HPEOK®

Refrigeration&Air-Conditioning Components

Liquid receiver

Vertical liquid receiver
Type PKC, CE

Applications

The liquid receiver acts as a stock of liquid refrigerant for the evaporators, located after the condenser in a refrigeration system.

The selection of receiver size should be based on refrigerant charge in the system, and it also should be sized to hold the full system charge during service work, the capacity of each liquid receiver listed on Technical data sheet below.

Feature

- Designed for storing liquid refrigerant in system operation or service
- Allow adjust system to suitable to different condition and load
- Inlet of standard products is ODF welding connection and outlet is rotalock valve connection, PTFE seal gasket for valves
- Standard products do not contain safety valve and sight glass port. It is made upon request
- Diameter of standard products may not be changed, desired volume, length and features are available to be customized
- Color on request

Technical

- Corrosion resistant epoxy powder paint finish, can be used in all environment
- Maximum working pressure: Part No. with "P":3.4MPa , Part No. without "P": 4.7MPa
- CE listed

Specification

Part No.	Connection (in)	A(mm)	B(mm)	D(mm)	Volume (L)	Sketch
PKC-133	3/8	170	35	102	1.1	Fig 1
PKC-166	3/8	192	40	114	1.6	
PKC-233	3/8	185	42	127	2.0	
PKC-333	3/8	293	42	127	3.0	
PKC-433	3/8	238	55	165	4.0	
PKC-644	1/2	332	55	165	6.0	
PKC-844	1/2	432	55	165	8.0	
PKC-855	5/8	432	55	165	8.0	
PKC-1055	5/8	322	75	219	10.0	
PKC-1255	5/8	380	75	219	12.0	
PKC-1455	5/8	435	75	219	14.0	
PKC-1466	3/4	435	75	219	14.0	
PKC-1677	7/8	492	75	219	16.0	
PKC-1877	7/8	549	75	219	18.0	
PKC-2077	7/8	606	75	219	20.0	
PKC-3P33	3/8	307	42	130	3.0	Fig 2
PKC-5P44	1/2	367	42	152	5.0	
PKC-8P44	1/2	257	55	219	8.0	
PKC-10P55	5/8	312	75	219	10.0	
PKC-12P55	5/8	372	75	219	12.0	
PKC-14P55	5/8	432	75	219	14.0	
PKC-16P66	3/4	492	75	219	16.0	

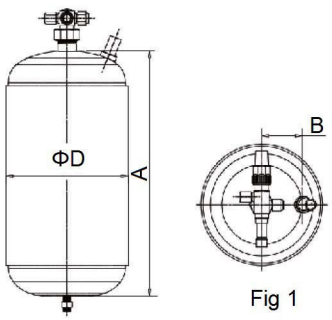


Fig 1

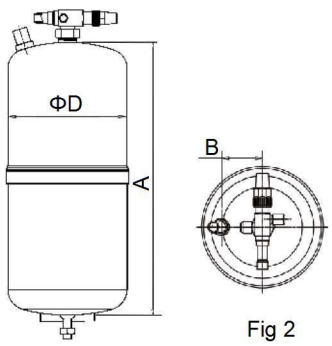


Fig 2

Liquid receiver
Type PKVC/PKHC

Application

The receiver acts as a stock of liquid refrigerant for the evaporators.

The high pressure refrigerant changes to liquid and gas after the condenser radiate heat, however, the refrigerant should turn to liquid before entering evaporator, so the receiver should be located after the condenser to store high pressure refrigerant.

Technical

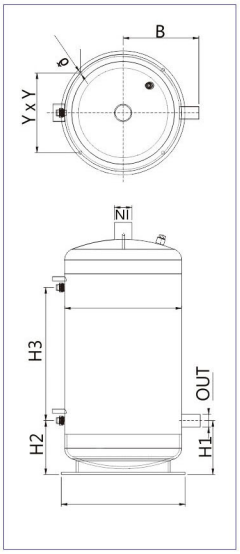
- Maximum working pressure: 30 Bar = 435 psig
- For use with CFC, HCFC, HFC and associated oil, optional for R410a & CO_2
- CE listed

Feature

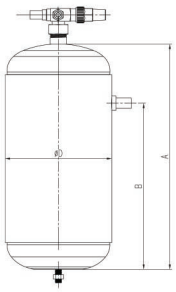
- Allow adjust system to suitable to different condition and load.
- Optional for liquid receiver and horizontal receiver: –Vertical type: 3 sight glasses: top, middle & bottom
  –Horizontal type: 2 sight glasses: top & bottom
- Corrosion resistant epoxy powder coated finish suitable for harsh environments.

Specification

Part NO.	Dimension (mm)											Volume (L)
	ΦD	Inlet	Outlet	H	H1	H2	H3	ΦA	B	ΦC	Y×Y	
PKCL-50L	Φ325	Φ38	Φ28	789	196	171	335	Φ13	198	Φ350	230×230	50
PKCL-100L	Φ377	Φ57	Φ32	1156	218	193	622	Φ14	260	Φ440	290×290	100
PKCL-150L	Φ457	Φ76	Φ57	1153	234	216	610	Φ14	306	Φ490	327×327	150
PKCL-200L	Φ508	Φ76	Φ57	1231	240	222	610	Φ18	330	Φ540	360×360	200
PKCL-250L	Φ508	Φ76	Φ57	1481	240	222	860	Φ18	330	Φ540	360×360	250
PKCL-300L	Φ560	Φ89	Φ76	1477	261	233	850	Φ18	356	Φ590	390×390	300
PKCL-400L	Φ610	Φ89	Φ76	1650	278	250	960	Φ18	387	Φ640	425×425	400
PKCL-500L	Φ712	Φ89	Φ76	1510	299	282	804	Φ18	446	Φ750	497×497	500
PKCL-600L	Φ712	Φ89	Φ76	1816	299	272	1118	Φ18	446	Φ750	497×497	600



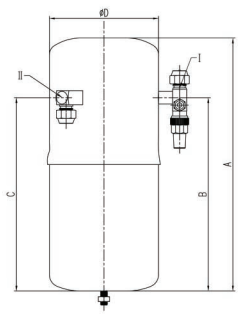
Liquid Receiver
Type PKC, CE

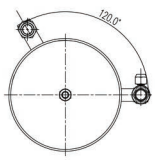


Working pressure: 4.2MPa
Working Temp: -40℃~+130℃

Specification

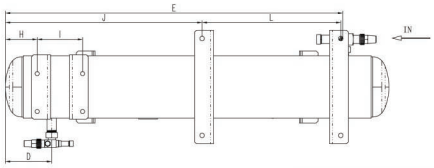
Part No.	Inlet & outlet (in)	Dimension (mm)			Volume (L)
		A	B	D	
PKC-101J	3/8	200	132	89	1.0
PKC-102J	3/8	258	181	127	2.9
PKC-103J	3/8	290	203	127	3.2
PKC-104J	1/2	348	257	165	6.2
PKC-105J	5/8	414	320	165	7.5
PKC-106J	3/4	600	495	165	11.2
PKC-107J	7/8	700	585	165	13.2

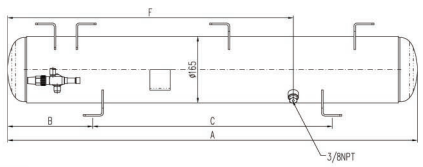


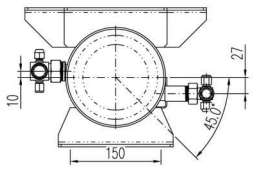


Working pressure: 3.5MPa
Working Temp: -40℃~+130℃

Part No.	Inlet & outlet (in)		Dimension (mm)				Volume (L)
			A	B	C	D	
PKC-101	1/4	3/8	218	136	136	89	1.1
PKC-102	3/8	3/8	245	160	160	130	2.9
PKC-103	3/8	3/8	298	208	208	130	3.5
PKC-104	1/2	1/2	360	275	275	152	6.0
PKC-105	5/8	5/8	412	275	322	180	9.6



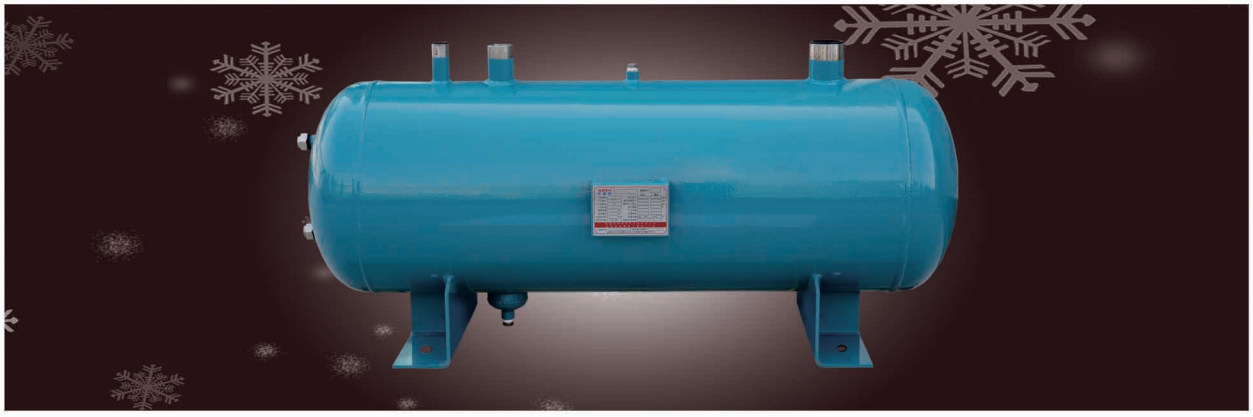




Working pressure: 4.2MPa
Working Temp: -40℃~+130℃

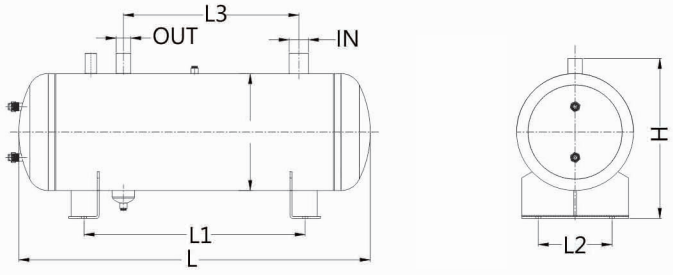
Part NO.	Inlet (in)	Outlet (in)	Dimension (mm)											Volume (L)
			A	B	C	D	E	F	G	H	I	J	L	
PKC-14CL	5/8	1/2	740	170	400	140	600	415	0	-	-	250	293	14.0
PKC-19CL	7/8	1/2	1014	207	600	122	892	707	10	84	120	520	367	19.3
PKC-24CLA	7/8	5/8	1250	200	850	165	1085	925	10	188	120	653	367	24.0
PKC-24CLB	7/8	5/8	1250	200	850	165	1085	925	10	165	120	677	381	24.0

Horizontal Liquid Receiver
Type PKCW



Specification

Part No.	Dimension (mm)						Mounting size (L1×L2) (mm)	Volume (L)
	ΦD	Inlet	Outlet	L3	H	L		
PKCW-100L	Φ377	Φ57	Φ45	505	517	1068	670×210	100
PKCW-150L	Φ406	Φ76	Φ57	660	640	1272	820×260	150
PKCW-200L	Φ457	Φ76	Φ57	690	630	1382	870×290	200
PKCW-250L	Φ457	Φ76	Φ57	995	630	1662	1185×290	250
PKCW-300L	Φ508	Φ89	Φ76	890	742	1622	1100×330	300
PKCW-400L	Φ560	Φ89	Φ76	935	772	1786	1190×360	400
PKCW-500L	Φ610	Φ89	Φ76	1015	840	1882	1260×400	500



Safety Features

Pressure relief valves are provided to protect the receiver against any excessive hydraulic pressure being built up on selected models and the same can be provided on all models on request. The purpose of this device is to prevent the receiver steel from rupturing in case of excessive pressure.

The safety device may be in the form of a fusible plug or a spring loaded relief valve. The safety device is generally located in the place of the receiver that is most likely to rupture. The fusible plug is designed to a predetermined pressure and temperature so that the refrigerant is allowed to escape before the tank ruptures thus providing a controlled release.

Horizontal liquid receiver
Type PKC, CE

Feature

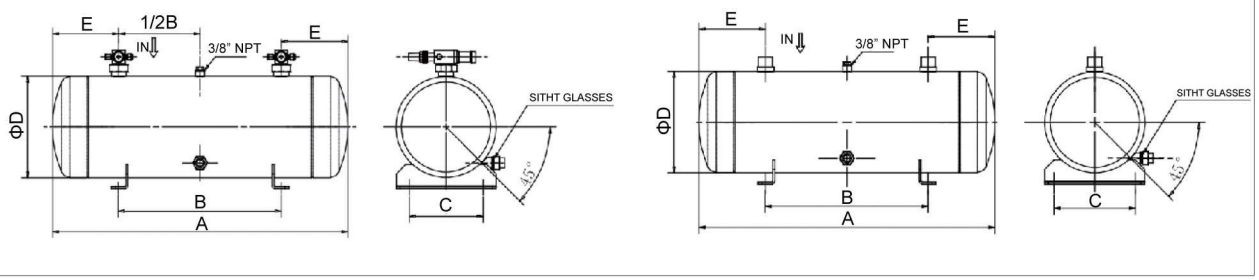
- Designed for storing liquid refrigerant in system operation or service
- Allow adjust system to suitable to different condition and load
- Fixed with an over–pressure safety valve
- Teflon seal gasket for rotalock valves
- A port for sight glasses, sight glasses may be decreased and increased on request
- Standard capacity from 30L to 60L, desired volume, length and features are available to be customized

Technical

- Corrosion resistant epoxy powder paint finish, can be used in all environment
- Maximum working pressure: 4.2Mpa = 609 psig
- CE listed

Specification

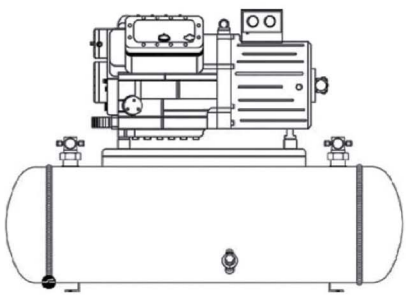
Part No.	Inlet and outlet	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	Evolume
PKC30L–V7	7/8	900	600	190	219	150	30L
PKC30L–V9	1–1/8	900	600	190	219	150	30L
PKC30L	1–1/8	900	600	190	219	150	30L
PKC35L–V9	1–1/8	1000	700	190	219	150	35L
PKC35L	1–1/8	1000	700	190	219	150	35L
PKC40L–V9	1–1/8	800	440	220	273	180	40L
PKC40L–V11	1–3/8	800	440	220	273	180	40L
PKC40L	1–3/8	800	440	220	273	180	40L
PKC45L–V11	1–3/8	900	540	220	273	180	45L
PKC45L	1–3/8	900	540	220	273	180	45L
PKC50L–V11	1–3/8	1000	640	220	273	180	50L
PKC50L–V13	1–5/8	1000	640	220	273	180	50L
PKC50L	1–5/8	1000	640	220	273	180	50L
PKC55L–V13	1–5/8	1100	740	220	273	180	55L
PKC55L	1–5/8	1100	740	220	273	180	55L
PKC60L–V11	1–3/8	1200	840	220	273	180	60L
PKC60L–V13	1–5/8	1200	840	220	273	180	60L
PKC60L–V17	2–1/8	1200	840	220	273	180	60L
PKC60L	2–1/8	1200	840	220	273	180	60L



Accessories

HPEOK offers a wide range of accessories such as rotolock stop valves, sight glasses, receiver valve, bracket sets, welded mounting bracket as per customer drawing and requirement. Bottom mounting studs are projection welded (not arc welded or hand brazed) thus avoiding chances of leakage and this also insures a strong joint with neat look.

HPEOK also designs and manufacture special receiver according to the specific need of end user and OEM's.



Welded mounting bracket as customer drawing and requirement

Warning

The metal used in the fusible plug must never be replaced with regular soft solder because the melting temperature may be too high and allow the tank to rupture or it may be too low and allow the refrigerants to escape without reason. The spring loaded device must never be adjusted to a pressure different than set by the manufacturer. Never subject the receiver tank to temperature above 125° f/ 52℃.

Nstallation–Note

The receiver should be always lower than condenser so that the refrigerant has an incentive to flow into it naturally. The outlet connected to liquid line by rotalock valve, it has a dip tube immersed alm ost to the bottom of the receiver to ensure liquid refrigerant only enter to liquid line when the receiver is not full (otherwise gaseous refrigerant will enter the liquid line and cause poor operating conditions).

Manufacturing Process

HPEOK manufactures a wide range of custom made horizontal and vertical liquid refrigerant receiver in sizes ranging from 3.5" to 6" in diameter, using high quality, proper thickness steel tubes with domed dish–ends to keep working pressure and the operation temperature.

HPEOK has taken utmost care and follows stringent quality control at various stages of construction of liquid receiver with regard to selection of raw material, cleanliness, brazing, welding, pressure testing, dehydration, powder painting and packing.

All materials meant to be used for pressure parts are inspected before fabrication to insure that they are in compliance with CE–PED 97/23/EC. A stage wise inspection is conducted during fabrication so that the receiver is free of dents, bulges, holes, cracks, rust, bits, creases or any other structural weakness.

All the comp one nts will be cleaned internally as well as externally with eco–friendly chemicals and dried before welding. The same are also baked after welding and leak testing to remove moisture if any and connection sealed for final corrosion resistant oven baked epoxy powder coating.

HPEOK receivers are compatible with CFC, HCFC, and HFC refrigerants and associated oils.

The receivers are designed for use of non hazardous refrigerants.

Safety Features

Pressure relief valves are provided to protect the receiver against any excessive hydraulic pressure being built up on selected models and the same can be provided on all models on request. The purpose of this device is to prevent the receiver steel from rupturing in case of excessive pressure.

The safety device may be in the form of a fusible plug or a spring loaded relief valve. The safety device is generally located in the place of the receiver that is most likely to rupture. The fusible plug is designed to a predetermined pressure and temperature so that the refrigerant is allowed to escape before the tank ruptures thus providing a controlled release.