Order line: 10

Specification of: RQM F6-7180-BI-Y3-M

Direct driven high-performance centrifugal fan RQM MultiEvo with Ultra-Premium permanent magnet motor at the efficiency level of the efficiency class IE5 and integrated drive (VFD).
Complete assembly module with highest system efficiency, specifically designed and optimized for use in air handling units. Multi volute flow guiding device of galvanized sheet steel to increase pressure and static fan efficiency. Newly developed high performance impeller with optimized shape and highest efficiency, comprising six backward curved hollow section true aerofoil blades with real turbulence profile and rounded, inclined blade leading edges from impeller shroud to back plate, for optimal impact over the entire width of the blade. Aerodynamically and acoustically optimized with highest static efficiencies. Impeller made of high tensile sheet steel in an automated manufacturing process, robotic welding, degreased, iron phosphated and coated with a high quality epoxy-polyester mixed powder, fastened with a clamping bush to the shaft of the foot motor, balanced statically and dynamically according to DIN ISO 21940-11, specification G 2,5, based on the maximum speed. System inlet cone made of galvanized sheet steel for optimal inflow to the impeller, equipped with flow measuring device IMV as a standard feature. Ultra premium motor with highly efficient permanent magnet technology and efficiency class IE5. Motor magnets without rare earth metals. Integrated drive (VFD), mounted on the motor support plate, optimally coordinated with the high performance impeller. Drive (VFD) preprogrammed, immediately ready for operation with signal 0 to 10 V. With Modbus interface. No shielded connection cable necessary. The drive system is 100 % speed controllable. Prepared for easy floor installation with horizontal axis of rotation. Substructure with rubber damper and mounting rail for easy and structure-born sound insulated installation. Performance data to DIN 24166 Class 1 (BS 848 Class "A")

NICOTRA Gebhardt

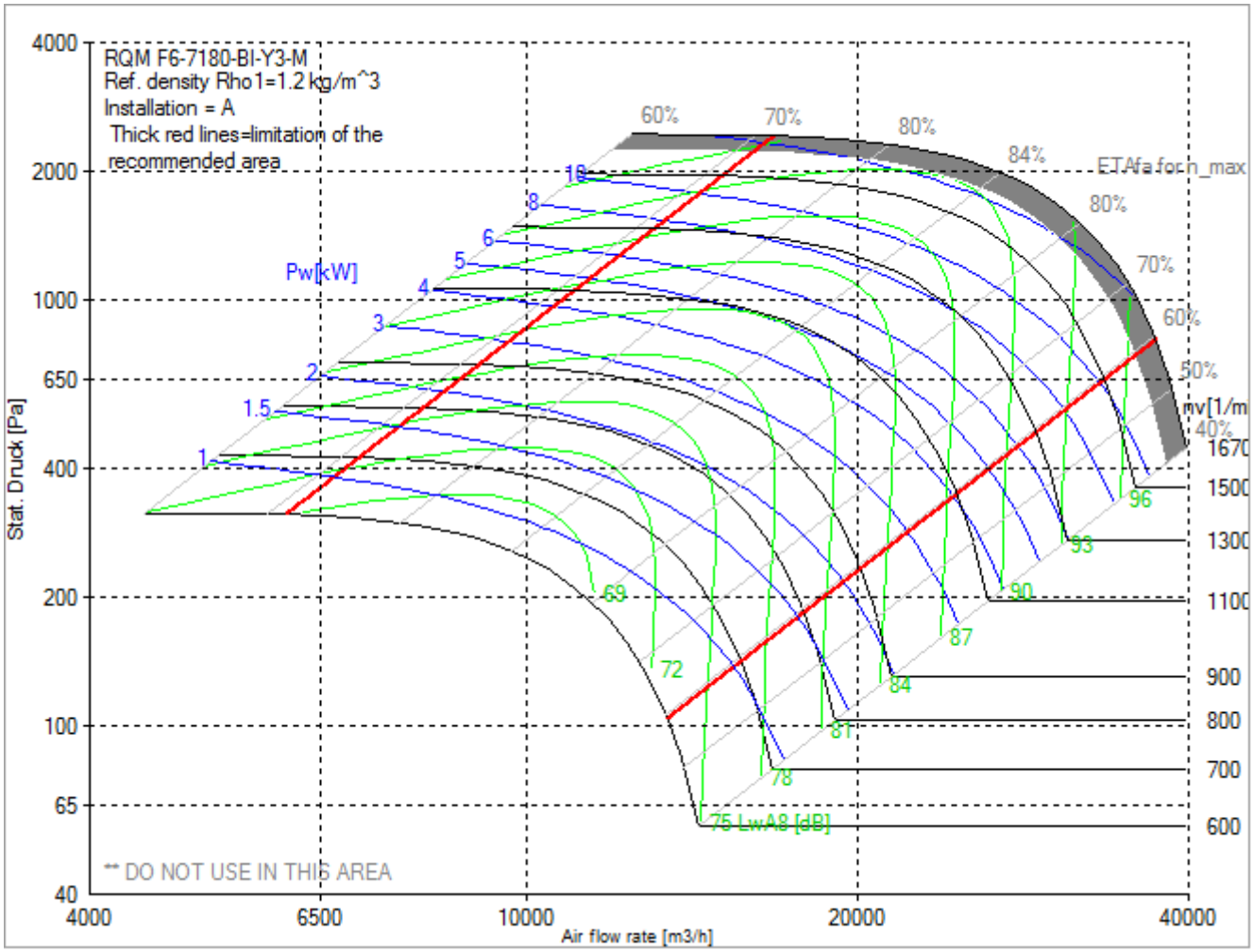
DE WIT ventilatoren

Technical data of the fan: RQM F6-7180-BI-Y3-M

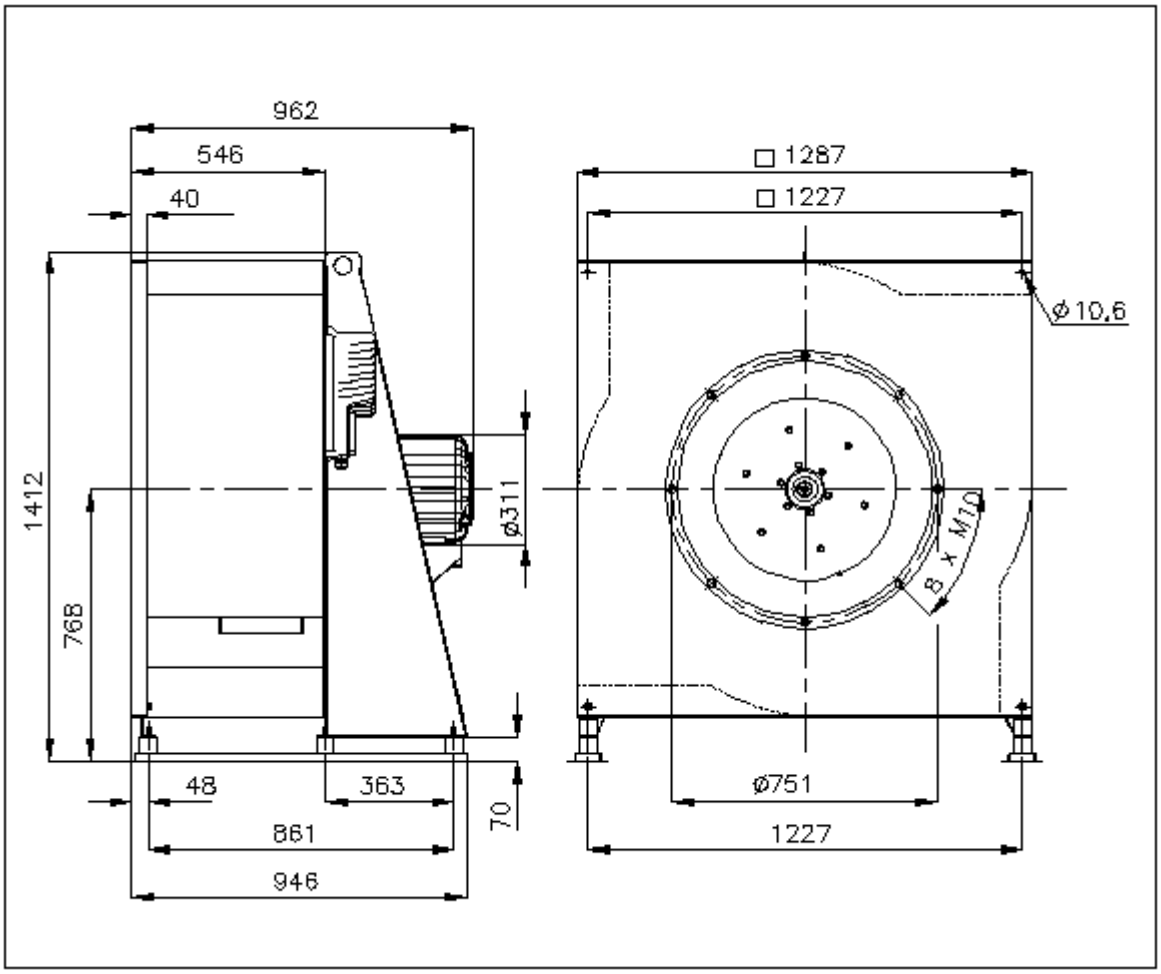
fulfills the ErP requirements 2015

Description	Value	Dimension
Specified duty point		
Design duty point		
Installation acc. DIN 24163 Part 1	A	
Reference density (Rho1)	1.20	kg/m³
Medium temperature (t)	20	C
Fan weight	322	kg
Feed data		
Main's frequency (f_N)	50/60	Hz
Voltage (U_N)	3~ 380-480	V
Rated motor data		
Phases-Voltage-Frequency	3~400-120	V-Hz
Frame size-No of poles:	270-240 / IE5-12	
Power (P_N)	15	kW
Speed (n_N	1200	min^{-1}
Current (I_N)	32,0	A
operational limits		
Max. fan speed (n_{vmax})	1600	min^{-1}
Max. operating frequency (f_{max})	160	Hz
Temperature range for conveying medium (t_{min} ...t_{max})	-20...40	C
ErP-Data at best efficiency and density - kg/m^3		
measurement- / efficiency category	A / static	
design status of VSD	VSD is integrated	
overall efficiency (ETA_{opt})	80.0	%
achieved efficiency grade (N_{ist})	79.5	
required efficiency grade in 2013 / 2015 (N)	58 / 61	
Air flow rate (V_{opt})	25903	m³/h
pressure rise (dp_{opt})	1827	Pa
Fan speed (n_{vopt})	1600	min^{-1}
motor power input (P_{1opt})	16.4	kW
specific ratio (d_{dpopt})	1.018	

Fan curve to RQM F6-7180-BI-Y3-M



Dimensions to RQM F6-7180-BI-Y3-M



Rotation:	RD
Handing:	90

Order line: 10

Specification of: RQM F6-7180-BI-YV-M

Direct driven high-performance centrifugal fan RQM MultiEvo with Ultra-Premium permanent magnet motor at the efficiency level of the efficiency class IE5 and integrated drive (VFD).
Complete assembly module with highest system efficiency, specifically designed and optimized for use in air handling units. Multi volute flow guiding device of galvanized sheet steel to increase pressure and static fan efficiency. Newly developed high performance impeller with optimized shape and highest efficiency, comprising six backward curved hollow section true aerofoil blades with real turbulence profile and rounded, inclined blade leading edges from impeller shroud to back plate, for optimal impact over the entire width of the blade. Aerodynamically and acoustically optimized with highest static efficiencies. Impeller made of high tensile sheet steel in an automated manufacturing process, robotic welding, degreased, iron phosphated and coated with a high quality epoxy-polyester mixed powder, fastened with a clamping bush to the shaft of the foot motor, balanced statically and dynamically according to DIN ISO 21940-11, specification G 2,5, based on the maximum speed. System inlet cone made of galvanized sheet steel for optimal inflow to the impeller, equipped with flow measuring device IMV as a standard feature. Ultra premium motor with highly efficient permanent magnet technology and efficiency class IE5. Motor magnets without rare earth metals. Integrated drive (VFD), mounted on the motor support plate, optimally coordinated with the high performance impeller. Drive (VFD) preprogrammed, immediately ready for operation with signal 0 to 10 V. With Modbus interface. No shielded connection cable necessary. The drive system is 100 % speed controllable. Prepared for easy floor installation with horizontal axis of rotation. Substructure with rubber damper and mounting rail for easy and structure-born sound insulated installation. Performance data to DIN 24166 Class 1 (BS 848 Class "A")

NICOTRA Gebhardt

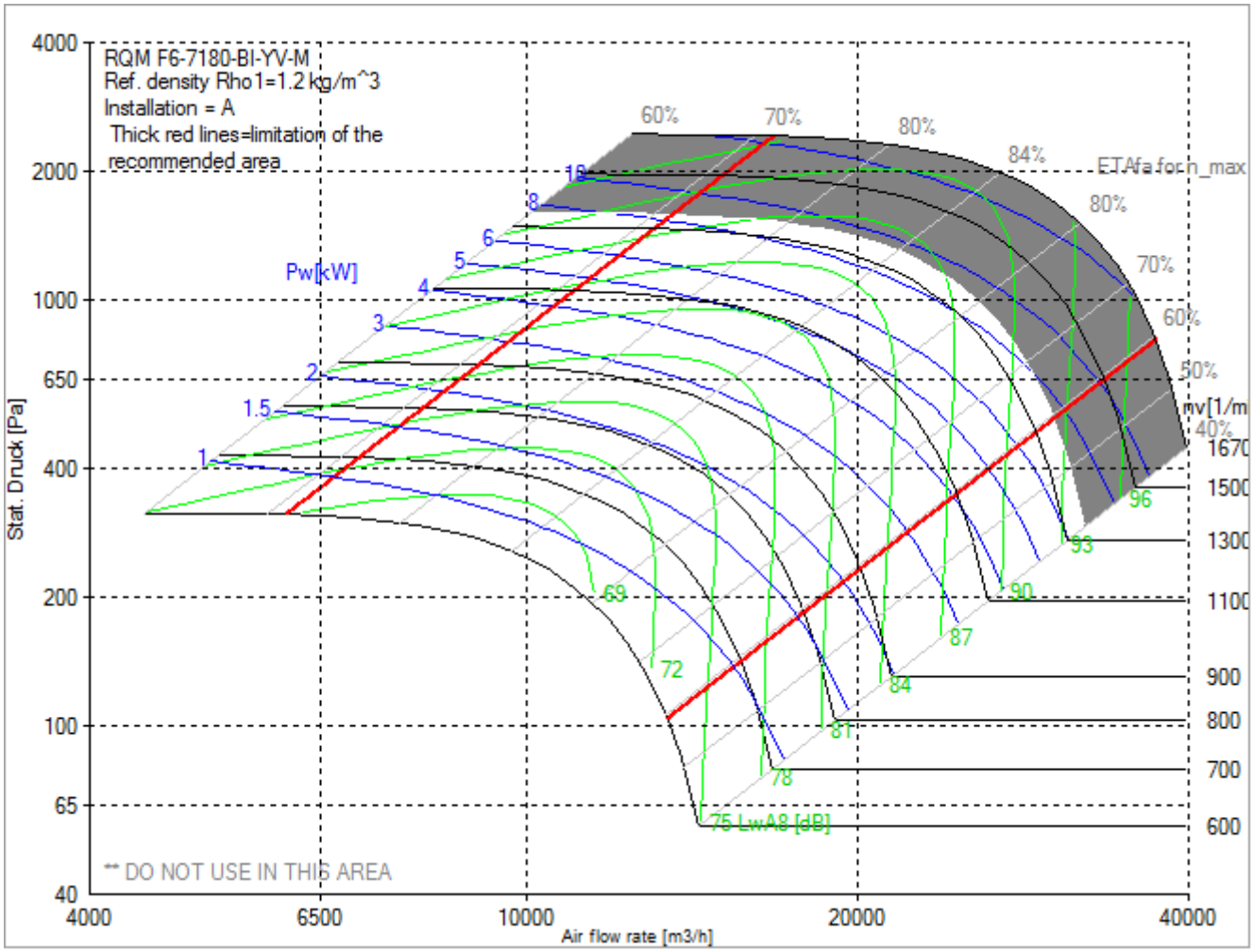
DE WIT ventilatoren

Technical data of the fan: RQM F6-7180-BI-YV-M

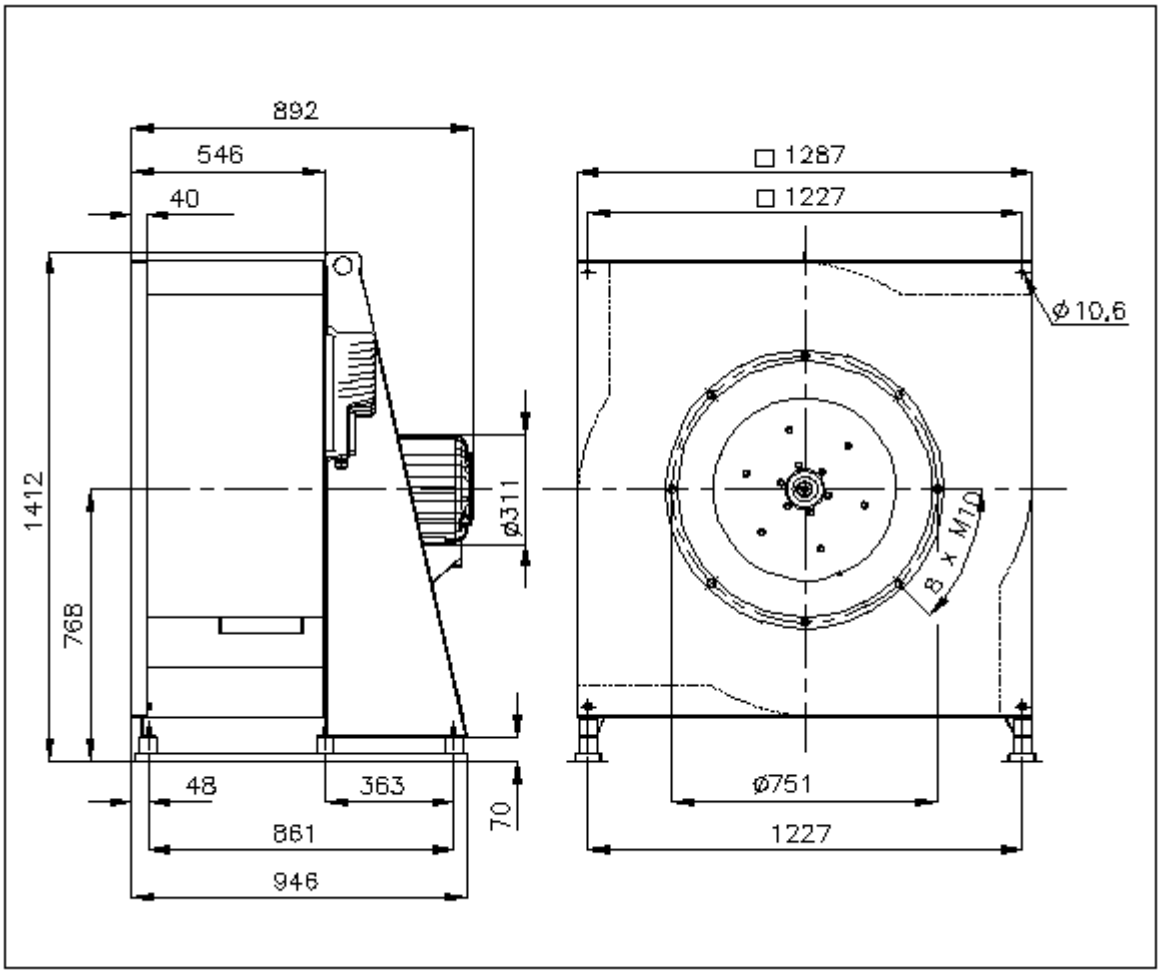
fulfills the ErP requirements 2015

Description	Value	Dimension
Specified duty point		
Design duty point		
Installation acc. DIN 24163 Part 1	A	
Reference density (Rho1)	1.20	kg/m³
Medium temperature (t)	20	C
Fan weight	292	kg
Feed data		
Main's frequency (f_N)	50/60	Hz
Voltage (U_N)	3~ 380-480	V
Rated motor data		
Phases-Voltage-Frequency	3~400-120	V-Hz
Frame size-No of poles:	270-160 / IE5-12	
Power (P_N)	10	kW
Speed (n_N	1200	min^{-1}
Current (I_N)	20,0	A
operational limits		
Max. fan speed (n_{vmax})	1350	min^{-1}
Max. operating frequency (f_{max})	135	Hz
Temperature range for conveying medium (t_{min} ...t_{max})	-20...40	C
ErP-Data at best efficiency and density - kg/m^3		
measurement- / efficiency category	A / static	
design status of VSD	VSD is integrated	
overall efficiency (ETA_{opt})	79.2	%
achieved efficiency grade (N_{ist})	79.2	
required efficiency grade in 2013 / 2015 (N)	58 / 61	
Air flow rate (V_{opt})	21855	m³/h
pressure rise (dp_{opt})	1301	Pa
Fan speed (n_{vopt})	1350	min^{-1}
motor power input (P_{1opt})	9.97	kW
specific ratio (d_{dpopt})	1.013	

Fan curve to RQM F6-7180-BI-YV-M



Dimensions to RQM F6-7180-BI-YV-M



Rotation:	RD
Handing:	90