

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	
<b>Useful heat output</b>				<b>Useful efficiency</b>				
At rated heat output	$P_n$	16	kW	At rated heat output	$\eta_n$	89	%	
At [30%/50%] rated heat output, if applicable	$P_p$	7	kW	At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%	
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>				
Seasonal efficiency	$\eta_s$	78	%	EEI		116		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>				
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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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								
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
<b>Model identifier</b>		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			
<b>Energy efficiency class</b>		A+						
<b>Characteristics when operating with the preferred fuel only:</b>								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
<b>Useful heat output</b>					<b>Useful efficiency</b>			
At rated heat output	$P_n$	43	kW		At rated heat output	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	22	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	79	%		EEI		115	
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>			
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
<b>Seasonal space heating emissions</b>								
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	PM	OGC	CO	NO <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	23	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	$\eta_s$	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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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								
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
<b>Model identifier</b>		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			
<b>Energy efficiency class</b>		A+						
<b>Characteristics when operating with the preferred fuel only:</b>								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
<b>Useful heat output</b>					<b>Useful efficiency</b>			
At rated heat output	$P_n$	43	kW		At rated heat output	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	20	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	78	%		EEI	115		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>			
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
<b>Seasonal space heating emissions</b>								
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	PM	OGC	CO	NO <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	19	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	$\eta_s$	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 <sub>x</sub>		
				[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>				
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
<b>Useful heat output</b>					<b>Useful efficiency</b>			
At rated heat output	$P_n$	36	kW		At rated heat output	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	17	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	83	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	78	%		EEI		116	
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>			
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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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								
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
<b>Model identifier</b>		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
<b>Energy efficiency class</b>		A+						
<b>Characteristics when operating with the preferred fuel only:</b>								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
<b>Useful heat output</b>					<b>Useful efficiency</b>			
At rated heat output	$P_n$	36	kW		At rated heat output	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	17	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	83	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	79	%		EEI		116	
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>			
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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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	$\eta_n$	81	%	
At [30%/50%] rated heat output, if applicable	$P_p$	16	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%	
Seasonal energy efficiency of heating					Energy efficiency index				
Seasonal efficiency	$\eta_s$	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 <sub>x</sub>			
						[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>			
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	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	15	kW		At [30%/50%] rated heat output, if applicable	$\eta_p$	83	%
Seasonal energy efficiency of heating					Energy efficiency index			
Seasonal efficiency	$\eta_s$	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 <sub>x</sub>		
				[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>				
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
<b>Useful heat output</b>					<b>Useful efficiency</b>				
At rated heat output		$P_n$	32	kW	At rated heat output		$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable		$P_p$	14	kW	At [30%/50%] rated heat output, if applicable		$\eta_p$	82	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>				
Seasonal efficiency		$\eta_s$	79	%	EEI		116		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>									
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
<b>Seasonal space heating emissions</b>									
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>						
			PM	OGC	CO	NO <sub>x</sub>			
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		$\eta_n$	79	%	
At [30%/50%] rated heat output, if applicable		$P_p$	-	kW	At [30%/50%] rated heat output, if applicable		$\eta_p$	-	%	
Seasonal energy efficiency of heating					Energy efficiency index					
Seasonal efficiency		$\eta_s$	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 <sub>x</sub>	
						[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>				
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							
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia					
<b>Model identifier</b>		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		
<b>Energy efficiency class</b>		A+					
<b>Characteristics when operating with the preferred fuel only:</b>							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Useful heat output</b>				<b>Useful efficiency</b>			
At rated heat output	P <sub>n</sub>	49	kW	At rated heat output	η <sub>n</sub>	81	%
At [30%/50%] rated heat output, if	P <sub>p</sub>	23	kW	At [30%/50%] rated heat output, if	η <sub>p</sub>	82	%
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>			
Seasonal efficiency	η <sub>s</sub>	78	%	EEL	115		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>			
At rated heat output	η <sub>el, n</sub>	-	%	At rated heat output	e <sub>l,max</sub>	0,056	kW
				At [30%/50%] rated heat output, if applicable	e <sub>l,min</sub>	0,044	kW
				In standby mode	P <sub>SB</sub>	0,002	kW
<b>Fuel</b>				<b>Seasonal space heating emissions</b>			
<b>Preferred fuel (only one)</b>		<b>Other suitable fuel(s)</b>		<b>PM</b>	<b>OGC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>
				[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>			
Log wood, moisture content ≤ 25%	yes	no	no	21	22	268	197
Chipped wood, moisture content 15 - 35 %	no	no	no	-	-	-	-
Chipped wood, moisture content > 35 %	no	no	no	-	-	-	-
Compressed wood in the form of pellets or briquettes	no	no	no	-	-	-	-
Sawdust, moisture ≤ 50 %	no	no	no	-	-	-	-
Other woody biomass	no	no	no	-	-	-	-
Non-woody biomass	no	no	no	-	-	-	-
Bituminous coal	no	no	no	-	-	-	-
Brown coal (including briquettes)	no	no	no	-	-	-	-
Coke	no	no	no	-	-	-	-
Anthracite	no	no	no	-	-	-	-
Blended fossil fuel briquettes	no	no	no	-	-	-	-
Other fossil fuel	no	no	no	-	-	-	-
Blended biomass (30 - 70 %) fossil fuel briquettes	no	no	no	-	-	-	-
Other blend of biomass and fossil fuel	no	no	no	-	-	-	-

Boiler information letter										
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia								
<b>Model identifier</b>		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		
<b>Energy efficiency class</b>		A+								
<b>Characteristics when operating with the preferred fuel only:</b>										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
<b>Useful heat output</b>					<b>Useful efficiency</b>					
At rated heat output	P <sub>n</sub>	35	kW		At rated heat output	η <sub>n</sub>	81	%		
At [30%/50%] rated heat output, if applicable	P <sub>p</sub>	16	kW		At [30%/50%] rated heat output, if applicable	η <sub>p</sub>	82	%		
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>					
Seasonal efficiency	η <sub>s</sub>	79	%		EEI		116			
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>					
At rated heat output	η <sub>el, n</sub>	-	%		At rated heat output	el <sub>max</sub>	0,056	kW		
					At [30%/50%] rated heat output, if applicable	el <sub>min</sub>	0,044	kW		
					In standby mode	P <sub>SB</sub>	0,002	kW		
<b>Fuel</b>	<b>Preferred fuel (only one)</b>	<b>Other suitable fuel(s)</b>	<b>Seasonal space heating emissions</b>							
			<b>PM</b>	<b>OGC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>				
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>							
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							
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia					
<b>Model identifier</b>		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		
<b>Energy efficiency class</b>		A+					
<b>Characteristics when operating with the preferred fuel only:</b>							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Useful heat output</b>				<b>Useful efficiency</b>			
At rated heat output	$P_n$	26	kW	At rated heat output	$\eta_n$	81	%
At [30%/50%] rated heat output, if applicable	$P_p$	12	kW	At [30%/50%] rated heat output, if applicable	$\eta_p$	81	%
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	78	%	EI	114		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>			
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
<b>Fuel</b>	<b>Preferred fuel (only one)</b>	<b>Other suitable fuel(s)</b>	<b>Seasonal space heating emissions</b>				
			<b>PM</b>	<b>OGC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>				
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								
<b>Contact details:</b>		ATTACK, s.r.o. , Dielenská Kružná 5020, 038 61 Vrútky, Slovakia						
<b>Model identifier</b>		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			
<b>Energy efficiency class</b>		A+						
<b>Characteristics when operating with the preferred fuel only:</b>								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
<b>Useful heat output</b>					<b>Useful efficiency</b>			
At rated heat output	P <sub>n</sub>	26	kW		At rated heat output	η <sub>n</sub>	81	%
At [30%/50%] rated heat output, if applicable	P <sub>p</sub>	12	kW		At [30%/50%] rated heat output, if applicable	η <sub>p</sub>	81	%
<b>Seasonal energy efficiency of heating</b>					<b>Energy efficiency index</b>			
Seasonal efficiency	η <sub>s</sub>	78	%		EEI		114	
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>					<b>Auxiliary electricity consumption</b>			
At rated heat output	η <sub>el, n</sub>	-	%		At rated heat output	e <sub>l,max</sub>	0,040	kW
					At [30%/50%] rated heat output, if applicable	e <sub>l,min</sub>	0,028	kW
					In standby mode	P <sub>SB</sub>	0,002	kW
Fuel	Preferred fuel (only one)	Other suitable fuel(s)	Seasonal space heating emissions					
			PM	OGC	CO	NO <sub>x</sub>		
						[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>		
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	
<b>Useful heat output</b>				<b>Useful efficiency</b>				
At rated heat output	$P_n$	86	kW	At rated heat output	$\eta_n$	84	%	
At [30%/50%] rated heat output, if applicable	$P_p$	-	kW	At [30%/50%] rated heat output, if applicable	$\eta_p$	-	%	
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>				
Seasonal efficiency	$\eta_s$	78	%	EEI		118		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>				
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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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	
<b>Useful heat output</b>				<b>Useful efficiency</b>				
At rated heat output	$P_n$	16	kW	At rated heat output	$\eta_n$	89	%	
At [30%/50%] rated heat output, if applicable	$P_p$	8	kW	At [30%/50%] rated heat output, if applicable	$\eta_p$	83	%	
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>				
Seasonal efficiency	$\eta_s$	78	%	EEI		117		
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>				
At rated heat output	$\eta_{el, n}$	-	%	At rated heat output	$e_{l_{max}}$	0,044	kW	
				At [30%/50%] rated heat output, if applicable	$e_{l_{min}}$	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 <sub>x</sub>		
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>					
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
<b>Useful heat output</b>				<b>Useful efficiency</b>			
At rated heat output	$P_n$	16	kW	At rated heat output	$\eta_n$	89	%
At [30%/50%] rated heat output, if applicable	$P_p$	7	kW	At [30%/50%] rated heat output, if applicable	$\eta_p$	82	%
<b>Seasonal energy efficiency of heating</b>				<b>Energy efficiency index</b>			
Seasonal efficiency	$\eta_s$	78	%	EEI		116	
<b>For solid fuel cogeneration boilers: Electrical efficiency</b>				<b>Auxiliary electricity consumption</b>			
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 <sub>x</sub>	
			[x] mg/m <sup>3</sup> pri 10% O <sub>2</sub>				
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	-	-	-	-	