

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 15 STANDARD						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 600 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Useful heat output				Useful efficiency				
At rated heat output	P_n	16	kW	At rated heat output	η_n	89	%	
At [30%/50%] rated heat output, if applicable	P_p	7	kW	At [30%/50%] rated heat output, if applicable	η_p	82	%	
Seasonal energy efficiency of heating				Energy efficiency index				
Seasonal efficiency	η_s	78	%	EEI		116		
For solid fuel cogeneration boilers: Electrical efficiency				Auxiliary electricity consumption				
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	el_{max}	0,038	kW	
				At [30%/50%] rated heat output, if applicable	el_{min}	0,019	kW	
				In standby mode	P_{SB}	-	kW	
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	26	25	325	132		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 45 LAMBDA						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1815 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	43	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	22	kW		At [30%/50%] rated heat output, if applicable	η_p	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	79	%		EEI		115	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el, n}$	-	%		At rated heat output	$e_{l_{max}}$	0,080	kW
					At [30%/50%] rated heat output, if applicable	$e_{l_{min}}$	0,040	kW
					In standby mode	P_{SB}	0,007	kW
Seasonal space heating emissions								
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	18	29	225	138		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 45 STANDARD						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 2085 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	49	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	23	kW		At [30%/50%] rated heat output, if applicable	η_p	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	78	%		EEI		115	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el,n}$	-	%		At rated heat output	$e_{l,max}$	0,067	kW
					At [30%/50%] rated heat output, if applicable	$e_{l,min}$	0,034	kW
					In standby mode	P_{SB}	-	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	21	22	268	197		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 40 LAMBDA						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1815 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	43	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	20	kW		At [30%/50%] rated heat output, if applicable	η_p	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	78	%		EEI		115	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el,n}$	-	%		At rated heat output	$e_{l,max}$	0,080	kW
					At [30%/50%] rated heat output, if applicable	$e_{l,min}$	0,040	kW
					In standby mode	P_{SB}	0,007	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
						[x] mg/m ³ pri 10% O ₂		
Log wood, moisture content ≤ 25%	yes	no	19	14	153	188		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter									
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia							
Model identifier		ATTACK DPX 40 PROFI							
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1725 l									
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no				
Energy efficiency class		A+							
Characteristics when operating with the preferred fuel only:									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit	
Useful heat output					Useful efficiency				
At rated heat output	P_n	41	kW		At rated heat output	η_n	81	%	
At [30%/50%] rated heat output, if applicable	P_p	19	kW		At [30%/50%] rated heat output, if applicable	η_p	82	%	
Seasonal energy efficiency of heating					Energy efficiency index				
Seasonal efficiency	η_s	78	%		EEI	115			
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption				
At rated heat output	$\eta_{el, n}$	-	%		At rated heat output	$e_{l, max}$	0,056	kW	
					At [30%/50%] rated heat output, if applicable	$e_{l, min}$	0,044	kW	
					In standby mode	P_{SB}	0,002	kW	
Fuel				Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions			
						PM	OGC	CO	NO_x
						[x] mg/m ³ pri 10% O ₂			
Log wood, moisture content ≤ 25%				yes	no	17	13	259	183
Chipped wood, moisture content 15 - 35 %				no	no	-	-	-	-
Chipped wood, moisture content > 35 %				no	no	-	-	-	-
Compressed wood in the form of pellets or briquettes				no	no	-	-	-	-
Sawdust, moisture ≤ 50 %				no	no	-	-	-	-
Other woody biomass				no	no	-	-	-	-
Non-woody biomass				no	no	-	-	-	-
Bituminous coal				no	no	-	-	-	-
Brown coal (including briquettes)				no	no	-	-	-	-
Coke				no	no	-	-	-	-
Anthracite				no	no	-	-	-	-
Blended fossil fuel briquettes				no	no	-	-	-	-
Other fossil fuel				no	no	-	-	-	-
Blended biomass (30 - 70 %) fossil fuel briquettes				no	no	-	-	-	-
Other blend of biomass and fossil fuel				no	no	-	-	-	-

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 40 STANDARD						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1500 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	36	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	17	kW		At [30%/50%] rated heat output, if applicable	η_p	83	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	78	%		EEI		116	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el, n}$	-	%		At rated heat output	$e_{l, max}$	0,080	kW
					At [30%/50%] rated heat output, if applicable	$e_{l, min}$	0,040	kW
					In standby mode	P_{SB}	0,007	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	17	13	259	183		
Chipped wood, moisture content ≤ 25%	no	no	-	-	-	-		
Chipped wood, moisture content > 25%	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 35 LAMBDA						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1500 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	36	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	17	kW		At [30%/50%] rated heat output, if applicable	η_p	83	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	79	%		EEI		116	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el,n}$	-	%		At rated heat output	$e_{l,max}$	0,080	kW
					At [30%/50%] rated heat output, if applicable	$e_{l,min}$	0,040	kW
					In standby mode	P_{SB}	0,007	kW
Fuel		Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions				
				PM	OGC	CO	NO_x	
				[x] mg/m ³ pri 10% O ₂				
Log wood, moisture content ≤ 25%		yes	no	10	17	240	135	
Chipped wood, moisture content ≤ 25%		no	no	-	-	-	-	
Chipped wood, moisture content > 25%		no	no	-	-	-	-	
Compressed wood in the form of pellets or briquettes		no	no	-	-	-	-	
Sawdust, moisture ≤ 50 %		no	no	-	-	-	-	
Other woody biomass		no	no	-	-	-	-	
Non-woody biomass		no	no	-	-	-	-	
Bituminous coal		no	no	-	-	-	-	
Brown coal (including briquettes)		no	no	-	-	-	-	
Coke		no	no	-	-	-	-	
Anthracite		no	no	-	-	-	-	
Blended fossil fuel briquettes		no	no	-	-	-	-	
Other fossil fuel		no	no	-	-	-	-	
Blended biomass (30 - 70 %) fossil fuel briquettes		no	no	-	-	-	-	
Other blend of biomass and fossil fuel		no	no	-	-	-	-	

Boiler information letter										
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia								
Model identifier		ATTACK DPX 35 STANDARD								
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1460 l										
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no		
Energy efficiency class		A+								
Characteristics when operating with the preferred fuel only:										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Useful heat output					Useful efficiency					
At rated heat output	P_n	35	kW		At rated heat output	η_n	81	%		
At [30%/50%] rated heat output, if applicable	P_p	16	kW		At [30%/50%] rated heat output, if applicable	η_p	82	%		
Seasonal energy efficiency of heating					Energy efficiency index					
Seasonal efficiency	η_s	79	%		EEI		116			
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption					
At rated heat output	$\eta_{el, n}$	-	%		At rated heat output	$e_{l, max}$	0,067	kW		
					At [30%/50%] rated heat output, if applicable	$e_{l, min}$	0,034	kW		
					In standby mode	P_{SB}	-	kW		
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions							
			PM	OGC	CO	NO _x				
						[x] mg/m ³ pri 10% O ₂				
Log wood, moisture content ≤ 25%	yes	no	9	17	276	138				
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-				
Chipped wood, moisture content > 35 %	no	no	-	-	-	-				
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-				
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-				
Other woody biomass	no	no	-	-	-	-				
Non-woody biomass	no	no	-	-	-	-				
Bituminous coal	no	no	-	-	-	-				
Brown coal (including briquettes)	no	no	-	-	-	-				
Coke	no	no	-	-	-	-				
Anthracite	no	no	-	-	-	-				
Blended fossil fuel briquettes	no	no	-	-	-	-				
Other fossil fuel	no	no	-	-	-	-				
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-				
Other blend of biomass and fossil fuel	no	no	-	-	-	-				

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 30 LAMBDA						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1275 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	31	kW		At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	15	kW		At [30%/50%] rated heat output, if applicable	η_p	83	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	79	%		EEI		116	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el, n}$	-	%		At rated heat output	$e_{l, max}$	0,080	kW
					At [30%/50%] rated heat output, if applicable	$e_{l, min}$	0,040	kW
					In standby mode	P_{SB}	0,007	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	16	5	124	189		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter										
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia								
Model identifier		ATTACK DPX 30 STANDARD								
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1320 l										
Condensing boiler		no		Solid fuel cogeneration boiler		no		Combination boiler		no
Energy efficiency class		A+								
Characteristics when operating with the preferred fuel only:										
Item		Symbol	Value	Unit		Item		Symbol	Value	Unit
Useful heat output					Useful efficiency					
At rated heat output		P_n	32	kW	At rated heat output		η_n	81	%	
At [30%/50%] rated heat output, if applicable		P_p	14	kW	At [30%/50%] rated heat output, if applicable		η_p	82	%	
Seasonal energy efficiency of heating					Energy efficiency index					
Seasonal efficiency		η_s	79	%	EEI		116			
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption					
At rated heat output		$\eta_{el,n}$	-	%	At rated heat output		$e_{l,max}$	0,067	kW	
					At [30%/50%] rated heat output, if applicable		$e_{l,min}$	0,034	kW	
					In standby mode		P_{SB}	-	kW	
Fuel		Preferred fuel (only one)		Other suitable fuel(s)		Seasonal space heating emissions				
						PM	OGC	CO	NO_x	
						[x] mg/m ³ pri 10% O ₂				
Log wood, moisture content ≤ 25%		yes		no		20	7	169	177	
Chipped wood, moisture content 15 - 35 %		no		no		-	-	-	-	
Chipped wood, moisture content > 35 %		no		no		-	-	-	-	
Compressed wood in the form of pellets or briquettes		no		no		-	-	-	-	
Sawdust, moisture ≤ 50 %		no		no		-	-	-	-	
Other woody biomass		no		no		-	-	-	-	
Non-woody biomass		no		no		-	-	-	-	
Bituminous coal		no		no		-	-	-	-	
Brown coal (including briquettes)		no		no		-	-	-	-	
Coke		no		no		-	-	-	-	
Anthracite		no		no		-	-	-	-	
Blended fossil fuel briquettes		no		no		-	-	-	-	
Other fossil fuel		no		no		-	-	-	-	
Blended biomass (30 - 70 %) fossil fuel briquettes		no		no		-	-	-	-	
Other blend of biomass and fossil fuel		no		no		-	-	-	-	

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 100 PROFI						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 4290 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P_n	98	kW		At rated heat output	η_n	79	%
At [30%/50%] rated heat output, if applicable	P_p	-	kW		At [30%/50%] rated heat output, if applicable	η_p	-	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η_s	78	%		EEI		114	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	$\eta_{el,n}$	-	%		At rated heat output	$e_{l,max}$	0,131	kW
					At [30%/50%] rated heat output, if applicable	$e_{l,min}$	-	kW
					In standby mode	P_{SB}	0,002	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
						[x] mg/m ³ pri 10% O ₂		
Log wood, moisture content ≤ 25%	yes	no	40	18	270	198		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 45 PROFI						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 2085 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P _n	49	kW		At rated heat output	η _n	81	%
At [30%/50%] rated heat output, if	P _p	23	kW		At [30%/50%] rated heat output, if	η _p	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η _s	78	%		EEI		115	
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	η _{el, n}	-	%		At rated heat output	e _{l,max}	0,056	kW
					At [30%/50%] rated heat output, if applicable	e _{l,min}	0,044	kW
					In standby mode	P _{SB}	0,002	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO_x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	21	22	268	197		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter									
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia							
Model identifier		ATTACK DPX 35 PROFI							
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1460 l									
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no	
Energy efficiency class		A+							
Characteristics when operating with the preferred fuel only:									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit	
Useful heat output					Useful efficiency				
At rated heat output	P _n	35	kW		At rated heat output	η _n	81	%	
At [30%/50%] rated heat output, if applicable	P _p	16	kW		At [30%/50%] rated heat output, if applicable	η _p	82	%	
Seasonal energy efficiency of heating					Energy efficiency index				
Seasonal efficiency	η _s	79	%		EEL	116			
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption				
At rated heat output	η _{el, n}	-	%		At rated heat output	el _{max}	0,056	kW	
					At [30%/50%] rated heat output, if applicable	el _{min}	0,044	kW	
					In standby mode	P _{SB}	0,002	kW	
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions						
			PM	OGC	CO	NO _x			
			[x] mg/m ³ pri 10% O ₂						
Log wood, moisture content ≤ 25%	yes	no	9	17	276	138			
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-			
Chipped wood, moisture content > 35 %	no	no	-	-	-	-			
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-			
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-			
Other woody biomass	no	no	-	-	-	-			
Non-woody biomass	no	no	-	-	-	-			
Bituminous coal	no	no	-	-	-	-			
Brown coal (including briquettes)	no	no	-	-	-	-			
Coke	no	no	-	-	-	-			
Anthracite	no	no	-	-	-	-			
Blended fossil fuel briquettes	no	no	-	-	-	-			
Other fossil fuel	no	no	-	-	-	-			
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-			
Other blend of biomass and fossil fuel	no	no	-	-	-	-			

Boiler information letter							
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia					
Model identifier		ATTACK DPX 25 LAMBDA					
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1050 l							
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no		
Energy efficiency class		A+					
Characteristics when operating with the preferred fuel only:							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Useful heat output				Useful efficiency			
At rated heat output	P_n	26	kW	At rated heat output	η_n	81	%
At [30%/50%] rated heat output, if applicable	P_p	12	kW	At [30%/50%] rated heat output, if applicable	η_p	81	%
Seasonal energy efficiency of heating				Energy efficiency index			
Seasonal efficiency	η_s	78	%	EEl	114		
For solid fuel cogeneration boilers: Electrical efficiency				Auxiliary electricity consumption			
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	$e_{l, max}$	0,096	kW
				At [30%/50%] rated heat output, if applicable	$e_{l, min}$	0,048	kW
				In standby mode	P_{SB}	0,007	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions				
			PM	OGC	CO	NO_x	
			[x] mg/m ³ pri 10% O ₂				
Log wood, moisture content ≤ 25%	yes	no	14	16	224	108	
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-	
Chipped wood, moisture content > 35 %	no	no	-	-	-	-	
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-	
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-	
Other woody biomass	no	no	-	-	-	-	
Non-woody biomass	no	no	-	-	-	-	
Bituminous coal	no	no	-	-	-	-	
Brown coal (including briquettes)	no	no	-	-	-	-	
Coke	no	no	-	-	-	-	
Anthracite	no	no	-	-	-	-	
Blended fossil fuel briquettes	no	no	-	-	-	-	
Other fossil fuel	no	no	-	-	-	-	
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-	
Other blend of biomass and fossil fuel	no	no	-	-	-	-	

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 25 PROFI						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 1050 l								
Condensing boiler	no	Solid fuel cogeneration boiler	no	Combination boiler	no			
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Useful heat output					Useful efficiency			
At rated heat output	P _n	26	kW		At rated heat output	η _n	81	%
At [30%/50%] rated heat output, if applicable	P _p	12	kW		At [30%/50%] rated heat output, if applicable	η _p	81	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	η _s	78	%		EEI	114		
For solid fuel cogeneration boilers: Electrical efficiency					Auxiliary electricity consumption			
At rated heat output	η _{el, n}	-	%		At rated heat output	e _{l,max}	0,040	kW
					At [30%/50%] rated heat output, if applicable	e _{l,min}	0,028	kW
					In standby mode	P _{SB}	0,002	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
						[x] mg/m ³ pri 10% O ₂		
Log wood, moisture content ≤ 25%	yes	no	13	15	142	125		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 80 PROFI						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 3750 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Useful heat output				Useful efficiency				
At rated heat output	P_n	86	kW	At rated heat output	η_n	84	%	
At [30%/50%] rated heat output, if applicable	P_p	-	kW	At [30%/50%] rated heat output, if applicable	η_p	-	%	
Seasonal energy efficiency of heating				Energy efficiency index				
Seasonal efficiency	η_s	81	%	EEI		118		
For solid fuel cogeneration boilers: Electrical efficiency				Auxiliary electricity consumption				
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	$e_{l, max}$	0,131	kW	
				At [30%/50%] rated heat output, if applicable	$e_{l, min}$	-	kW	
				In standby mode	P_{SB}	0,002	kW	
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	14	11	208	195		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 15 LAMBDA						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 600 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Useful heat output				Useful efficiency				
At rated heat output	P_n	16	kW	At rated heat output	η_n	89	%	
At [30%/50%] rated heat output, if applicable	P_p	8	kW	At [30%/50%] rated heat output, if applicable	η_p	83	%	
Seasonal energy efficiency of heating				Energy efficiency index				
Seasonal efficiency	η_s	78	%	EEI		117		
For solid fuel cogeneration boilers: Electrical efficiency				Auxiliary electricity consumption				
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	el_{max}	0,044	kW	
				At [30%/50%] rated heat output, if applicable	el_{min}	0,022	kW	
				In standby mode	P_{SB}	0,015	kW	
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	32	26	234	115		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		

Boiler information letter								
Contact details:		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
Model identifier		ATTACK DPX 15 PROFI						
Stoking model: Manual - the boiler should be operated with a hotwater storage tank of a volume of at least 600 l								
Condensing boiler		no	Solid fuel cogeneration boiler		no	Combination boiler		no
Energy efficiency class		A+						
Characteristics when operating with the preferred fuel only:								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Useful heat output				Useful efficiency				
At rated heat output	P_n	16	kW	At rated heat output	η_n	89	%	
At [30%/50%] rated heat output, if applicable	P_p	7	kW	At [30%/50%] rated heat output, if applicable	η_p	82	%	
Seasonal energy efficiency of heating				Energy efficiency index				
Seasonal efficiency	η_s	78	%	EEI		116		
For solid fuel cogeneration boilers: Electrical efficiency				Auxiliary electricity consumption				
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	el_{max}	0,042	kW	
				At [30%/50%] rated heat output, if applicable	el_{min}	0,021	kW	
				In standby mode	P_{SB}	0,015	kW	
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO _x		
			[x] mg/m ³ pri 10% O ₂					
Log wood, moisture content ≤ 25%	yes	no	26	25	325	132		
Chipped wood, moisture content 15 - 35 %	no	no	-	-	-	-		
Chipped wood, moisture content > 35 %	no	no	-	-	-	-		
Compressed wood in the form of pellets or briquettes	no	no	-	-	-	-		
Sawdust, moisture ≤ 50 %	no	no	-	-	-	-		
Other woody biomass	no	no	-	-	-	-		
Non-woody biomass	no	no	-	-	-	-		
Bituminous coal	no	no	-	-	-	-		
Brown coal (including briquettes)	no	no	-	-	-	-		
Coke	no	no	-	-	-	-		
Anthracite	no	no	-	-	-	-		
Blended fossil fuel briquettes	no	no	-	-	-	-		
Other fossil fuel	no	no	-	-	-	-		
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	-	-	-	-		
Other blend of biomass and fossil fuel	no	no	-	-	-	-		