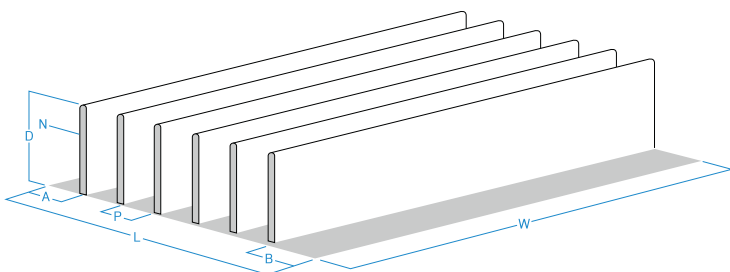
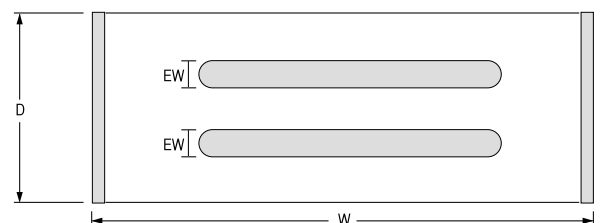
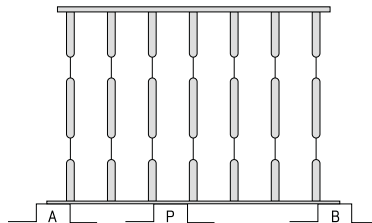
Position of Embossing



Type A (Single Embossing)



Type B (Double Embossing)



Height of Embossing

Code	Height of Fin	Height of Embossing
EW	100 - 130	50
	140 - 150	60
	160 ~	80

Descriptions	Code	Specifications
Width of Panel	W	300 - 1300
Sheet Thickness	T	1 - 1.5
Fin Pitch	P	43 - 80
Oil Duct	O	9
No. of Fin	N	1 - 99
Total length of Panel	L	Max. 2600
Fin Height	D	100 - 400
Front Edge	A	Min. 20
Rear Edge	B	Min. 20

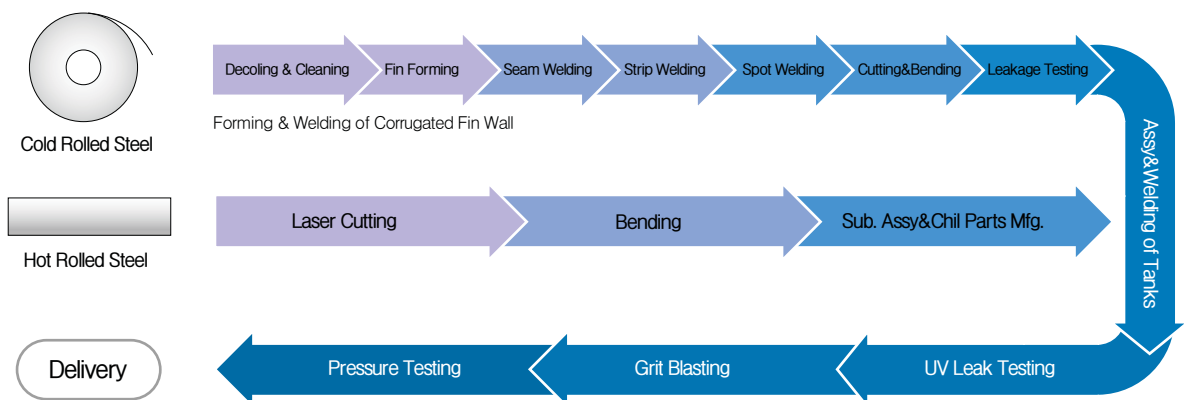


Corrugated Fin Tank

Key Features of Corrugated Fin Tank

- Fins produced on fully automatic machines with an excellent accuracy
- Saving in material & Reduction in the weight of the transformer
- Reduction in the overall volumetric dimension & Improved heat dissipation
- No Blocking of oil flow in the fins & High Efficiency Cooling
- Easier & Economical Oil Cleaning
- Customized Corrugated fins are available on requests
- Vertical oil channel for higher pressure resistance

The Production Line of Tank



Ranges of Tanks	
Max. Length	2500MM
Max. Depth	2000MM
Max. Height	2000MM
Max. Weight	2.5MT.
Approx. Rating	10MVA



Transformer Cooling Fan

General Specifications of Transformer Cooling Fan

Motors

- Weatherproof enclosure (totally enclosed) a shaft water slinger and 4 x M5 drain holes to allow condensation to drain, regardless of the mounting position.
- Class F insulation with Class B temperature rise for longer motor life.
- Sealed ball bearings permanently lubricated with heavy duty grease rated -540°C to 1940°C
- Motors are painted with 75 microns of high quality, gray (Munsell no. 5Y 7/1), outdoor epoxy.

Guards & Housings

- The Fans feature basket type guards. They feature a high efficiency, venturi-type housing.
- All fans are fully guarded and meet OSHA requirements.
- Terminal Box connection Type
- **Painted, Hot dip galvanized or Stainless Steel guards are available on request.**

Fan Blades

- Fan blades feature one-piece cast aluminum fan blades for high efficiency and quiet operation.
- All Fans feature a heavy duty fabricated fan blade with aluminum wings and steel hub.
- All fan blades are machine balanced to rigid tolerances.
- **The Stainless Steel blade is available on request.**





Fan Guard

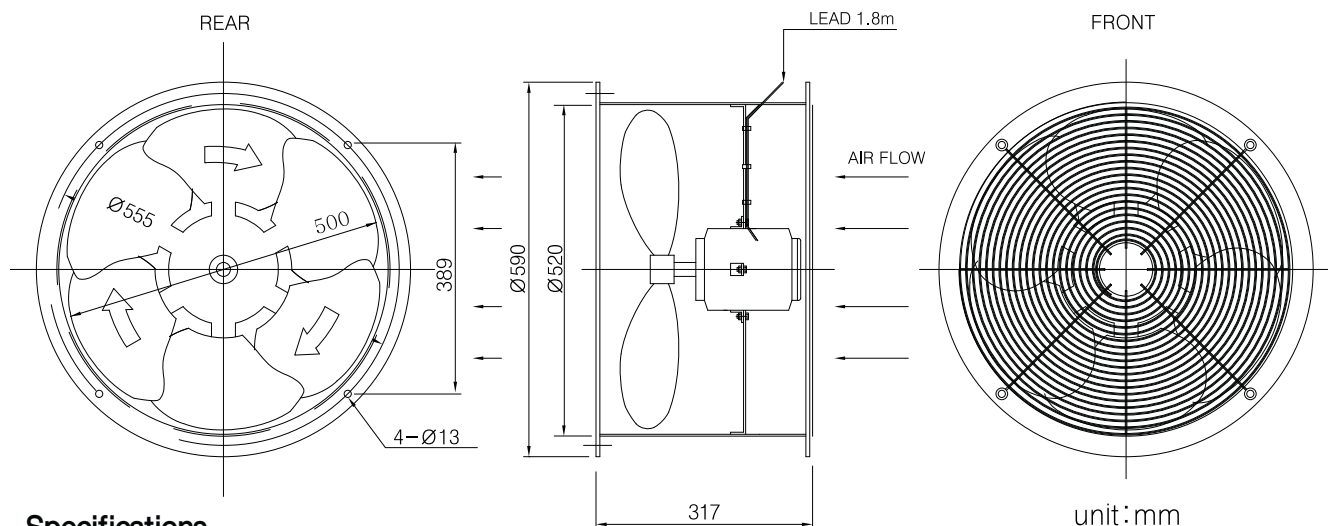
Fan Guard is constructed as ring shape by steel rod consisted of motor support and fan blade protector. It is possible to maintain low noise and high efficiency by reducing the total weight and minimize the disturbance of air flow.

Motor

The motor is fractional horsepower and total enclosed waterproof type. Insulation motor is 'F' class. On the continuous operation, it has high efficiency.

Fan Blade

It is designed to provide enough windflow and is made of aluminum. Thus, it is light anticorrosive and heat-resistant. Especially, accurate and well balanced fan blade by the balancing machine makes possible to maintain the low noise.



Specifications

G-No.	Air Flow (m/sec)	CFM	P	Volts	HP	Pole	Hz	RPM	dBA	I/C	Distance	Kg
G01	1.9	4080	3	380/220	1/2	6	60	1150	65	E	392x392	20
G02	1.6	3430	1	230	1/4	6	50	960	61			
G03	1.9	4080	1	220	1/4	6	60	1150	65			
G04	1.9	4080	3	440	1/2	6	60	1150	65			
G05	1.9	4080	1	240	1/4	6	60	1150	65			
G06	1.4	3000	3	400	1/2	8	60	840	64			

- dBA[Sound Level]: At 6' [1.83m], all direction average.
- I/C : Motor Insulation Class
- IP-54 is applied in case of side installation of radiator group.
- Other volts, Hz or phases are available on request.



Fan Guard

Fan Guard is constructed as ring shape by steel rod consisted of motor support and fan blade protector. It is possible to maintain low noise and high efficiency by reducing the total weight and minimize the disturbance of air flow.

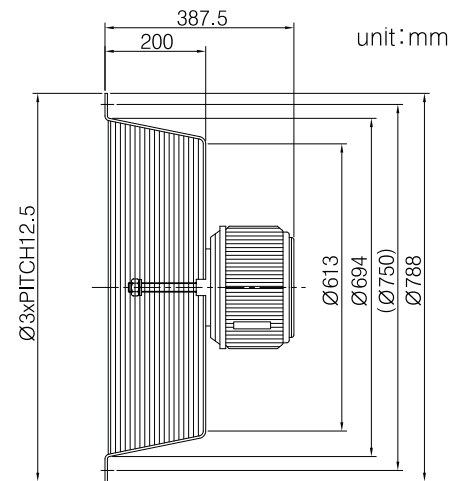
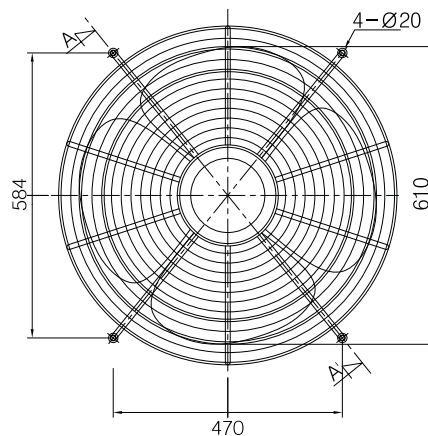
Motor

The motor is fractional horsepower and total enclosed waterproof type. Insulation motor is 'F' class. On the continuous operation, it has high efficiency.

Fan Blade

It is designed to provide enough windflow and is made of aluminum. Thus, it is light anticorrosive and heat-resistant. Especially, accurate and well balanced fan blade by the balancing machine makes possible to maintain the low noise.

- Motor Insulation : F Class
- Type : TENV
- Noise Level : 55dBA(60Hz), 58dBA(50Hz)
- Guards : Paint(Munsell no. 5Y 7/1, 75microns) or Hot dip galvanizing



unit:mm

Specifications

Model	Air Flow (m/sec)	CFM	P	Volts	Kw	Pole	Hz	R.P.M	Full Load Current[A]	No Load Current[A]	Starting Current[A]	Weight (Kg)	Watts
A	2.7 +	5790	3	380/220	0.4	8	60	840	1.5/1.6	1.1/1.3	5.0/9.0	26	380
B	2.7 +	5790	3	440	0.4	8	60	840	1.30	0.95	4.00	26	380
C	2.7 +	5790	3	460	0.4	8	60	840	1.20	0.90	3.80	26	380
D	2.7 +	5790	3	480	0.4	8	60	840	1.15	0.85	3.60	26	380
E	2.7 +	5790	3	120	0.4	8	60	840	4.50	3.50	16.00	26	380
F	2.2 +	4720	3	120	0.4	8	50	700	5.10	4.50	17.00	26	280
G	2.2 +	4720	3	208	0.4	8	50	700	3.10	2.70	10.00	26	280
H	2.2 +	4720	3	220	0.4	8	50	700	2.90	1.90	9.50	26	280
J	2.2 +	4720	3	380	0.4	8	50	700	1.70	1.10	5.50	26	280
K	2.2 +	4720	3	415	0.4	8	50	700	1.60	1.00	5.00	26	280
L	2.2 +	4720	3	460	0.4	8	50	700	1.40	0.90	4.50	26	280
M	2.9 +	5790	3	380	0.4	6	50	950	1.70	1.10	5.50	26	460
N	2.7 +	5790	3	208	0.4	8	60	840	2.80	1.90	10.00	26	380

- Actual CFM[m³/s] as measure on discharge side of one transformer
- dBA at 6'[1.83m] from the perimeter of the fan in the open.
- Other volts, Hz or phases are available on request.
- IP54, IP55, IP65



Fan Guard

Fan Guard is constructed as ring shape by steel rod consisted of motor support and fan blade protector. It is possible to maintain low noise and high efficiency by reducing the total weight and minimize the disturbance of air flow.

Motor

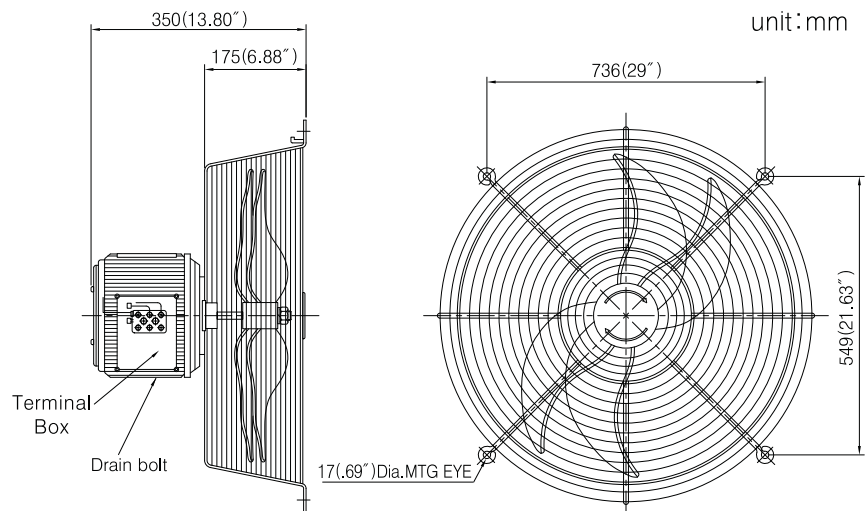
The motor is fractional horsepower and total enclosed waterproof type. Insulation motor is 'F' class. On the continuous operation, it has high efficiency.

Fan Blade

It is designed to provide enough windflow and is made of aluminum. Thus, it is light anticorrosive and heat-resistant. Especially, accurate and well balanced fan blade by the balancing machine makes possible to maintain the low noise. One-piece cast aluminum fan blade has two blades per fan.

Low Sound Level

1. MOTOR INSULATION : F CLASS(60Hz)
: F CLASS(50Hz)
2. IP GRADE : IP55
3. NOISE : 50dBA DISTANCE : 2m-60Hz
47dBA DISTANCE : 2m-50Hz
4. SURFACE HANDLING : WASH PRIMER AFTER
HOT DIP GALVANIZING(Zn)
5. FINAL PAINTING : 5Y 7/1(EXCLUDED FAN BLADE)
6. PAINTING THICKNESS : OVER 75 MICRONS
7. SHAFT : ANTI-RUST (TYPE : TECTYL 506)
8. PROTECTION BODY & COVER
: 1/2" Diameter rod → not passing through(meet OSHA rerequirements)



Specifications

HP	RPM	Volts	Ø	Hz	Air Flow (m³/sec)	CFM	DBA
1/8	850	380	3	60	2.45	5250	50

Volts	Fan Amps	Full Load Current(A)	Start Current(A)	Watts
380	0.40	0.45	1.00	184
460	0.44	0.45	1.02	188
480	0.45	0.45	1.10	196

- Actual CFM[m³/s] as measure on discharge side of one transformer radiator.
- dBA at 6' [1.83m] from the perimeter of the fan in the open.
- Other volts, Hz or phases are available on request.
- IP55

KP0705 (24")

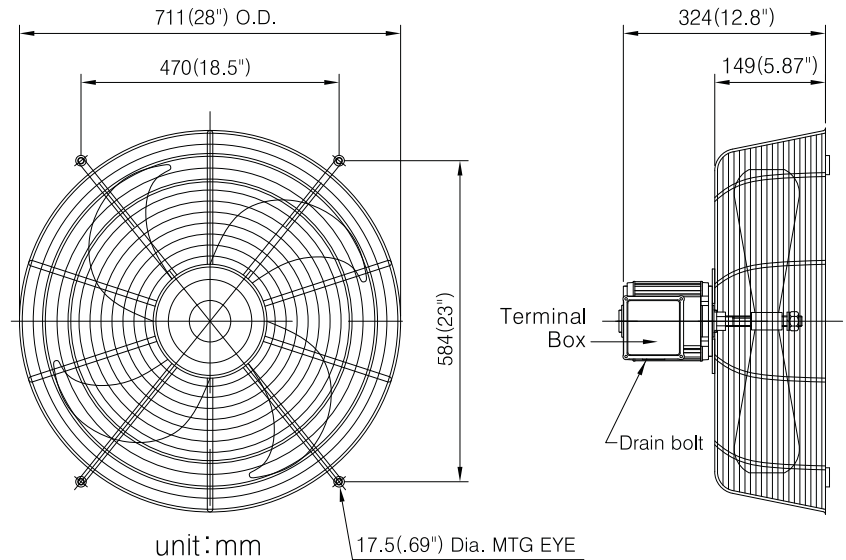
Cooling Fan



Installed any position with the mounting hardware or fan guard mounting eyes.

OSHA Fan guards & Hot dip galvanizing guards.

One-piece cast aluminum fan blade.



Specifications

Model	HP	RPM	Hz	Phase	Voltage	Running Amps	Full Load Amps	Watts
A	1/6	850	60	1	115	1.49	1.50	164
B	1/8		60	1	208-230	0.78	1.20	176
C			60	3	208-230	0.77	0.90	152
D			60	3	460	0.4	0.45	148
E		1/6	60	1	115	2.67	2.90	272
F	60		1	208-230	1.13	1.20	236	
G	1140		60	3	208-230	1.08	1.20	272
H			60	3	460	0.54	0.65	260
I		60	3	575	0.46	0.60	240	
J		1/2	60	1	115	6.12	6.40	700
K	60		1	208-230	2.95	3.00	676	
L	60		3	208-230	2.1	2.30	680	
M	60		3	460	1.09	1.15	692	
N		1750	60	3	575	0.87	0.90	708

- Other volts & phases are available on request.
- 50Hz data are available on request.

HP	RPM	Air Flow (m ³ /sec)	CFM	dBA	Hz
1/8	850	1.82	3900	53.8	60
1/6	1140	2.43	5200	61.0	60
1/2	1750	3.64	7800	74.4	60

- Actual CFM[m³/s] as measure on discharge side of one transformer radiator.
- dBA at 6' [1.83m] from the perimeter of the fan in the open.
- IP54, IP55, IP65

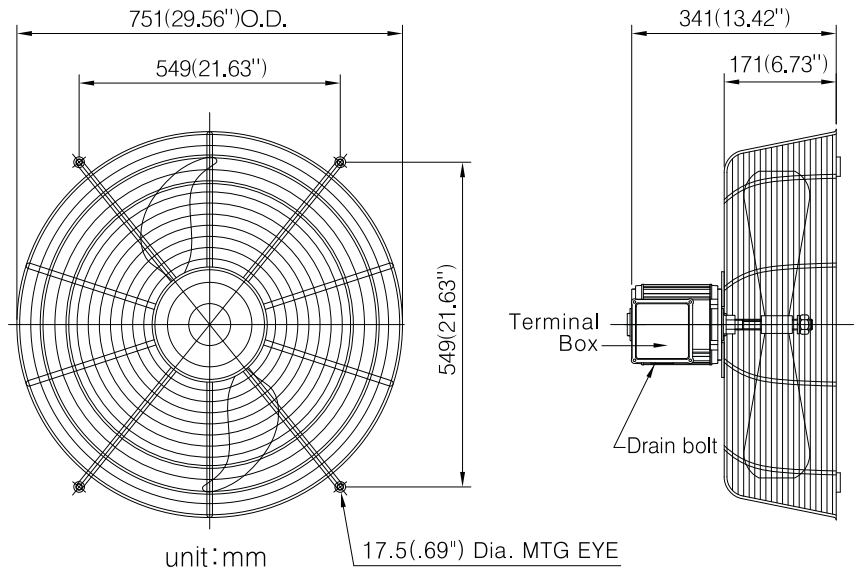
KP0706 (26")

Cooling Fan

Installed any position with the mounting hardware or fan guard mounting eyes.

OSHA Fan guards & Hot dip galvanizing guards.

One-piece cast aluminum fan blade.



Specifications

Model	HP	RPM	Hz	Phase	Voltage	Running Amps	Full Load Amps	Watts
A	1/6	850	60	1	115	1.42	1.50	148
B	1/8		60	1	208-230	0.91	1.20	156
C			60	3	208-230	0.78	0.90	144
D			60	3	460	0.4	0.45	136
E	1/6	1140	60	1	115	2.47	2.90	240
F			60	1	208-230	1	1.20	208
G			60	3	208-230	1.06	1.20	232
H			60	3	460	0.53	0.65	232
I			60	3	575	0.47	0.60	232
J	1/2	1750	60	1	115	5	6.40	572
K			60	1	208-230	2.5	3.00	572
L			60	3	208-230	1.9	2.30	568
M			60	3	460	1	1.15	568
N			60	3	575	0.75	0.90	572

- Other volts & phases are available on request.
- 50Hz data are available on request.

HP	RPM	Air Flow (m ³ /sec)	CFM	dBA	Hz
1/8	850	1.88	4030	47.5	60
1/6	1140	2.62	5610	56.5	60
1/2	1750	3.97	8500	70.0	60

- Actual CFM[m³/s] as measure on discharge side of one transformer radiator.
- dBA at 6' [1.83m] from the perimeter of the fan in the open.
- IP54, IP55, IP65

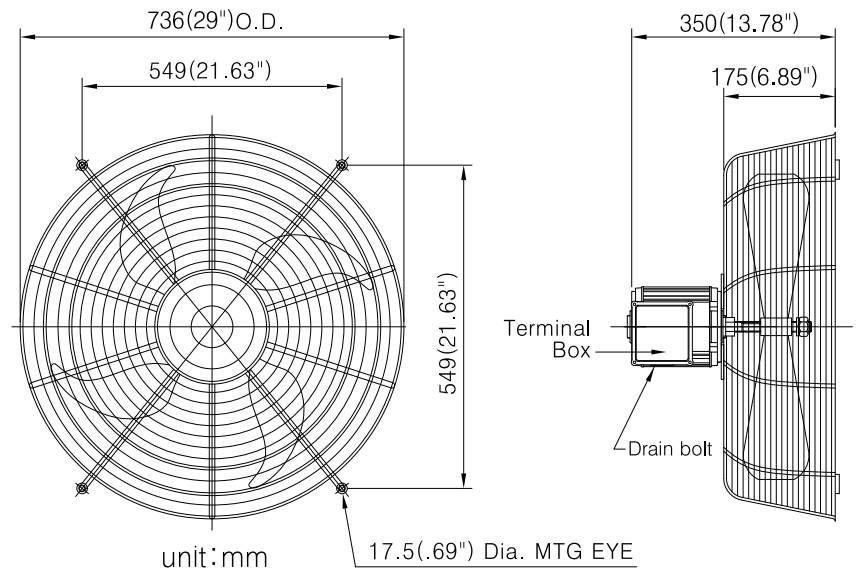
KP0707 (26")

Cooling Fan

Installed any position with the mounting hardware or fan guard mounting eyes.

OSHA Fan guards & Hot dip galvanizing guards.

One-piece cast aluminum fan blade and two blades per fan.



Specifications

Model	HP	RPM	Hz	Phase	Volts	Running Amps	Full Load Amps	Watts
A	1/8	850	60	1	115	1.98	2.4	196
B			60	1	208-230	1	1.2	192
C			60	3	208-230	0.85	0.9	200
D			60	3	460	0.44	0.45	188
E	1/3	1140	60	1	115	3.02	3.6	324
F			60	1	208-230	1.42	1.8	312
G			60	3	208-230	1.21	1.4	308
H			60	3	460	0.59	0.7	312
I			60	3	575	0.48	0.56	320

- Other volts & phases are available on request.
- 50Hz data are available on request.

HP	RPM	Air Flow (m ³ /sec)	CFM	dBA	Hz
1/8	850	2.45	5250	50.9	60
1/3	1140	3.45	7400	61.6	60

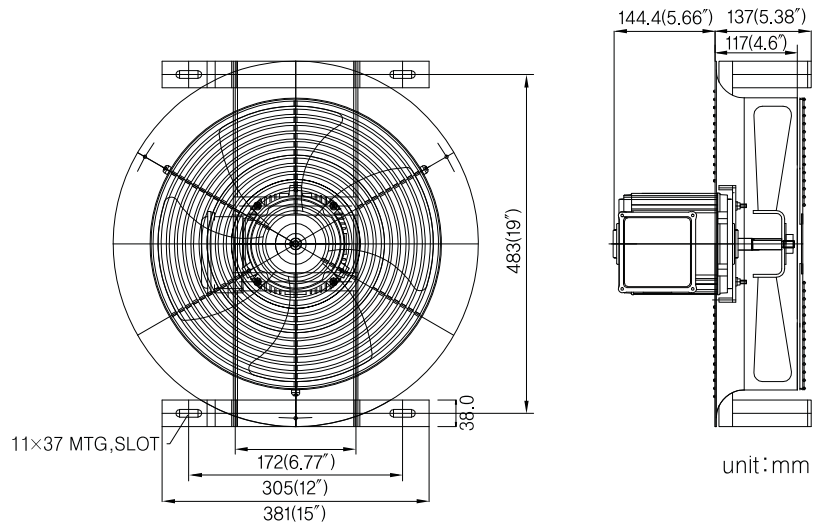
- Actual CFM[m³/s] as measure on discharge side of one transformer radiator.
- dBA at 6' [1.83m] from the perimeter of the fan in the open.
- IP54, IP55, IP65

KP0708 (16")

Cooling Fan



Installed any position with the mounting hardware or fan guard mounting eyes.
 OSHA Fan guards & Hot dip galvanizing guards.
 One-piece cast aluminum fan blade.



unit:mm

Specifications

Model	HP	RPM	Hz	Phase	Voltage	Running Amps	Full Load Amps	Watts
A	1/6	850	60	1	115	0.86	1.50	88
B	1/8		60	1	208-230	0.69	1.20	136
C			60	3	208-230	0.74	0.90	108
D			60	3	460	0.39	0.45	104
E	1/6	1140	60	1	115	2.14	2.90	176
F			60	1	208-230	0.8	1.20	144
G			60	3	208-230	1.02	1.20	160
H			60	3	460	0.5	0.65	160
I			60	3	575	0.44	0.60	152
J	1/2	1750	60	1	115	3.11	6.40	354
K	1/4		60	1	208-230	1.48	1.70	308
L	1/2		60	3	208-230	1.49	2.30	344
M			60	3	460	0.78	1.15	336
N			60	3	575	0.66	0.90	332

- Other volts & phases are available on request.
- 50Hz data are available on request.

HP	RPM	Air Flow (m ³ /sec)	CFM	dBA	Hz
1/8	850	1.03	2200	52.1	60
1/6	1140	1.35	2900	58.9	60
1/2	1750	2.10	4500	68.2	60

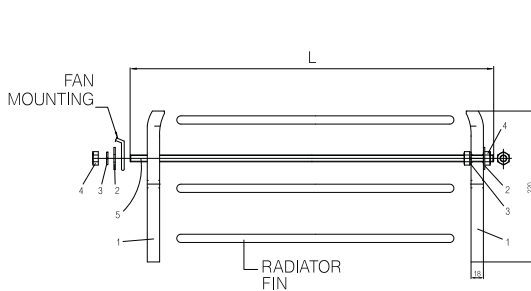
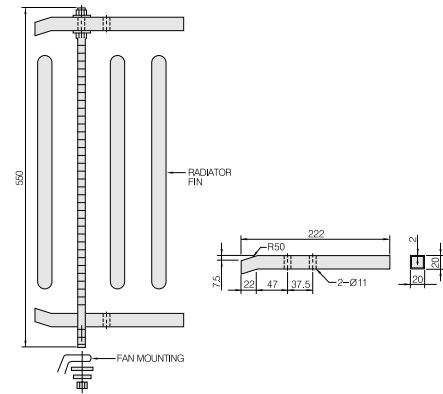
- Actual CFM[m³/s] as measure on discharge side of one transformer radiator.
- dBA at 6' [1.83m] from the perimeter of the fan in the open.
- IP54, IP55, IP65

Flush Mount Hardware

Flush Mount Hardware fits almost all types & sizes of transformer radiators and designed for fast & easy filed installation.

The Flush Mount Transformer Fan installation is the most efficient mounting method for horizontal blowing fans on panel or tube type radiators.

The Flush Mount Hardware set includes all hardware for any type of fan installation.

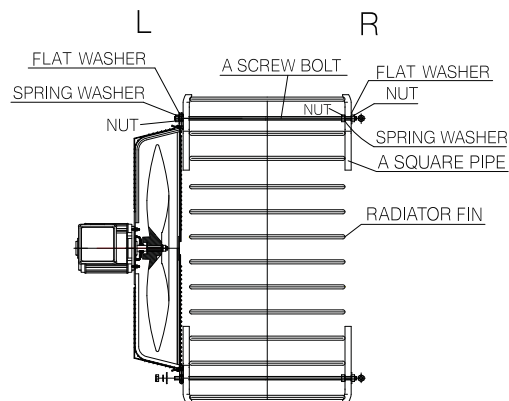


- Customizing sizes are available on request.
(Standard Length : 550mm)

Assembly Instruction

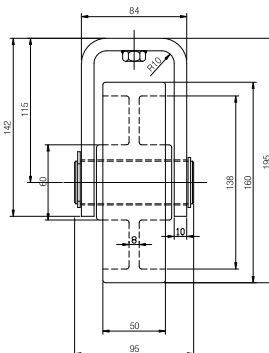
1. Insert the screw bolts between radiator fins
2. Assemble washers and nuts at the right side.
3. Adjust the fan's position to the mounting holes at the left side.
4. Fix the fan by assembling the washers and nuts at the left side.

- The assembly direction of fan and the working order may be changed according to the working conditions.



Transformer Wheel

Hot dip galvanizing or Painting Treatment

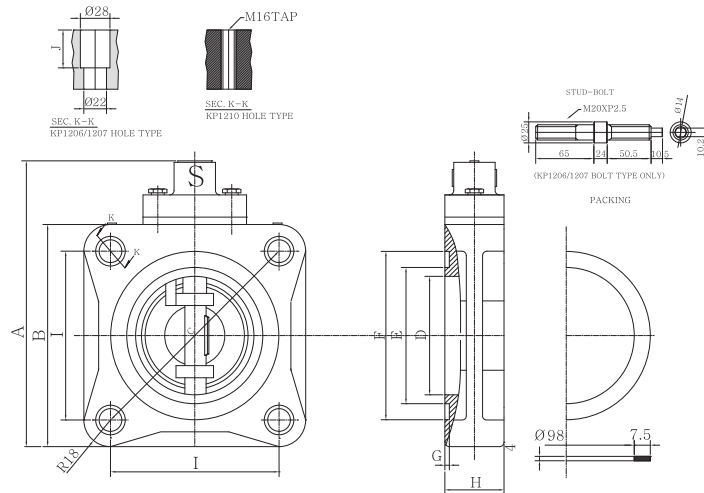


Radiator Valve

Butterfly Valve(Radiator Valve)

The Butterfly type radiator valve is attached to transformer tank for removal the radiator without oil drainage. When the transformer is shipped without radiators, the opening of radiators are covered by means of blinking of plates.

KP1206 / KP1207 / KP1210-1



Product Dimension

Model	Type	A	B	ØC	ØD	ØE	ØF	G	ØH	I	J
KP1206	3"F	196	150	150	92	98	115	2.5	43	106.1	28
KP1207	4"F	218	172	180	110	122	146	2.5	45	127.3	28
KP1210-1	3"B	196	150	161.2	92	98	115	2.5	43	114	-

(mm)

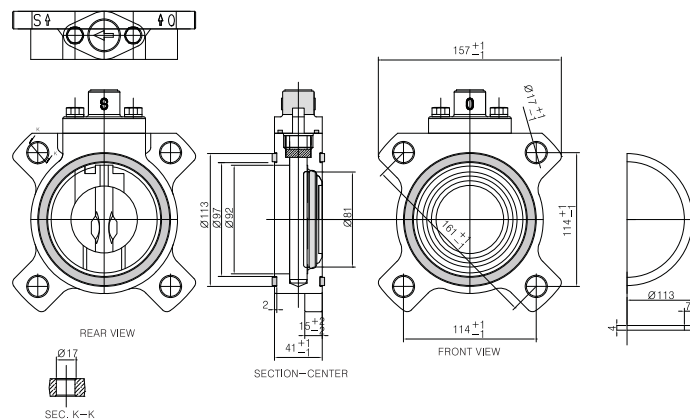
Type & Option

Usage	Pipe Connection area for oil immersed transformers
Installation	Stud Bolts type
Body	FC 20
Option Item	Stud Bolts





※Customizing Valves are available on request.



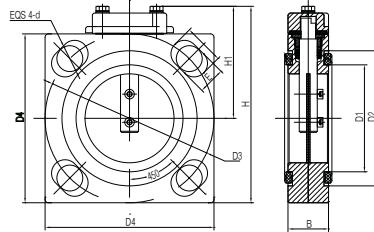
KP1210-3



Specifications of Butterfly Valve

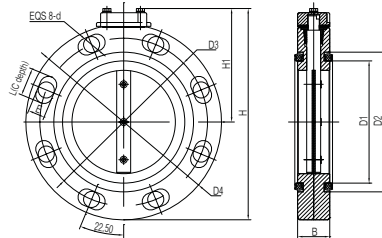
Model		Size	Body	Options	Remarks
	KP1201	3"	SS400	Pipe & Brackets	Valve cover & Mounting Hardware
	KP1202	4"	SS400	Pipe & Brackets	Valve cover & Mounting Hardware
	KP1203	6"	FC20	Stud Bolts	Transformer Pipe Connection
	KP1204	2"	AL	Stud Bolts	Transformer Pipe Connection
	KP1205	1.5"	AL	Stud Bolts	Transformer Pipe Connection
	KP1210-2	2" 3"	FC20	Stud Bolts	BH-Relay Pipe Connection
	KP1211	3"	FC20	Stud Bolts	"Radiator Head, Oil Pump, Cooler Unit, 3" BH-Relay"
	KP1212	4"	FC20	Stud Bolts	Radiator Head, Oil Pump, Cooler Unit
	KP1213	2"	FC20	Stud Bolts	SPR Pipe Connection

Metal to Metal Sealing Butterfly Valve



Specifications

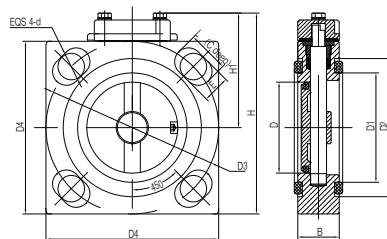
Model	D1	D2	D3	D4	B	d	H	H1	E	L	C
MM-Ø40-1	Ø50	Ø64	Ø85	90	32	Ø14	114	69	16	22	12
MM-Ø50-1	Ø64	Ø83	Ø125	125	32	Ø14	149	86.5	16	22	12
MM-Ø80-1	Ø95	Ø120	Ø150	150	32	Ø23	174.5	99.5	24	35	13
MM-Ø80-10	Ø95	Ø120	Ø160	150	32	Ø19	174.5	99.5	22	32	13



Specifications

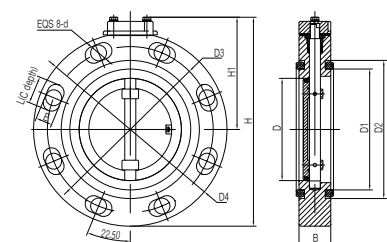
Model	D1	D2	D3	D4	B	d	H	H1	E	L	C
MM-Ø100-1	Ø120	Ø145	Ø180	Ø220	40	Ø19	239.5	129.5	22	35	16
MM-Ø125-1	Ø140	Ø165	Ø200	Ø235	46	Ø19	279.5	154.5	22	35	19
MM-Ø150-1	Ø175	Ø200	Ø240	Ø280	46	Ø23	302.5	162.5	24	40	20
MM-Ø200-1	Ø225	Ø250	Ø295	Ø335	46	Ø23	358	190.5	24	40	20

Full Tight Sealing Butterfly Valve (Vacuum Type)



Specifications

Model	D	DI	D2	D3	D4	B	d	H	H1	E	L	C
VC-Ø40-1	Ø39	Ø50	Ø64	Ø85	90	32	Ø14	114	69	16	22	12
VC-Ø50-1	Ø49	Ø64	Ø83	Ø125	125	32	Ø14	149	86.5	16	22	12
VC-Ø80-1	Ø79	Ø95	Ø120	Ø150	150	32	Ø23	174.5	99.5	24	35	13
VC-Ø80-10	Ø79	Ø95	Ø120	Ø160	150	32	Ø19	184.5	104.5	22	32	13



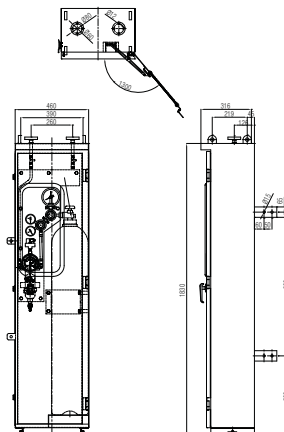
Specifications

Model	D	DI	D2	D3	D4	B	d	H	H1	E	L	C
VC-Ø100-1	Ø98	Ø120	Ø145	Ø180	Ø220	40	Ø19	239.5	129.5	22	35	16
VC-Ø125-1	Ø123	Ø140	Ø165	Ø200	Ø235	46	Ø19	279.5	154.5	22	35	19
VC-Ø150-1	Ø148	Ø175	Ø200	Ø240	Ø280	46	Ø23	302.5	162.5	24	40	20
VC-Ø200-1	Ø198	Ø225	Ø250	Ø295	Ø335	46	Ø23	358	190.5	24	40	20

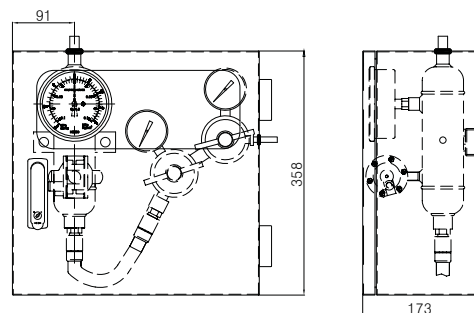
N2 Gas Seal Equipment (Oil Preservation Systems)

The N2 Gas Seal Equipment is a device enclosing N2 Gas inside the Transformer Tank to prevent the deterioration of insulating oil as block the indraft of oxygen in the insulating oil. Pressure of the tank and the degree of vacuum resulting from the change of temperature and the load inside the tank can be adjustable by this device. This device is built in the waterproof cabinet.

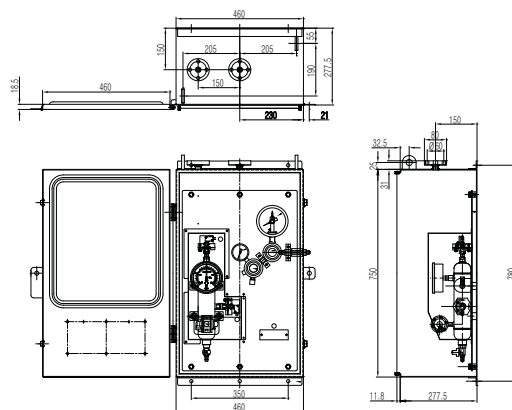
KP1930



KP1931



KP1932



• The manual is available on request.

Partnering(Cooperative)Sales Items

► Oil Purifier

Filter type Oil Purifier (Customizing Equipment is available on request.)

It is equipment that is designed to purify the small quantity of transformer oil with specially developed filters. The size is small which make easy travel & operation.
An additional 5kW heater can be installed for option.



SKM25-12F



SKM25-10F



S212-RD



S210-RD



SCM-100



SCM-60

Specifications

Model	SKM25-12F	SKM25-10F	S212-RD	S210-RD	SCM-100	SCM-60
Capacity	2500 ℓ /hr	1920 ℓ /hr	1260 ℓ /hr	760 ℓ /hr	6000 ℓ /hr	2600 ℓ /hr
Working / Max. Pressure	3bar/6bar	3bar/6bar	3bar/6bar	3bar/6bar	3bar/6bar	3bar/5bar
Filter Q'ty	12pcs	10pcs	6pcs	4pcs	1pc	1pc
Clean Level	NAS grade 5~7	NAS grade 5~7	NAS grade 5~7	NAS grade 5~7	NAS grade 5~7	NAS grade 6~8
Moisture Level	100ppm	100ppm	100ppm	100ppm	-	-
Moisture Filter	OK	OK	None	None	None	None
In&Out Dia.	Rc 1	Rc 1	Rc 3/4	Rc 3/4	Rc 1 1/4	Rc 1
Pump Function	Option	Option	Option	Option	Option	Option
Alarm Function	OK	OK	OK	OK	OK	OK
Safety Function	OK	OK	OK	OK	OK	OK
Tank Capacity	10,000 ℓ	8,000 ℓ	6,000 ℓ	4,000 ℓ	15,000 ℓ	8,000 ℓ
Input Filter	80mesh	80mesh	80mesh	80mesh	80mesh	80mesh

► Oil Purifier

Thermo Vacuum type Oil Purifier (Customizing Equipment is available on request.)



It is equipment that is designed to increase the quality of transformer oil by removing waste, moisture and gas inside oil, as the equipment that degasses and dehydrates transformer oil in high-vacuumed state.

Six kinds of gases occurred in transformer oil are removed by this special equipment to make the oil best status. Bulk transformer oil can be purified with various capacity options(2,000 ~ 12,000 liter/Hr).



Specifications

Model		ISP-2000	ISP-3000	ISP-4000	ISP-6000	ISP-8000	ISP-10000
CAPACITY		2000 ℓ/hr	3000 ℓ/hr	4000 ℓ/hr	6000 ℓ/hr	8000 ℓ/hr	10000 ℓ/hr
MAX. POWER CONSUMPTION		40kW	50kW	60kW	90kW	105kW	135kW
ELECTRIC POWER		Customer's specification					
HEATER	CAPACITY	30kW	40kW	50kW	75kW	90kW	120kW
	CONTROL	S.C.R					
TRANSFER PUMP	SUCTION	Vacuum			2.2kW		3.7kW
	DISCHARGE	2.2kW				3.7kW	5.5kW
VACUUM PUMP	OIL ROTARY	1600 ℓ /min			4500 ℓ /min		
	MECHANICAL	-	-	300m³/hr	600m³/hr	600m³/hr	800m³/hr
	ULTIMATE PRESS	0.05Torr					
DE-AIRATION TANK		100 ℓ	150 ℓ	250 ℓ	400 ℓ	550 ℓ	700 ℓ
FILTER METHOD		1pc		2pcs	3pcs		
COOLING METHOD		Air Cooled					
CLEAN LEVEL		NAS grade 7～8					
MOISTURE LEVEL		3 ～ 5 ppm ↓					
OPERATION		AUTO/SEMI AUTO					
INSTALLATION		Movable			Fixed		
DIMENSION		1700x1700x2000(H)	1700x1800x2000(H)	1900x2000x2200(H)	1900x2200x2300(H)	2200x2400x2400(H)	2200x2500x2400(H)

• The Dimension & Weight can be changed according to the client's request.

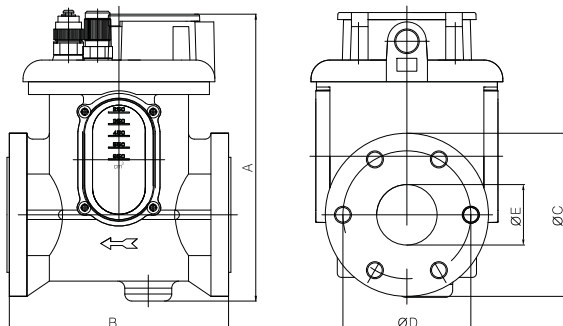
► Buchholz Relay



Product Dimension

Model	Size	A	B	ØC	D	ØE	Gas Volume(cc)	Oil Velocity(cm/s)
KP1701	2"	242	185	140	110	52	300	75-140
KP1702	3"	267	185	160	130	80	350	90-160

- Data in detail are available on request.
- IP 55



► Dehydrating Breathers



Dehydrating Breathers are used to prevent the normal moisture in the air from coming in contact with the oil in electrical equipment as the load or temperature changes.

Model	Spec.	Usage	Model	Spec.	Usage
KP0101	-	Pole Transformer	KP0106	1000g	Medium & Large Transformer
KP0102	200g	Small & Medium Transformer	KP0108	2000g	
KP0103	300g		KP0109	3000g	
KP0104	500g		KP0110	1600g	
KP0105	760g		KP0111	2600g	
			KP0112	3600g	
			KP0113	4600g	

- KP0108~KP0113: Main body is made of steel and flange type joint.
- Data in detail are available on request.

► Vacuum Pump, Copper & AL Foil, Wire

- Oil Rotary Vacuum pump
- Dry Vacuum pump
- Mechanical Booster pump and etc.



- Catalog in detail is available on request.



- Various specifications are available.



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