EV3 Series 20kW Charging Module EV3751-020K-HR





Product Features

- Output voltage DC 200-750V to meet the requirements of most electric vehicles
- DC 330-750V wide voltage constant power output, the whole section is continuous, no switching, high reliability
- Module output peak current up to 60A, leading the industry
- High efficiency and low loss, peak efficiency high up to 95.5%, and stand-by power consumption less than 5.5W
- Equipped with leak circuit, which reduces the difficulty of pile design
- Module in-position detection, easy to install and maintain
- Unique three-proof design (moisture-proof, fungiproof and salt fog-proof), which guarantees long life cycle
- Hot-plug design, easy to maintain
- Module address intelligent recognition

Performance Curve

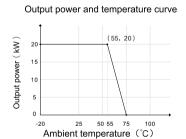
Module output V-A curve

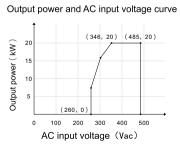
(26.6, 750)

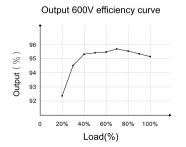
(60, 330)

(60, 320)

Output current (A)







Technical Specification

AC input voltage range (V) 280-485Vac (3W+PE) Max. input current (A) 36 FF 20.99 THOL 350% COUPTT Efficiency 285.5% DC output voltage range (V) 280-5% COLIGIAN (A) 380-750 COLIGIAN (A) 380-750 COLIGIAN (A) 380-750 COLIGIAN (A) 380-750 COLIGIAN (A) 60 COLIGIAN (A) 6	MODEL	EV3751-020K-HR	
Max. input current (A) 36 Frequency range (Hz) 45-66 PF ≥0.99 THD \$5% DC OUTPUT 295.5% Efficiency 295.5% DC output votage range (V) 200~780 Constant power output vottage range (V) 330~790 Output power (kW) 60 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT \$5.5 Noise level (dB) \$5.5 Noise level (dB) \$5.5 Noise level (dB) \$5.6 (Rated) Current regulation accuracy \$1.5% Voltage regulation accuracy \$40.5% Output voltage error \$1.03A, load current less than 30A, load current within 20%-100% Output current error \$1.03A, load current less than 30A, load current within 20%-100% Starting imputes current \$1.00X, load current less than 30A, load current within 20%-100% Output rippie Rippie voltage peak factor <1% Effective value coefficient	AC INPUT		
Frequency range (Hz)	AC input voltage range (V)	260~485Vac (3W+PE)	
PF ≥0.99 THDI ≤5% DC OUTPUT Sept.	Max. input current (A)	36	
This S5%	Frequency range (Hz)	45~66	
DC OUTPUT Efficiency ≥95.5% DC output voltage range (V) 200~750 Constant power output voltage range (V) 330~750 Output power (kW) 20 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) Noise level (GB) <55 (Rated)	PF	≥0.99	
Efficiency ≥95.5% DC output voltage range (V) 200-750 Constant power output voltage range (V) 330-750 Output power (kW) 20 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) \$5.5 Noise level (dB) <65 (Rated)	THDi	≤5%	
DC output voltage range (V) 200-750 Constant power output voltage range (V) 330-7560 Output power (kW) 20 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) ≤5.5 Noise level (dB) <65 (Rated) Current regulation accuracy ≤41% Voltage regulation accuracy ≤40.5% Output voltage error ≤40.3A, load current less than 30A; ≤11%, load current no less than 30A; load current within 20%-100% Starting impulse current ≤10.3A, load current less than 30A; ≤11%, load current no less than 30A; load current within 20%-100% Starting impulse current ≤±0.3A, load current less than 30A; ≤11%, load current no less than 30A; load current within 20%-100% Starting impulse current ≤±0.3A, load current less than 30A; ≤11%, load current no less than 30A; load current within 20%-100% Uniform flow unbalance ≤±0.02% (Reference value +20°C) Uniform flow unbalance ≤±0.02% (Reference value +20°C) Uniform flow unbalance ≤±3.0% (×20A) with load within the range of 50%-100% Uniform flow unbalance S=3.8% (stable rated input to required output voltage) Dimension (W×D×H) mm 223-400×87<	DC OUTPUT		
Constant power output voltage range (V) 330-750 Output power (kW) 20 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power onsumption (W) \$5.5 Noise level (dB) <65 (Rated)	Efficiency	≥95.5%	
Output power (kW) 20 Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) \$5.5 Noise level (dB) <65 (Rated)	DC output voltage range (V)	200~750	
Max. output current (A) 60 OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) ≤5.5 Noise level (dB) <56 (Rated) Current regulation accuracy ≤±1% Voltage regulation accuracy ≤±0.5% Output votitage error ≤±0.3A, load current less than 30A, ≤±1%, load current no less than 30A, load current within 20%-100% Starting impulse current <110% Temperature coefficient ≤±0.2% (Reference value +20°C) Uniform flow unbalance ≤±3.0% (x-20A) with load within the range of 50%-100% Output ripple Ripple voltage peak factor < 1% Effective value coefficient <0.5% Power overshoot range Roo overshoot Boot time 3s-8s (stable rated input to required output voltage) Dimension (W-D×H) mm 223×400×87 Weight (kg) ≤12 Input standby reactive power (Var) 350 CONFIGURATION AND PROTECTION Power, alarm, fault Communication CAN(500kps) + Digital enable signal AC input three phase unbalance protection Yes DC output over/funder voltage protection Yes Over-tem	Constant power output voltage range (V)	330~750	
OTHER INFORMATION OF EQUIPMENT Stand-by power consumption (W) ≤5.5 Noise level (dB) <65 (Rated)	Output power (kW)	20	
Stand-by power consumption (W) ≤5.5 Noise level (dB) <65 (Rated)	Max. output current (A)	60	
Noise level (dB) <65 (Rated)	OTHER INFORMATION OF EQUIPMENT		
Current regulation accuracy ≤±1% Voltage regulation accuracy ≤±0.5% Output voltage error ≤±0.3A, load current less than 30A, ≤±1%, load current no less than 30A, load current within 20%~100% Starting impulse current ≤±0.3A, load current less than 30A, ≤±1%, load current no less than 30A, load current within 20%~100% Starting impulse current ≤±0.02% (Reference value +20°C) Uniform flow unbalance ≤±3.0% (×20A) with load within the range of 50%~100% Output ripple Ripple voltage peak factor <1% Effective value coefficient <0.5%	Stand-by power consumption (W)	≤5.5	
Voltage regulation accuracy Output voltage error Output voltage error S ±0.3A, load current less than 30A; ≤±1%, load current no less than 30A, load current within 20%-100% Starting impulse current C 110% Temperature coefficient S±0.02% (Reference value +20°C) Uniform flow unbalance S±3.0% (×20A) with load within the range of 50%-100% Output ripple Ripple voltage peak factor < 1% Effective value coefficient	Noise level (dB)	<65 (Rated)	
Output voltage error ≤±0.5% Output current error ≤±0.3A, load current less than 30A; ≤±1%, load current no less than 30A, load current within 20%~100% Starting impulse current <110%	Current regulation accuracy	≤±1%	
Output current error ≤ ±0.3A, load current less than 30A; ≤ ±1%, load current no less than 30A, load current within 20%~100% Starting impulse current < ±0.02% (Reference value +20°C)	Voltage regulation accuracy	≤±0.5%	
Starting impulse current Temperature coefficient S±0.02% (Reference value +20°C) Uniform flow unbalance S±3.0% (×20A) with load within the range of 50%~100% Output ripple Ripple voltage peak factor < 1% Effective value coefficient <0.5% Power overshoot range No overshoot Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) 512 Input standby reactive power (Var) CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Output voltage error	≤±0.5%	
Temperature coefficient ≤±0.02% (Reference value +20°C) Uniform flow unbalance ≤±3.0% (×20A) with load within the range of 50%~100% Output ripple Ripple voltage peak factor < 1% Effective value coefficient <0.5% Power overshoot range No overshoot Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) ≤12 Input standby reactive power (Var) Operation indicator CONFIGURATION AND PROTECTION Operation indicator Can(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Output current error	≤ ±0.3A, load current less than 30A; ≤ ±1%, load current no less than 30A, load current within 20%~100%	
Uniform flow unbalance ≤±3.0% (×20A) with load within the range of 50%~100% Output ripple Ripple voltage peak factor < 1% Effective value coefficient <0.5% Power overshoot range No overshoot Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) ≤12 Input standby reactive power (Var) CONFIGURATION AND PROTECTION Operation indicator Can(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Coutput over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Starting impulse current	<110%	
Output ripple Ripple voltage peak factor < 1% Effective value coefficient <0.5% Power overshoot range No overshoot Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) ≤12 Input standby reactive power (Var) 350 CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT \$2,000 (derate when altitude >2,000)	Temperature coefficient	≤±0.02% (Reference value +20°C)	
Power overshoot range Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) 12 Input standby reactive power (Var) CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Uniform flow unbalance	≤±3.0% (×20A) with load within the range of 50%~100%	
Boot time 3s~8s (stable rated input to required output voltage) Dimension (W×D×H) mm 223×400×87 Weight (kg) ≤12 Input standby reactive power (Var) 350 CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Output ripple	Ripple voltage peak factor < 1% Effective value coefficient <0.5%	
Dimension (W×D×H) mm 223×400×87 Weight (kg) Input standby reactive power (Var) CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Power overshoot range	No overshoot	
Weight (kg) ≤12 Input standby reactive power (Var) 350 CONFIGURATION AND PROTECTION Power, alarm, fault Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Boot time	3s~8s (stable rated input to required output voltage)	
Input standby reactive power (Var) CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Dimension (W×D×H) mm	223×400×87	
CONFIGURATION AND PROTECTION Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT ≤2,000 (derate when altitude >2,000)	Weight (kg)	≤12	
Operation indicator Power, alarm, fault Communication CAN(500kbps) + Digital enable signal AC input three phase unbalance protection Yes AC input over/under voltage protection Yes DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT ≤2,000 (derate when altitude >2,000)	Input standby reactive power (Var)	350	
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AC input three phase unbalance protection AC input over/under voltage protection Pes DC output over/under voltage protection Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Operation indicator	Power, alarm, fault	
AC input over/under voltage protection DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)		CAN(500kbps) + Digital enable signal	
DC output over/under voltage protection Yes Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT ≤2,000 (derate when altitude >2,000)	AC input three phase unbalance protection	Yes	
Over-temperature protection (°C) Protect on temperature over 75, and automatically recover when ≤70 Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT ≤2,000 (derate when altitude >2,000)	AC input over/under voltage protection	Yes	
Output current limit protection Yes Short-circuit protection Yes WORKING ENVIRONMENT ≤2,000 (derate when altitude >2,000)	DC output over/under voltage protection	Yes	
Short-circuit protection WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Over-temperature protection (°C)	Protect on temperature over 75, and automatically recover when ≤70	
WORKING ENVIRONMENT Altitude (m) ≤2,000 (derate when altitude >2,000)	Output current limit protection	Yes	
Altitude (m) ≤2,000 (derate when altitude >2,000)	Short-circuit protection	Yes	
	WORKING ENVIRONMENT		
		≤2,000 (derate when altitude >2,000)	
**Orking temperature (O) =20~75, defaulting output for temperature above 55	Working temperature (°C)	-20~75, derating output for temperature above 55	
Storage temperature (°C) -40~75			
Humidity 5%~95%			

- The size of the product shall be subject to the actual contract.
 Specification is subject to change without prior notice.