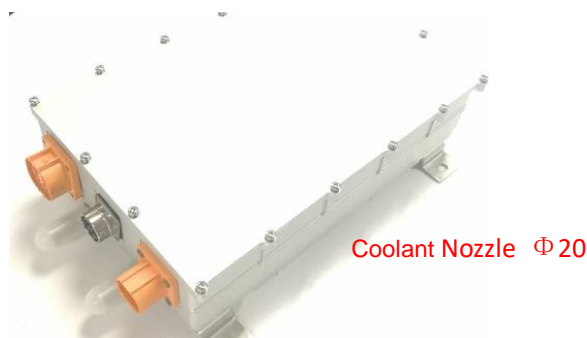


Version: 02	Date: Oct. 25 th , 2019	Remark: Label added
Version: 03	Date: Oct. 30 th , 2019	Remark: Weight added
Version: 04	Date: 11 th Nov., 2019	Remark: Terminal P/N added
Version: 05	Date: 1 st Jul., 2020	Remark: 1. Model No. changed to LWC11K-380S380-W from AR11K3S-250380W 2. Size (mm) changed to 364x224x100mm from 345x224x100mm. 3. Coolant Nozzle changed to Φ20 from Φ16. 4. AC input changed to HVSL364064A106I from HVSL364064A104I. 5. F: WAKE_UP changed to 200mA from 100Ma. 6. S、T、Z description added.

11KW ON BOARD CHARGER
Model No.: LWC11K-380S380-W



Features

Product Name	11KW ON BOARD CHARGER
Model No.	LWC11K-380S380-W
Standard	GB/T / IEC
Output Power	Three phase 11KW/single phase 3.3KW or 6.6KW
Input Voltage Range	Three phase 304~456VAC(line to line voltage, three phase four wire)/single phase 176~265VAC
Output Voltage Range	250~450VDC
Maximum output current	Three phase: 32A, 6.6KW single phase: 20A
Efficiency	≥95%
Low voltage input auxiliary source	13.8VDC (4Amax)
Size (mm)	364x224x100mm
Cooling System	Liquid Cool
IP Rating	IP67
Scope	Various new energy vehicles
Hardware	Small size, light weight and stable performance
Firmware	Full digital software design, redundant protection function

	design
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This charger has several advantages, including:

1. The volume and weight of automotive grade products: down more than 20%.
2. Real-time monitoring: real-time control and function control are performed on the hardware by a separate "core"
 It is easy to test the international mainstream EMI standards.
 The product design conforms to the international mainstream safety and standard.
 It can be compatible with the following different types of AC charging piles, while allowing continuous charging in the case of grid disconnection
3. Meet the new national standard GBT18487.1-2015.
4. Reserve hardware interfaces for interconnection between the Internet of Vehicles, mobile Internet and car chargers.
5. Retain the hardware interface for the secondary development of ASIL functional safety in the future.
6. Compatible with charging power expansion 22KW, 40KW, 80KW, etc.

Weight	Net: 10KG Gross: 12KG
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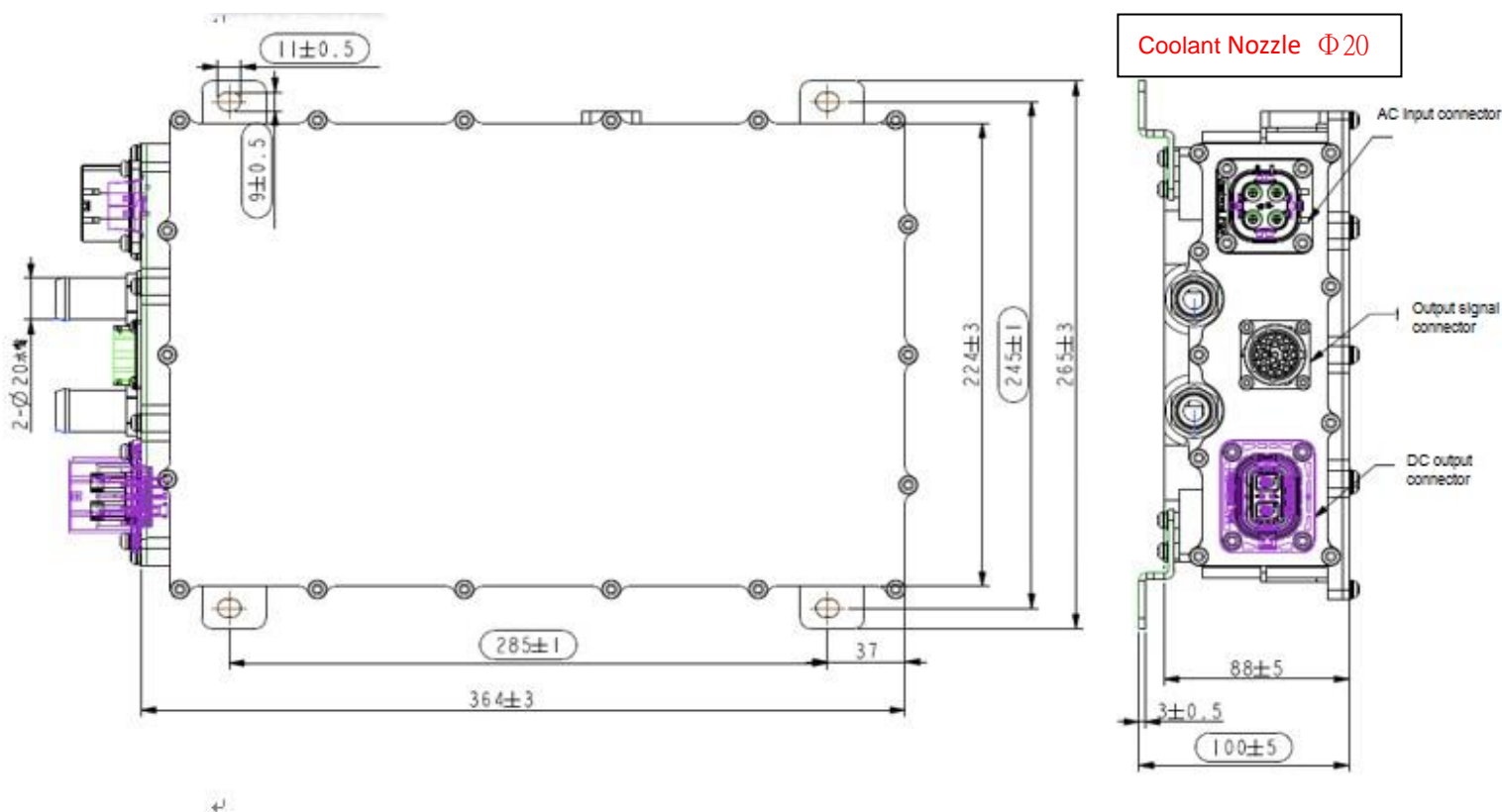
Specification

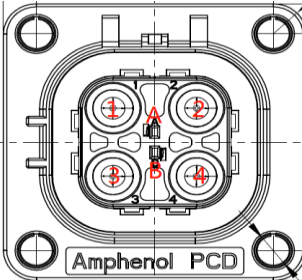
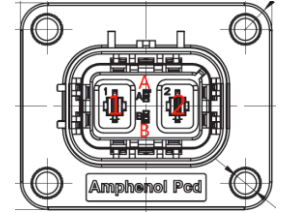
Specification			Remark
Environmental characteristics	Operating temperature	-40~85℃	long-time working
	Vibration/noise	Meet the QC/T 895-2011 standard	
	Salt spray experiment	Meet the QB/T 2423.17-2008 standard	
Output Power		Three phase 11KW / single phase 3.3KW or 6.6KW	
Input voltage range		Three phase 304~456VAC (line to line voltage, three phase four wire) Single phase 176~265VAC	
Output voltage range		250~450VDC	
Low voltage input auxiliary source		13.8VDC (4Amax)	
Activation method		CP/CC/hard wire	
Voltage accuracy		±1%	
Output maximum current		11KW Three phase: 32A, 6.6KW single phase: 20A	
Voltage ripple factor		≤±1%	
Current accuracy		±3%	≥ Half load
Efficiency		≥95%	Rated voltage Full load

Output response time		The rise time of the output voltage of the car charger should be less than 300ms, and the overshoot should be less than 10%. After receiving the shutdown command, the current drops below 10% within 300ms and drops to 0A within 500ms.	
Other protection features		Input overvoltage, input undervoltage, output overvoltage, output undervoltage, short circuit, output overcurrent, overtemperature, reverse connection protection, potential equalization and ground protection, power failure protection.	
Over temperature protection		When the temperature reaches 85 °C, the output power is reduced by half. The temperature is <80 °C in 10 minutes, and the full load is automatically restored. After 10 minutes, the temperature is >80 °C, then it is turned off. When the temperature is >90 °C, it will be shut down directly.	
Dielectric strength	Output to the outer casing	2000VDC /60S 10mA Max	
	Input to the outer casing	1500VAC /60S 10mA Max	
	Input to output	3000VAC /60S 10mA Max	
Insulation resistance	Input to output	≥20MΩ	
	Input to the outer casing	≥20MΩ	
EMC	Electromagnetic immunity	GB/18487.3-2001 Class B	Cooperate with the whole vehicle
	Electromagnetic disturbance	GB/18487.3-2001 Class B	Cooperate with the whole vehicle

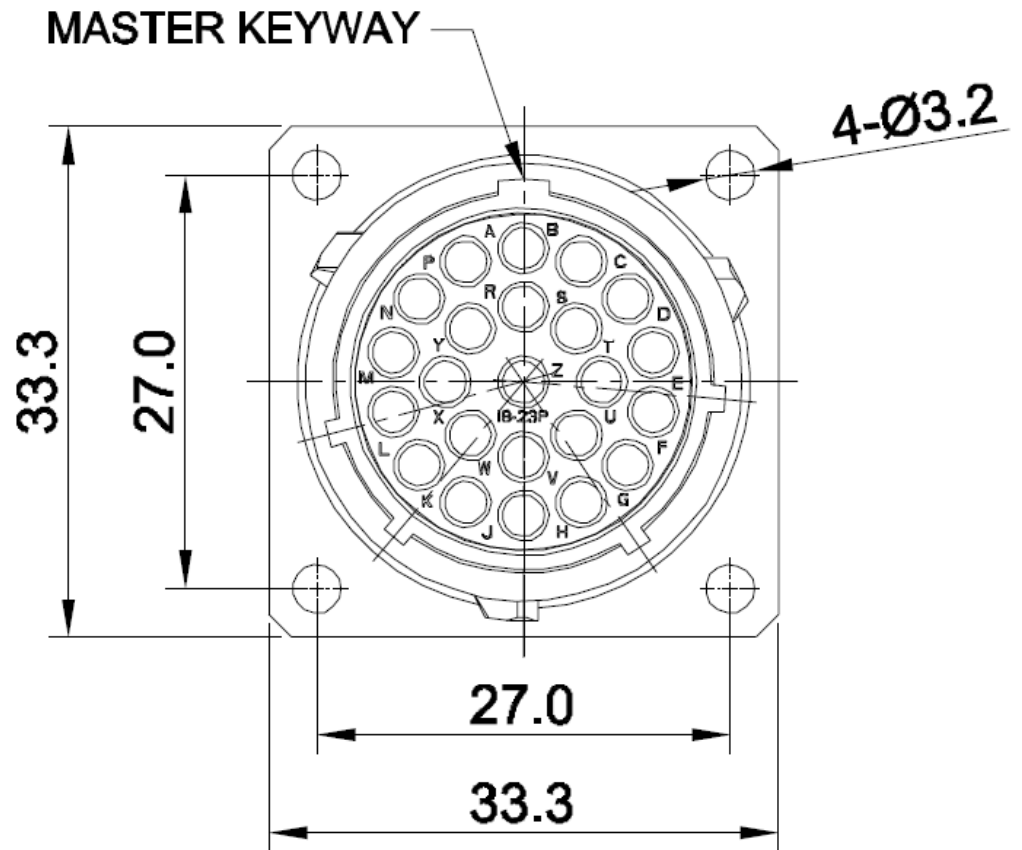
Structural parameters

Pinout	Receptacle Model no.	Function	Maker	Plug Model No.	Terminal Model No.	Stopper Model No.
A	HVSL364024A	AC input	Amphenol	HVSL364064A106I	C310026001	\
B	HVSL630022A	DC output	Amphenol	HVSL630062A	C310003623	\
C	RT001823PN03	Signal	Amphenol	RT061823PNHEC03	SS16M1F	AT13-204-2005



MAKER	Model No.	Description			Remark
AC input Amphenol	HVSL364024A	1	Fire line L1	L1 (Single FireWire Fixed Input)	
		2	Fire line L2	L2 (reserved, 11KW enabled)	
		3	Fire line L3	L3 (reserved, 11KW enabled)	
		4	N	Neutral/midline	
		A	NC	NC	
		B	NC	NC	
	casing	N	Ground line	Product enclosure	Whole machine housing terminal
DC output Amphenol	HVSL630022A	1	positive	Output positive	
		2	negative	Output negative	
		A	Interlock 1	Connection interlock 5	
		B	Interlock 2	Connection interlock 6	
Signal Amphenol	RT001823PSN03	A	CAN1-L	CAN LOW	
		B	VCC+	Normal input positive	
		C	VCU_EN	Hard-wire wake-up OBC, enable signal (High level effective)	

		D	CC	CC
		E	CP	CP
		F	WAKE_UP	VCU/BMS wake-up signal (200mA) Isolated from input constants
		G	NTC1-	Temperature sensor 1 negative
		H	NTC1+	Temperature sensor 1 positive
		J	NTC2-	Temperature sensor 2 negative
		K	NTC2+	Temperature sensor 2 positive
		L	CAN1-H	CAN high
		M	LOCK+	Actuator
		N	LOCK+	Actuator
		P	LOCK feedback	Actuator
		R	CC_OUT	CC status output, turn on low level
		S	Interlock 5	Interlock signal detection 1
		T	Interlock 6	Interlock signal detection 4
		U	NC	NC
		V	TB_R	Terminal resistance selection, short circuit to C pin, the resistance is effective
		W	GND	GND
		X	CAN2-L	Internal parallel CAN2 low
		Y	CAN2-H	Internal parallel CAN2 high
		Z	EN2	Internal parallel enable (reserved)



Label



安仁國際股份有限公司
ANNREN TECHNOLOGIES CO., LTD.

OBC

Product Model: LWC11K-380S380-W

Code: LWC11K-3800S380-W-AR01

Serial Number:

Input Voltage: Three phase 304~456VAC
Single phase 176~265VAC

Output Power: 11 KW

Output Voltage: 250~450VDC

Output Current: 32A

