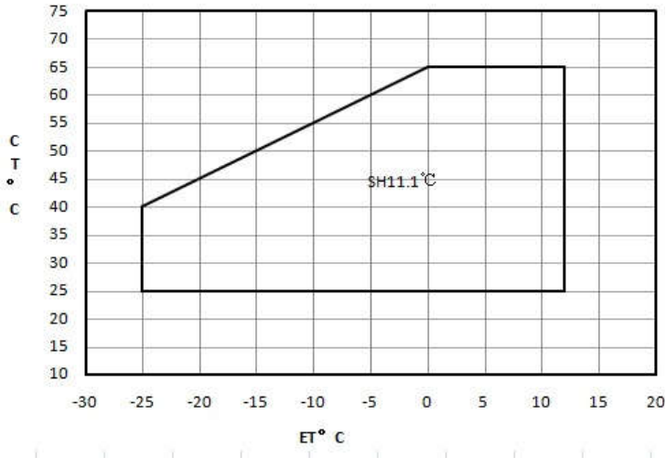
SCROLL COMPRESSOR
TECHNICAL DATASHEET: YH307A7-100

Basic Specification	
Model	YH307A7-100
Type	Low Side Shell Design Scroll Compressor
Application	Air conditioning
Normal Power (HP)	10
Capacity (BTU/Hr)	127794
Refrigerant	R22
Displacement (M^3/H)	34.9
Evaporating Temperature (°F)	45.0
Condensing Temperature (°F)	129.9
Liquid subcooling (°F)	14.9
Suction Superheat (°F)	20.0
Power Input (W)	10632
COP	11.9
Current (A)	33.37

Mechanical and Physical Data	
Length/Width/Height (mm)	260/244/508
Weight (kg)	54
Stub Suction (inch)	1 1/8
Stub Discharge (inch)	7/8
Base mounting (hole dia)	190X190(8.5)
Oil type	3GS
Initial charge of oil quantity (L)	3.0
Recharge of oil quantity (L)	2.8
High Side PS Max., (MPa)	3.0
Low Side PS Max., (MPa)	2.0

Electrical Data	
Electricity	220V/60Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	10
Normal Capacity (W)	37454
Normal Power input(W)	10672
Normal COP (W/W)	3.51
Normal Current(A)	32.2
Locked Rotor Current(A)	290
Maximum operating current(A)	46.6

Compressor Operating Envelope



Suction Superheat: 20.0 Liquid subcoolling: 14.9

Capacity (BTU/h)								
Tc/Te	-13	0	10	20	30	40	50	54
100	39001	56043	71685	89853	110925	135139	162938	175062
110		52594	67586	85038	105324	128650	155459	167207
120			63352	80018	99416	121785	147570	158840
130				74758	93200	114545	139237	150063
140					86677	106929	130426	140774
149						99757	122127	131997
77	45388	63693	80564	100099	122742	148731	178443	191421
80	44568	62737	79437	98835	121273	147058	176565	189440
90	41768	59424	75646	94464	116253	141286	169973	182473

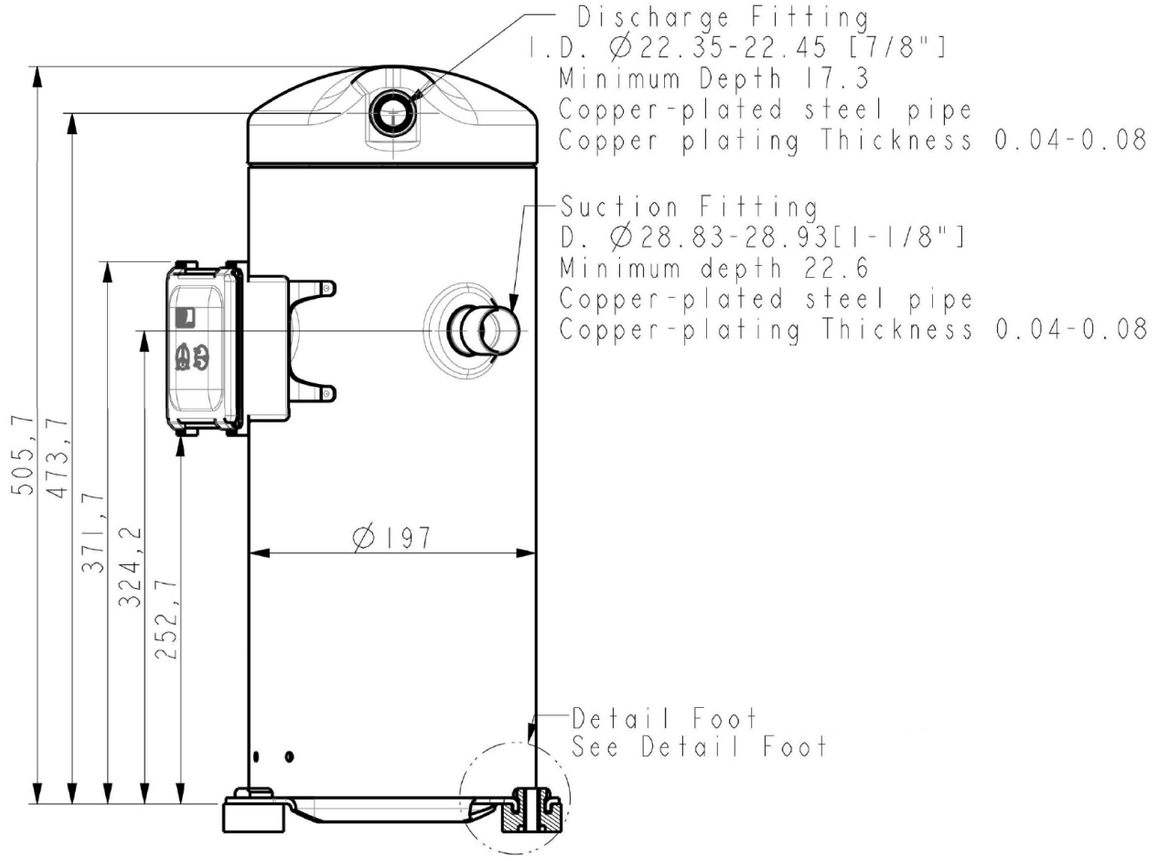
Power Input (W)								
Tc/Te	-13	o	10	20	30	40	50	54
100	6859	7165	7314	7414	7492	7572	7680	7736
110		8094	8228	8314	8378	8445	8541	8594
120			9287	9354	9401	9452	9532	9578
130				10563	10588	10618	10679	10717
140					11973	11978	12015	12045
149						13390	13403	13422
77	5087	5422	5590	5709	5802	5896	6017	6077
80	5295	5627	5794	5911	6004	6098	6217	6278
90	6030	6352	6512	6622	6709	6798	6914	6974

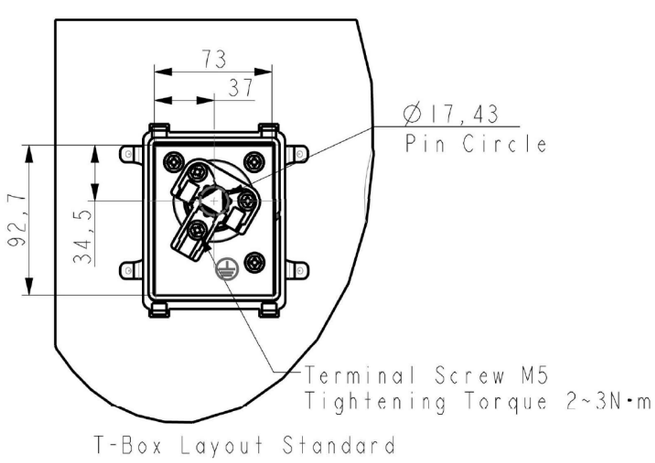
Current (A)								
Tc/Te	-13	o	10	20	30	40	50	54
100	24.32	25.04	25.39	25.63	25.81	26.01	26.27	26.4
110		27.14	27.47	27.68	27.84	28.01	28.25	28.37
120			29.99	30.17	30.3	30.43	30.62	30.73
130				33.17	33.25	33.33	33.48	33.57
140					36.81	36.83	36.91	36.98
149						40.55	40.57	40.6
77	20.73	21.44	21.8	22.04	22.23	22.43	22.7	22.84
80	21.12	21.84	22.2	22.44	22.64	22.84	23.11	23.25
90	22.58	23.3	23.66	23.91	24.11	24.31	24.58	24.72

Mass Flow (Kg/h)								
Tc"[e	-13	o	10	20	30	40	50	54
100	242.86	347.11	438.54	541.85	659.57	793.42	946.04	1012.64
110		340.89	432.02	535.09	652.64	786.39	938.98	1005.58
120			424.45	526.97	644.04	777.38	929.62	996.11
130				517.34	633.62	766.23	917.81	984.05
140					621.14	752.71	903.32	969.2
149						738.4	887.87	953.3
77	255.86	359.72	450.67	553.35	670.27	803.16	954.66	1020.77
80	254.12	358.15	449.26	552.11	669.23	802.35	954.08	1020.29
90	248.46	352.8	444.23	547.47	665.05	798.69	951.02	1017.48

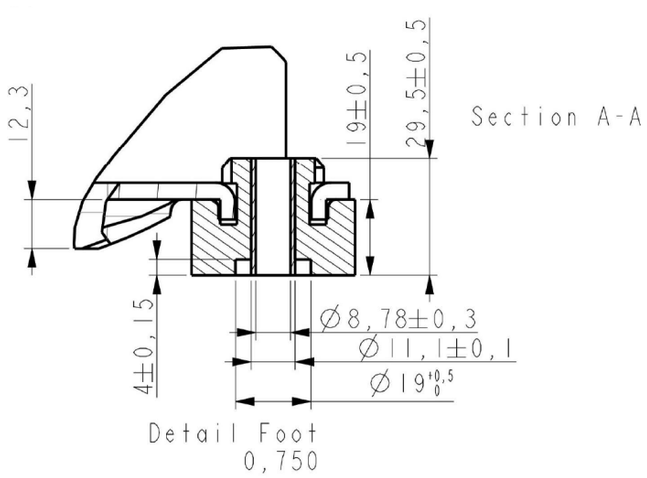
SCROLL COMPRESSOR
TECHNICAL DATASHEET: YH307A7-100

Drawings
Outline Drawing

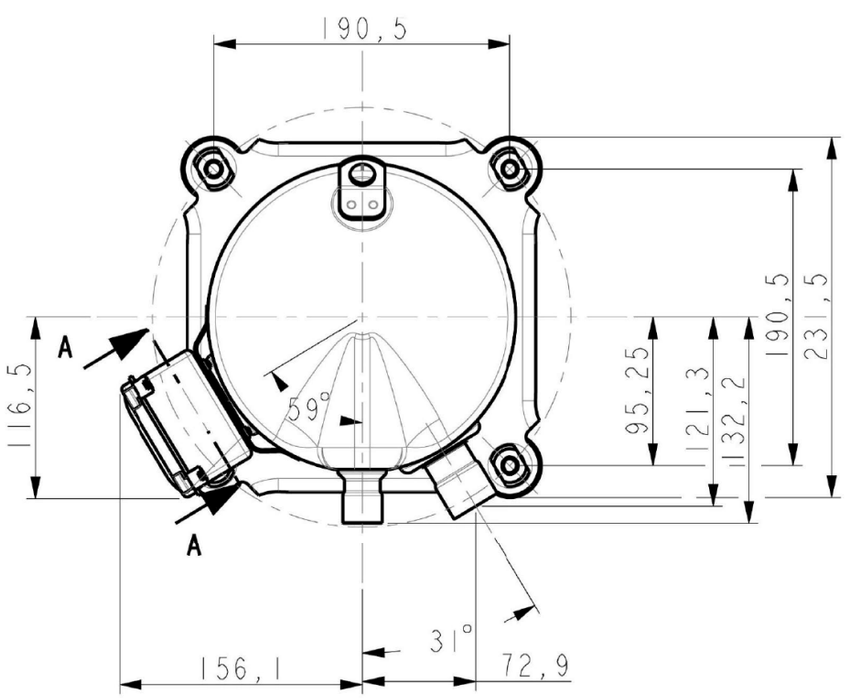




T-Box Layout Standard



Detail Foot
0,750



ALL TOLERANCES UNLESS OTHERWISE SPECIFIED:±2

TUBE ENDS MUST BE PLUGGED

Application
» See Details in the YH serial air-condition scroll compressor application manual