ball bearing life expectancy calculation

calculation number: 14152
date: 09.02.2016
type: R3G 630-RB21-61
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 16730 CMH @ 0 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	1790
speed[1/min]:	1305

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	58229
lubricant life expectancy		t_f	121732

The life expectancy is limited to 58229 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,1
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	63462
lubricant life expectancy		t_f	121732

The life expectancy is limited to 63462 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	103639
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	107585
lubricant life expectancy		t_f	121732

The life expectancy is limited to 107585 hours by the modified nominal life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14153
date: 09.02.2016
type: R3G 630-RB21-61
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 12700 CMH @ 450 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2660
speed[1/min]:	1305

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	54313
lubricant life expectancy		t_f	108451

The life expectancy is limited to 54313 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	58229
lubricant life expectancy		t_f	121732

The life expectancy is limited to 58229 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	103639
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	100349
lubricant life expectancy		t_f	108451

The life expectancy is limited to 100349 hours by the modified nominal life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14154
date: 09.02.2016
type: R3G 630-RB32-71
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 16840 CMH @ 0 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	1825
speed[1/min]:	1305

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,1
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	63462
lubricant life expectancy		t_f	121732

The life expectancy is limited to 63462 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	51360
lubricant life expectancy		t_f	96619

The life expectancy is limited to 51360 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	stator side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	197650
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	180973
lubricant life expectancy		t_f	96619

The life expectancy is limited to 96619 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14155
date: 09.02.2016
type: R3G 630-RB32-71
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 12400 CMH @ 450 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2750
speed[1/min]:	1305

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	54313
lubricant life expectancy		t_f	108451

The life expectancy is limited to 54313 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 0,8
nominal life expectancy		L_{nh}	56093
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	47103
lubricant life expectancy		t_f	76686

The life expectancy is limited to 47103 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	stator side	coeff. of grease a_{23} : 0,8
nominal life expectancy		L_{nh}	197650
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	165972
lubricant life expectancy		t_f	76686

The life expectancy is limited to 76686 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14156
date: 09.02.2016
type: R3G 560-RB32-10
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 14200 CMH @ 0 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2030
speed[1/min]:	1660

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	56861
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	54849
lubricant life expectancy		t_f	85113

The life expectancy is limited to 54849 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,2
nominal life expectancy		L_{nh}	56861
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	69739
lubricant life expectancy		t_f	107236

The life expectancy is limited to 69739 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	148651
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	143390
lubricant life expectancy		t_f	85113

The life expectancy is limited to 85113 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14157
date: 09.02.2016
type: R3G 560-RB32-10
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 11600 CMH @ 450 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2775
speed[1/min]:	1660

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	56861
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	52019
lubricant life expectancy		t_f	75827

The life expectancy is limited to 52019 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,1
nominal life expectancy		L_{nh}	56861
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	63461
lubricant life expectancy		t_f	107236

The life expectancy is limited to 63461 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	148651
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	135992
lubricant life expectancy		t_f	75827

The life expectancy is limited to 75827 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14158
date: 09.02.2016
type: R3G 560-RB31-71
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 14345 CMH @ 0 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2040
speed[1/min]:	1650

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	57211
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	55108
lubricant life expectancy		t_f	85403

The life expectancy is limited to 55108 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,2
nominal life expectancy		L_{nh}	57211
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	70022
lubricant life expectancy		t_f	107601

The life expectancy is limited to 70022 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	149554
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	144058
lubricant life expectancy		t_f	85403

The life expectancy is limited to 85403 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14159
date: 09.02.2016
type: R3G 560-RB31-71
motor: M3G 150-IF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 11600 CMH @ 450 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2820
speed[1/min]:	1650

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	57211
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	50022
lubricant life expectancy		t_f	67784

The life expectancy is limited to 50022 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,1
nominal life expectancy		L_{nh}	57211
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	63728
lubricant life expectancy		t_f	107601

The life expectancy is limited to 63728 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 0,9
nominal life expectancy		L_{nh}	149554
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	130762
lubricant life expectancy		t_f	67784

The life expectancy is limited to 67784 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number: 14160
date: 09.02.2016
type: R3G 500-RA24-71
motor: M3G 150-FF
customer: China Telecom / Cabinet ventilation

note: Data and temperature of bearings based on reference measurements. Calculated for 11600 CMH @ 0 Pa.

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	1800
speed[1/min]:	1700

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	72512
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	75169
lubricant life expectancy		t_f	94255

The life expectancy is limited to 75169 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,2
nominal life expectancy		L_{nh}	72512
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	89660
lubricant life expectancy		t_f	105798

The life expectancy is limited to 89660 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	128155
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	132850
lubricant life expectancy		t_f	94255

The life expectancy is limited to 94255 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.

ball bearing life expectancy calculation

calculation number:	14161	**note:**	Data and temperature of bearings based on reference measurements. Calculated for 9400 CMH @ 450 Pa.
date:	09.02.2016		
type:	R3G 500-RA24-71		
motor:	M3G 150-FF		
customer:	China Telecom / Cabinet ventilation		

motor date

voltage[V]:	400
frequency[Hz]:	50
capacitor[µF]:	0
power[W]:	2310
speed[1/min]:	1700

general data

lubricant:	Klübersynth BHP 72-102
rs ball bearing type:	6005
ss ball bearing type:	6005
amb. temperature[°C]:	40
probability a1:	1

---

operating pos: rotor above	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	72512
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	70339
lubricant life expectancy		t_f	83972

The life expectancy is limited to 70339 hours by the modified nominal life expectancy.

---

operating pos: rotor below	bearing:	stator side	coeff. of grease a_{23} : 1,1
nominal life expectancy		L_{nh}	72512
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	81548
lubricant life expectancy		t_f	105798

The life expectancy is limited to 81548 hours by the modified nominal life expectancy.

---

operating pos: horizontal shaft	bearing:	rotor side	coeff. of grease a_{23} : 1,0
nominal life expectancy		L_{nh}	128155
modified nominal life expectancy		$L_{nah}=a1*a23*L_{nh}$	124314
lubricant life expectancy		t_f	83972

The life expectancy is limited to 83972 hours by the lubricant life expectancy.

This calculation only takes influences into account, which occur within the scope of optimal application of the above motor and ventilator type.