

Technical Data S 40-3 BLUEKAT...S 60-3 BLUEKAT, part 1

Type		S 40-3 BLUEKAT	S 50-3 BLUEKAT	S 60-3 BLUEKAT	SF 60-3 BLUEKAT
Dimensions					
– Height (super silenced)	[mm]	1950	1950	1950	1950
– Width (super silenced)	[mm]	2270	2270	2270	2270
– Depth	[mm]	960	960	960	960
Weight, approx.		1100	1320	1350	1400
Air cooling	Max. sound pressure level accord. to DIN EN ISO 2151:2009 – silenced/super silenced	[±3 dB(A)] [dB(A)] 67/ -			
	Measurement surface – silenced/super silenced	[dB(A)] 17,4	- /72 17,4	- /72 17,4	- /72 17,4
	Sound power level – silenced/super silenced	[dB(A)] 84,4/ -	- /89,4 - /89,4	- /89,4 - /89,4	- /89,4 - /89,4
Water cooling	Max. sound pressure level accord. to DIN EN ISO 2151:2009 – silenced/super silenced	[±3 dB(A)] [dB(A)] 66/ -			
	Measurement surface – silenced/super silenced	[dB(A)] 17,4	- /71 17,4	- /71 17,4	- /71 17,4
	Sound power level – silenced/super silenced	[dB(A)] 83,4/ -	- /88,4 - /88,4	- /88,4 - /88,4	- /88,4 - /88,4
Compressor					
Max. final compression temperature		[°C] 110	110	110	110
Volume flow according to:					
– p _{max} = 8 bar	[m³/min]	5,31	6,45	7,30	1,58...7,30
– p _{max} = 10 bar	[m³/min]	4,77	5,77	6,54	1,43...6,53
– p _{max} = 13 bar	[m³/min]	3,91	4,92	5,60	1,19...5,67
Drive motor					
Rated power	[kW]	30	37	45	45
Rated speed					
– 50 Hz	[min ⁻¹]	3000	3000	3000	3000
– 60 Hz	[min ⁻¹]	3600	3600	3600	3600
Protection type	IP	55	55	55	55
Design	IMB	3	3	3	3
ISO-class		F	F	F	F
Electrical connection					
Mains voltage ¹⁾	[V]	400	400	400	400
Frequency ¹⁾	[Hz]	50	50	50	50
Recommended fuse protection ^{2) 3)}	[A]	100	125	125	125

¹⁾ Standard equipment. Mains voltages and frequencies are specified on a plate in the switch cabinet.

²⁾ Only for 400 V / 50 Hz. The fuse values change in the case of other mains voltages and frequencies.

³⁾ Use fusible cutouts gL – gG or circuit-breakers with C-characteristic only.

Technical Data S 40-3 BLUEKAT...S 60-3 BLUEKAT, part 2

Type		S 40-3 BLUEKAT	S 50-3 BLUEKAT	S 60-3 BLUEKAT	SF 60-3 BLUEKAT
Oil filling quantity					
Oil receiver volume	[l]	46	46	46	46
Total oil filling quantity	[l]	28	28	28	28
Oil topping up quantity between min. + max.	[l]	6	6	6	6
Intake air temperature					
– min.	[°C]	+ 5	+ 5	+ 5	+ 5
– max.	[°C]	+ 40	+ 40	+ 40	+ 40
Air cooling	Cooling air requirement				
	– free-standing installation [m³/h]	9000	13000	13000	13000
	– with supply and exhaust duct [m³/h]	4500	6500	6500	6500
	– free fan pressure [Pa]	20	60	60	60
	– free fan pressure [mm WS]	2	6	6	6
Water cooling	Cooling air requirement				
	– free-standing installation [m³/h]	2000	2000	2000	2000
	– with supply and exhaust duct [m³/h]	1000	1000	1000	1000
	Required cooling water quantity				
	– delta t = 15 K [m³/h]	1,630	2,010	2,450	2,450
	– delta t = 30 K [m³/h]	0,815	1,005	1,225	1,225
	Max. cooling water quantity [m³/h]	3,5	3,5	3,5	3,5
	Cooling water inlet temperature				
	– min. [°C]	+ 5	+ 5	+ 5	+ 5
	– max. [°C]	+ 30	+ 30	+ 30	+ 30
	Cooling water outlet temperature				
	– max. [°C]	+ 45	+ 45	+ 45	+ 45
	Cooling water pressure				
	– min. [bar]	2	2	2	2
	– max. [bar]	10	10	10	10
Operating pressure transmitter ¹⁾ (factory settings)					
– p _{max} = 8 bar:	Switch-off press. p _{max} [bar]	8	8	8	8
	Switch-on press. p _{min} [bar]	7	7	7	7
– p _{max} = 10 bar:	Switch-off press. p _{max} [bar]	10	10	10	10
	Switch-on press. p _{min} [bar]	9	9	9	9
– p _{max} = 13 bar:	Switch-off press. p _{max} [bar]	13	13	13	13
	Switch-on press. p _{min} [bar]	12	12	12	12
Safety valve					
Activation pressure at:					
– p _{max} = 8 bar	[bar]	11	11	11	11
– p _{max} = 10 bar	[bar]	11	11	11	11
– p _{max} = 13 bar	[bar]	14	14	14	14

¹⁾ Compressors for other operating pressures p_{min} = p_{max} – 1 bar.

2.2 Operating principle of compressor

Functional principle of the air end

The air end operates according to the displacement principle. In the housing, the main and secondary rotors are driven by means of an electric motor and V-belts.