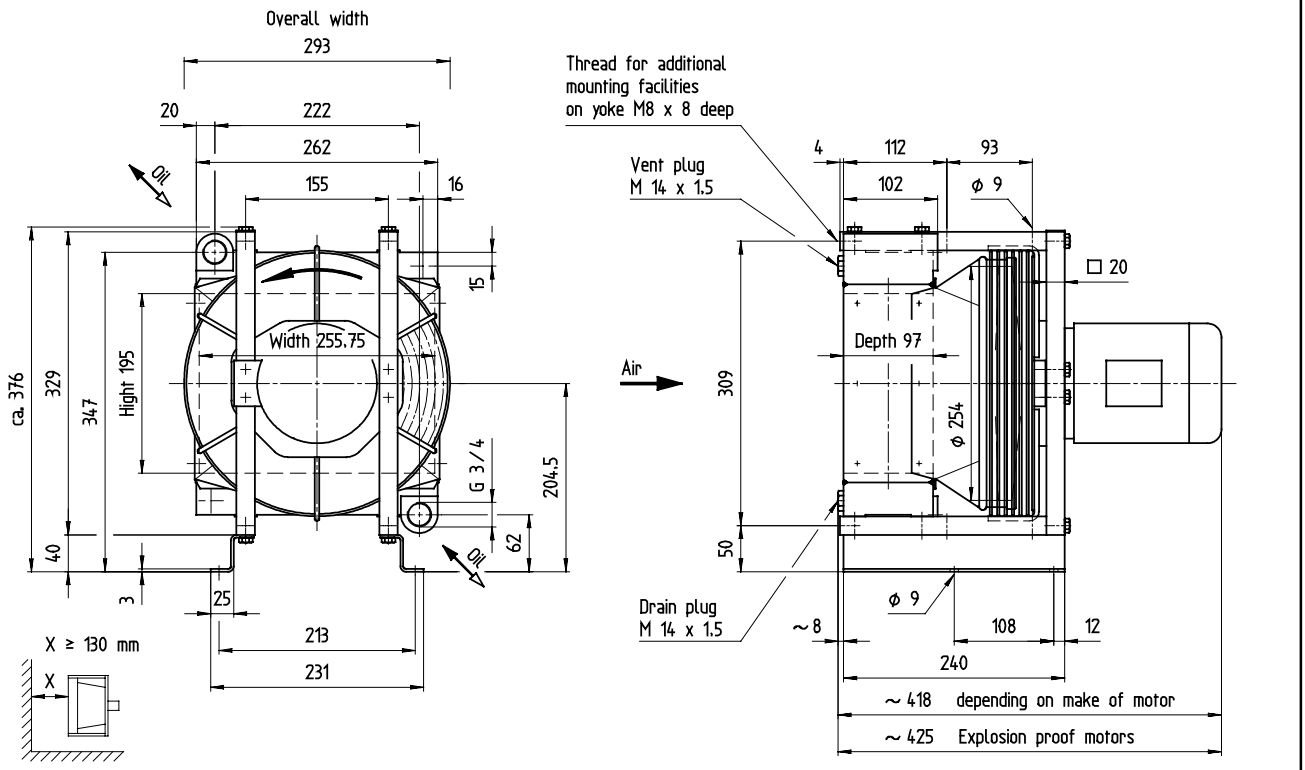
Technical data	Oil / Air Cooling Unit 2.7802.2. - .	Size 02 AC Issue 2000



At surface temperatures of more than 80°C, protection against accidental contact should be guaranteed in the working area

Details are subject to modification without notice!

Application	Cooling of oil, HFA,HFB, HFC, HFD - fluids up to $\nu \approx 100 \cdot 10^{-6}$ m²/s (≙ 100 cSt), Water/Glycol 65:35, no water without corrosion preventive (min. 2 %). Cooling medium: Air				
Technical data	Type 2.7802.2. -		81.	51.	
	Face area	m^2	0,05	0,05	
	Fan speed	1/min	3000	1500	
	Fan load	kW	0,24	0,1	
	Air flow	kg/s	0,3	0,14	
	Noise level 1m/7m	dB(A)	79 / 67	61 / 49	
	from 63 Hz to 8000 Hz		< 8 Bel; < N 75	< 6 Bel; < N 55	
	Motor power	kW	0,25	0,18	
	Motor frame size		IM B14 C90 - 63	IM B14 C90 - 63	
	Total weight with motor	kg	16,1	16,1	
	Weight without motor	kg	12	12	
	Oil content	l	1,6	1,6	
Max. working pressure Max. working temp.	16 bar Oil and hydraulic fluids 120 °C, water/glycol, emulsion 90 °C With explosion-proof motor oil 100 °C, hydraulic fluids 90 °C				
Material	Cooler: Aluminium Fan: Plastic		Fan shroud: Plastic; with explosion-proof motor: Steel Other parts: Steel (zinc plated)		
Installation instruction	Refer to: Type sheet, operation instructions Ensure there is an unhindered flow of air to and from the cooler. Provide ventilation and exhaust in room where cooler is installed. Avoid a pulsating oil flow and pressure surges.				
Type key	2 . 7802 . 2 . □□ – □□ . □□ Size of unit Number of passes (normal: 1, for low oil flows: Position of oil connections, direction of air flow, Type of fan drive and fan speed Variant (key number)				
Accessories	Filter mats for oil / air coolers Temperature regulator for tank installation				
Performance	see overleaf				

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Size 02 AC	Oil / Air Cooling Unit 2.7802.2. - .	Performance

Introduction

Following data are known:

Dissipation loss	P_V	[kW]
Oil flow	$\dot{V}_{Öl}$	[l/min]
Max. perm. oil temperature	$t_{ÖlE}$	[°C]
Cooling air temperature	t_{LE}	[°C]

From the following can be calculatet:

Entry - Temperature - Difference

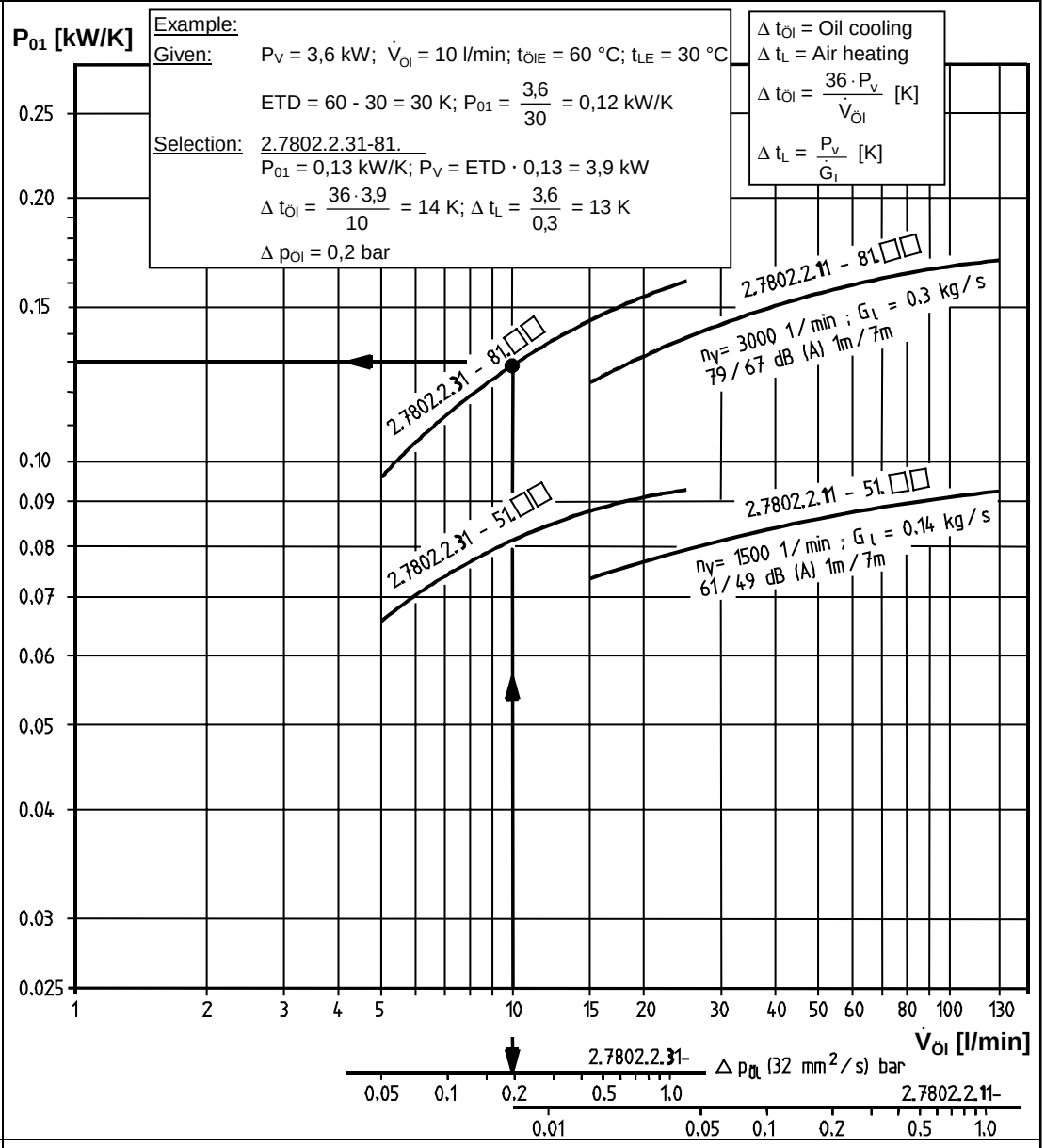
E T D = $t_{ÖlE} - t_{LE}$ [K]

Specific cooling capacity with ETD = 1 K

$P_{01} = \frac{P_V}{ETD}$ [kW/K]

In hydraulik systems, the dissipation loss is approximately 20 – 25 % of drive power.

Performance diagrams



Δ $p_{Öl}$ - Correction

The Δ p-value obtained from the curves applies for ν = 32 mm²/s (≙ 32 cSt).
For differing viscosities, the Δ p-value has to be multiplied by the factor f.

10	15	20	32	40	50	60	80	100	150	200	250	300	400	500	mm²/s
0,5	0,65	0,75	1,0	1,2	1,4	1,6	2,1	2,7	4	5,5	7,3	9,5	16	30	f

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