

COM40

Turnbull & Scott™
Trusted.



COM40: Galaxy Range 58 – 175kw

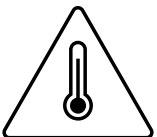
Air-cooled Liquid Chillers for
Comfort and Process cooling

Turnbull & Scott™
Trusted.

Galaxy Range



- High efficiency, air-cooled general utility chillers for outdoor installation
- 10 models based on capacity: 58-175kW
- Multi-scroll on/off compressors
- Brazed plate heat exchangers
- Refrigerant R410A (R454b Optional)
- EC fans
- Compact design, easy to install & maintain
- Highly versatile & adaptable with wide range of accessories
- Compressor compartment isolated acoustically
- ErP 2021 compliant



All units optimised from +23°C to -10°C dependent on application and ΔT °K. Please contact us for model selection guidance.



PRICE LIST	Ex-Works, commissioning & VAT	09/2022
-------------------	----------------------------------	---------

Cooling capacities: 58 - 175 kW

UNIT RANGE	GALAXY (Standard) R410A (R454b Optional)
Description	MULTI SCROLL ON-OFF COMPRESSOR, AIR COOLED CHILLER FOR OUTDOOR USE
Application (EU) 2016/2281	Comfort / High temp. Process Chiller

GALAXY		102A	122A	152A	123A	133A	153A	134A	154A	126A
Cooling capacity (kW)		47,3	59,5	79,6	88,7	102,2	116,5	138,9	159,2	174,6
EER (A35/W7)		3,26	3,15	3,08	3,02	3,15	2,99	3,19	3,10	3,07
SEPR		4,15	4,25	4,10	4,35	4,37	4,20	4,16	4,14	4,40
Supply voltage (V-ph-Hz)		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
		1955x1123x	3005x1123x	3005x1123x	3005x1123x	3005x1123x	3005x1123x	4255x1123x	4255x1123x	4255x1123x
Dimensions (mm)		1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)
Weight _without accessories_(Kg)		536	677	736	844	854	895	1049	1117	1299
BASIC UNIT (1)	£ ex VAT	£12,865	£14,820	£16,850	£18,985	£20,100	£20,755	£25,610	£26,595	£31,750
Items included as standard	Electronic expansion valve / Condenser coils protection guards / Compressors overload thermal protections / Compressors crankcase heater / Compressors cabinet separated by the condensing air flow section / Low water flow protection device / Phase sequence relay / Mains isolator / Modulating EC fans / RS485 Modbus interface module / Anti-vibration mountings									

Accessory options (fitted within chiller body)	Hydronic section including: Pump shutoff valves / Expansion vessel / safety pressure valve (6 Bar) / pressure gauge / Steel made piping / Victaulic joints / Remote control panel									
GALAXY		102A	122A	152A	123A	133A	153A	134A	154A	126A
1 standard pressure. Pump	£ ex VAT	£1335	£1430	£1780	£1780	£1780	£1780	£2495	£2495	£2555
1 high pressure pump	£ ex VAT	£1560	£1670	£1825	£1825	£1825	£1825	£2555	£2555	£2680
1 std press pump. + buffer tank	£ ex VAT	£2125	£2275	£2615	£2615	£2615	£2615	£3350	£3350	£3410
1 high press pump. + buffer tank	£ ex VAT	£2350	£2515	£2660	£2660	£2660	£2660	£3410	£3410	£3540
Remote control Panel	£ ex VAT	£288	£288	£288	£288	£288	£288	£288	£288	£288

Other Accessories available (POA)	Refrigerant gauges / Advanced controller for additional user interrogation / Trace Heating / Current overload protection / Crankcase heater / Condenser fully Ecofin painted / Compressor soft starter
--	--



PRICE LIST	Ex-Works, commissioning & VAT	09/2022
-------------------	----------------------------------	---------

Cooling capacities: 47 - 171 kW
--

UNIT RANGE	GALAXY SLN (Low Noise)
	R410A (R454b Optional)
Description	MULTI SCROLL ON-OFF COMPRESSOR, AIR COOLED CHILLER FOR OUTDOOR USE
Application (EU) 2016/2281	Comfort / HT Process Chiller

GALAXY SLN		102A	122A	152A	123A	133A	153A	134A	154A	126A
Cooling capacity (kW)		46,6	58,7	78,8	87,5	100,3	114,2	136,9	156,7	170,8
EER (A35/W7)		3,27	3,13	3,13	3,03	3,12	2,94	3,21	3,09	3,00
SEPR		4,13	4,234	4,154	4,409	4,375	4,23	4,16	4,18	4,40
Supply voltage (V-ph-Hz)		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
		1955x1123x	3005x1123x	3005x1123x	3005x1123x	3005x1123x	3005x1123x	4255x1123x	4255x1123x	4255x1123x
Dimensions (mm)		1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)	1954(h)
Weight _without accessories (Kg)		552	687	751	860	870	911	1066	1137	1319
BASIC UNIT (1)	£ ex VAT	£13,105	£15,495	£17,670	£19,780	£20,915	£21,600	£26,650	£27,655	£32,950
Items included as standard	Electronic expansion valve / Condenser coils protection guards / Compressors overload thermal protections / Compressors crankcase heater / Compressors cabinet separated by the condensing air flow section / Low water flow protection device / Phase sequence relay / Mains isolator / Modulating EC fans / RS485 Modbus interface module / Anti-vibration mountings									

Accessory options (Fitted within chiller body)		Hydronic section including: Pump shutoff valves / Expansion vessel / safety pressure valve (6 Bar) / pressure gauge / Steel made piping / Victaulic joints / Remote control panel								
GALAXY SLN		102A	122A	152A	123A	133A	153A	134A	154A	126A
1 standard pressure Pump (2)	£ ex VAT	£1355	£1430	£1780	£1780	£1780	£1780	£2495	£2495	£2555
1 high pressure pump (2)	£ ex VAT	£1560	£1670	£1825	£1825	£1825	£1825	£2555	£2555	£2680
1 std press pump. + buffer tank (2)	£ ex VAT	£2125	£2275	£2615	£2615	£2615	£2615	£3350	£3350	£3410
1 high press pump. + buffer tank (2)	£ ex VAT	£2350	£2515	£2660	£2660	£2660	£2660	£3410	£3410	£3540
Remote control panel	£ ex VAT	£288	£288	£288	£288	£288	£288	£288	£288	£288

Other Accessories available (POA)	Refrigerant gauges / Advanced controller for additional user interrogation / Trace Heating / Current overload protection / Crankcase heater / Condenser fully Ecofin painted / Compressor soft starter
--	--



Technical Specifications: Galaxy Chillers (Standard)

MODEL	Galaxy	082-A	102-A	122-A	152-A	123-A
Fluid - In/out Temp.	Water 12/7 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	41,0	47,3	59,5	79,6	88,7
Total power input	kW	12,9	14,5	18,9	25,9	29,4
EER (EN 14511-2018) *		3,18	3,26	3,15	3,08	3,02
Fluid - In/out Temp.	Water 23/18 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	55,4	64,3	80,4	108,0	120,3
Total power input	kW	14,0	15,7	20,7	28,1	31,9
EER (EN 14511-2018) *		3,97	4,09	3,89	3,84	3,77
Fluid - In/out Temp.	Water with 30% glycol 0/-5°C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	27,1	31,2	39,7	53,0	58,5
Total power input	kW	11,9	13,5	17,3	23,8	27,3
EER (EN 14511-2018)		2,27	2,31	2,30	2,22	2,14
Min. working fluid leaving temp.	°C	-10				
Efficiency indices						
SEER**		4,10	4,15	4,25	4,10	4,35
nsc**		161	163	167	161	171
SEPR		6,27	6,02	6,03	5,93	6,13
Main data						
Refrigerant		R410A	R410A	R410A	R410A	R410A
Scroll Compressors	n°	2	2	2	2	3
Refrigerant circuits	n°	1	1	1	1	1
Capacity steps	n°	2	2	2	2	3
Noise power level Lw***	dB(A)	80,9	81,3	81,6	84,3	84,2
Noise pressure level Lp***	dB(A)	49,2	49,6	49,7	52,4	52,4
Main supply voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max power input	kW	19,8	22,6	28,8	39,3	44,6
Max current input	A	36,6	40,6	54,2	76,4	83,4
Starting current	A	121,4	150,4	147,2	216,4	176,4
User side heat exchanger ****						
Brazed plate heat exch	n°	1	1	1	1	1
Fluid flow	l/s	1,96	2,26	2,84	3,81	4,24
Pressure drops	kPa	22,00	22,80	17,00	18,10	15,93
Fan section ****						
EC Axial fans	n°/type	1	1	1	2	2
Total air flow	m³/s	6,27	6,13	6,35	12,54	12,51
Fan speed	min-1	965	965	965	965	965
Fans total power input	KW	1,30	1,35	1,27	2,65	2,65
Fans total current input	A	2,17	2,20	2,08	4,33	4,33
Dimensions and weight (without accessories)						
Length	mm	1995	1995	3005	3005	3005
Width	mm	1123	1123	1123	1123	1123
Height	mm	1954	1954	1954	1954	1954
Empty weight	Kg	515	536	677	736	844
User side piping connections	"	1-1/2	1-1/2	2	2	2
Coupling type		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic

USER SIDE HYDRONIC KIT available versions

1 pump std	kPa	134	129	116	115	106
1 pump HP	kPa	165	161	150	152	146
2 pumps std	kPa	134	129	116	115	106
2 pumps HP	kPa	165	161	150	152	146
1 pump std + buffer tank	kPa	134	129	116	115	106
1 pump HP + buffer tank	kPa	165	161	150	152	146
2 pumps std + buffer tank	kPa	134	129	116	115	106
2 pumps HP + buffer tank	kPa	165	161	150	152	146

* According to EN14511

** Constant leaving water temperature 7°C

*** Sound power according to ISO3744. - Sound pressure at 10 meters in free field

**** Performance refers to full load running (A35/W12-7 °C)





Technical Specifications: Galaxy Chillers (Standard)

MODEL	Galaxy	133-A	153-A	134-A	154-A	126-A
Fluid In/out Temp.	Water 12/7 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	102,2	116,5	138,9	159,2	174,6
Total power input	kW	32,5	38,9	43,5	51,4	56,9
EER (EN 14511-2018) *		3,15	2,99	3,19	3,10	3,07
Fluid Medium - In/out Temp.	Water 23/18 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	137,2	156,4	188,1	214,7	234,4
Total power input	kW	35,7	42,8	47,7	56,3	62,1
EER (EN 14511-2018) *		3,85	3,65	3,95	3,81	3,77
Fluid In/out Temp.	Water with 30% glycol 0/-5°C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	68,7	78,6	92,1	106,8	116,3
Total power input	kW	29,5	35,2	39,9	46,9	52,6
EER (EN 14511-2018)		2,33	2,23	2,31	2,28	2,21
Min working fluid leaving temp.	°C	-10				
Efficiency indices						
SEER**		4,37	4,20	4,16	4,14	4,40
nsc**		172	165	163	163	173
SEPR		5,87	5,64	6,03	5,83	6,01
Main data						
Refrigerant		R410A	R410A	R410A	R410A	R410A
Scroll Compressors	n°	3	3	4	4	4
Refrigerant circuits	n°	1	1	2	2	2
Capacity steps	n°	3	3	4	4	4
Noise power level Lw***	dB(A)	84,5	84,8	86,1	86,4	86,3
Noise pressure level Lp***	dB(A)	52,7	52,9	54,1	54,4	54,3
Main supply voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max power input	kW	49,5	56,3	67,0	76,0	86,5
Max current input	A	101,4	110,4	136,6	148,6	162,6
Starting current	A	210,4	250,4	245,6	288,6	255,6
User side heat exchanger ****						
Brazed plate heat exch	n°	1	1	1	1	1
Medium flow	l/s	4,89	5,57	6,64	7,60	8,34
Pressure drops	kPa	20,42	25,70	35,60	9,49	11,16
Fan section ****						
EC Axial fans	n°/type	2	2	3	3	3
Total air flow	m³/s	12,24	12,18	18,16	18,08	17,63
Fan speed	min ⁻¹	965	965	965	965	965
Fans total power input	KW	2,70	2,70	4,13	4,10	4,18
Fans total current input	A	4,40	4,40	6,73	6,70	6,84
Dimensions and weight (without accessories)						
Length	mm	3005	3005	4255	4255	4255
Width	mm	1123	1123	1123	1123	1123
Height	mm	1954	1954	1954	1954	1954
Empty weight	Kg	854	895	1049	1117	1299
User side piping connections	"	2	2	2-1/2	2-1/2	2-1/2
Coupling type		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic

USER SIDE HYDRONIC KIT available versions

1 pump std	kPa	92	65	77	64	69
1 pump HP	kPa	133	148	171	159	128
2 pumps std	kPa	92	65	77	64	69
2 pumps HP	kPa	133	148	171	159	128
1 pump std + buffer tank	kPa	92	65	77	64	69
1 pump HP + buffer tank	kPa	133	148	171	159	128
2 pumps std + buffer tank	kPa	92	65	77	64	69
2 pumps HP + buffer tank	kPa	133	148	171	159	128

* According to EN14511

** Constant leaving water temperature 7°C

*** Sound power according to ISO3744. - Sound pressure at 10 meters in free field

**** Performance refers to full load running (A35/W12-7 °C)





Technical Specifications: Galaxy SLN Chillers (Low noise)

MODEL	Galaxy-SLN	082-A	102-A	122-A	152-A	123-A
Fluid In/out Temp.	Water 12/7 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	40,4	46,6	58,7	78,8	87,5
Total power input	kW	12,7	14,3	18,7	25,2	28,9
EER (EN 14511-2018) *		3,19	3,27	3,13	3,13	3,03
Fluid In/out Temp.	Water 23/18 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	54,7	63,0	78,5	106,1	118,2
Total power input	kW	13,7	15,5	20,7	27,7	31,6
EER (EN 14511-2018) *		3,99	4,06	3,79	3,84	3,74
Fluid In/out Temp.	Water with 30% glycol 0/-5°C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	26,9	30,8	38,4	52,9	58,4
Total power input	kW	11,5	13,2	17,3	22,8	26,3
EER (EN 14511-2018)		2,35	2,34	2,22	2,32	2,22
Min working fluid leaving temp.	°C	-10				
Efficiency indices						
SEER**		4,10	4,13	4,23	4,15	4,41
nsc**		161	162	166	163	173
SEPR		6,25	6,02	5,89	5,87	6,10
Main data						
Refrigerant		R410A	R410A	R410A	R410A	R410A
Scroll Compressors	n°	2	2	2	2	3
Refrigerant circuits	n°	1	1	1	1	1
Capacity steps	n°	2	2	2	2	3
Noise power level Lw***	dB(A)	76,7	77,1	77,2	80,0	80,0
Noise pressure level Lp***	dB(A)	45,0	45,3	45,4	48,1	48,1
Main supply voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max power input	kW	19,8	22,6	28,8	39,3	44,6
Max current input	A	36,6	40,6	54,2	76,4	83,4
Starting current	A	121,4	150,4	147,2	216,4	176,4
User side heat exchanger ****						
Brazed plate heat exch	n°	1	1	1	1	1
Fluid flow	l/s	1,93	2,23	2,81	3,77	4,18
Pressure drop	kPa	21,35	22,20	16,60	17,80	15,60
Fan section ****						
EC Axial fans	n°/type	1	1	1	2	2
Total air flow	m³/s	5,24	5,12	5,31	10,49	10,45
Fan speed	min-1	812	812	812	812	812
Fans total power input	KW	0,78	0,80	0,76	1,58	1,57
Fans total current input	A	1,40	1,43	1,35	2,81	2,80
Dimensions and weight (without accessories)						
Length	mm	1995	1995	3005	3005	3005
Width	mm	1123	1123	1123	1123	1123
Height	mm	1954	1954	1954	1954	1954
Empty weight	Kg	530	552	687	751	860
User side piping connections	"	1-1/2	1-1/2	2	2	2
Coupling type		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic
USER SIDE HYDRONIC KIT available versions						
1 pump std	kPa	134	129	116	115	106
1 pump HP	kPa	165	161	150	152	146
2 pumps std	kPa	134	129	116	115	106
2 pumps HP	kPa	165	161	150	152	146
1 pump std + buffer tank	kPa	134	129	116	115	106
1 pump HP + buffer tank	kPa	165	161	150	152	146
2 pumps std + buffer tank	kPa	134	129	116	115	106
2 pumps HP + buffer tank	kPa	165	161	150	152	146

* According to EN14511

** Constant leaving water temperature 7°C

*** Sound power according to ISO3744. - Sound pressure at 10 meters in free field

**** Performance refers to full load running (A35/W12-7 °C)





Technical Specifications: Galaxy SLN Chillers (Low noise)

MODEL	Galaxy-SLN	133-A	153-A	134-A	154-A	126-A
Fluid In/out Temp.	Water 12/7 °C					
Ext. Source Temp.	35 °C					
Cooling capacity	kW	100,3	114,2	136,9	156,7	170,8
Total power input	kW	32,2	38,9	42,6	50,8	56,9
EER (EN 14511-2018) *		3,12	2,94	3,21	3,09	3,00
Fluid In/out Temp.	Water 23/18 °C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	134,1	152,1	184,6	209,9	227,9
Total power input	kW	35,6	43,0	47,0	56,0	62,4
EER (EN 14511-2018) *		3,77	3,53	3,93	3,75	3,65
Medium - In/out Temp.	Water with 30% glycol 0/-5°C					
Ext. Source Temp.	Air 35 °C					
Cooling capacity	kW	67,9	77,7	91,1	105,6	114,5
Total power input	kW	28,8	34,7	38,7	45,9	51,9
EER (EN 14511-2018)		2,36	2,24	2,35	2,30	2,21
Min working fluid leaving temp.	°C	-10				
Efficiency indices						
SEER**		4,38	4,23	4,16	4,18	4,40
nsc**		172	166	163	164	173
SEPR		5,84	5,55	5,94	5,76	5,93
Main data						
Refrigerant		R410A	R410A	R410A	R410A	R410A
Scroll Compressors	n°	3	3	4	4	4
Refrigerant circuits	n°	1	1	2	2	2
Capacity steps	n°	3	3	4	4	4
Noise power level Lw***	dB(A)	80,2	80,4	81,9	82,1	82,0
Noise pressure level Lp***	dB(A)	48,3	48,6	49,8	50,0	50,0
Main supply voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max power input	kW	49,5	56,3	67,0	76,0	86,5
Max current input	A	101,4	110,4	136,6	148,6	162,6
Starting current	A	210,4	250,4	245,6	288,6	255,6
User side heat exchanger ****						
Brazed plate heat exch	n°	1	1	1	1	1
Medium flow	l/s	4,79	5,46	6,55	7,49	8,16
Pressure drops	kPa	19,76	24,81	34,70	9,23	10,75
Fan section ****						
EC Axial fans	n°/type	2	2	3	3	3
Total air flow	m³/s	10,21	10,16	15,14	15,08	14,65
Fan speed	min-1	812	812	812	812	812
Fans total power input	KW	1,60	1,59	2,46	2,44	2,50
Fans total current input	A	2,86	2,85	4,36	4,35	4,45
Dimensions and weight (without accessories)						
Length	mm	3005	3005	4255	4255	4255
Width	mm	1123	1123	1123	1123	1123
Height	mm	1954	1954	1954	1954	1954
Empty weight	Kg	870	911	1066	1137	1319
User side piping connections	"	2	2	2-1/2	2-1/2	2-1/2
Coupling type		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic

USER SIDE HYDRONIC KIT available versions

1 pump std	kPa	92	65	77	64	69
1 pump HP	kPa	133	148	171	159	128
2 pumps std	kPa	92	65	77	64	69
2 pumps HP	kPa	133	148	171	159	128
1 pump std + buffer tank	kPa	92	65	77	64	69
1 pump HP + buffer tank	kPa	133	148	171	159	128
2 pumps std + buffer tank	kPa	92	65	77	64	69
2 pumps HP + buffer tank	kPa	133	148	171	159	128

* According to EN14511

** Constant leaving water temperature 7°C

*** Sound power according to ISO3744. - Sound pressure at 10 meters in free field

**** Performance refers to full load running (A35/W12-7 °C)



COM40

Turnbull & ScottTM
Trusted.

Contact us

info@turnbull-scott.co.uk

www.turnbull-scott.co.uk

+44 (0) 1450 372 053